



**BACWA**  
**BAY AREA**  
**CLEAN WATER**  
**AGENCIES**

## Executive Board Meeting

### AGENDA

Friday, March 18, 2016, 9:00 a.m. – 12:30 p.m.

EBMUD Treatment Plant, Lab Library

2020 Wake Ave, Oakland, CA

<u>Agenda Item</u>	<u>Time</u>	<u>Page</u>
ROLL CALL AND INTRODUCTIONS	9:00 AM	
PUBLIC COMMENT	9:03 AM	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER	9:04 AM	
<b>CONSENT CALENDAR</b> 1 February 19, BACWA Executive Board Meeting Minutes 2 January, 2016 Treasurer's Reports	9:05 AM	3-10 11-15
<b>OTHER BUSINESS - POLICY/STRATEGIC</b> 3 <u>Discussion</u> : Nutrients <ul style="list-style-type: none"> <li>a. Regulatory               <ul style="list-style-type: none"> <li>i. HDR Quarterly Update</li> <li>ii. Nutrient Strategy Team Meeting</li> <li>iii. Updated calendar of activities</li> </ul> </li> <li>b. Technical Work               <ul style="list-style-type: none"> <li>i. Technical Review of Nutrient Documents</li> </ul> </li> <li>c. Governance Structure               <ul style="list-style-type: none"> <li>i. Debrief on Planning Subcommittee Meeting #17</li> <li>ii. Debrief on Steering Committee #8</li> </ul> </li> </ul> <a href="http://sfbaynutrients.sfei.org/books/nms-steering-committee-meeting-materials">http://sfbaynutrients.sfei.org/books/nms-steering-committee-meeting-materials</a> <ul style="list-style-type: none"> <li>iii. NMS Calendar</li> </ul> 4 <u>Discussion</u> : Jt. Water Board Meeting Debrief 5 <u>Discussion</u> : SSO White Paper <a href="http://bacwa.org/document/wheeler-institute-report-white-paper-draft/">http://bacwa.org/document/wheeler-institute-report-white-paper-draft/</a> 6 <u>Discussion</u> : Microplastics Update <a href="http://bacwa.org/document/transport-fate-microplastic-particles/">http://bacwa.org/document/transport-fate-microplastic-particles/</a> 7 <u>Discussion</u> : Vacaville dues	9:10 AM	16-19 20 21-36 37-43 44-64 Link 65-68 69-71 72-73 Link 74-78 Link 79-81
<b>OTHER BUSINESS - OPERATIONAL</b> 8 <u>Presentation</u> : CPSC Update (Heidi Sanborn) 9 <u>Discussion</u> : FY17 Budget Planning 10 <u>Discussion</u> : Bay Area Regional Reliability Task Force 11 <u>Discussion</u> : CEC Comment Letter 12 <u>Discussion</u> : Drought/Recycling <ul style="list-style-type: none"> <li>a. Prop 1 update</li> </ul> 13 <u>Discussion</u> : Alternative Monitoring Program <a href="http://bacwa.org/document/alternate-monitoring-reporting-rmp/">http://bacwa.org/document/alternate-monitoring-reporting-rmp/</a> 14 <u>Discussion</u> : Administration of Prop 84 Grant	11:10 AM	82-84 85 86-88 89-92 Link 93-95

<b>REPORTS</b>		<b>12:00 PM</b>	
15	Committee Reports		<b>96-105</b>
16	Member Highlights		
17	Executive Director Report		<b>106-115</b>
18	Regulatory Program Manager Report		<b>116-117</b>
19	Other BACWA Representative Reports		
	a. RMP TRC	Rod Miller	
	b. RMP Steering Committee	Karin North; Jim Ervin	
	<b>c. Summit Partners</b>	Dave Williams	<b>118</b>
	<b>d. ASC/SFEI</b>	Laura Pagano; Dave Williams	
	<a href="http://bacwa.org/document/sfeiasc-meeting-handout-3-11-16/">http://bacwa.org/document/sfeiasc-meeting-handout-3-11-16/</a>		<b>Link</b>
	e. Nutrient Governance Steering Committee	Ben Horenstein; Jim Ervin	
	<b>f. SWRCB Nutrient SAG</b>	Dave Williams	<b>119-120</b>
	g. SWRCB Focus Group – Bacterial Objectives	Lorien Fono; Amy Chastain Tim Potter	
	h. SWRCB Focus Group – Mercury Amendment		
	i. Nutrient Technical Workgroup	Eric Dunlavey	
	j. NACWA Taskforce on Dental Amalgam	Tim Potter	
	k. BAIRWMP	Cheryl Munoz; Linda Hu; Dave Williams	
	l. NACWA Emerging Contaminants	Karin North; Melody LaBella	
	m. CASA Statewide Pesticide Steering Committee	Melody LaBella;	
	<b>n. CASA State Legislative Committee</b>	Lori Schectel;	
	<b>o. CASA Regulatory Workgroup</b>	Lorien Fono;	<b>121</b>
	p. ReNUWIt	Mike Connor; Ben Horenstein	
	<b>q. RMP Microplastics Liaison</b>	Nirmela Arsem;	
	<b>r. AWT Certification Committee</b>	Maura Bonnarens;	
	s. Bay Area Regional Reliability Project	Mike Connor; Roger Bailey	
20	<b>SUGGESTIONS FOR FUTURE AGENDA ITEMS</b>	<b>12:27 p.m.</b>	
<b>NEXT MEETING</b>		<b>12:28 p.m.</b>	
The next regular meeting of the Board is scheduled for April 15, 2016 from 9:00 am –12:30 pm at the SFPUC, Hetch Hetchy Room, 13th Floor, 525 Golden Gate Ave, San Francisco, CA.			
<b>ADJOURNMENT</b>		<b>12:30 p.m.</b>	



# Executive Board Meeting Minutes

February 19, 2016

## ROLL CALL AND INTRODUCTIONS

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

## Other Attendees:

<u>Name</u>	<u>Agency/Company</u>
Denise Connors	LWA
Holly Kennedy	HDR
Karin North	Palo Alto
Melody LaBella	CCCSD
Tom Hall	EOA
Robert Wilson	Petaluma
Rhodora Biagtan	DSRSD
Jim Graydon	Brown & Caldwell
Bhavani Yerrapotu	Sunnyvale
Dominic Lamarche	MWH
Daniela Brandao	San Mateo CWP/CH2M Hill
Cheryl Munoz	SFPUC
David Williams	BACWA
Lorien Fono	BACWA
Sherry Hull	BACWA

## PUBLIC COMMENT

None.

## CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER

None.

## CONSENT CALENDAR

1. December 18, 2015 BACWA Executive Board Meeting Minutes
2. November & December, 2015 Treasurer's Reports

*Consent Calendar items 1 and 2 were approved in a motion made by Ben Horenstein and seconded by Lori Schectel. The motion carried unanimously.*

## APPROVALS & AUTHORIZATIONS

**Agenda Item 3** –Approval of an Amendment to FY16 Agreement with TDC Environmental, LLC. A Board Authorization Request and Proposed Scope of Work was include in the Handout on Pages 19-23. Representatives from BAPPG noted the good work being done by TDC. The Executive Director explained that unused funds in the approved budget are available for this amendment.

*Item 3 was approved in a motion made by Mike Connor and seconded by Lori Schectel. The motion carried with four agreed and one opposed.*

**Agenda Item 4** - Approval of an Amendment to SFEI Nutrient Strategy Support Agreement. A Board Authorization Request and relevant Scope of Work was include in the Handout on Pages 24-25.

*Item 4 was approved in a motion made by Mike Connor and seconded by Ben Horenstein. The motion carried unanimously.*

**Agenda Item 5** – A completed Chair Authorization Request to approve the execution of an agreement with Solano Community College to provide Water Operating Training Classes was included in the handout on Pages 26-29.

## OTHER BUSINESS-POLICY/STRATEGIC

**Agenda Item 6** – Discussion: Nutrients

a. Regulatory

- i. Optimization/Upgrade Studies Update – Notes from the January 8, 2016 CMG Meeting were included in the Handout on Pages 30-31. The Executive Director provided a summary of the list of key decisions. HDR described how removing nitrogen in some cases increases phosphorous. Subsequently reducing the phosphorus significantly increases the cost of the project. There was a discussion about whether to decouple nitrogen and phosphorus in the analyses. For each nutrient removal alternative, HDR will provide capital costs, annual O&M costs as well as present value O&M costs, and total present value costs. A cost per gallon per day treated or per lb. nitrogen removed will also be included. They will prepare sensitivity analyses to illustrate the difference in annual O&M costs based on current flows, design flows, and an average thereof; and for the proposed interest rate for the upgrades. An updated report using CCCSD as an example of the level of detail and parameters for each report will presented in March. Once agreed upon by the CMG, the remaining Wave 1 reports will be completed and distributed to agencies. A major question to be addressed by the CMG is at what point does an optimization

become an upgrade due to costs. A workshop will be planned for the summer to develop the message to our member agencies about how the alternatives for each plant were developed and how they will be used.

- ii. Nutrient Strategy Team – A Draft Agenda for a first quarter 2016 Nutrient Strategy Team Meeting was included in the Handout on Page 32. A poll will be sent to set a time for the first meeting. The team will be made up of representatives from large and small agencies from each subembayment.
  - iii. Regional Planning – The Regional Water Board is interested in regional planning and would like for BACWA to gather information. It was noted that the South Bay is already attempting to coordinate and could be a pilot program. This issue will be put on the RWB Joint Meeting Agenda to better articulate the Water Board’s vision on this issue.
- b. Technical Work
- i. Debrief on the SAG Meeting – The Agenda from the February 9, 2016 SF Bay SAG Meeting was included in the Handout on Page 33, along with a [link](#) to the RWQCB Public Involvement for SF Bay Nutrients Project website. Information was provided to the Board with regard to the ongoing discussions with the Water Board and the material that is covered in the Assessment Framework report, and the accompanying manuscript which is to be submitted to a peer-reviewed journal. There was a discussion about asking the Regional Water Board to extend the deadline for comments given the density of the material in the Manuscript, and the issues with acquiring and reviewing the raw data. The Executive Director will develop a Comment Letter on the Assessment Framework documents describing BACWA’s high level concerns and provide it to the Executive Board for review before submitting on February 25.
  - ii. Technical Review of Nutrient Documents RFP – An RFP for Review of NMS Technical Documents was included in the Handout on Pages 34-48. The Executive Director provided an overview of the RFP. The agreement would be for an As Needed amount up to \$100,000. It was noted that access to the raw data would likely be needed by the consultant and the Executive Director will request access. It was suggested that the RFP include expertise in similar endeavors with emphasis on use of chl-a as an indicator for HABs and DO, ecological trending, and assessment of beneficial uses. The ED will update the RFP and provide it to the Executive Board for review before sending it out.
- c. Governance Structure -
- i. Debrief on Planning Subcommittee Meeting #16 – A Meeting Summary of Planning Subcommittee Meeting #16 was included in the Handout on Pages 49-55. The Executive director provided an overview of the document with particular emphasis on engagement of subcommittee members and progress on the Program Coordinator position.
  - ii. NMS Calendar – The Nutrient Management Strategy Calendar from March 2016

through December 2016 was included in the Handout on Pages 56-59.

**Agenda Item 7** – Discussion: Joint Water Board Meeting Planning – A Draft Agenda for the February 29, 2016 Joint Water Board Meeting was included in the Handout on Page 60. The Executive Director reviewed the Agenda and will provide an updated Agenda prior to the meeting. An additional item was recommended to be added to the agenda, which was the State Water Board’s Pilot CECs monitoring plan, which will cost more than \$400K for the San Francisco Bay Region and hasn’t been vetted by the RMP.

**Agenda Item 8** – Discussion: Alternate MRP to Support RMP – An email from the RWQCB was included in the Handout on Page 61, along with a [link](#) to a Response to Written Comments.

**Agenda Item 9** – Discussion: Water Environment Research Foundation Priorities – A list of WERF Priorities was included in the Handout on Pages 62-67, along with a [link](#) to an Overview of WERF 2015 Research. Michael Connor has been elected to the Board of WERF and asked how he could provide a more strategic benefit to BACWA. Suggestions included proposing to WERF that they investigate a connection between chlorophyll-a and HABs, as well as microplastics, particularly fibers. The first meeting will be in May 2016. Information on LIFT (Leaders Innovation Forum for Technology) will be included in the March Bulletin.

## **OTHER BUSINESS-OPERATIONAL**

**Agenda Item 10** – Discussion: Annual Meeting Debrief – The most recent results of the BACWA Annual Meeting Survey were included in the Handout on Pages 68-78. Some suggestions for next year’s meeting were to have multiple projectors and breakout sessions.

**Agenda Item 11** – Discussion: FY17 Budget Planning – A FY 2017 Draft Budget was included in the Handout on Pages 79-81. The Financial Committee met on February 16, 2016. The Executive Director gave an overview of the Draft Budget noting a few projected changes.

**Agenda Item 12** – Discussion: Drought/Recycling -

- a. Bay Area Regional Reliability Project – A letter of invitation to participate in a Drought Task Force for the Bay Area Regional Reliability Drought Contingency Plan was included in the Handout on Page 82. It was noted that the organization has very broad representation. Mike Connor was selected represent BACWA as representative and Roger Baily as the alternate.
- b. AWT Certification Committee – An email from CASA regarding the AWT Certification Committee was included in the Handout on Pages 83-85, along with a [link](#) to the AWT-Potable Reuse Op Cert White Paper. Following a short discussion of whether there is a

need for another certification, it was decided that Maura Bonnarens of EBMUD would represent BACWA.

- c. Comment Letter on the SWRCB General Order – A Draft Comment Letter on the General Order for Recycled Water Use was included in the Handout on Pages 86-87. It was agreed that the Comment Letter was ready to send. It was also suggested that this issue be added to the Agenda for the Joint meeting with the Regional Water Board.
- d. Prop 1 Proposal – An email from SFEI to BACWA regarding Prop 1 funding was included in the Handout on Pages 88-89. Funds are available in the form of Grant money to encourage recycled water usage in California. However, an RFP has not yet been developed by the Regional Water Board. The Regulatory Program Manager will contact the Regional Water Board to follow up.

Agenda **Item 13** – Discussion: Pollution from One-Time Events – SFPUC reported that residue from the Super Bowl fireworks ended up in the Bay. They are unsure of jurisdiction since the residue entered the Bay directly, not through the sewers. It was suggested that they contact Santa Barbara who has dealt with a similar issue.

Agenda **Item 14** – Discussion: BAAQMD Fall Workshop - A string of emails regarding a BAAQMD Conference were included in the Handout on Pages 90-94. The Executive Director presented the question if BACWA should participate as a presenter instead of EBMUD. It was agreed that EBMUD or another member will present on behalf of BACWA.

Agenda **Item 15** – Announcement: Attendance at the NBWA Conference to be held on April 22, 2016. As a sponsor of the Conference, BACWA was provided two complimentary tickets.

Agenda **Item 16** – Announcement: BACWA's 2016 Pardee Seminar dates have been set for October 12<sup>th</sup> through October 14<sup>th</sup>, 2016. Board members were asked to save the dates on their calendars. The AED also noted that Conflict of Interest Form 700's will be going out on March 1<sup>st</sup> and are due on April 1<sup>st</sup>.

## REPORTS

Agenda **Item 17** – Committee Report – BACWA Committee Reports were included in the Handout on Pages 95-115.

AIR Committee: No Report.

BAPPG: A report from the February 3, 2016 Meeting was included in the Handout. The Chair announced that the Vice-Chair is leaving. Water Board Staff have developed action plans for the moderate-concern CECs: PBDEs, PFOS, nonylphenols, and fipronil. The Regional Water Board would still like POTWs to provide lists of management action for other CECs based on possible future risk.

Biosolids Committee: A report from the January 21, 2016 meeting was included in the Handout.

Collections Committee: A report from the January 14<sup>th</sup>, 2016 meeting was included in the Handout along with the Private sewer lateral ordinance for inspection/repair survey.

Asset Management InfoShare Group: A report from the February 4, 2016 meeting was included in the Handout.

Operations and Maintenance InfoShare Group: No Report was included in the Handout.

Lab Committee: A report from the February 10, 2016 meeting was included in the Handout.

Permits Committee: Two reports from the January 13, 2016 meeting was included in the Handout along with the NPDES compliance letter for receiving water quality monitoring and the RMP letter for 2015.

Pretreatment Committee: A report from the January 14, 2016 meeting was included in the Handout.

Recycled Water Committee: A report from the January 6, 2016 meeting was included in the Handout. The Comment Letter on SB 163 (Hertzberg) has gone out. BACWA will be updating its 2011 Bay Area Recycled Water Survey as part of the work associated with the Nutrient Watershed Permit. The approach includes using the information DWR is collecting as part of the Urban Water Management Plans updates and adding recycled water current use and projections data being collected by HDR in their nutrient optimization and upgrade studies.

**Agenda Item 18** - Discussion: Member Highlights - Executive Board Representatives (Board) were given an opportunity to provide updates from each of the Principal agencies. Non-principal members were also given an opportunity to report out on behalf of their agencies. No actions were taken on the report-outs.

**EBDA**: Horizontal levy project at Oro Loma to be used in lieu of a high flow storage basin. Seventy thousand wetlands plants were planted by volunteers from Save the Bay.

**EBMUD**: No report.

**Central Contra Costa**: No report.

**San Francisco**: They have noticed a recent trend of individuals contacting the Water Board directly to report repair concerns. This is not a sustainable approach to using staff resources to address infrastructure maintenance.

**San Jose**: No report.

**Palo Alto**: No report.

**DSRSD**: They have sent alternative language to WaterReuse on the proposed surface water augmentation rules.

**Petaluma**: They recently received their TO for permit reissuance. Initially the Water Board was planning to categorize them as an advanced secondary plant, with reduced BOD and TSS limits, but this was removed from the current version of the TO.

**Agenda Item 19** - The **Executive Director's Report**, along with the Board Calendar, BACWA Action Items, were included in the Handout on Pages 116-124. BACWA has received a request from CWEA to present on Nutrients at their Conference on April 28, 2016 in Santa Clara. The Executive Director is not available. Two Board members volunteered to give the presentation.



It was noted that all action items from FY15 have been completed and 38 of the 39 action items from FY16 have been completed.

Agenda **Item 20** - The **Regulatory Program Manager (RPM) Report** was included in the Handout on Pages 125-126.

**Other BACWA Representative Reports** were given an opportunity to provide updates under **agenda Item 21, Other BACWA Representative Reports**. No actions were taken based on the reports.

- a. RMP-TRC: Rod Miller; Laura Pagano – No report.
- b. **RMP Steering Committee: Karin North; Jim Ervin** – Information about the State CEC Pilot monitoring plan was included in Agenda item 7.
- c. **Summit Partners: Dave Williams** – A meeting is scheduled.
- d. ASC/SFEI: Laura Pagano; Dave Williams – No report.
- e. Nutrient Governance Steering Committee: Ben Horenstein; Jim Ervin – No report.
- f. **SWRCB Nutrient SAG: Dave Williams** – An email regarding a February 26, 2016 Focus Group Meeting – Biostimulatory Substances, along with SWRCB proposed amendments was included in the Handout on Pages 127-131. The State Water Resources Control Board (State Water Board) is proposing statewide amendments to the Inland Surface Waters, Enclosed Bays, and Estuaries Plan for biostimulatory substances objectives for wadeable streams of California (proposed amendments) and has requested BACWA's participation. The Executive Director or the Regulatory Program Manager will attend.
- g. SWRCB Focus Group – Bacterial Objectives: Lorie Fono; Amy Chastain – No report.
- h. SWRCB Focus Group – Mercury Amendments to the State Plan: Tim Potter – No report.
- i. Nutrient Technical Workgroup: Eric Dunlavey – No report.
- j. NACWA Taskforce on Dental Amalgam: Tim Potter – No report.
- k. BAIRWMP: Cheryl Munoz, Linda Hu, Dave Williams – No report.
- l. NACWA Emerging Contaminants: Karin North, Melody LaBella – No report.
- m. CASA Statewide Pesticide Steering Committee: Melody LaBella – The next CASA Regulatory Workgroup meeting is in March. CASA leadership will meet with EPA after the meeting, and EPA intends to attend the morning meetings on a semi-regular basis in the future.
- n. CASA State Legislative Committee: Lori Schectel – The next meeting is March 11<sup>th</sup> in Sacramento. CCCSD will attend as BACWA's representative.
- o. RMP Microplastics Liaison: Nirmela Arsem – No report.
- p. CASA Regulatory Workgroup – No report.
- q. ReNUWIt: Mike Connor; Ben Horenstein – Stanford is finishing development of its Mobile Unit Pilot for secondary anaerobic treatment.

**SUGGESTIONS FOR FUTURE AGENDA ITEMS:** None.

**ANNOUNCEMENTS:**

The next regular meeting of the Board is scheduled for **March 18, 2016 from 9:00 am – 12:30 pm** at the **EBMUD Treatment Plant, Lab Library, 2020 Wake Ave., Oakland, CA.**

The meeting adjourned at 12:49 pm.

## Fund Balances as of month end 01/31/16

DESCRIPTION	BEGINNING FUND BALANCE 07/1/15	TOTAL RECEIPTS	TOTAL DISBURSEMENTS	ENDING FUND BALANCE 01/31/16	OUTSTANDING ENCUMBRANCES	UNOBLIGATED FUND BALANCE 01/31/16
BACWA	1,006,959	645,391	322,469	1,329,881	257,131	1,072,750
LEGAL RSRV	300,000	717	-	300,717	-	300,717
CBC	1,243,029	1,277,097	1,072,313	1,447,813	507,395	940,418
AIR	10,171	54,351	23,582	40,940	28,418	12,522
<b>GRAND TOTAL</b>	2,560,159	1,977,556	1,418,364	3,119,351	792,944	2,326,407
WOT	45,463	123,172	71,500	97,135	-	97,135
<b>TOTAL</b>	45,463	123,172	71,500	97,135	-	97,135
PRP84	275,232	841,058	1,004,729	111,560	8,593	102,968
PRP50	561,537	20,289	442,522	139,304	7,360	131,944
<b>TOTAL</b>	836,769	861,347	1,447,251	250,865	15,953	234,912

## BACWA Revenue Report for January 2016

FUND #	DEPARTMENT	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
				DIRECT	INVOICED	JVS	DIRECT	INVOICED	JVS	ACTUAL	
800	BACWA	Principal's Contributions	468,180	-	-	-	-	471,300	-	471,300	(3,120)
800	BACWA	Assoc.& Affiliate Contr	171,639	-	7,803	-	-	165,399	-	165,399	6,240
800	BACWA	Administrative & General	-	-	-	(1,793)	1,793	-	(1,793)	-	-
800	BACWA	Non-Member Contributions (BAPPG)	3,600	-	-	-	-	3,600	-	3,600	-
800	BACWA	Fund Transfers	2,500	-	-	-	-	-	2,438	2,438	62
800	BACWA	Interest Income	1,500	-	-	1,044	-	-	2,654	2,654	(1,154)
<b>BACWA TOTAL</b>			<b>647,419</b>	-	<b>7,803</b>	<b>(749)</b>	<b>1,793</b>	<b>640,299</b>	<b>3,299</b>	<b>645,391</b>	<b>2,028</b>
802	AIR	Member Contributions	50,000	-	-	-	-	54,280	-	54,280	(4,280)
802	AIR	Non-Member Contributions (AIR)	6,200	-	-	-	-	-	-	-	6,200
802	AIR	Interest Income	-	-	-	41	-	-	71	71	(71)
<b>AIR TOTAL</b>			<b>56,200</b>	-	-	<b>41</b>	-	<b>54,280</b>	<b>71</b>	<b>54,351</b>	<b>1,849</b>
805	WQA-CBC	Member Contributions	675,000	-	9,050	-	-	672,000	-	672,000	3,000
805	WQA-CBC	Nutrient Surcharge	686,779	-	10,460	-	-	600,458	-	600,458	86,321
805	WQA-CBC	Interest Income	-	-	-	2,378	-	-	4,639	4,639	(4,639)
<b>WQA CBC TOTAL</b>			<b>1,361,779</b>	-	<b>19,510</b>	<b>2,378</b>	-	<b>1,272,458</b>	<b>4,639</b>	<b>1,277,097</b>	<b>84,682</b>
<b>GRAND TOTAL</b>			<b>2,065,398</b>	-	<b>27,313</b>	<b>1,670</b>	<b>1,793</b>	<b>1,967,037</b>	<b>8,009</b>	<b>1,976,839</b>	<b>88,559</b>
810	WOT	BDO Member Contributions	146,000	-	8,000	-	-	123,000	-	123,000	23,000
810	WOT	BDO Interest Income	-	-	-	84	-	-	172	172	(172)
<b>WOT TOTAL</b>			<b>146,000</b>	-	<b>8,000</b>	<b>84</b>	-	<b>123,000</b>	<b>172</b>	<b>123,172</b>	<b>22,828</b>

## BACWA Expense Detail Report for January 2016

		AMENDED	CURRENT PERIOD				YEAR TO DATE					
EXPENSE TYPE	JOB	BUDGET	ENC	PV	DA	JV	ENC	PV	DA	JV	OBLIGATED	UNOBLIGATED
LABOR												
AS-Executive Director	1011123	183,498	-	-	-	-	91,749	91,749	-	-	183,498	-
AS-Assistant Executive Directo	1011124	78,642	(5,584)	5,584	-	-	33,820	44,822	-	-	78,642	-
AS-Regulatory Program Manager	1011149	123,360	(17,862)	17,862	-	-	56,143	67,217	-	-	123,360	-
ADMINISTRATION												
AS-EBMUD Administrative Servic	1011125	40,000	-	-	-	-	40,000	-	3,576	(10,107)	33,469	6,531
AS-BACWA Admin Expense	1011118	7,500	-	-	769	-	-	-	3,837	-	3,837	3,663
AS-Insurance	1011126	4,500	-	-	-	-	-	-	4,152	-	4,152	348
MEETINGS												
GBS- Meeting Support	1011122	16,600	-	-	2,191	-	533	467	8,853	-	9,853	6,747
COMMUNICATION												
CAR-BACWA Website Development/	1011116	7,088	(225)	225	-	-	3,654	1,345	1,474	-	6,473	615
LEGAL												
LS-Regulatory Support	1011107	2,500	-	-	-	-	2,430	70	-	-	2,500	-
LS-Executive Board Support	1011110	2,000	-	-	-	-	608	1,392	-	-	2,000	-
COMMITTEES												
AIR-Air Issues&Regulation Grp	1014253	50,000	(10,772)	10,772	-	-	28,418	23,582	-	-	52,000	(2,000)
BC-BAPPG	1011147	86,000	(7,938)	7,938	-	-	28,194	26,231	22,500	-	76,925	9,075
BC-Biosolids Committee	1011101	3,100	-	-	139	-	-	-	446	-	446	2,654
BC-Collections System	1011097	10,000	-	-	150	-	-	-	750	-	750	9,250
BC-InfoShare Groups	1011102	1,000	-	-	154	-	-	-	499	-	499	501
BC-Laboratory Committee	1011103	6,000	-	-	2,291	-	-	-	2,291	-	2,291	3,709
BC-Permit Committee	1011098	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Pretreatment Committee	1011146	1,000	-	-	63	-	-	-	904	-	904	96
BC-Water Recycling Committee	1011100	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Miscellaneous Committee Sup	1011104	30,000	-	-	-	-	-	-	-	-	-	30,000
COLLABORATIVES												
CAS-Arleen Navaret Award	1012201	1,000	-	-	-	-	-	-	-	-	-	1,000
CAS-FWQC	1012202	5,000	-	-	-	-	-	-	5,000	-	5,000	-
CAS-Stanford ERC	1011969	10,000	-	-	-	-	-	-	10,000	-	10,000	-
CAS-CWCCG	1011148	35,000	-	-	-	-	-	-	35,000	-	35,000	-
BACWA TOTAL												
		705,788	(42,380)	42,380	5,758	-	285,549	256,875	99,283	(10,107)	631,600	74,188
TECH SUPPORT												
WQA-CE Addl Work Under Permit	1014254	100,000	-	-	-	-	-	-	15,810	(15,810)	-	100,000
WQA-CE-Technical Support	1011127	136,779	(6,200)	6,200	-	-	28,409	62,932	1,500	(31,762)	61,079	75,700
WQA-CE CASA Chem of Concern	1011128	15,000	-	-	-	-	-	-	-	-	-	15,000
WQA-CE Opt-Upgrade Studies	1014255	559,000	(21,066)	21,066	-	-	434,213	164,416	-	-	598,629	(39,629)
WQA-CE Risk Reduction	1014023	17,500	(5,226)	5,226	-	-	44,774	5,226	-	-	50,000	(32,500)
WQA-CE-Nutrient WS Permit Comm	1014021	880,000	-	-	-	-	-	-	870,000	-	870,000	10,000
WQA-CE-Program Mgmt	1011131	50,000	-	-	-	-	-	-	-	-	-	50,000
TECH SUPPORT (CBC) TOTAL												
		1,758,279	(32,492)	32,492	-	-	507,395	232,575	887,310	(47,572)	1,579,708	178,571
GRAND TOTAL												
		2,464,067	(74,872)	74,872	5,758	-	792,944	489,450	986,593	(57,679)	2,211,308	252,759
WOT												
Administrative Support	1011142	2,500	-	-	-	-	-	-	-	-	-	2,500
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	71,500	-	71,500	(71,500)
		2,500	-	-	-	-	-	-	71,500	-	71,500	(69,000)

## BACWA Revenue Report for January 2016 Propositions

DEPTID	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					DIRECT	INVOICED	JVS	DIRECT	INVOICED	JVS	ACTUAL	
811	Prop84BayAreaIntegRegnlWtrMgmt	1011117	BDO Interest Income	-	-	-	218	-	-	645	645	(645)
811	Prop84BayAreaIntegRegnlWtrMgmt	1011142	Administrative Support	-	-	-	-	-	36,430	-	36,430	(36,430)
811	Prop84BayAreaIntegRegnlWtrMgmt	1011705	Regional Green Infrastructure	-	-	-	-	-	57,835	-	57,835	(57,835)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012209	Water Efficient LRP	-	-	-	-	-	118,381	-	118,381	(118,381)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012210	Bay Friendly Landscape TP	-	-	-	-	-	13,775	-	13,775	(13,775)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012211	Weather Based Irrigation Cntrl	-	-	-	-	-	3,495	-	3,495	(3,495)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012212	High Efficiency Toilet & UR	-	-	-	-	-	206,298	-	206,298	(206,298)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012213	High Efficiency Toilet & UI	-	-	-	-	-	70,538	-	70,538	(70,538)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012214	High Efficiency Clothes Washrs	-	-	-	-	-	202,255	-	202,255	(202,255)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012215	Napa Co. Rainwater HP	-	-	-	-	-	9,560	-	9,560	(9,560)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012216	Conservation Program Admin	-	-	-	-	-	17,670	-	17,670	(17,670)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012219	Flood Infrastructure Mapping T	-	-	-	-	-	49,944	-	49,944	(49,944)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012220	Stormwater Improvements & PBP	-	-	-	-	-	17,471	-	17,471	(17,471)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012222	Pescadero Integrated FRAH	-	-	-	-	-	2,041	-	2,041	(2,041)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012223	Restoration Guidance, San FC	-	-	-	-	-	17,333	-	17,333	(17,333)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012224	SF Estuary Steelhead MP	-	-	-	-	-	13,539	-	13,539	(13,539)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012225	Watershed Program Admnstrtn	-	-	-	-	-	3,848	-	3,848	(3,848)
<b>PROP 84 TOTAL</b>				-	-	-	<b>218</b>	-	<b>840,412</b>	<b>645</b>	<b>841,058</b>	<b>(841,058)</b>
815	Prop50BayAreaIntegRegnlWtrMgmt	1011117	BDO Interest Income	-	-	-	99	-	-	477	477	(477)
815	Prop50BayAreaIntegRegnlWtrMgmt	1011142	Administrative Support	-	-	-	-	-	19,812	-	19,812	(19,812)
<b>PROP50 TOTAL</b>				-	-	-	<b>99</b>	-	<b>19,812</b>	<b>477</b>	<b>20,289</b>	<b>(20,289)</b>
<b>GRAND TOTAL</b>				-	-	-	<b>317</b>	-	<b>860,224</b>	<b>1,122</b>	<b>861,347</b>	<b>(861,347)</b>

### BACWA Expense Detail Report for January 2016

DEPTID	DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD				YEAR TO DATE				OBLIGATED	UNOBLIGATED
				ENC	PV	DA	JV	ENC	PV	DA	JV		
811	Prop84BayAreaIntegRegnlWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	-	-	2,057	2,057	(2,057)
811	Prop84BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	191,317	-	-	-	191,317	-	191,317	(191,317)
811	Prop84BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	-	-	-	-	8,593	7,373	-	-	15,965	(15,965)
811	Prop84BayAreaIntegRegnlWtrMgmt	Regional Green Infrastructure	-	-	-	-	-	-	-	57,835	-	57,835	(57,835)
811	Prop84BayAreaIntegRegnlWtrMgmt	Water Efficient LRP	-	-	-	-	-	-	-	118,381	-	118,381	(118,381)
811	Prop84BayAreaIntegRegnlWtrMgmt	Bay Friendly Landscape TP	-	-	-	-	-	-	-	13,775	-	13,775	(13,775)
811	Prop84BayAreaIntegRegnlWtrMgmt	Weather Based Irrigation Cntrl	-	-	-	-	-	-	-	3,495	-	3,495	(3,495)
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UR	-	-	-	-	-	-	-	206,298	-	206,298	(206,298)
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UI	-	-	-	-	-	-	-	70,538	-	70,538	(70,538)
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Clothes Washrs	-	-	-	-	-	-	-	202,255	-	202,255	(202,255)
811	Prop84BayAreaIntegRegnlWtrMgmt	Napa Co. Rainwater HP	-	-	-	-	-	-	-	9,560	-	9,560	(9,560)
811	Prop84BayAreaIntegRegnlWtrMgmt	Conservation Program Admin	-	-	-	-	-	-	-	17,670	-	17,670	(17,670)
811	Prop84BayAreaIntegRegnlWtrMgmt	Flood Infrastructure Mapping T	-	-	-	-	-	-	-	49,944	-	49,944	(49,944)
811	Prop84BayAreaIntegRegnlWtrMgmt	Stormwater Improvements & PBP	-	-	-	-	-	-	-	17,471	-	17,471	(17,471)
811	Prop84BayAreaIntegRegnlWtrMgmt	Pescadero Integrated FRAH	-	-	-	-	-	-	-	2,041	-	2,041	(2,041)
811	Prop84BayAreaIntegRegnlWtrMgmt	Restoration Guidance, San FC	-	-	-	-	-	-	-	17,333	-	17,333	(17,333)
811	Prop84BayAreaIntegRegnlWtrMgmt	SF Estuary Steelhead MP	-	-	-	-	-	-	-	13,539	-	13,539	(13,539)
811	Prop84BayAreaIntegRegnlWtrMgmt	Watershed Program Admnstrtn	-	-	-	-	-	-	-	3,848	-	3,848	(3,848)
	<b>PRP84 TOTAL</b>		-	-	-	<b>191,317</b>	-	<b>8,593</b>	<b>7,373</b>	<b>995,299</b>	<b>2,057</b>	<b>1,013,322</b>	<b>(1,013,322)</b>
815	Prop50BayAreaIntegRegnlWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	-	-	381	381	(381)
815	Prop50BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	-	-	-	-	7,360	2,254	-	-	9,614	(9,614)
815	Prop50BayAreaIntegRegnlWtrMgmt	South Bay Advanced Regional RW	-	-	-	-	-	-	-	292,087	-	292,087	(292,087)
815	Prop50BayAreaIntegRegnlWtrMgmt	Pacifica RWP	-	-	-	-	-	-	-	74,440	-	74,440	(74,440)
815	Prop50BayAreaIntegRegnlWtrMgmt	Direct Install HET	-	-	-	-	-	-	-	36,680	-	36,680	(36,680)
815	Prop50BayAreaIntegRegnlWtrMgmt	Sonoma - Napa Marsh RWP	-	-	-	-	-	-	-	36,680	-	36,680	(36,680)
	<b>PRP50 TOTAL</b>		-	-	-	-	-	<b>7,360</b>	<b>2,254</b>	<b>439,887</b>	<b>381</b>	<b>449,882</b>	<b>(449,882)</b>
<b>GRAND TOTAL</b>			-	-	-	<b>191,317</b>	-	<b>15,953</b>	<b>9,626</b>	<b>1,435,186</b>	<b>2,438</b>	<b>1,463,204</b>	<b>(1,463,204)</b>

Project:	BACWA Nutrient Optimization and Upgrades Studies	
Subject:	Monthly CMG Call	
Date:	Thursday, March 10, 2016	
Location:	Phone #: 866-583-7984; code: 355-0210-881#	
Attendees:	<div> <input checked="" type="checkbox"/> Greg Baatrup  <input type="checkbox"/> Vince De Lange  <input type="checkbox"/> Joanna De Sa  <input type="checkbox"/> Teresa Herrera  <input type="checkbox"/> Amanda Roa  <input type="checkbox"/> Bhavani Yerrapotu  <input type="checkbox"/> Jean-Marc Petit  <input type="checkbox"/> Stephanie Harrison  <input checked="" type="checkbox"/> Jason Warner  <input checked="" type="checkbox"/> Nitin Goel </div> <div> <input checked="" type="checkbox"/> Mike Conner  <input checked="" type="checkbox"/> Yuyun, Shang  <input checked="" type="checkbox"/> JB Neethling  <input checked="" type="checkbox"/> Holly Kennedy  <input checked="" type="checkbox"/> Mike Falk  <input checked="" type="checkbox"/> Rion Merlo  <input checked="" type="checkbox"/> Lorien Fono  <input checked="" type="checkbox"/> David R. Williams  <input checked="" type="checkbox"/> Jim Graydon </div>	

## I. Summary of Key Decisions and Discussion Points

- A. New Section 3.4 – Basis of Cost Analysis is acceptable to explain that the cost estimating approach is common for all 37 POTWs.
- B. A sensitivity analysis of present worth factors were reviewed and discussed at length. It was decided that a 2 percent discount factor will be used for the economic analyses.
- C. The method of calculating the nutrient load reduction reported in Table 4-2 was discussed. An explanation of that calculation is included at the back of this memo.
- D. HDR reviewed the information in Table 4-2 to determine why wet season load reductions were shown higher than dry season for NH<sub>4</sub>-N and TN. JB's response is as follows:
  - The values presented are based on average load reduction. Also note, all information presented in the Working Draft Report is still draft and is still undergoing QC.
  - Specific to the results presented:
    - Summer influent TN (55 mg/L) is higher than winter TN (45 mg/L). Flow is split 40/60 between NDN and BOD trains – so only 40% is oxidized and N removed.
    - In the simplified calculation, I assumed an average over both trains combined to achieve 50% NH<sub>4</sub> oxidized on average; and 65% of that is denitrified.
    - Because the question was asked during the call, I also did split calculations also – 40% flow through an NDN and 60% through a BOD train. I note those results are slightly different. I calculate 38% NH<sub>4</sub> oxidized in summer and 37% in winter (not 50%). The Percentage is



controlled by the SPLIT and not by the temperature, since in both cases I assume complete nitrification in the NDN train. I calculated 60% denitrified in summer and 61% in winter (not 65%). Based on those percentages, the results are shown in the table below. While the values changed, the summer is still lower than the winter.

Parameter	Units	NH <sub>4</sub> -N Dry Season	NH <sub>4</sub> -N Wet Season	TN Dry Season	TN Wet Season	TP Dry Season	TP Wet Season
Current Discharge <sup>1</sup>	lb N or P/d	7,980	8,500	9,230	10,230	280	290
Optimal Strategy	lb N or P/d	6,670	6,330	8,560	8,080	180	210
Load Reduction	lb N or P/d	1310	2170	670	2,140	100	80
Load Reduction	%	16%	26%	7%	21%	36%	27%

- E. The cost per plant capacity (\$/gpd) in Table 6-2 is based on capital costs (not present value).
- F. The Draft Group Annual Report Data Request Template was reviewed and pending any comments, will be submitted to the agencies for completion.
- G. Next Steps: complete and submit Wave 1 reports.

## Description of Present Value and Unit Cost Analyses

### I. Present Value

Figure 1 illustrates the approach used to calculate the present value for the capital and O&M costs. Note that capital costs are presented in current dollars, which in this case is the present value, so no adjustments are made to calculate present value of capital costs. In the figure, the horizontal scale represents the time scale from Current to Design (end of the period). Present values are shown in orange and future (annual) values in blue. The vertical scale is not to scale. The values are taken from the Working Draft Plant Report for CCCSD's Dry season Optimization for TN reduction.

The capital costs are calculated in current dollars (2016) of \$10.2 mil.

O&M costs are calculated in 2016\$ as \$4.6 mil based on the design loading condition. Since this loading condition is in the future, the \$4.6mil/yr is assigned to the design year (if inflation were included in the calculation, this value would be adjusted to calculate the value in the design year). O&M costs are annually adjusted to reflect the change in loading to the plant over the planning period. The load is assumed to increase linearly from Current to the Design year. Using this, the O&M costs are reduced proportionally to the influent load to calculate the average O&M cost, which in this case is \$4.3mil/yr.

The present worth of the Annual O&M was then determined as \$33.4 mil.

Adding the Present Worth the total PV is  $\$33.4 + \$10.2 = \$43.6$  mil.

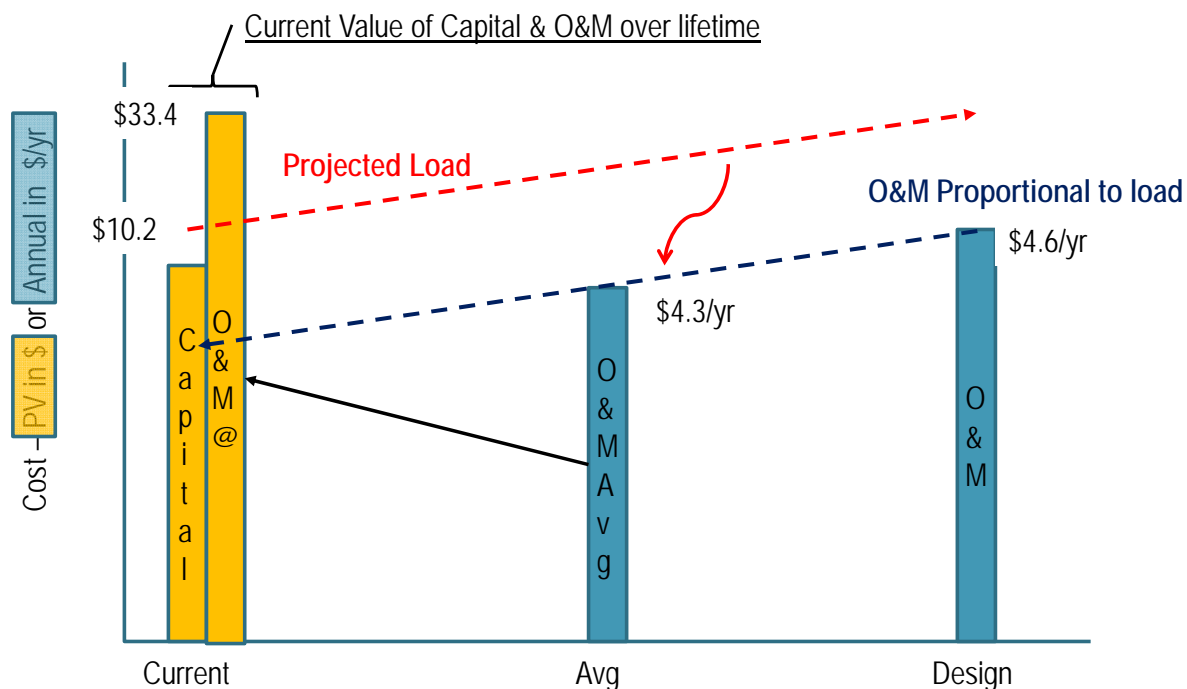


Figure 1. Financial Calculation.

## II. Unit Load Reduction Cost

The load reduction for this case is calculated as 1,710 lb/d average.

The PV of the cost is \$43.6M is converted to an annual cost of \$5.64 mil/yr – or \$15,500/day.

The unit cost for removal is then  $15,500/1,710 = 9.0$  \$/lb TN.

SCHEDULE OF ACTIVITIES TO MEET WS PERMIT REQUIREMENTS FOR STUDIES (revised 3/15/16)		
DATE	ACTIVITY	STATUS
4/9/2014	WS Permit adopted by RWQCB	completed
4/18/2014	BACWA Nutrient Watershed Permit Contract Management Group (CMG) established	completed
5/23/2014	BACWA sends out final RFP	completed
6/27 - 8/11/14	CMG selection panel, review proposals, hold interviews, make selection	completed
9/8/2014	Special BACWA Board meeting to award a contract for preparation of a Scoping Plan and Evaluation Plan	completed
12/1/2014	Scoping and Evaluation Plan submitted to WB (permit deadline December 1, 2014 and July 1, 2015 respectively)	completed
	BACWA Board approves contract amendment for contract to perform Optimization and Upgrade Studies	completed
2/18/2015	Agency deadline to submit final questionnaire data	completed
2/15/2015	Start Optimization and Upgrade Studies	completed
4/2015 - 9/2015	Consultant team site visits to facilities	completed
2015 - end of 2016	-monthly CMG meetings/conference calls -quarterly updates to the BACWA Board -semiannual membership/regulator briefings -agendaized at the bimonthly BACWA/WB Joint Meetings -agendaized at the Annual Meeting -monthly updates in the BACWA Bulletin	ongoing
10/1/2015	Annual Report to WB based on data from July 1 2014 to June 30 2015	completed
5/1/2016	Information Request to agencies on Capital Improvement Plans and recycled water	
6/15/2016	BACWA member workshop to discuss facility reports	
7/1/2016	Progress Report on optimization and upgrade studies due to WB	
7/1/2016	Facility reports circulated to all agencies for review and sign-off	
10/1/2016	Draft Report on optimization and upgrade studies	
10/1/2016	Annual Report to WB	
2/1/2017	Final Report on optimization upgrade studies (permit deadline 7/1/2018)	
10/1/2017	Annual Report to WB	
10/1/2018	Annual Report to WB	

## Sherry Hull

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**From:** Sherry Hull  
**Sent:** Sunday, March 13, 2016 2:31 PM  
**To:** Sherry Hull  
**Subject:** Technical Rev. of Nutrient Documents

**From:** Dave Williams  
**Sent:** Sunday, March 13, 2016 11:25 AM  
**To:** 'Naomi.Feger@waterboards.ca.gov'  
**Cc:** 'Lorien Fono (BACWA)'  
**Subject:** AF raw data

Naomi, there was an interest expressed within the BACWA membership to get copies of the raw data that was used to prepare the AF Report and its appendices. As the contract manager, we were told to contact you to get copies. Can you send copies of the raw data. thanks

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

# Review of NMS Technical Documents

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Bay Area Clean Water Agencies (BACWA)  
Request for Proposal

2/28/2016

## Table of Contents

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### Attachments:

A – Nutrient Management Strategy

B – Charter

C – BACWA's Approach to the Nutrient Issue

D – Assessment Framework

E – Sample Agreement

## Request for Proposals

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

#### Introduction

**Background:** San Francisco Bay is recognized as a nutrient-enriched estuary. 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 was a need for a locally-supported, multi-interest, long-term science strategy and an associated implementation program to provide information that is needed to support nutrient-related management decisions in the Bay. This program is known as the *San Francisco Bay Nutrient Management Strategy (NMS)*. The NMS (see Attachment A) will define and guide the science, implementation, information-sharing, and public outreach approach. As such, the NMS and the work of stakeholders supporting the NMS will inform policies specifically decided by the San Francisco Regional Water Quality Control Board (Water Board).

**NMS Governance and Implementation:** It has been recognized that the implementation of the NMS will require a variety of stakeholders including state and federal regulators, wastewater dischargers, NGOs, resource agencies, industry, and water suppliers. Given this array of stakeholders it was decided that a governance structure was needed to help ensure that all issues and perspectives were being considered as the scientific studies needed to implement the NMS were being pursued. A *Charter* was developed that established an organizational structure for implementing the NMS and set forth the key entities that would be involved in the governance and implementation of the NMS and how they would function (see attachment B). The organizational structure of the NMS consists of the following key groups as shown on the organization chart in the *Charter*.

- Steering Committee
- Stakeholder Advisory Group
- Science Manager and Core Science Team
- Nutrient Technical Workgroup



- Peer Reviewers
- Public
- Other Regional Groups

BACWA is actively engaged in supporting and funding the NMS for San Francisco Bay. BACWA members also participate in key governance activities of the NMS including the Steering Committee, the Nutrient Technical Workgroup and the Stakeholder Advisory Group.

BACWA's position on the nutrient issue is embedded in a document entitled *BACWA's Approach to the Nutrient Issue* (see attachment C) which focuses on the need to protect San Francisco by relying on robust scientific investigations and prudent expenditures of public resources.

**Scientific Studies and Technical Documents:** Since 2013 BACWA has been funding scientific studies as part of the NMS. The studies are being conducted by the San Francisco Estuary Institute (SFEI). BACWA voluntarily funded the initial studies in order to better understand the impacts of nutrients on the Bay. With the adoption of the Charter for governance, SFEI has been designated as the official scientific body to conduct the studies for the NMS. The 5 Year Nutrient Watershed Permit was adopted in 2014 and requires BACWA to contribute \$880k per year to SFEI to fund scientific studies.

As part of the NMS, SFEI has produced a draft Science Plan which sets forth a 10 year effort to answer key scientific questions regarding the impacts of nutrients on the beneficial uses of the Bay. SFEI provides a Science Manager and staff as well as contracts with other scientists to conduct the needed studies identified in the Science Plan. Although BACWA has several volunteers who are engaged in monitoring the technical work being undertaken by the NMS science team, all of the BACWA volunteers have their regular workload as employees at their agency or city and don't have the time to immerse themselves in thoroughly reviewing all of the technical documents that have been produced or are in production. For this reason BACWA is seeking to retain an outside expert to review key documents produced by the NMS science program from the perspective of a POTW. The independent review would help inform the BACWA membership on key aspects of the scientific reports as they relate to a public utility, pointing out areas of study or conclusions that have the potential to impact future management or policy decisions and assessing the scientific underpinnings of those conclusions and recommendations.

## Current Status

There are several documents that have been or are in the process of being developed as part of the Science Plan. At this time these reports consist of the following:

The Science Plan  
The LSB and SB Syntheses  
The Conceptual Model  
Nutrient Science Program Update  
Nutrient Modeling Approach

All of these can be found on the SFEI web site ([www.sfei.org](http://www.sfei.org)). All the reports were prepared by or under the direction and oversight of the science team at SFEI. In addition a report entitled *Scientific Basis to Assess the Effects of Nutrients on San Francisco Bay Beneficial Uses (Assessment Framework)* was prepared by the Southern California Coastal Water Research Project (SCCWRP) under contract to the Water Board (see attachment D). The *Assessment Framework* was just recently completed and presented to the Stakeholder Advisory Group (SAG) at their February 9, 2016 meeting. The *Assessment Framework* presents data showing relationships between chlorophyll-a and dissolved oxygen (DO) and harmful algal blooms (HABs). The intent is to utilize this document to assess possible impairment in the Bay due to HABs and/or low DO and link the occurrence of HABs and DO to chl-a which can then be linked to nutrient loadings. The results can then be used in the monitoring and modeling program as part of the SFEI Science Plan to determine if nutrients loads from POTWs are contributing to the impairment and, if so, what management actions could be taken to achieved desired results.

## Project Description

The Project for which proposals are being requested consists of providing critical review of key technical documents being produce as part of the NMS and the Science Plan. The consultant will be asked to review technical documents from a POTW perspective. Using the *BACWA's Approach to the Nutrient Issue (BACWA's Goal)* as a guide to understanding BACWA's position, the consultant will be asked to provide their findings as to the scientific soundness of the assumptions, findings, conclusion and recommendations of the documents reviewed. BACWA is specifically interested in the assessment of the scientific rigor that went into preparing the documents, whether or not the documents cover the key issues on nutrients from a POTW perspective, the implications of the assumptions made in preparing the scientific studies, the potential for the documents to provide a basis from

which management or policy decisions may ultimately be made, other areas of study that may be warranted in order to answer key question on the nutrient issue, and identifying any concerns that POTW may have with the conclusions being drawn from the various studies.

A brief summary of findings from the technical review would be prepared and a briefing schedule with the BACWA Board. Comment letters on the technical soundness and consideration for alternative approaches may also be requested from the consultant as well as attendance at meetings with regulators.

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

## **Request for Proposals**

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

## **Scope of Work**

The first document for which technical review is requested is the *Assessment Framework*.

The outside expert will not be responsible for assessing the competence of the scientific work or any modeling efforts or re-doing any work completed but rather reviewing the existing documents from a POTW perspective and raising issues and questions for BACWA consideration. The key elements of the scope of work for the outside expert for the *Assessment Framework* review include the following:

1. Review key assumptions, critical referenced reports, conclusions and recommendations and report on the strengths and weaknesses of the document.
2. Identify major issues, data gaps, and important questions.
3. Identify conclusions and/or recommendations that cross over from being pure scientific presentations to making policy recommendations.
4. Identify where additional explanations from the authors is needed.

5. Suggest where additional studies or investigations are warranted.
6. Discuss policy and permit ramifications.
7. Provide BACWA guidance/advice on next steps given the desire to continue with the NMS collaborative process yet not accept premature or incomplete conclusions that could ultimately lead to management actions or regulations not rooted in sound science.

The work would include four biweekly conference calls with BACWA and one in-person meeting in the Bay Area with BACWA. A Final brief Report with key findings, conclusions and recommendations should be prepared. An estimate for additional in-person meetings should be provided on a per meeting basis.

## Qualifications

The following qualifications would be desirable for the outside expert:

1. Technical knowledge and expertise in dealing with nutrient issues, including chl-a as an indicator of problems with DO and HABs, in water bodies particularly estuaries.
2. Experience with watershed permits, trading and multi-jurisdictional permits
3. Experience with assessment of nutrient impacts, monitoring programs for nutrients, modeling, and the role of direct assessment of beneficial uses.
4. Experience with nutrient permits and alternate approaches

## Project Schedule

The Scope of Services shall be completed during the first six months of 2016. Major milestones are provided below

Major Milestone	Date
Proposal due	March 18, 2016
Proposal review and telephone interviews	Week of March 28th 2016
Selection of Consultant(s)	April 1, 2016
Notice to Proceed	April 4, 2016
Final Report submitted	June 3, 2016

## Organization and Content of the Proposal

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

Suggested proposal outline.

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

## Level of Effort

The desired level of effort for the above described Scope of Work would cost roughly \$30-\$40k. The contract cost for review of the *Assessment Framework* should be presented as a lump sum amount based on the above Scope of Work with an estimate provided for additional in-person meetings, if needed, as well as hourly rates for key personnel should additional consultations, comment letters, etc., be needed.

It is envisioned that an omnibus contract in the amount of \$100k would be executed recognizing the need for follow-on as-needed services for review of other documents and/or consultation on the NMS. The BACWA standard consulting agreement will be used for this work (see attachment E)

## Proposal Evaluation Criteria

Criteria	Points
Project approach – How the Consultant intends to provide the needed services	15
Expertise of proposed individual or team in similar endeavors with emphasis on use of chl-a as an indicator for HABs and DO, ecological trending, and assessment of beneficial uses	50
Principal in Charge/Project Manager – Availability and responsiveness	20
Ability to provide additional resources if needed	5
Level of Effort – cost effectiveness of individual or team	10
<b>Total</b>	<b>100</b>

## Submittal

Please submit proposal via email to David R. Williams, Executive Director, Bay Area Clean Water Agencies ([dwilliams@bacwa.org](mailto:dwilliams@bacwa.org)) by March 18, 2016.

## ATTACHMENT A

### San Francisco Bay Nutrient Management Strategy

[http://sfbaynutrients.sfei.org/sites/default/files/Nutrient\\_Strategy%20November%202012.pdf](http://sfbaynutrients.sfei.org/sites/default/files/Nutrient_Strategy%20November%202012.pdf)

ATTACHMENT B

CHARTER

<http://bacwa.org/document/charter-sf-bay-nutrient-management-strategy/>



## ATTACHMENT C

### BACWA's Approach to the Nutrient Issue

#### **Introduction**

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

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

#### **BACWA Goal**

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

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

#### **BACWA Strategies**

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

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

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

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

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

## ATTACHMENT D

### Assessment Framework Report and Appendices

- [Scientific Basis to Assess the Effects of Nutrients on San Francisco Bay Beneficial Uses](#)
- [Appendix A Definitions of Key Terms and SFB Beneficial Uses](#)
- [Appendix B Review of Approaches to Assessment of Nutrient Effects on Estuaries](#)
- [Appendix C Quantitative Analyses Supporting Decisions on Chlorophyll-A Assessment Endpoints \(Sutula et al. Manuscript in prep for Submission to a Scientific Journal\)](#)
- [Appendix D. Supplemental Analyses Supporting Discussion of the Importance of Stratification on the Relationship between Dissolved Oxygen and Chlorophyll-a In SF Bay \(Stacey and Senn, 2015 Technical Memo\)](#)

ATTACHMENT E

**Standard Agreement**

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

<http://bacwa.org/document/bacwa-standard-long-form-agreement/>

## Planning Subcommittee (PS) Meeting No. 17

March 3, 2016

9:00 am – noon

Water Board Offices

### Meeting Summary

**Attendees:** Tom M., David S., Ian W., Ben H., and Dave W. (notes)

**Note:** Action Items and Decisions are shown in *bold italic*.

1. **Agenda Modifications:** The Agenda was reviewed and there were no changes.
2. **Review Outstanding Action items:** All Action Items were either completed or on the agenda for discussion with the exception of the Science Manager (SM) providing the final version of the document on guidelines for engaging technical assistance for the NMS. ***Action Item: The SM will provide the final version of the document on engaging technical assistance on the NMS to the PS.***
3. **Science Program update**
  - i. **Staffing:** The SM briefly discussed current staffing issues, the pending loss of a key staff person and options going forward (see SM's report Attachment A).
  - ii. **Other:** The SM then discussed the on-going concern about the NMS science program being underfunded and that even with the approval of the Program Coordinator (PC) pilot program, funding won't materialize overnight. It was suggested that one task for the PC would be to develop a workplan on how to bring additional funds into the science program.

The SM stated that because of the underfunding that it was important to get input on prioritization of work from the Steering Committee (SC), it was cautioned however that the SC depended on the SM to put forth recommendations to help ensure that the SC does not embark on efforts that the SM feels are of lower value. The discussion then turned to the need for a science platform that recognized the underfunding issue and focused on the "must do" projects for the NMS.

One opportunity for added resources is to have stakeholders who have an interest in doing projects to bring those projects inside the NMS “one tent” science program. There needs to be some process for getting the SC’s finger prints on a project beyond the project sponsor simply informing the SC that the work is being undertaken. Perhaps having the SC oversee the peer review of the project could be a way to achieve that goal. The suggestion was made to have the SM develop criteria for SC approval on how official certify that projects are affiliated with the NMS. Its important to get this completed now as stakeholders are moving forward with their own projects as is the case with the San Jose effort to document beneficial uses and Regional San’s efforts to assess the impact of their treatment plant improvements on the Bay/Delta. Ideally everything scientific endeavor is done with the “one tent” concept.

***Action item: The SM is to prepare criteria for SC approval on how to certify that a project is being completed under the auspicious of the NMS and its governance body.***

The SM then discussed his upcoming trip to the Netherlands to meet with Deltares on the use of their 3D model in the NMS. There is an opportunity for Deltares to provide significant in-kind service in development of the model as it is in their interest to get exposure for their model in the US. The hope is that Deltares might be willing to send a technical person to the US to work with SFEI in the development of the model thereby saving the NMS significant funding. The SM feels that there is potential a 2:1 return or greater in pursuing the effort with Deltares. A question was asked as to where are we going with the modeling effort, what must be done with Deltares, and where are there data constraints? The SM responded that SFEI staff has developed a conversion application that would not require the use of the 3D aspects of the Deltares model but the SFEI would still use the water quality aspects of the Deltares model. The PS asked the SM to do his best in negotiating with Deltares.

A discussion then ensued about the current schedule for the science program and the impact of the underfunding issue. Can the Water Board (WB) extend the time schedule to allow more resources to be brought to the table? The option is to go with the current schedule and funds available or to extend out the schedule and bring additional funds into the NMS. As we move forward, there needs to be the discussion of what if we didn’t do certain projects within the set time frame.

The PS then briefly discussed the review comments by Walter Boynton that were provided by the SM. It was noted that these comments should be provide to the SC. Mr. Boynton’s comments reflected several key points such as calling attention to the ocean connection to the Bay, the need to monitor the benthos

and the aquatic community, the need for additional funds, the importance of getting the loads right and having good processes. It was agreed that it was important to capture these comments and to develop responses to the comments that come in thru the peer review of the Science Plan.

#### 4. Priority Updates

##### i. Report-Outs

1. **Status of revision to USGS Letter Agreement on Use of the retrofitted:** The SM reported that he was still working on getting a final letter negotiated with the USGS on the use of the new research vessel. The SM stated that if possible he would finalize the letter and route it to the PS prior to putting it in the packet for the next SC Meeting. However if there were still some sticking points, it was agreed that the letter was not the highest priority item for the next SC meeting and could be put on the back burner.
2. **Current Situation with CCCSD on the ammonium paradox:** It was reported that CCCSD was not planning on doing any added work on this topic however it would be worthwhile for the SM to engage CCCSD in a discussion to see if there was an interest in doing additional work in an effort to further support the recent scientific studies that called into question the validity of the ammonium paradox. The WB indicated that although there were not current plans to require additional studies in the next CCCSD permit, that additional data would be helpful to them in support of that position. This type of outreach to stakeholders on their interest in funding work that would be beneficial to the NMS is exactly one of the roles that would be expected from the PC in the new pilot study. **Action Item: the SM, in the role of the new PC, will contact CCCSD and discuss opportunities and their interest to further the research on the ammonium paradox.**
3. **Status of request to Regional San to make presentation on their RFP at the next SC meeting:** It was noted that regional San is on the agenda for SC Meeting #8 to make a presentation on the research being contemplated as part of their on-going treatment plant upgrades.

4. **Progress report on development of a monitoring program proposal for SC consideration:** A subgroup of the SC is discussing the development of the Monitoring Program (MP). One of the key questions is how much the MP needed to undertake the “test drive” of the Assessment Framework? The SM stated that there is a “50 page” document that discusses the MP but that it needs to be condensed into a “5 page” document. The USGS prefers that the MP development get completed quickly and that it has the full support of the SC. The SM is committed to work with the USGS of the coming weeks and months to complete the minimum requirements of a MP, that being to continue to assess the conditions of the Bay but not a more detailed MP that would be need to calibrate the model. The SC has authorized \$50k in funds to help advance the MP.

The “5 page” briefing paper should layout the “must dos” in order to continue to assess the conditions of the Bay and what that will cost. In addition a parallel effort needs to be undertaken that defines what are the other monitoring drivers and what they will cost to pursue, for example, monitoring for assessment of beneficial uses will cost a lot more money than the USGS Bay sampling runs. Some monitoring will also need to be sustained in order to support and update the modeling efforts. Due to limited funding, we will ultimately need to make decision and assumptions based on the best information available at the time. it is important to have on-going monitoring to ensure that the assumptions being made are indeed correct. ?fir example if the assumption is that the Bay is impaired, then we would need monitoring to check that assumption. The WB stated that they would be in a position to be more liberal in their assumptions if a robust monitoring program was in place and adequately funded.

5. **Status update on the Suisun Synthesis:** The SM is moving ahead to finalize the Suisun synthesis. His team is getting assistance from UC Berkeley in cleaning up the data. He estimates that he would have it finalized by the end of March. It was pointed out that he should be panning on doing updates to the synthesis as the NMS program advances.

**ii. Current Issues**



1. **Final Draft Science Priorities Workplan for SC review:** the SM stated he was not prepared to discuss at the meeting today but will discuss at the SC meeting.
2. **Final Draft of the agenda for Steering Committee Meeting #8; include Bay/Delta Workshop and links to projects in packet:** It was noted that the agenda should include as item #2 a Review of Action Items (see Attachment B). It was agreed to prepare a handout to track action items as part of future SC agendas. **Action Item: Develop a handout for tracking actions items (DS/DW).**

It was agreed that on the SAG meeting, there should not be an in-depth discussion which re-hashes the dialog that took place at the SAG meeting on the AF. The SM will simply state the intent to “test drive” the document with a focus on the next steps.

The items under Other Business appear to be quasi consent calendar items. It was agreed that these items would be in the packet (or in the case of the USGS letter, sent as a follow-on to the packet distribution) with a notice that if any SC member has an issue then raise it at the meeting.

3. **Engagement of Steering Committee members:** The SM stated that he is continuing to try to get SC for attendance at the meetings. It was agreed that the importance of SC member's attendance at the SC meeting should be part of the PS report out by the PS at the meeting. **Action Item: discuss SC engagement as part of the PS report-out at SC Meeting #8**
4. **EPA Water Quality Improvement Fund Proposal:** It was reported that coordination with EPA is in progress. The SM stated that there are opportunities and benefits for a proposal on the South Bay Salt Ponds but that may be a long shot. There was concerned expressed that EPA may be missing an opportunity in not assisting in the planning effort associated with nutrients but that has been a long standing position with top management at EPA.

An idea was put forth to develop a proposal on trading which could be extend into implementation and not just planning. The idea seemed to have merit but the question was on the timing of

such a proposal. The EPA will be entertaining proposals soon and any proposal would need to be pushed from both the top down and bottom up at EPA. Assistance in development of a proposal was offered by EBMUD. It was felt that submitting a proposal now, even if not acceptable would be good for laying the groundwork for future efforts. It was pointed out that matching funds were needed however it was felt that the NMS funding could be offered as matching funds. **Action Item: Yun Shang to wlri kwit hteh SM and IW to develop a Proposal.**

5. **Program Coordination Workplan and Next Steps:** The handout item was briefly discussed (see Attachment C). the question was asked as to IW's role. It was explained that his role was discussed with the BayKeeper and the feeling was that he could provide support in the PC pilot program while still representing the BayKeeper on the SC and PS. His role in the PC pilot would entail roughly 30% of his time. BACWA would provide the pilot funding to the NMS. The NMS would then be invoiced by the BayKeeper for the use of their staff in support on the NMS PC pilot.

Some edits were noted on the Workplan. It was noted by BACWA that the tasks involving fund raising and development of Alternatives were very important. BACWA would like to see payback from the PC position during the pilot program. It was noted that the PC should be contacting stakeholders to tap their potential interest in funding projects pertinent to their concerns on the nutrient issue.

After a brief discussion it was agreed that the PC pilot should start immediately after the approval by the SC at the March Meeting. The PC tasks would be fulfilled by partial FTE efforts at SFEI and at BayKeeper.

6. **How to provide Facilitation at SC Meeting #8:** It was agreed that there was not a need for a separate outside facilitator for the upcoming SC Meeting #8 Phil Trowbridge from SFEI would be the most likely candidate to provide facilitation and would be introduced to the SC as the meeting facilitator. With SFEI providing facilitation, the NMS would no longer need to fund roughly \$50k in outside facilitation as it had done in previous years.

The SM stated that he would be tracking the PC pilot expense separately so that an accurate accounting could be maintained. He will also provide a detailed program as well as a line item budget for the one year pilot. ***Action Item: provide a program as well as a line item budget for the PC pilot and present at the next SC meeting.***

**iii. NMS Calendar Review**

1. **Review future SC and PS meeting schedules:** It was noted that the dates for future meetings have been established however some changes for PS meeting sin the future may be needed.

**5. Other Updates**

- i. The WB reported that they are continuing to work to get State funding for the NMS modeling work which could then free up funds within the NMS program for other needed work.

6. **Planning the next Subcommittee meeting:** time did not allow for this review but the minutes will provide all action items

- i. **Review of Action items from meeting**

- ii. **Next steps**

**7. Park Lot of Identified PS Future Agenda Items**

- i. **Brainstorming and options for attracting additional funds for use on the Science Plan**
- ii. **Brainstorming on future priorities for the PS**

8. **Adjourn:** The meeting was adjourned at noon

## San Francisco Bay Regional Water Quality Control Board

### San Francisco Bay Nutrient Management Strategy (NMS) Steering Committee March 11 2016

San Francisco Bay Regional Water Quality Control Board (RWQCB)  
2nd Floor, Room 10  
1515 Clay St, Oakland, CA 94612

#### AGENDA

Agenda Item		Lead	Time
1	<b>Welcome, Introductions and Agenda Review</b>	P Trowbridge	9:00-9:10
2	<b>Action items</b>	P Trowbridge	9:10-9:20
3	<b>Program Update:</b> <ul style="list-style-type: none"> <li>Science Program and Financial update</li> <li>Planning Subcommittee update</li> </ul> <i>Desired outcome:</i> Provide high level update, NMS activities  <i>Materials:</i> 3_FinancialUpdate_ProgramOverview_Mar2016	I Wren D Senn	9:20-9:45
4	<b>Technical Update - Science Program</b> <ul style="list-style-type: none"> <li>Modeling update,</li> <li>Dissolved oxygen in shallow habitats</li> <li>Algal toxins, phytoplankton</li> <li>Q&amp;A discussion</li> </ul> <i>Desired outcome:</i> Updates on major science activities  <i>Materials:</i> 4_FY2016_ModelingPlan (or <a href="#">link</a> )	D Senn	9:45-10:30
5	<b>Approval Item: NMS Program Coordination</b> <ul style="list-style-type: none"> <li>Background, program needs</li> <li>Proposed approach</li> </ul> <i>Desired outcome:</i> Discussion and Approval from SC to begin Program Coordination activities as described in Work Plan  <i>Materials:</i> 5_NMS_ProgCoord_WorkPlan.March2016	D Senn	10:30-11:00
	<b>Break</b>		11:00-11:15

6.	<p><b>Discussion Item: Draft Final Science Plan- external review comments</b></p> <ul style="list-style-type: none"> <li>• Presentation/discussion of reviewer comments</li> <li>• Science Priorities, current work focus, alignment vs. gaps.</li> <li>• Next steps</li> </ul> <p><i>Desired outcome:</i> Apprise SC of Science Plan as it Updates on major science activities, data analysis.</p> <p><i>Materials:</i> see items named “6_.xxx”; draft science plan; questions to reviewers; and 2 sets of reviewer comments.</p>	D Senn	11:15-11:45
7	<p><b>Discussion Item: FY17 Science Program Priorities</b></p> <ul style="list-style-type: none"> <li>• Overview of priorities</li> <li>• Current/recent-past activities, planned future work</li> <li>• Slate of proposed projects/activities</li> <li>• Next steps</li> </ul> <p><i>Desired outcome:</i> Feedback from SC on draft FY2017 priorities.</p> <p><i>Materials:</i> Still to come...</p>	D Senn	11:45-12:15
	<b>Lunch</b>		12:15-12:45
	<b>#7 continued FY17 Science Program Priorities</b>		12:45-1:15
8	<p><b>Discussion Item: Monitoring Program Development</b></p> <ul style="list-style-type: none"> <li>• Background, program needs</li> <li>• Proposed approach</li> </ul> <p>Desired outcome: Endorsement from SC of proposed approach to continue program planning; feedback on next steps</p>	D Senn	1:15-1:45
9	<p><b>Discussion Item: One-tent concept, “Affiliated Studies”</b></p> <ul style="list-style-type: none"> <li>• Overview of RegionalSan’s proposed studies</li> <li>• Use RegionalSan Case to focus on goals and criteria for integrating studies with NMS work.</li> </ul> <p>Desired outcome: Feedback from SC on criteria for considering studies affiliated/associated with NMS,</p>	D Senn L Thompson	1:45-2:15

10	<b>Discussion Item: February SAG meeting on Assessment Framework.</b> <ul style="list-style-type: none"> <li>• Summary of major take-home messages</li> <li>• Discussion</li> </ul> <p>Desired outcome: Update SC on major topics, next steps</p>	T Mumley N Feger	2:15-2:45
11	<b>Other Business:</b> <ul style="list-style-type: none"> <li>• NMS-USGS research vessel agreement language</li> <li>• Update on Region 2/5 ammonium/N:P workshop</li> </ul> <p>Desired outcome: SC approval of research vessel agreement language; SC approval of science advisor/collaborator guidance; updates/feedback on workshop charge</p> <p><i>Materials:</i> USGS letter will be distributed if available in time.</p>		2:45-3:15
12	<b>Action Items and Wrap-up</b>		3:15-3:30
	<b>Adjourn</b>		3:30

**NOTES:**

- *Public comment periods will be accommodated at the end of each agenda item (excluding item 1). The duration of each comment period will be at the discretion of the meeting facilitator.*
- *Breaks will be taken at the discretion of the meeting facilitator and the Steering Committee.*

# Program Coordination FY16-17 Workplan

## SF Bay Nutrient Management Strategy

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San Francisco Estuary Institute

DRAFT --- March 3 2016

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## 1. Background

The San Francisco Bay Nutrient Management Strategy (NMS), developed collaboratively by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) and stakeholders, describes an overall approach for building the knowledge base that will lead to well-informed nutrient management decisions for the Bay. The NMS consists of 5 work elements focused on water quality within San Francisco Bay, and 2 work elements related to approaches for managing nutrients.

In June 2014, the SFBRWQCB began convening the NMS Steering Committee (NMS SC) on a quarterly basis. The NMS SC is a multi-stakeholder and regulator group that advises the SFBRWQCB on NMS implementation, oversees NMS Program activities, and authorizes the use of NMS funds toward projects in the NMS Annual Program Plan. The NMS Planning Subcommittee (PS) works on behalf of the SC between meetings to move important activities forward and plan for upcoming SC meetings, and meets monthly. The San Francisco Estuary Institute (SFEI) serves as the technical lead for implementing the NMS. To date, SFEI's efforts have focused primarily on scientific studies related to water quality within the Bay.

During its startup years, the NMS effort has moved forward with a deliberately streamlined program, focusing its resources primarily on technical studies, leaving limited resources for management of the NMS process (e.g., SC and PS management) or strategic program coordination (e.g., external fundraising, stakeholder engagement). With the NMS effort now midway through its second year, there is growing recognition of the need for enhanced coordination of the NMS Program, and increased effort toward evaluating nutrient management options.

## 2. NMS Program Needs, Approach, and Objectives

Major NMS Program needs are summarized below, grouped into three main categories. To address these needs, SFEI will take on broader NMS responsibilities, while continuing to direct and grow the NMS Science Program. Specifically, the SFEI team will complete the following tasks:

1. Program Coordination:
  - a. Increase engagement with stakeholders, both those currently represented on the SC and others, to maximize the effectiveness and reach of the NMS process and better anticipate and address both issues and opportunities on the horizon.
  - b. Build strategic partnerships with stakeholders, regional agencies, and national agencies to increase the level of scientific coordination or alignment of scientific efforts, and identify opportunities for in-kind or matching support for work aligned with the NMS science plan.



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- c. Fundraise for both the NMS Science Program and Alternatives Analysis by pursuing regional, state, federal, and private/foundation grant opportunities.
  - d. Manage the SC and PS process(es), and facilitate SC and PS meetings
2. Program Management:
- a. Continue project management, financial management, and deliverable tracking, building on existing SFEI tools and practices, with improved and more consistent reporting.
  - b. Manage other necessary Program activities (e.g., peer review)
3. Alternatives Analyses:
- a. As a first step (FY2016-2017), prepare a white paper that examines relevant successes and challenges related to nutrient management in other estuaries (or freshwater systems).
  - b. Develop a multi-year work plan to guide activities for evaluating nutrient management alternatives and for evaluating policy approaches (FY2017). This task will be guided by a team of expert advisors, and in close coordination with NMS SC.
  - c. Implement the work plans, working with teams of technical collaborators, and with input from expert advisors (FY2017-ongoing).

Further task details are presented in Appendix 1.

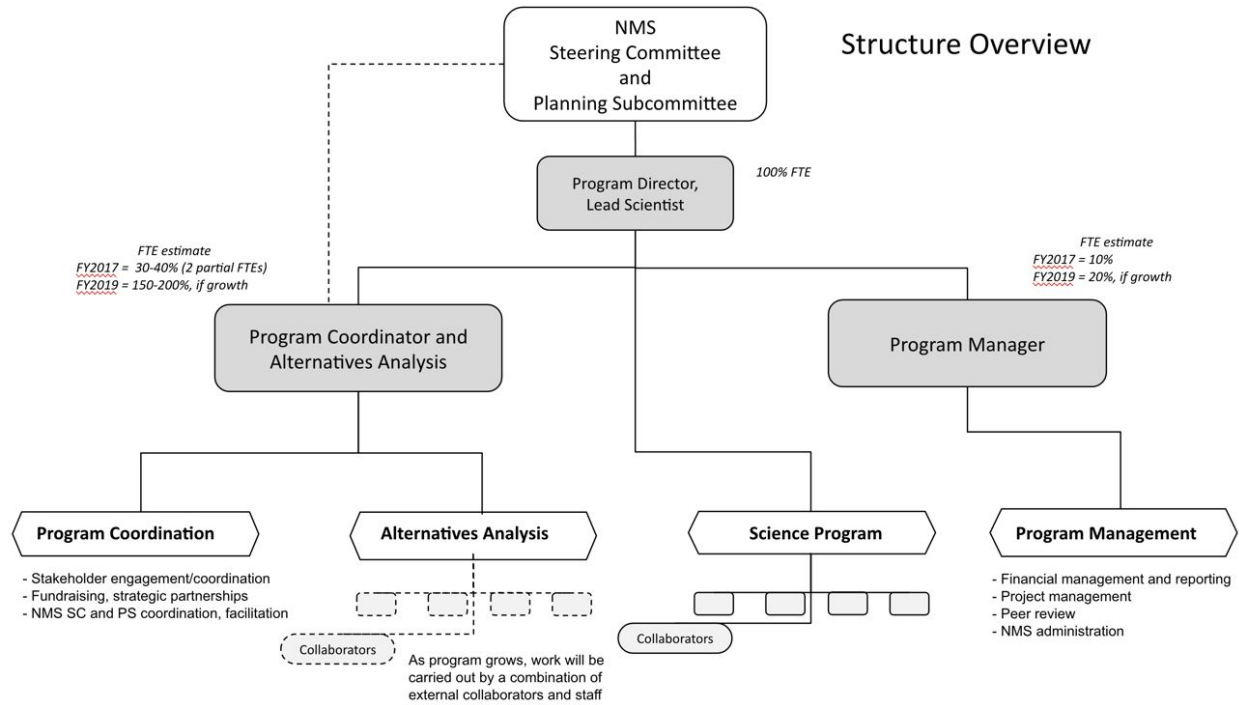
The proposed program structure is depicted in Figure 1. As with the NMS Science Program, the three sets of activities above will be carried out on behalf of the NMS and under the NMS SC's oversight. The Alternatives Analysis work, as it grows, will be conducted following an approach similar to the Science Program: utilizing a small and flexible staff, convening and working with teams of external technical collaborators having specific skill sets that address evolving program needs.

This approach and structure for managing the expanding NMS activities, with SFEI taking on this role, was identified because it achieves several important objectives:

- 1. Comprehensive and Credible Program
  - Comprehensiveness: "One Tent" for Bay-Science, Policy/Economic Alternatives Analysis
  - Credibility: Independent, unbiased, accountable, and transparent Program, for all NMS technical activities and program management
- 2. Cost-Effective and Flexible Program
  - Leverages existing organizational resources (e.g., RMP management)
  - Flexibility with staffing: constructive overlap in skills, and gradual ramp-up of new program activities through sharing staff across several related programs

(NMS, Bay RMP, Delta RMP, SFEI management)

- Cost-efficiencies and natural integration through managing a Program versus managing multiple projects



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### 3. Timeline and Budget

Timeline and estimated costs are presented in Table 1 by subtask. Funding to support this work during its initial year (FY16/17) will be provided by pilot funds from BACWA, and therefore will not impact the NMS Program's current science budget.

**Table 1**

<b>Project Tasks</b>	<b>Anticipated Completion</b>	<b>Estimated Additional Cost (FY2016-2017)</b>
<b>Task 1: Program Coordination</b>		<b>\$45,000</b>
Task 1.1: Stakeholder engagement and outreach	on-going	\$10,000
Task 1.2: Fundraising, strategic partnerships	on-going	\$15,000
Task 1.3: NMS SC and PS coordination, and facilitation	on-going	\$20,000
<b>Task 2: Program Management</b>		<b>\$5,000</b>
Task 2.1: Financial management and reporting, deliverable tracking	on-going	\$0 <sup>a</sup>
Task 2.2: Other Program management activities	on-going	\$5,000
<b>Task 3: Alternatives Analysis</b>		<b>\$50,000</b>
Task 3.1: Case study white paper	Draft: Oct 2016 Final: Jan 2017	\$25,000
Task 3.2 Develop Alternative Analysis 5-year workplan, including convening technical advisory group, stakeholder input	Draft: Dec 2017 Final: Mar 2017	\$25,000 (includes \$10k for honoraria)
Task 3.3 Implement Alternative Analysis workplan	FY2018-on-going	\$0 <sup>b</sup>
<b>Total</b>		<b>\$100,000</b>

<sup>a</sup> Task 2.1 costs are covered by current NMS annual budget.

<sup>b</sup> Task 3.4 will begin in FY2018; FY2017 costs

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## Appendix 1

The task and subtask descriptions presented below serve as examples of work efforts and work products for FY16/17. Over the remainder of FY16, SFEI will work with the NMS Planning Subcommittee and the Steering Committee to prioritize among work efforts and work products, and actual resource allocation among tasks may differ from that presented in Table 1.

### Task 1: Program Coordination

Additional Program Coordination effort is needed to meet three primary objectives: 1) carry out stakeholder outreach and coordination among both Steering Committee members and external stakeholders, to build and enhance strategic partnerships; 2) expand financial support for the NMS Science Program and other potential nutrient management activities; and 3) coordinate the NMS process related to the Steering Committee (SC) and Planning Subcommittee (PS), including meeting facilitation. Program Coordination shall be carried out by: Ian Wren, of San Francisco Baykeeper, who will remain on the NMS Steering Committee and the NMS Planning Subcommittee, but will take on committee-related work and stakeholder outreach to enhance the overall effectiveness of the NMS Program; Phil Trowbridge of SFEI; and David Senn of SFEI.

#### Task 1.1: Stakeholder Engagement and Outreach

To date, the NMS Science Manager has been the primary person supporting stakeholder engagement, NMS outreach, and NMS program coordination. However, the level of stakeholder engagement and outreach needed to maximize the effectiveness of the NMS effort have begun exceeding what is feasible with this approach. This task addresses Program Coordination needs related to outreach to internal (i.e. Steering Committee) and external stakeholders (e.g. general public, regulators, potential funders); preparation and dissemination of science/engineering/policy materials; and communication with internal and external stakeholders in a timely manner.

#### Work Efforts

- Communication with SC members to ensure they are briefed on key issues, and that SC member issues are identified and addressed.
- Communication to external parties on behalf of the NMS process (e.g. associated stakeholder organizations, associated other science programs in the Bay Delta)

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- Tracking and compiling information regarding non-NMS Bay-Delta nutrient studies (purpose, study methods, budgets, review methods, and transparency) and other relevant non-NMS activities or opportunities
  - 
  - Coordination and development of outreach/public information materials, and coordination of public outreach activities/events, as needed

#### Work Products

- Meetings with SC members and stakeholders (e.g., quarterly briefings to stakeholder groups), on a periodic or as-needed basis.
- Quarterly updates to the NMS website and/or SFEI's main website regarding relevant findings or significant events
- Monthly status summaries regarding completed milestones, relevant updates to fundraising opportunities, opportunities for collaboration, or issues of concern.
- Preparation of meeting summaries for all significant meetings, events or conferences and transmittal to the Steering Committee, as needed
- Drafting of press releases or public outreach information, as needed or as requested by the Steering Committee

### **Task 1.2 : Fundraising**

The NMS Program faces a significant shortfall between available budget and the estimated funds needed to undertake essential science and monitoring work, and to conduct Alternatives Analysis projects (Task 3). Under Task 1.2, the SFEI team and Ian Wren (Baykeeper) will develop a fundraising plan, and implement that plan to help secure additional funding for NMS activities.

#### Work Efforts

- Fundraising through stakeholder outreach, identification of external funding through development and enhancement of strategic partnerships, and grant writing
- In-person or phone interviews to all Steering Committee members and stakeholders to identify funding opportunities and options for significant in-kind contributions

#### Work Products

- A fundraising plan, including a list of short-term fundraising opportunities, and prioritized activities for pursuing that funding in FY16-17, including developing strategic partnerships that garner in-kind or matching funds, and grant-writing.
- Report status of new and on-going fundraising activities, in monthly updates to the PS and quarterly presentations to the Steering Committee

### **Task 1.3: NMS SC and PS: Coordination and Facilitation**

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This task entails coordination and meeting support activities related to the NMS SC and PS to ensure productive meetings and enhanced stakeholder coordination, in support of the NMS Program. Task 1.3 activities will be led by Ian Wren (Baykeeper) and Phil Trowbridge (SFEI), in coordination with David Senn (SFEI). Phil Trowbridge will lead facilitated meetings. The NMS Steering Committee maintains the option to contract with the Center for Collaborative Policy (CCP) on an as-needed basis for additional facilitation support.

#### Work Efforts

- Managing the SC and PS process, including: scheduling and communication with SC and PS members; preparation of agendas, presentation visual aids, meeting handouts, attendance sheets
- Participation in SC, PS, and Nutrient Technical Workgroup Meetings
- Facilitation of SC meetings, and of PS and Nutrient Technical Workgroup meetings as necessary.

#### Work Products

- Meeting agendas and advance materials provided at least one (1) week in advance of all meetings
- Ensure circulation of meeting minutes to all participants within seven (7) days of all facilitated meetings, unless notified otherwise. Meeting minutes shall be prepared by a representative from the Bay Area Clean Water Agencies (BACWA).

## **Task 2 : PROGRAM MANAGEMENT**

Program management activities will be carried out by SFEI staff (Jennifer Hunt, Phil Trowbridge, David Senn), in coordination with Ian Wren (Baykeeper)

### **Task 2.1 : Financial Management, Reporting, and Project Management**

Through its current work with the NMS Science Program activities, SFEI is already managing the finances, providing the NMS SC with periodic updates on program financial status, and managing projects and deliverables. Additional efficiencies and reporting tools, developed through other SFEI programs (e.g. the Bay RMP), will be leveraged to enhance the consistency and detail of financial reporting and project and deliverable tracking. No additional funds are being requested in FY16/17 for financial or project management. Nonetheless, considerable efficiencies will be gained through pooled resources across SFEI's numerous stakeholder-driven science and monitoring programs.

#### Work Products

- Monthly financial updates to the PS (and archived for the SC)
- Quarterly financial updates to the SC, and deliverable tracking.

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## Task 2.2 Additional Program Management Needs

This task covers a range of additional program management or administrative tasks that fall outside of financial and project management. The required effort within this subtask will vary between years (example activities summarized below), with priorities set by the PS and SC. For FY16/17, the budget in Table 1 earmarks \$5,000 for Task 2.2, to support the basic tracking of funding and collaboration decisions, and supporting any peer review or external review in FY16/17.

### Work Efforts or Work Products

- Maintain lists and contact information of all NMS Steering Committee members and other stakeholders
- Track NMS funding decisions
- Update and maintain materials related to NMS-funded projects on the NMS website (e.g. study plans, updates, draft and final reports, etc)
- Manage the scientific peer review process for technical documents or proposals, on an as needed basis, or external program and Science Plan review. Some peer review or external program review may begin in FY16/17
- Develop and maintain an appendix to the NMS Charter establishing the criteria and selection process for Science Advisors and Peer Reviewers, and tracking the participation of science advisors and collaborators on projects.

## Task 3: Alternatives Analysis

The NMS calls for two important work elements - Control Strategies and Regulatory Approaches - that, to date, have received limited focus or have been managed externally from the NMS Steering Committee and the NMS process.

Considerable advance planning, and objective alternative analysis, are necessary at the regional scale to characterize the cost-benefit of potential future regulatory requirements, or to maximize the achievement of multiple benefits in terms of water conservation, recycling and/or stormwater management. Currently, BACWA is contracting with HDR to develop an opportunities and constraints analysis of wastewater plants in the region to identify the potential for nutrient reduction and associated costs. Additional planning and analysis are required to review the range of options available, including nutrient trading, multi-benefit projects, water recycling, and wetlands treatment, and to consider benefits and costs of management scenarios at the regional or subembayment scale.

Activities carried out under Alternatives Analysis (Task 3) will explore nutrient management scenarios and policy approaches relevant to San Francisco Bay. Because of both the amount and importance of the work ahead, the Alternatives Analysis effort is



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expected to grow into a major NMS Program area. That program area, however, will be grown gradually, as the need requires and as resources become available to pursue that work. A multi-stage approach is envisioned: 1) Initial data-gathering in FY2016-2017 to inform next steps; 2) Developing a multi-year plan for exploring the cost/benefits of various nutrient management scenarios; 3) Conducting the proposed investigations in the multi-year plan to characterize and quantify the trade-offs among scenarios, the results of which will help inform feasible management options.

### **Work Efforts**

- FY2017: A case study white paper will be drafted to explore a minimum of five (5) examples where regional-scale nutrient reductions have been conducted or are in-process. These examples will represent a diversity in approaches and regional considerations that influenced decisions (i.e. trading, recycling, green infrastructure and treatment).
- FY2017: A multi-year workplan for on-going Alternatives Analysis will be developed with input from technical advisors and stakeholders.
- FY2018-beyond: Implementation of work plan. (No funds are proposed at this point for implementing projects proposed in the work plan).

### **Work Products**

- Draft and final versions of white paper, with review and comment by SC representatives and other stakeholder or regulator input.
- Draft version of work plan.

## **Review of San Francisco Bay Nutrient Management Strategy Science Plan (Draft)**

W. R. Boynton

26 February, 2016

I have completed a review of the Science Plan. My review contains mainly overview comments and questions but also has more specific (and likely less important) comments.

### **COMMENTS:**

1. The goals of the plan are very clear and include a “logical sequence” of studies, a pathway for prioritizing studies and estimates of costs. The emphasis here is a strong effort to inform major management decisions and, reading between the lines, this sort of effort is really needed because these management decisions, assuming they will include upgrades of major WWTPs and reductions in diffuse/storm water nutrient loads, will cost a great deal. So, the need to “get it right” as soon as possible is critical. In addition, it appears that the future of several current monitoring programs is uncertain. Loss of monitoring would throw important decisions into a zone of increased uncertainty and that needs to be avoided.
2. I understand why a 10 year planning schedule was adopted. But, in these dynamic and changing systems a 10 year record is very valuable but not nearly long enough. We have seen responses to strong management actions that have taken a decade to emerge...others are predicted to take longer. So, my comment here is that a 10 year program is an excellent start but needs to be extended at the appropriate time. Maybe now is the time to start thinking about this or doing the early work of alerting funders of the long-term need. I had a hell of a fight with a Maryland governor one time over this issue. His point was we had been making measurements for several years and because of that why the hell (his words) did we need to keep doing the same thing over and over. I said, well, how would he like to manage the State budget if you just got a look at it every month for a few months and then took a year or two off. He sputtered but got the point. So, long-term and regular monitoring (with sensible modifications) is the goal.
3. I think you had an exceptionally strong team putting this plan together. I know Cloern and Harding have national and international reputations of the highest order (and that ain't just smoke). Harding has completed several works that have been especially helpful in Chesapeake Bay management issues. I have also worked with Sutula and was thankful for her clear thinking and ability to work on big picture issues. A strong group with both local and global experience. I'd trust what they say.

4. The simple fact that a program such as this one is being developed (and portions implemented already) before there is serious degradation is also a very strong point. Many, including me, believe avoiding ecological disasters via early action is far more advisable (and less expensive) than trying to restore seriously damaged systems. My experience in the Chesapeake involved a decade of trying, with limited data, to convince government that there was a problem, another decade or two of developing status and trends that could be relied upon and now, finally a program designed for restoration (TMDL). Much of the delays were caused by very sparse water and habitat quality data sets. I think SFB is way ahead of other places in this regard. The deep channel information is a great start...the plan covers the missing aspects and will continue the record already available.
5. Science Plan: I support items 1 and 2 in Table 2.1. Both habitat and geography are really important. Likely there will be different impacts, different criteria, different functions associated with different zones of SFB. So, “getting to know” these habitats and different geographic regions is very useful. In items 4.a and 4.b I assume you are including climate change issues and the decadal patterns associated with adjacent ocean system. Is that correct? Given some of the changes Jim C and colleagues have found it seems like the ocean connection is very important to understand. Item 5 is a targeting issue and one where important results could be expected. I assume WWTP discharges would be important here.
6. In Table 2.2 several items jump out at me. First, item 1 has to do with loads. Our experience and experience in northern Europe, Tampa Bay, the MD and VA coastal Bays and other places all needed to “get the loads right”. I think, as you have indicated, this is a top of the list item...so, be sure to get the loads right and that includes ocean exchanges. There is an emphasis on the shallow margin habitats (item 2.2) and given the little I know about SFB (and the map in this report) it still seems to me this is really an important issue. For example, in the Chesapeake we knew we had seasonal-scale hypoxia/anoxia in the deep Bay and deeper tributaries. When we began looking we also found we had a DIEL-scale hypoxia issue in shallow and productive habitats...that was a nasty surprise. The deep water and shallow water zones may well operate differently...but, you already suspect or know that. Inclusion of all the major habitats is important (they are connected) and this was recognized clearly up front in this plan. I’m confused by item 4 (Low Productivity) in Table 2.2. What does this mean? I’m really not clear on this one. Clarify.
7. A major issue I did not see well addressed in the plan has to do with access to the monitoring (and research) data that are being or will be collected. Also, what is the data QA/QC plan? My view is that quality data, ready and open access to these data are

essential for both scientists, managers and the public...everyone. The CBP stumbled with this in the early years (not in a bad way...in a getting started way) and it drove many of us nuts. Now there is a data hub and we can readily obtain data from our desks. But, all of this is not cheap and not easy. A small example, but one to make the point, we developed a coordination program for all groups doing nutrient analyses around the Bay area. Each group is provided with samples and they report back concentrations and each group gets to see the results from all groups. This sort of thing has helped keep the quality high and it sure pin-points problem areas that can be fixed. Data access, QA/QC, etc is a big issue.

8. I see a good deal of attention on nutrients, DO, HABs and phytoplankton but much less concerning upper trophic levels. From what I have read about SFB the benthos and ocean migrating communities have played a central role in Bay ecology. Keeping a close watch on this component for top-down effects on water quality seems very important. Did I miss something? Is this part of another program that will continue and thus not be part of this program?
9. Table 2.3: I really like the idea of adding rate measurements to the monitoring program. These, in my view, are worth real gold. They are the underpinnings of the concentration measurements routinely made in most monitoring programs. I strongly support monitoring primary production rates, water column respiration, nutrient and carbon burial, and denitrification rates. Currently, the CBP does not monitor phytoplankton production (the main source of labile organic matter) or water column respiration (the main DO sink in an estuary plagued by hypoxia). This is a bad omission. I urge you not to make the same mistake. In addition, having a selection of rate measurements makes calibration and verification of water quality models a better process meaning that modelers can not just “twist the rate knobs” to get the concentrations in the model to match the data.. Several investigators in our area seriously upgraded a sediment flux model because there was sufficient sediment flux data to support important model modifications, calibration and verification. With some thought and gear now available rate measurements can be a normal part of a monitoring program.
10. Adaptive management and adaptive monitoring (really adaptive science program) are good concepts. Difficult to implement but good for guidance. I recommend staying with this concept.
11. The current expected Science Program funding level (\$1.38 million) seems really, really small. That will not go very far. Is there a way to set the funding bar a good deal higher? I may be missing some important things regarding funding. But, this low level of funding is just not very realistic. This needs some serious thought.

12. It appears to me that the proposed schedule of events, reports and the like (e.g., pg 9) is very tight and, for good reasons, somewhat sequential. The best of plans generally do not work out as planned....they get modified as reality intrudes. So, how to deal with this and keep the program moving forward and producing the products needed? My sense is that some strong coordination (a field or program general) will be needed. If participants do not produce reports on time and with useful interpretation I suggest dumping them and finding someone who can do it right. I'm not kidding about this.
13. Section 2.5 Rationale/Criteria: This section looks good to me. A few comments: a) do consider dropping "low return" monitoring items but DO NOT drop them too soon. CBP has made a few of these decisions and we have lived to regret it. In general we under-measure these ecosystems so be careful about dropping items that seem low-yield today because tomorrow they may become valuable b) starting the modeling work early is very good and needed. I recommend using simple models and adding complexity as needed rather than trying to make the most complex model at the start...in fact, I suggest development of mass balance computations asap using literature values or best professional judgment where data are missing and look to see where the big and small items are located. These relatively simple computations suggest where to put monitoring/research resources. This will not be news to either Cloern or Harding.
14. Item 3: This is important in general. Avoiding stove-pipe organization of the science program is essential. There needs to be effective exchange between the monitoring folks, the research people, modelers and managers. This is not easy but needed. In the past the CBP had annual meetings of all the monitoring groups as well as others in the management and modeling world. These annual meetings were a big deal and exciting. People really prepared for these presentations/discussions...hard questions were asked and participants expected reasonable answers. In a sense, we learned who was committed to the work and who was just spending some money...changes were made when necessary. With the complex and fast-moving science program proposed here there will be a serious need for cohesion of components and having the right players involved.
15. There is a strong emphasis on HABs in this work. This, I think, will be expensive work and the chance of developing a predictive model seems slim to me. I trust you have all done a "reality check" that HABs deserve the emphasis they receive in this science program. This is a tough issue...I do not have any clear advice.
16. Table 2.6: Interesting and indicates lots of thinking and planning. I did have one question. Why is the synthesis work terminated at the beginning of the program? Seems

strange. Does this plan refer to synthesis of information already at hand? Could use some clarification regarding this.

17. Appendix 2. This Background material was useful. I made a number of comments in this Appendix but I think I have mentioned all of them in previous sections of my review. But, a few comments might help: a) Table A.2.1 under Seagrass why is SAV coverage not included as a primary indicator and b) no mention of infauna in any habitat...seems like that is an omission that needs some consideration; c) Figure A.2.3. Station locations. I remember a paper by Jassby and Cloern (I think) that had an analysis of these stations and how much information was lost if fewer sites were monitored. I think they concluded that some stations could be eliminated. Perhaps portions of this effort could be re-directed to the large...very large...shoal areas in the Bay system.

I think I have captured above my main points. Main points include the following

1. Funding level looks to be much too small if I understand the information provided correctly
2. It will be a challenge to coordinate all these activities and likely will be especially challenging in the early going. Recognition that interaction among players is essential is very important and a positive aspect of the program.
3. With a few exceptions the items in the science program and the sequence of events looks solid...it is clear a lot of thought has gone into developing this program
4. Data QA/QC and system for data access needs some additional detail added. This process is not easy, fast or inexpensive...but it is critical
5. I believe the addition of key rate processes to the monitoring program is innovative and important. I have harped on this aspect of the program earlier in the review. I think this is a very strong part of the proposed program

Feel free to contact me if my comments need clarification.

## Note to NMS Steering Committee –

Below is a set of guiding questions for the two Science Plan reviewers. This round of review serves as a deliverable for the Water Board contract that funded the work. It was intended to be an initial high-level review, with the expectation that the Science Plan will receive additional review by an external expert panel, as part of an NMS review process.

### Questions to Reviewers.

We are looking for “high level” review. This plan is not intended to lay out all the detailed studies required for the next 10 years, but rather provide a “detailed-enough” framework, recognizing that the plan will be periodically revisited and updated. Also, each, specific projects will be proposed, generally guided by (but not beholden to) the Science Plan; so this is not the super-detailed roadmap, but rather the general direction.

The questions below are intended as a guide. Please feel free to also comment on issues not addressed by these questions.

1. Basic Program structure: Is there anything missing from Table 2.2 or Table 2.3?

2. Are there any major topics or issues that the Science Plan misses, based on your understanding of the system, informed by the background materials (Appendices 2-4; for the full conceptual model report from which these were borrowed, see [here](#)), or based on your own independent understanding of the system? Including,

....Does the stated Science Plan approach and topic areas (Section 2.5 and Tables 2.6 and more detailed version Table A.2) make sense and seem complete?

...Is the proposed sequencing (section 2.5 and Table 2.6) rational?

...Do the early projects look reasonable (Section 2.7, and Table 2.7 [mis-labeled 5.7]) ?

3. Do the cost estimates and time estimates (in general) seem reasonable?

From: **Hagy, Jim** <Hagy.Jim@epa.gov>  
Date: Fri, Mar 4, 2016 at 2:50 PM  
Subject: Evaluation of SFB science plan  
To: David Senn <davids@sfei.org>

Dave –

Attached is my CV and a draft of the Science Plan with my comments inserted throughout as PDF notes. In general, this whole plan makes a lot of sense given what I know and what we've been talking about in the group working on the SFB assessment framework. I have two or three relatively over-arching thoughts.

(1) Living Resources / Beneficial Uses. The whole plan seems to be relatively heavy on water quality processes, including biogeochemistry, phytoplankton, HABs and DO. For the most part, the biotic considerations end with phytoplankton, except for a little on benthos (especially filter feeders) and some mention of zooplankton. Dissolved Oxygen is an issue receiving attention, and the plan addresses the potential for DO effects in shallow water. I think that more attention should be paid to fish, birds and mammals, including in the monitoring program. Is there some way to directly track and consider the biotic condition of the Bay, or will this all be inferred from DO, HABs, and phytoplankton? I am concerned that 3 times per year may offer a relatively poor measure of the benthic condition in some places. I'd suggest more frequent sampling at the expense of having to select "key index locations" or something like that to control cost. We are looking at camera approaches here to address temporal variability, which you also mentioned. Benthos can recruit, massively increase in abundance, then disappear due to predation or DO or both. Having somebody involved in the effort whose focus is on biotic condition, including fish or fisheries, is something to consider. Ultimately, the public will end up asking what the effort is trying to protect, and things with vertebrae and scales, feathers, etc. resonate.

(2) Models. The plan rightfully includes models. I would encourage SFB to be a leader in using models in an innovative way, and in my mind that means using them to "make us think" instead of using them to tell us what the answer is. We need to embrace them with a healthy skepticism. Talk of "collecting data to calibrate models" sounds like standard fare for "the whole effort is so that we can build a model to answer our questions." I don't think it's realistic to expect models to do that. Models have tremendous appeal in a policy setting because they can give an answer ... straight up ... about the future, about the response to something before it actually is done ... etc. But, they can be wildly wrong. Often models are "calibrated" to show that they reproduce seasonal dynamics, and then we ask them to explain how the Bay might change over several decades. San Francisco Bay is a complex place and the potential to be wildly wrong seems greater than normal. Emphasize that the models are a tool for evaluating processes and formulating and testing hypotheses and ecological relationships. But then, we need to look at all the evidence to reach decisions.

(3) Monitoring. I'm glad to see that monitoring is integral to the plan. Keep that up. The plan seems reasonable, except that I'd like some more consideration given to directly evaluating biotic condition. Those who follow us will thank us, like we thank Jim Cloern and others for sustaining the monitoring that we now can use.

- Jim

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NUTRIENT MANAGEMENT STRATEGY CALENDAR		
March 2016 to March 2017		
DATE	AGENDA	NOTES
<b>4/6/2016</b>		
Planning Subcommittee Meeting #18	<u>Agenda Review</u> <u>Review Action Items</u> <u>Science Program Update</u> Staffing Other <u>Priority Updates</u> Report Outs Current Issues Scheduling <u>Other Updates</u> <u>Planning for Upcoming Meeting</u> <u>Parking Lot of Future Agenda Items</u>	
<b>5/4/2016</b>		
Planning Subcommittee Meeting #19	<u>Agenda Review</u> <u>Review Action Items</u> <u>Science Program Update</u> Staffing Other <u>Priority Updates</u> Report Outs Current Issues Scheduling <u>Other Updates</u> <u>Planning for Upcoming Meeting</u> <u>Parking Lot of Future Agenda Items</u>	
<b>6/10/2016</b>		
Steering Committee Meeting #9	<u>Welcome, Introductions, and Agenda Review</u> <u>Review Action Items</u> <u>Program Updates</u> Planning Subcommittee Science Program Financial <u>Technical Update</u> <u>Authorizations and Approvals</u> Approve Science Plan Priorities for FY 17 Authorize Funds for FY 17 Scientific Studies <u>Discussion Items</u> <u>Other Business</u> <u>Review Action Items and Preview Next Meeting</u>	
<b>7/6/2016</b>		

Planning Subcommittee Meeting #20	<b><u>Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	
	<b><u>Science Program Update</u></b>	
	Staffing	
	Other	
	<b><u>Priority Updates</u></b>	
	Report Outs	
	Current Issues	
	Scheduling	
	<b><u>Other Updates</u></b>	
	<b><u>Planning for Upcoming Meeting</u></b>	
	<b><u>Parking Lot of Future Agenda Items</u></b>	
<b>8/3/2016</b>		
Planning Subcommittee Meeting #21	<b><u>Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	
	<b><u>Science Program Update</u></b>	
	Staffing	
	Other	
	<b><u>Priority Updates</u></b>	
	Report Outs	
	Current Issues	
	Scheduling	
	<b><u>Other Updates</u></b>	
	<b><u>Planning for Upcoming Meeting</u></b>	
	<b><u>Parking Lot of Future Agenda Items</u></b>	
<b>9/9/2016</b>		
Steering Committee Meeting #10	<b><u>Welcome, Introductions, and Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	
	<b><u>Program Updates</u></b>	
	Planning Subcommittee	
	Science Program	
	Financial	
	<b><u>Technical Update</u></b>	
	<b><u>Authorizations and Approvals</u></b>	
	<b><u>Discussion Items</u></b>	
	<b><u>Other Business</u></b>	
	<b><u>Review Action Items and Preview Next Meeting</u></b>	
<b>10/5/2016</b>		
Planning Subcommittee Meeting #22	<b><u>Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	
	<b><u>Science Program Update</u></b>	
	Staffing	
	Other	
	<b><u>Priority Updates</u></b>	
	Report Outs	
	Current Issues	
	Scheduling	
	<b><u>Other Updates</u></b>	

	<b><u>Planning for Upcoming Meeting</u></b>	
	<b><u>Parking Lot of Future Agenda Items</u></b>	
<b>11/2/2016</b>		
Planning Subcommittee Meeting #23	<b><u>Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	
	<b><u>Science Program Update</u></b>	
	Staffing	
	Other	
	<b><u>Priority Updates</u></b>	
	Report Outs	
	Current Issues	
	Scheduling	
	<b><u>Other Updates</u></b>	
	<b><u>Planning for Upcoming Meeting</u></b>	
	<b><u>Parking Lot of Future Agenda Items</u></b>	
<b>12/9/2016</b>		
Steering Committee Meeting #11	<b><u>Welcome, Introductions, and Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	
	<b><u>Program Updates</u></b>	
	Planning Subcommittee	
	Science Program	
	Financial	
	<b><u>Technical Update</u></b>	
	<b><u>Authorizations and Approvals</u></b>	
	<b><u>Discussion Items</u></b>	
	Draft NMS Science Priorities for FY 18	
	<b><u>Other Business</u></b>	
	<b><u>Review Action Items and Preview Next Meeting</u></b>	
<b>1/4/2017</b>		
Planning Subcommittee Meeting #24	<b><u>Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	
	<b><u>Science Program Update</u></b>	
	Staffing	
	Other	
	<b><u>Priority Updates</u></b>	
	Report Outs	
	Current Issues	
	-Modify Draft Science Priorities Based on SC input	
	Scheduling	
	<b><u>Other Updates</u></b>	
	<b><u>Planning for Upcoming Meeting</u></b>	
	<b><u>Parking Lot of Future Agenda Items</u></b>	
<b>2/1/2017</b>		
Planning Subcommittee Meeting #25	<b><u>Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	

	<b><u>Science Program Update</u></b>	
	Staffing	
	Other	
	<b><u>Priority Updates</u></b>	
	Report Outs	
	Current Issues	
	Scheduling	
	<b><u>Other Updates</u></b>	
	<b><u>Planning for Upcoming Meeting</u></b>	
	-Finalize agenda for March Steering Committee Mtg.	
	<b><u>Parking Lot of Future Agenda Items</u></b>	
<b>3/10/2016</b>		
Steering Committee Meeting #12		
	<b><u>Welcome, Introductions, and Agenda Review</u></b>	
	<b><u>Review Action Items</u></b>	
	<b><u>Program Updates</u></b>	
	Planning Subcommittee	
	Science Program	
	Financial	
	<b><u>Technical Update</u></b>	
	<b><u>Authorizations and Approvals</u></b>	
	<b><u>Discussion Items</u></b>	
	Final Review of NMS Science Priorities for FY 18	
	<b><u>Other Business</u></b>	
	<b><u>Review Action Items and Preview Next Meeting</u></b>	

## Joint BACWA/Regional Water Board staff Meeting Minutes

Feb 29, 2016, 10am-12pm

### Attendees:

David Williams, BACWA  
Laura Pagano, SFPUC  
Lorien Fono, BACWA  
Lori Schectel, CCCSD  
Ben Horenstein, EBMUD  
Jim Ervin, San Jose/Santa Clara  
Mike Connor, EBDA  
Tom Mumley, Regional Water Board  
Bruce Wolfe, Regional Water Board  
Lila Tang, Regional Water Board  
Bill Johnson, Regional Water Board  
Naomi Feger, Regional Water Board  
Robert Schlipf, Regional Water Board

### 1. Introductions

### 2. Nutrients

#### a. *Optimization/Upgrade Study Updates*

The original optimization/upgrade studies schedule is sliding slightly due to the complexity of the individual facility reports. The Final draft is still anticipated to be delivered to the Regional Water Quality Control Board (Water Board) by late 2016, well in advance of the July 2018 deadline. One issue that has arisen is that when removing nitrogen in some situations, the levels of phosphorus increase. The cost associated with then removing phosphorus increase the overall cost of the project. BACWA mentioned that it may make sense to decouple nitrogen and phosphorus removal analyses.

#### b. *Follow-up from the Nutrient SAG Meeting*

BACWA summarized the content of the comment letter, submitted February 25, on the Assessment Framework report as well as the manuscript contained in Attachment C. The Water Board agreed to put together a preamble for the Assessment Framework report to clarify that it is meant to be the first step in an iterative process and will not be used to make policy decisions. Additionally, while the Water Board is not in favor of asking that the manuscript's submittal to a peer reviewed journal be delayed, they were willing to ask the authors to remove the policy statements therein. The Water Board will also look into getting BACWA access to the raw scientific data used in the report and manuscript.

#### c. *Regional Planning*

The Water Board had contacted BACWA about embarking on a Regional Planning effort to look at multi-agency and multi-benefit projects. BACWA requested that they clarify whether they envision an information gathering effort or a large multi-stakeholder decision making process. This concept might be incorporated into the next nutrient

watershed permit. BACWA will speak internally to consider what level of effort might be feasible and fruitful.

### **3. Collection Systems Issues**

#### **a. *Private Sewer Lateral Inspection and Repair Ordinance Survey***

BACWA has developed and circulated a survey to learn more about how our agencies test/inspect and repair/replace private sewer laterals. BACWA will share the results with the Water Board.

#### **b. *Metrics for a “well-performing” collection system***

The Water Board has indicated its willingness to consider the applications of penalties for SSOs to well-performing collection systems that would then be considered an appropriate level of enforcement. BACWA’s Collection System Committee is working to define asset management metrics to define a “well-performing” collection system. The Water Board clarified that they are looking to quantify indicators that are already captured by SSMP requirements such as infrastructure renewal rates relative to system condition. There was discussion about a case in a Foothills community where MMPs were not considered protection against citizen lawsuits by the judge, so there is concern that the strategy may not work for SSOs in Region 2.

### **4. Alternate Monitoring Requirements**

The Water Board reviewed some of the issues addressed in the Response to Comments for the Alternate Monitoring Requirements Tentative Order. The surcharge is based on effluent characterization monitoring reductions, rather than compliance monitoring, so agencies with effluent limits will not get credit for the extra monitoring they need to do per those limits. Agencies that opt into the Alternate Monitoring Program should enter code 9 on their DMRs so that EPA knows that monitoring requirement was waived.

### **5. Microplastics and Constituents of Emerging Concern (CECs)**

#### **a. *Microplastics Update***

The BACWA workgroup has been working on the analytical method to quantify and characterize microplastic particles. Preliminary results show that the NOAA method that was used in the SFEI study does not fully digest natural fibers.

#### **b. *State Pilot CECs Monitoring Plan***

The State Pilot CECs Monitoring Plan was developed without taking into account existing data generated by either the RMP in the SF Bay Region, or SCCWRP in the Los Angeles Region. BACWA intends to collaborate with BASMAA to write a letter insisting that the State Monitoring Plan be conducted within the framework of the RMP CECs program.

#### **c. *CECs Management Actions***

BACWA has forwarded to the Water Board Palo Alto’s pollution prevention report, which includes management actions for CECs.

### **6. Toxicity**

BACWA reported to the Water Board that seven out of eight of LACSD’s facilities are in violation for toxicity. They all have chronic toxicity effluent limits using the TST, and

have no dilution credit. There is concern that shallow water dischargers in Region 2 would be in a similar situation if chronic toxicity limits are imposed via the TST method.

**7. Recycled Water**

**a. *State General Order for Water Recycling***

BACWA described the comment letter it submitted to the State Water Board requesting that agencies could seek new coverage under existing permits. The Water Board pointed out that it has been continuing to permit expanded or new projects under 96-011 and the State Water Board has not objected.

**b. *Prop 1 Proposal to study RO Concentrate management***

BACWA requested that the Water Board clarify its concept for developing a proposal for Proposition 1 funding for a study looking at RO concentrate disposal for potable reuse projects. The Water Board replied that although the State Water Board has not yet issued any RFP, the RO Concentrate issue is important enough that staff will help shepherd it through the funding process. BACWA will work with the Water Board and SFEI to develop the proposal.

**8. Pardee dates**

BACWA requested the Water Board staff's attendance at the Pardee Technical Seminar from October 13 to 14, 2016.

**ADJOURNMENT**

## Sherry Hull

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**From:** Sherry Hull  
**Sent:** Sunday, March 13, 2016 8:29 PM  
**To:** Sherry Hull  
**Subject:** SSO White Paper

**From:** Adam Link [<mailto:alink@casaweb.org>]  
**Sent:** Wednesday, March 9, 2016 10:06 AM  
**To:** Dave Williams; [scole@alliant.com](mailto:scole@alliant.com); [eallan@cwea.org](mailto:eallan@cwea.org); [rbailey@centralsan.org](mailto:rbailey@centralsan.org); [jdow@cmsa.us](mailto:jdow@cmsa.us); [eoofficer@cvcwa.org](mailto:eoofficer@cvcwa.org); [bpresser@covellogroup.com](mailto:bpresser@covellogroup.com); [swagner@goletasanitary.org](mailto:swagner@goletasanitary.org); [pbushree@lwwd.org](mailto:pbushree@lwwd.org); [tminamide@aol.com](mailto:tminamide@aol.com); [sgreen@lacsdsd.org](mailto:sgreen@lacsdsd.org); [NGardner-Andrews@NACWA.ORG](mailto:NGardner-Andrews@NACWA.ORG); [NGardner-Andrews@NACWA.ORG](mailto:NGardner-Andrews@NACWA.ORG); [sandeepk@novatosan.com](mailto:sandeepk@novatosan.com); [jeff.palmer@ojaisan.org](mailto:jeff.palmer@ojaisan.org); [somavarapup@sacsewer.com](mailto:somavarapup@sacsewer.com); [RMiller@srcity.org](mailto:RMiller@srcity.org); [Craig@smcsd.net](mailto:Craig@smcsd.net); [grant.davis@scwa.ca.gov](mailto:grant.davis@scwa.ca.gov); [btresan@truckeesan.org](mailto:btresan@truckeesan.org); [garant@valleycenterwater.org](mailto:garant@valleycenterwater.org); [eshalaby@wcwd.org](mailto:eshalaby@wcwd.org); Bobbi Larson; [roland@cvsan.org](mailto:roland@cvsan.org); [karenu@deltadiablo.org](mailto:karenu@deltadiablo.org); [ewells@eid.org](mailto:ewells@eid.org); [paule@unionsanitary.ca.gov](mailto:paule@unionsanitary.ca.gov); Ben Horenstein; Amanda Waters; Terrie Mitchell; Jolene Walsh; Strommer, Jayne  
**Cc:** Bobbi Larson  
**Subject:** Status Update on UC Berkeley Wheeler Institute Citizen Suit Report

Wheeler Institute Citizen Suit Project Supporters,

After approximately a year of work, the Wheeler Institute for Water Law and Policy has completed its report entitled "Citizen Enforcement and Sanitary Sewer Overflows in California." This report was developed with financial support from CASA and all of you, and we appreciate your contributions and interest in this important topic. Many of you should have received a copy of the final report directly from Wheeler. If you did not, please email me and I will forward you a copy.

At the time this report was commissioned, CASA was receiving requests from Legislators and others for more quantitative (as opposed to anecdotal) evidence that third-party citizen suits were a problem for local wastewater agencies in California. Pursuing an objective, independent academic piece to examine the issue was determined to be the best course of action. There have been many developments since, but the need for data on this subject remains important.

The quantitative information in this report is extensive and has never before been assembled in this manner. It contains significant information regarding timing, location and frequency of citizen suit actions, spill rates and system performance over time, trends in SSOs, and a wide variety of other data points. There are also several positive statements in this report that identify some of the good work you all are doing. For example, the report acknowledges that "EPA officials and others view California's program [to address SSOs] as one of the most effective in the nation", and that "California collection system agencies may be ahead of the pack" in terms of asset management.

Several items that we had anticipated to be in the report did indeed come through as well. For example, more than 90 enforcement actions have been filed since 1997, which when considering their analysis was limited to only public agencies being targeted for SSOs in suits filed under the Clean Water Act, is a significant number. Moreover, the report acknowledges that this activity has been increasing in recent years, and that a mere three plaintiffs accounted for 86% of those actions.

Nonetheless, there is a conclusion in the report that on the whole, SSO-related citizen enforcement activity in California has helped improve collection system performance. This is caveated by acknowledgments that



strong causal claims are not necessarily warranted, that system performance metrics are not necessarily indicative of water quality benefits, and that “correlation versus causation” in terms of system performance after a citizen suit is not easy to demonstrate.

It is anticipated that the Wheeler Institute will make the report available on its website, but that they will not be publicizing or actively distributing the report beyond those who provided feedback to them during the process. CASA is still determining the extent to which we want to distribute rely upon this report going forward. However, at a minimum we anticipate it can be used to identify the scope of the citizen suits against POTWs in California and identify trends in those filings for those interested. We appreciate the efforts of the Wheeler Institute, and in particular Mike Kiparsky and Nell Green Nylan, for working with us on this project. They took a complex subject matter subject to multiple and variant opinions (and often difficult to quantify variables) and put together a quality work product.

If you have any follow up questions on the Report or what CASA is doing related to citizen suits in general, please direct them to me. Thank you.

- Adam

Adam D. Link

Director of Government Affairs

California Association of Sanitation Agencies

916.446.0388, ext 2 (office)

916.947.2900 (mobile)

*Ensuring Clean Water for California*

[www.casaweb.org](http://www.casaweb.org)



## **WATER POLLUTION:**

### **Microplastics found in treatment-plant discharges**

Emily Yehle, E&E reporter

Published: Friday, February 26, 2016

NEW ORLEANS -- Wastewater treatment plants are inadvertently dumping flecks of plastic into rivers, potentially affecting drinking water supplies, according to new research.

Researchers have found that water downstream from plants have a higher concentration of so-called microplastics that can then travel long distances and remain in the ecosystem. These plastic bits -- less than 5 millimeters wide -- originate from face washes, cleaning solutions, clothing and numerous other products.

Until recently, most research has focused on the threat microplastics pose to oceans. But Timothy Hoellein, an assistant professor at Loyola University Chicago, is looking at rivers, which transport plastics to oceans and provide drinking water.

"It maybe even presents the opportunity that management could be more effective," Hoellein said in an interview this week at the 2016 Ocean Sciences Meeting here. "It's hard to come up with a solution for a problem that's spread all over the ocean. But if we know a good deal of it is coming from the rivers and maybe identify some of those sources, I think we're just a step closer to practical solutions."

Hoellein presented new research on 10 urban rivers in Illinois. In eight of those rivers, he and fellow researchers found that wastewater treatment plants were a source of microplastics.

That's because plant's filters are not designed to handle microplastics, a relatively newly recognized pollutant. Between 15,000 and 4.5 million microplastic particles were released daily into rivers by each plant. Those particles also harbored bacteria that may be harmful to the river ecosystem.

The research has not yet been published, but it follows in the vein of a previous study from Hoellein that found that water downstream from a wastewater treatment plant had a higher concentration of microplastics.

Email: [eyehle@eenews.net](mailto:eyehle@eenews.net)

## Sherry Hull

---

**From:** Sherry Hull  
**Sent:** Sunday, March 13, 2016 9:07 PM  
**To:** Sherry Hull  
**Subject:** Microplastics

**From:** Rebecca Sutton [<mailto:rebeccas@sfei.org>]  
**Sent:** Monday, February 22, 2016 4:27 PM  
**To:** SC; [trc@sfei.org](mailto:trc@sfei.org)  
**Subject:** [TRC] RMP Microplastic Strategy Workshop: 6/29/16

Dear RMP SC and TRC members,

We have scheduled the one-day workshop to develop the RMP's Microplastic Monitoring and Science Strategy for Wednesday, June 29th. The workshop will be held at SFEI's offices in Richmond.

If you plan to attend, or plan to send a stakeholder representative, please RSVP to Jennifer Sun ([JenniferS@sfei.org](mailto:JenniferS@sfei.org)). We want to make sure to accommodate all interested RMP stakeholders.

Thanks for your engagement on this issue - Becky

--

Rebecca Sutton, Ph.D.  
Senior Scientist

San Francisco Estuary Institute  
4911 Central Avenue  
Richmond, CA 94804  
[@beckysuttonphd](mailto:@beckysuttonphd)  
[510.746.7388](tel:510.746.7388)

## Sherry Hull

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**From:** Sherry Hull  
**Sent:** Sunday, March 13, 2016 9:12 PM  
**To:** Sherry Hull  
**Subject:** Microplastics  
**Attachments:** DRAFT CONCEPT Microplastics project.docx

**From:** Miriam Gordon [<mailto:mgordon@cleanwater.org>]  
**Sent:** Friday, March 11, 2016 02:22 PM  
**To:** Rebecca Sutton <[rebeccas@sfei.org](mailto:rebeccas@sfei.org)>  
**Cc:** Pagano, Laura; andria ventura <[aventura@cleanwater.org](mailto:aventura@cleanwater.org)>; ssommer <[ssommer@cleanwater.org](mailto:ssommer@cleanwater.org)>  
**Subject:** Re: potential proposal on microplastic

Hi Laura- Nice to meet you via email?

Everything Becky said is what I've been thinking, but the grant prioritizes implementation and measurable results so it can go and must go further than that. It's a 4 year grant

See the attached summary to get a sense of my thoughts so far. We obviously have a lot of discussion ahead to better flesh this out- but this is a starting point.

I am cc'g Andria Ventura and Samantha Sommer in my office as they would both be involved in this project.

IF BACWA is at all interested, I'd like to schedule a time to talk next week or the week after to better develop a project framework so we can meet with EPA in March BEFORE they release the RFP in April. They can't give us any feedback on the idea once they release the RFP.

Would you all be interested in discussion on March 17th, 18th or 21st? We have 3:00 available on all those days.

Miriam Gordon | California Director | 415.369.9170  
Clean Water Action | Clean Water Fund  
350 Frank H. Ogawa Plaza, Suite 200 | Oakland, CA 94612  
[Website](#) | [Mailing List](#) | [Donate](#) | [Facebook](#) | [Twitter](#)

On Fri, Mar 11, 2016 at 1:37 PM, Rebecca Sutton <[rebeccas@sfei.org](mailto:rebeccas@sfei.org)> wrote:

Hi Miriam and Laura - I'm connecting you two so that we can discuss the idea of a proposal to the EPA's WQIF regarding microplastic.

Miriam, can you provide a few sentences to describe the potential project, so Laura can share those with others in BACWA leadership? In describing the project just now to Laura, I mentioned the idea that different sorts of microplastic (cigarette filters, fibers, foamed plastic, microbeads) might require different types of controls or policy actions, and that Clean Water Action would like to establish policy working groups on some of these different sources/particles to determine which controls are best and implement them. SFEI could partner and help the effort with science and monitoring, and so could BACWA, with the water agencies also able to do a lot of education and outreach if that's suggested by the policy groups.

That's just my off-the-cuff description, Miriam can provide a more eloquent and informed outline of the proposal idea!

Thanks - Becky

--

Rebecca Sutton, Ph.D.  
Senior Scientist

San Francisco Estuary Institute  
4911 Central Avenue  
Richmond, CA 94804  
@beckysuttonphd  
[510.746.7388](tel:510.746.7388)

## **VERY DRAFT CONCEPT- Reducing Microplastics in the SF Bay**

Miriam Gordon, CA Director, Clean Water Fund

[mgordon@cleanwater.org](mailto:mgordon@cleanwater.org), (415) 369-9170

**Partners:** Clean Water Fund, SFEI, BACWA- Maybe Save SF Bay re: cigarette butts

**Funding Source-** EPA's San Francisco Bay Water Quality Improvement Fund

- RFP out in April
- Timing: Grants likely awarded in June- August
- \$800,000- \$2,000,000
- Up to four years
- We can meet with EPA before the RFP comes out to discuss the idea- that means a meeting in March

### **GOAL: Reduce Microplastics Entering SF Bay**

#### **OBJECTIVE (1) - Problem well characterized (i.e. types of microplastics)**

- Not sure what SFEI wants to do here- is the existing data enough? Do we need to conduct baseline measurement and characterization of microplastics entering the Bay?
- TIMING: Year 1
- LEAD: SFEI and BACWA

#### **OBJECTIVE (2)- Develop Policy and Education and Technical Measures to Address the Problem**

- Develop a working group for each policy measure- Cigarettes, Consumer products and packaging, Fibers, Foam
- Each group develops policy and/or education and/or technical/ treatment strategies to reduce the particular type of micro-plastic pollution
- Each strategy is accompanied by an implementation plan-
- Identify the strategies that can be implemented in a 2 year time frame- those become the priorities for the program
- TIMING: Year 2
- LEAD: Clean Water Fund, maybe Save SF Bay for Cig Butt Pollution

#### **OBJECTIVE (3) – Implement Strategies to Reduce Microplastic Pollution**

- Shop the strategies around to different potential partners and jurisdictions
- Implement at least one strategy for each microplastic problem
- TIMING: Years 2 and 3
- LEAD: BACWA, Clean Water Fund

#### **OBJECTIVE (4)- Measure the Effectiveness**

- Measure the effectiveness of each strategy implemented by repeating the baseline measurement in the location where the strategy is implemented
- TIMING: Year 4
- LEAD: BACWA and SFEI

## Request from the City of Vacaville to become a member of BACWA

On February 15, 2016 I received a PO in the mail from the City of Vacaville with the contact name of Tony Pirondini. I wrote an email to Tony asking him what it was in reference to. He called me to indicate that the City of Vacaville would prefer to be a member of BACWA.

In FY16 BACWA invoiced the City of Vacaville \$1,200 for participation in BAPPG. The City of Vacaville paid that invoice. Tony asked if the City of Vacaville could be an Affiliate Member instead at the FY16 Dues of \$1,560.

The City of Vacaville Easterly WWTP is 15 mgd ADWF. However, they only averaged 6.8 mgd ADWF last year. I have not had an opportunity to speak with Tony regarding their reasons for preferring to be a member of BACWA vs a participant in BAPPG.

Sherry Hull



**POLICY NUMBER:** BP-001

**NAME OF POLICY:** Dues and Fees Associated with Classes of Membership

**DATE APPROVED:** 12-18-2015

**LAST REVISED:** 12-18-2015

**PURPOSE:** In accordance with the BACWA JPA define the various classes of members.

**POLICY:** BACWA supports the establishment of differing classes of members each having their own dues and/or fee structure.

**DEFINITIONS:**

**Dues:** Dues cover an agency's membership in BACWA and support the operation of BACWA. Dues are not a function of the number of wastewater plants and agency owns and operates. EDBA is a special situation where its dues cover multiple POTWs that are members of the EBDA JPA in accordance with the BACWA JPA.

**CBC Fee:** All members are charged a CBC Fee which provides BACWA the resources to conduct special investigations and advocacy efforts on behalf of its members on a variety of issues including biosolids, water quality, permitting, pretreatment, O&M, collection systems.

**Nutrient Surcharge:** The Nutrient Surcharge is a special assessment use to supplement the CBC Fee financial resources and was specifically developed to meet the significant financial obligations of the Nutrient Watershed Permit. This fee is assessed to only those members who are listed in the Nutrient Watershed Permit. It will be continued until all obligations under the Permit are met.

**Principals:** The five BACWA Principals are comprised on the five original signers of the BACWA JPA. The Principals have the largest flows and loadings and thus bear the burden of the majority of BACWA's operating costs. All Principals pay the same dues, CBC fees and Nutrient Surcharge.

**Associates:** Associates Members of BACWA are those members whose POTW design flows are greater than or equal to 10 million gallons per day (mgd). Being larger POTWs their dues and fees are slightly higher than Affiliate Members. All Associate dues are the same, however since the CBC and Nutrient Surcharge are based on loadings, these charges can vary among different Associate members.

**Affiliates:** Affiliate Members are the smaller to medium size POTWs with design flows less than 10 mgd. Affiliates have the lowest dues structure. Like Associates, since the CBC and Nutrient





## BACWA BOARD POLICIES

Surcharge are based on loadings, these charges can vary among different Affiliates. Members who operate collection systems and not a POTW are placed in the Affiliate class of membership and pay fixed dues and a fixed CBC Fee, but since they do not operate a POTW they are not assess the Nutrient Surcharge.

**Non-BACWA Members:** *BACWA membership is open to all POTWs and public collection systems entities within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (Water Board). This area generally covers the nine Bay Area counties, but is defined by the watershed tributary to San Francisco Bay within those nine counties. Public entities outside of the Water Board's jurisdiction may have an interest in joining one or more of the BACWA committees or initiatives. Recognizing that these entities may not have the same regulatory issues as the regular BACWA membership, these entities may be allowed to join a BACWA committee or initiative based on a case-by-case review by the BACWA Board and provided their interests are aligned with that of the general BACWA membership. Financial participation for any non-BACWA member would be established on a case-by –case basis by the BACWA Board.*

**APPLICABILITY:** This Policy applies to all BACWA Members and non-members

FY 2017  
BACWA BUDGET  
DRAFT

<u>BACWA FY16 BUDGET</u>	<u>Line Item Description</u>	<u>FY 2016 Budget</u>	<u>FY2016 Budget Amended</u>	<u>FY2016 Actuals to 2/16/16</u>	<u>Variance</u>	<u>FY 2017 DRAFT Budget</u>	<u>NOTES</u>
<b><u>REVENUES &amp; FUNDING</u></b>							
Principals' Contributions		\$468,180	\$468,180	\$468,180	\$0	\$477,544	2% increase.
Associate & Affiliate Contributions		\$171,639	\$171,639	\$170,079	-\$1,560	\$175,072	2% increase. <b>FY16:</b> \$174,759 invoiced
Fees	Clean Bay Collaborative	\$675,000	\$675,000	\$671,250	-\$3,750	\$675,000	<b>FY15:</b> \$750 = N. San Meteo CBC Fee written off, <b>FY16:</b> \$750 = actual billing was \$750 lower than expected at \$674,250. N. San Mateo refusing to pay in FY16, too.
	Nutrient Surcharge	\$600,000	\$600,000	\$600,458	\$458	\$800,000	<b>FY16:</b> Includes SFEI Carryforward. Actual invoiced: \$600,608
	Other		\$86,779				SFEI Carryforward from FY15
Other Receipts							
	AIR Committee Phase-in	\$50,000	\$50,000	\$48,080	-\$1,920	\$25,000	<b>FY16:</b> \$48,080 invoiced
	AIR Non-Member	\$6,200	\$6,200	\$6,200	\$0	\$6,350	Approx. 2% increase.
	BAPPG Non-Members	\$3,600	\$3,600	\$3,600	\$0	\$3,700	Approx. 2% increase.
	Other		\$0	\$15,810	\$15,810		Reimb. from EBMUD for Sidestream Study
Fund Transfer	Special Program Admin Fees	\$2,500	\$2,500	\$2,438	-\$62	\$2,500	WOT only
Interest Income	Funds	\$1,500	\$1,500	\$3,900	\$2,400	\$4,000	<b>FY16:</b> Actuals include BACWA, AIR & Nutrients Funds
	Investments		\$0	\$924	\$924	\$0	Interest from Called CD
	Total Revenue	\$1,978,619	\$2,065,398	\$1,990,919	\$12,300	\$2,169,165	
<b><u>EXPENSES</u></b>							
	<u>Line Item Description</u>	<u>FY 2016 Budget</u>	<u>FY2016 Budget Amended</u>	<u>FY2016 Actuals to 2/16/16</u>	<u>Variance</u>	<u>FY 2017 DRAFT Budget</u>	<u>NOTES</u>
<b>Labor</b>							
	Executive Director	\$183,498	\$183,498	\$91,749	\$91,749	\$189,370	3.2% CPI (SF/Oakland/San Jose Metro Area Dec 2015)
	Assistant Executive Director	\$78,642	\$78,642	\$44,822	\$33,820	\$85,000	8.08% increase - requested 8.2%
	Regulatory Program Manager	\$123,360	\$123,360	\$49,355	\$74,005	\$127,308	placeholder at 3.2% CPI - pending responses to RFP for FY17
	Total	\$385,500	\$385,500	\$185,927	\$199,573	\$401,677	
<b>Administration</b>							
	EBMUD Financial Services	\$40,000	\$40,000	\$23,389	\$16,611	\$40,000	Requested \$46,500. Maze at \$6,050 in FY16, \$6,141 in FY17
	Auditing Services (Maze)	\$0	\$0	\$3,576	-\$3,576	\$6,200	Pd in FY16: \$2,980 for FY15; \$596 for FY16
	Administrative Expenses	\$7,500	\$7,500	\$1,704	\$5,796	\$7,500	Travel, Supplies, Parking, Mileage, Tolls, Misc.
	Insurance	\$4,500	\$4,500	\$4,152	\$348	\$4,500	
	Total	\$52,000	\$52,000	\$32,821	\$19,179	\$58,200	
<b>Meetings</b>							
	EB Meetings	\$2,500	\$2,500	\$995	\$1,505	\$2,500	5 of 10 meetings paid
	Annual Meeting	\$8,000	\$8,000	\$3,342	\$4,658	\$7,000	
	Pardee	\$5,000	\$5,000	\$5,753	-\$753	\$6,000	Catering & Venue
	Misc. (Summit Partners)	\$1,100	\$1,100	\$910	\$190	\$1,100	Holiday Lunch and Committee Chair Lunch
	Total	\$16,600	\$16,600	\$11,000	\$5,600	\$16,600	

FY 2017  
BACWA BUDGET  
DRAFT

	<u>Line Item Description</u>	<u>FY 2016 Budget</u>	<u>FY2016 Budget Amended</u>	<u>FY2016 Actuals to 2/16/16</u>	<u>Variance</u>	<u>FY 2017 DRAFT Budget</u>	<u>NOTES</u>
<b>Communication</b>	Website Development/Maintenance						
	Website Hosting (Computer Courage)	\$600	\$600	\$600	\$0	\$600	
	File Storage (Box.net)	\$720	\$720	\$720	\$0	\$750	
	Website Development/Maintenance	\$1,200	\$1,200	\$160	\$1,040	\$1,200	Domains, website changes, Logo EPS file
	<b>Subtotal</b>	\$2,520	\$2,520	\$1,480	\$1,040	\$2,550	
	IT Support & Software						
	IT Support (Managed Services)	\$1,800	\$1,800	\$0	\$1,800	\$0	Cancelled in FY16.
	IT Support (As Needed)	\$2,000	\$2,000	\$1,345	\$655	\$2,600	
	Email (Office 365/MS Exchange)	\$480	\$480	\$280	\$200	\$500	
	Other Communication (Survey Monkey)	\$288	\$288	\$168	\$120	\$300	
	<b>Subtotal</b>	\$4,568	\$4,568	\$1,793	\$2,775	\$3,400	
	<b>Total</b>	<b>\$7,088</b>	<b>\$7,088</b>	<b>\$3,273</b>	<b>\$3,815</b>	<b>\$5,950</b>	
<b>Legal</b>							
	Regulatory Support	\$2,500	\$2,500	\$70	\$2,430	\$2,500	
	Executive Board Support	\$2,000	\$2,000	\$1,392	\$608	\$2,000	
	<b>Total</b>	<b>\$4,500</b>	<b>\$4,500</b>	<b>\$1,462</b>	<b>\$3,038</b>	<b>\$4,500</b>	
<b>Committees</b>							
	AIR	\$50,000	\$50,000	\$23,582	\$26,418	\$50,000	Consultant Support, Admin provided by BACWA Staff beg. in FY16
	BAPPG	\$86,000	\$86,000	\$44,250	\$41,750	\$86,000	Includes CPSC @ \$10,000,
	Biosolids Committee	\$3,100	\$3,100	\$297	\$2,803	\$3,100	
	Collections System	\$10,000	\$10,000	\$750	\$9,250	\$1,000	FY16 Actuals Includes \$500 in Venue Costs from FY15
	InfoShare Groups	\$1,000	\$1,000	\$345	\$655	\$1,200	funds for 2 workgroups (Asset Mgmt & O&M)
	Laboratory Committee	\$6,000	\$6,000	\$2,291	\$3,709	\$6,000	
	Permit Committee	\$1,000	\$1,000	\$904	\$96	\$1,000	
	Pretreatment	\$1,000	\$1,000	\$841	\$159	\$7,000	Requested \$7,000 for specific training sessions
	Recycled Water Committee	\$1,000	\$1,000	\$0	\$1,000	\$1,000	
	Misc Committee Support	\$30,000	\$30,000	\$0	\$30,000	\$35,000	
	<b>Total</b>	<b>\$189,100</b>	<b>\$189,100</b>	<b>\$73,260</b>	<b>\$115,840</b>	<b>\$191,300</b>	

FY 2017  
BACWA BUDGET  
DRAFT

	<u>Line Item Description</u>	<u>FY 2016 Budget</u>	<u>FY2016 Budget Amended</u>	<u>FY2016 Actuals to 2/16/16</u>	<u>Variance</u>	<u>FY 2017 DRAFT Budget</u>	<u>NOTES</u>
<b>Collaboratives</b>		<b>\$1,722,500</b>					
	<b>Collaboratives</b>						
	State of the Estuary (biennial)	\$0	\$0	\$0	\$0	\$20,000	Biennial in Odd Years
	Arleen Navarret Award	\$1,000	\$1,000	\$0	\$1,000	\$0	Biennial in Even Years
	FWQC (Fred Andes)	\$5,000	\$5,000	\$5,000	\$0	\$7,500	Dues raised to \$7,500 for FY16
	Stanford ERC (ReNUWit)	\$10,000	\$10,000	\$10,000	\$0	\$10,000	
	CWCCG	\$35,000	\$35,000	\$35,000	\$0	\$0	State-wide function, being absorbed by CASA
	Misc					\$3,000	new budget line item in recognition of unanticipated expenses
	<b>Total</b>	<b>\$51,000</b>	<b>\$51,000</b>	<b>\$50,000</b>	<b>\$1,000</b>	<b>\$40,500</b>	
<b>Tech Support</b>	<b>Technical Support</b>						
	Nutrients						
	Watershed	\$880,000	\$880,000	\$870,000	\$10,000	\$880,000	\$9,711 of FY16 requirement actually pd in FY15
	Additional work under permit	\$100,000	\$100,000	\$15,810	\$84,190	\$50,000	Reimb by EBMUD - Sidestream Analysis. <b>FY17:</b> Pilot
	Opt/Upgrade/Annual Reporting Studies	\$559,000	\$559,000	\$164,416	\$394,584	\$18,128	To be discussed
	Nutrient Program Coordination	\$50,000	\$50,000	\$0	\$50,000	\$100,000	Prog Coord Pilot Study scheduled for FY17, will start in April 2016
	General Tech Support	\$50,000	\$136,779	\$57,928	\$78,851	\$50,000	SFEI agrmt bal: \$28,409.12. <b>FY17:</b> Assesmt Framework
	Chemicals of Concern	\$15,000	\$15,000	\$0	\$15,000	\$15,000	Pesticide Mgmt support
	Risk Reduction	\$17,500	\$17,500	\$5,226	\$12,274	\$32,500	Contracts executed for \$50k in FY16 to be paid over two years
	<b>Total</b>	<b>\$1,671,500</b>	<b>\$1,758,279</b>	<b>\$1,113,381</b>	<b>\$644,898</b>	<b>\$1,145,628</b>	
	<b>TOTAL EXPENSES</b>	<b>\$2,377,288</b>	<b>\$2,464,067</b>	<b>\$1,471,124</b>	<b>\$992,943</b>	<b>\$1,864,355</b>	
	<b>NET INCOME BEFORE TRANSFERS</b>	<b>-\$398,669</b>	<b>-\$398,669</b>			<b>\$304,810</b>	<b>5 Year Plan: Est 2017: \$298,736</b>
	<b>TRANSFERS FROM RESERVES</b>	<b>\$398,669</b>	<b>\$398,669</b>			<b>\$0</b>	
	<b>NET INCOME AFTER TRANSFERS</b>	<b>\$0</b>	<b>\$0</b>			<b>\$304,810</b>	



February 23, 2016

Alexander R. Coate  
East Bay Municipal Utility District  
375 11<sup>th</sup> Street  
Oakland, CA 94607

Subject: Invitation to Participate in Drought Task Force for the Bay Area Regional Reliability Drought Contingency Plan

Dear Mr. Coate,

BACWA is pleased to accept your invitation to participate in the Drought Task Force for the Bay Area Regional Reliability Drought Contingency Plan and attend the upcoming BARR meetings. The BACWA Board considered the offer and selected Michael Connor, General Manager at East Bay Dischargers Authority to be the BACWA representative and Roger Bailey, General Manager at Central Contra Costa Sanitary District to be the Alternate. Please include them in communications on the upcoming meetings.

Thank you for the invitation and we look forward to working with you.

Sincerely,

A handwritten signature in cursive script that reads "David R. Williams".

David R. Williams  
Executive Director  
Bay Area Clean Water Agencies

Cc: Michael Connor  
Roger Bailey



March 8, 2016

Thomas Howard  
Executive Director  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814

VIA EMAIL: [thomas.howard@waterboards.ca.gov](mailto:thomas.howard@waterboards.ca.gov)

**Subject:** Comments on the *Constituents of Emerging Concern Statewide Pilot Study Monitoring Plan*

Dear Mr. Howard:

The Bay Area Clean Water Agencies (BACWA) and the Bay Area Stormwater Management Agencies Association (BASMAA) are concerned about the direction of the State's Constituents of Emerging Concern (CECs) program, as described in the *Constituents of Emerging Concern Statewide Pilot Study Monitoring Plan* (Pilot Monitoring Plan), released in January 2016. 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 (SF Bay) Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. BASMAA is a 501(c)(3) non-profit organization comprised of the municipal stormwater programs in the San Francisco Bay Area representing 100 agencies, including 85 cities and towns, 8 counties, and 7 special districts. BASMAA focuses on regional challenges and opportunities to improve the quality of stormwater flowing to our local creeks, San Francisco Bay, the Delta, and the Pacific Ocean.

The proposed Statewide Pilot Monitoring Plan calls for \$446,000 in CEC studies over two years in analytical costs alone. The Bay Area POTW and Stormwater communities, consistent with San Francisco Bay Region NPDES permits, already support a mature CECs monitoring program through the San Francisco Bay Regional Monitoring Program (RMP)<sup>1</sup>. Until now, we have assumed that the Statewide initiative would work in conjunction with the existing structure and ongoing efforts of our RMP program to develop a plan that would meet its goals. Since this does not appear to be taking place, BACWA and BASMAA have concerns about the Pilot Monitoring Plan that must be addressed before this initiative can move forward:

**The Pilot Monitoring Plan does not interface with the CECs program that is already in place in the San Francisco Bay Region**

The RMP has been investigating CECs in our Region since 2001 and has developed a CECs strategy that guides decisions on monitoring and provides local agencies with science-based input allowing more effective management decisions. The RMP CECs program is run by scientists who are well versed in the water quality conditions particular to San Francisco Bay, and have tailored a monitoring program to the local conditions. Any CEC monitoring plan that takes place within the San Francisco Bay must be developed in close consultation with the RMP Steering Committee, and the San Francisco Bay Area CEC strategy. Although the existence of the RMP CECs program is referenced in the introductory section of

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<sup>1</sup> SCCWRP Technical Report 692 - April 2012

the Statewide Pilot Monitoring Plan, it appears that collaboration with the RMP program has not been considered during development of the Pilot Monitoring Plan.

State Water Board staff have told our representatives that they are simply implementing the recommendations captured in *Monitoring Strategies for Chemicals of Emerging Concern (CECs) in California's Aquatic Ecosystems; recommendations of a science advisory panel*. However, this document expresses that the goal of the monitoring effort should be to “provide[s] broad guidance to the State to address the specific questions...and to cost-effectively integrate the proposed CEC monitoring program with ongoing state-wide and regional monitoring efforts.” (pg. 56) In addition, the document clearly recognized the need to balance monitoring for CECs with available resources (pg. 65), and suggested that the State undertake an integrated risk assessment of all currently required chemical monitoring efforts and CECs to guide future monitoring investments commensurate with the risk posed (pg. 65, Section 9.3).

BACWA and BASMAA have and will continue to fund CEC monitoring needs for the San Francisco Bay Region through the RMP consistent with NPDES permit requirements. The Statewide Pilot Monitoring Plan must integrate the structure and budget of the RMP to meet its goals, as envisioned by the science advisory panel. The BACWA and BASMAA agencies should not be asked to fund a separate pilot monitoring program.

#### **The Pilot Monitoring Plan does not account for the monitoring that has already been done by the RMP**

Much of the monitoring prescribed by the Pilot Monitoring Plan duplicates monitoring already being conducted in the San Francisco Bay Region. The RMP CEC program already supplied existing data to the State Water Board and the Southern California Coastal Water Research Project (SCCWRP) which was published in their *Monitoring of Constituents of Emerging Concern (CECs) in California's Aquatic Ecosystems - Pilot Study Design and QA/QC Guidance* (Technical Report 854)<sup>2</sup>. This existing data, and data that has been collected since that document was developed, has not been considered in the development of the Pilot Monitoring Plan. We urge State Water Board Staff to review the data already provided, and contact RMP staff to eliminate duplicative monitoring when developing the next revision of the Pilot Monitoring Program.

Again, please note that all available CEC resources are currently committed to high priority CEC concerns identified as part of the RMP CEC strategy. Proposed modifications to the RMP efforts must be approved by the RMP Steering Committee consistent with current available resources. However, if the State Water Board has additional resources that could be used to address different CEC priorities identified by their staff, the RMP Steering Committee would gladly engage in an effort to identify an efficient collaborative effort to assist the State Water Board.

#### **BACWA and BASMAA support the comments submitted by Sanitation Districts of Los Angeles County (LACSD) on *in vitro* assays**

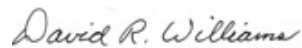
In addition to the comments herein, BACWA and BASMAA also support the comments from LACSD that the *in vitro* assay studies proposed in the Pilot Monitoring Plan are premature. Bioassays at this time should be limited to pilot investigations aimed at gaining experience linking the fully developed ER-a *in vitro* bioassay results to adverse organism-level outcomes to avoid overuse of the expensive 21-day fish toxicity bioassays.

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<sup>2</sup> see section 8.4 appendix D: Summary of RMP CEC Investigations

BACWA and BASMAA are confident that with improved collaboration and additional State resources, the Statewide and San Francisco Bay Regional goals for CEC monitoring can be brought into alignment. On April 15, the RMP's Emerging Contaminants Workgroup will host a meeting to review recent findings and discuss new monitoring proposals on plastic additives like bisphenol A, flame retardants, water- and stain-repelling perfluorochemicals, and pesticides. The Workgroup will also discuss plans to revise the RMP's overall strategy for monitoring CEC. This meeting represents an excellent opportunity for State Board Staff to meet our Regional stakeholders and discuss how the Statewide monitoring Plan could be integrated into our successful and established Regional CECs program.

Respectfully Submitted,



David R. Williams  
Executive Director  
Bay Area Clean Water Agencies



Geoff Brosseau  
Executive Director  
Bay Area Stormwater Management Agencies Association

cc: BACWA Board  
BASMAA Board  
State Water Resources Control Board  
Tom Mumley, San Francisco Regional Water Quality Control Board  
Jonathan Bishop, State Water Resources Control Board  
Greg Gearheart, State Water Resources Control Board





February 1, 2016

Lila Tang  
San Francisco Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

VIA EMAIL: [ltang@waterboards.ca.gov](mailto:ltang@waterboards.ca.gov)

**Subject:** Alternate Monitoring and Reporting Requirements for Municipal Wastewater Dischargers for the Purpose of Adding Support to the San Francisco Estuary Regional Monitoring Program

Dear Ms. Tang:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the Tentative Order for the Alternate Monitoring and Reporting Requirements (Alternate Monitoring Requirements) for Municipal Wastewater Dischargers for the Purpose of Adding Support to the San Francisco Estuary Regional Monitoring Program (Tentative Order). 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.

BACWA supports the concept captured by the Tentative Order of reallocating resources from low-value effluent testing to the Regional Monitoring Program (RMP). The RMP has faced declining funding in recent years, and is in need of additional support to address important questions about water quality in the San Francisco Bay, which will in turn inform policy decisions.

The Tentative Order proposes reductions in monitoring frequencies for testing via EPA Methods 608 (PCBs as aroclors, and chlorinated pesticides), 624 (volatile organic compounds), 625 (base neutral acids), and 1613 (dioxins) for agencies that seek coverage under the Alternate Monitoring Requirements. BACWA's member agencies collect hundreds of effluent samples annually, in aggregate, to monitor constituents via EPA Methods 608, 624, and 625. These constituents posed a water quality concern decades ago before they were incorporated into the California Toxics Rule. In recent years, most of these constituents have rarely been detected in effluent, and when they are detected, they are at levels much lower than would pose a water quality concern. As described in the Tentative Order, the Regional Water Board has decades of data on dioxins via EPA Method 1613 on which to base any future management decisions. POTW funds are much better used to support emerging contaminants research through the RMP than continuing routine monitoring of historical pollutants in effluent.

Besides reducing monitoring via the tests listed above, the Tentative Order eliminates the requirement for routine chronic toxicity sensitive species screening for agencies seeking coverage under the Alternate Monitoring Requirements. Sensitive species screening for chronic toxicity testing is extremely expensive at approximately \$30,000 per screen, and does not yield useful information in most cases. If there is no change in effluent quality, then any change in the most sensitive species will be due to the inherent noise in the test, not actual changes in effluent toxicity.

As noted in the Tentative Order, the analytical costs identified therein represent the upper end of the range of actual costs. BACWA notes that the surcharge for most agencies will be greater than what they would be actually be spending on analytical testing. This is particularly true for agencies that do many of these analyses in their in-house laboratories. Nevertheless, BACWA recognizes the value of using consistent figures for all agencies, and the benefit of maximizing funding to the RMP via this mechanism. Additionally, the surcharge will be partially offset by staff time not spent on sample collection and data management.

Besides our general comments described above, BACWA has the following specific recommendations pertaining to the Tentative Order:

- 1. PCB Congener monitoring should be reduced upon reissuance of the Mercury/PCB Watershed Permit**

While BACWA supports the approach of strategically trading decreased effluent monitoring for increased RMP funding, as described in the Tentative Order, we urge the Regional Water Board to continue to scrutinize the routine testing requirements to ensure that they represent the best expenditure of public funds. When the Mercury/PCB Watershed Permit is reissued in 2017, the Regional Water Board will have ten years of PCB congener data via the unpromulgated Method 1668C. Each of these tests costs approximately \$1,000, and the informational value of these tests is outweighed by their high cost. **BACWA recommends that the Regional Water Board reduce the frequency of PCB congener monitoring via Method 1668C upon reissuance of the Mercury/PCB Watershed Permit.**

- 2. The Regional Water Board should work with agencies to ensure the Tentative Order captures the correct monitoring frequencies.**

Several of our member agencies have mentioned anecdotally to BACWA staff that the monitoring frequencies for individual POTWs listed in Tables F-2 and F-3 of the tentative order are incorrect. Since the current monitoring frequencies are used to calculate the level of funding to be transferred to the RMP, it is essential that they be correctly represented. Our member agencies will contact the Regional Water Board individually to supply the correct frequencies. **BACWA recommends that the Regional Water Board work with individual agencies to ensure that their current monitoring frequencies listed in the Tentative Order are correct.**

- 3. The reporting deadline for the Alternate Monitoring Requirements should be harmonized with agencies' Annual Reports**

The Tentative Order currently requires that “*The Discharger shall, either individually or in collaboration with other dischargers, submit or cause to submit, on October 1 of each year, a report that shows an accounting of each Discharger’s payment to the RMP.*” Each year, BACWA works with the RMP to submit a letter to the Regional Water Board certifying which agencies have paid their RMP dues for the previous year. This letter is submitted in January so that it may be incorporated by reference into agencies’ Annual Reports. **BACWA recommends that the reporting deadline for participation in the Alternate Monitoring Requirements be changed to February 1 to avoid duplicative reporting.**

**4. Costs increases should be tied to increases in analytical costs, not RMP cost adjustment, and costs should be constant over the five-year opt-in period.**

In Section VI.C.1.a (page 5) the Tentative Order states that adjustments to the surcharge paid to the RMP may be “*based on changes in contract laboratory costs or pegged to RMP annual cost adjustments*”. By being pegged to annual RMP cost adjustments, POTWs who opt in to the Alternate Monitoring Requirements may then spend more than continuing with the existing tests, which usually don’t increase in cost substantially. The commercial environmental testing market is very competitive; often there is no cost increase from year-to-year, and costs sometimes even decrease. For example, the cost for dioxin by EPA Method 1613 has been stable at \$1,000 for the past six to seven years, and no increases are expected for the next three to four years.

Agencies are required to opt into the Alternative Monitoring Requirement for a five-year term. When agencies are deciding whether to opt in, they need to understand the cost tradeoff for the full five-year period. It is unfair to increase the costs for agencies after they commit to a certain surcharge amount. Therefore, any cost increases that are implemented by the Executive Officer should not go into effect for an agency until they opt into the subsequent five-year term.

**BACWA recommends that Section VI.C.1.a be edited as follows:**

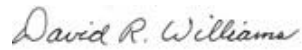
*The Discharger shall provide to the RMP, by July 1 of each year for minimum terms consisting of 5 consecutive years, the amount of funds listed for the Discharger in Attachment C of this Order. The costs shall be constant for an agency over the five-year opt-in period. Starting in 2017, the Executive Officer is authorized, but not required, to adjust these amounts annually by April 30 (to be effective for that calendar year), to reflect changes in analytical costs consistent with the assumptions used for Attachment C. These adjustments may be based on changes in contract laboratory costs as surveyed by BACWA ~~or pegged to RMP annual cost adjustments~~. The Executive Officer shall provide a 30-day public comment period on proposed adjustments and consider comments received prior to putting proposed adjustments into effective. The new costs will come into effect for agencies when they next opt into a new five-year term.*

In addition to the comments herein, BACWA has reviewed the letter submitted by SFEI recommending that the following language be added to Section VI.C.1.a in the TO: *The intended use of these funds is for monitoring and special studies for contaminants of emerging concern.*

*However, the Steering Committee of the RMP shall have the authority to allocate these funds to other types of studies at its discretion.”* BACWA has no objections to this addition.

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

Respectfully Submitted,

A handwritten signature in cursive script that reads "David R. Williams".

David R. Williams  
Executive Director  
Bay Area Clean Water Agencies

cc: BACWA Board  
Amanda Roa, BACWA Permits Committee Chair

## Sherry Hull

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**From:** Sherry Hull  
**Sent:** Sunday, March 13, 2016 8:33 PM  
**To:** Sherry Hull  
**Subject:** Administration of Prop 84 grant

**From:** Sherry Hull  
**Sent:** Tuesday, March 8, 2016 4:57 PM  
**To:** Gilbert-Snyder, Paul  
**Cc:** Dave Williams  
**Subject:** RE: Prop 84 grant round 1 - admin

Thanks Paul, for the info on Prop 50 and Avila.

The original amount on the Avila Prop 84 agreement was \$50,000 and it began 12/13/12. It was amended in August, 2013 to increase it to \$100,000. Their last invoice was for July-November, 2015. So from December, 2012 through November, 2015 they were paid \$91,407.47.

Let me know if you need anything else.

Sherry

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**From:** Gilbert-Snyder, Paul [<mailto:pgilbert@ebmud.com>]  
**Sent:** Tuesday, March 8, 2016 4:44 PM  
**To:** Sherry Hull <[shull@bacwa.org](mailto:shull@bacwa.org)>  
**Cc:** Dave Williams <[dwilliams@bacwa.org](mailto:dwilliams@bacwa.org)>  
**Subject:** RE: Prop 84 grant round 1 - admin

Thanks Sherry –

The Prop 50 agreement is closed (we can't bill any more to DWR) and I've told Avila not to do any more work on that – so you shouldn't see any more invoices against that PO. I'm still doing work to close out that grant, but it's not reimbursable and since it was EBMUD's two projects that delayed the closure of the grant I think it's appropriate for EBMUD to absorb these closeout costs. After we get the final Prop 50 payments from DWR, including retention, we'll need to spend some time making sure all the remaining funds get disbursed to the appropriate agencies (relatively small amounts of admin costs that were reimbursed).

Regarding Prop 84 and Avila's PO - the current balance you referred to, \$8,592.53, is what remains on their Prop 84 PO? What was the initial amount of that PO? I'm pretty certain ABAG can do the work for less than Avila, so that's one reason I'm willing to cut Avila off sooner rather than later. ABAG will be doing more than just Avila's work – they'll be doing what I'm doing and what Avila was doing.

Paul

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**From:** Sherry Hull [<mailto:shull@bacwa.org>]  
**Sent:** Tuesday, March 08, 2016 4:30 PM

**To:** Gilbert-Snyder, Paul; Dave Williams  
**Subject:** RE: Prop 84 grant round 1 - admin

FYI: The PO and Agreement with Avila for Prop 84 expires 10/31/16 so it already runs into FY17. The current balance is \$8,592.53.

The Prop 50 Avila PO and Agreement expire 6/30/16 at the end of FY16.

Sherry

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**From:** Gilbert-Snyder, Paul [<mailto:pgilbert@ebmud.com>]  
**Sent:** Tuesday, March 8, 2016 4:16 PM  
**To:** Dave Williams <[dwilliams@bacwa.org](mailto:dwilliams@bacwa.org)>  
**Cc:** Sherry Hull <[shull@bacwa.org](mailto:shull@bacwa.org)>  
**Subject:** RE: Prop 84 grant round 1 - admin

Ok – what information will you need from me for that agenda item, and when will you need it? I can prepare a table showing the original budget and the expenditures to date, as well as a proposed revised budget.

As for timing, there's no deadline, but the sooner the better (I don't see any reason to delay... and the earlier we can cut out Avila, the better).

I'll check with ABAG to see if they think the \$100,000 would be enough to give them a good running start.

I'm available on the 18<sup>th</sup> if you'd like me to attend the meeting.

Paul

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**From:** Dave Williams [<mailto:dwilliams@bacwa.org>]  
**Sent:** Tuesday, March 08, 2016 3:57 PM  
**To:** Gilbert-Snyder, Paul  
**Cc:** Sherry Hull  
**Subject:** RE: Prop 84 grant round 1 - admin

It sounds reasonable to me. I will put it on the BACW Aboard agenda for discussion at our March 18<sup>th</sup> meeting. When would you envision that a decision will be needed from BACWA?

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

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**From:** Gilbert-Snyder, Paul [<mailto:pgilbert@ebmud.com>]  
**Sent:** Tuesday, March 8, 2016 2:58 PM  
**To:** Dave Williams  
**Cc:** Sherry Hull  
**Subject:** Prop 84 grant round 1 - admin

Hi Dave –

When Brian set up the original budget for Prop 84 admin costs (Proj 32 - \$640,000 grant), he allotted \$400,000 for BACWA expenditures and \$240,000 for EBMUD project management costs. As of December 31, 2015, EBMUD costs are \$301,273.07, and BACWA's costs are \$131,779.14, for a total of \$433,052.21. There is a remaining grant amount of a little more than \$200,000.

The original agreement between BACWA and EBMUD capped EBMUD services at \$240,000 and stated "If the monetary value of the EBMUD services exceeds \$240,000, EBMUD may elect to continue to provide project management services on a non-reimbursable basis or decline to do so and refer the matter to the Oversight and Coordination Committee (the "OCC") (see Paragraph 63, below) to determine the appropriate manner by which the costs of such additional project management services shall be collectively paid by the Participating Agencies."

I have discussed this with Brian and he doesn't recall any specific reasoning for the \$240,000 cap – but rather that it was based on the estimated budget. Based on costs to date, I do not believe the BACWA costs will come close to the \$400,000 originally estimated. The \$400,000 included \$200,000 for consultant costs, and to date that has been just under \$100,000. It also included \$30,000 for BACWA staff and \$40,000 for BACWA accounting – actual costs to date for those two categories combined has been less than \$5,000 (leaving a balance of over \$65,000).

I'd like to suggest that BACWA, after consulting with the Oversight and Coordination Committee, establish an agreement with ABAG to administer the remainder of the round 1 grant. Most of the remaining active projects are ABAG/SFEP projects, so it makes sense for them to take over admin at this point. The 8 conservation projects under Solano County management are almost complete, and there is one Coastal Conservancy Project still open – all the remaining open projects are ABAG/SFEP projects. ABAG has the expertise and the processes in place (they are already administering rounds 2 & 3), so they could also take responsibility for compiling and submitting the quarterly reports – a task that is currently being completed by Avila Consultants.

In summary, I believe the most cost effective approach would be for ABAG to do the work that EBMUD and Avila are currently doing. There is easily \$100,000 available from the original budget (\$200,000 set aside for consultant, of which only \$100,000 has been spent). That \$100,000 could be redirected to ABAG. There will probably be more funds as well, but the initial agreement with ABAG could direct \$100,000 to ABAG for these services and we can see where it goes as the grant winds down.

Since EBMUD has maxed out its original budget, we need to propose something to the OCC. If this concept sounds good to you, we can discuss with ABAG and then convene a call of the OCC (consisting of a representative from each of the participating agencies). I have already floated the idea with Caitlin Sweeney (ABAG/SFEP) and she thought ABAG would be receptive to the idea.

Let me know what you think.

Paul

*Paul Gilbert-Snyder, PE  
East Bay Municipal Utility District  
Water & Natural Resources  
375 Eleventh Street, MS 902  
Oakland, CA 94607-4240  
510-287-0432*

**Committee Request for Board Action: None**

**13 attendees representing 7 member agencies**

**Regulatory Updates**

CH2MHill provided the [regulatory update presentation](#). Key issues are below:

- The Bay Area Air Quality Management District (BAAQMD) is going ahead with their Climate Action Strategy and plans to release a document for public comment in June or July 2016. The Strategy will include potential rules, control measures and other strategies BAAQMD can use to reduce greenhouse gas (GHG) emissions in the Bay Area. The AIR committee plans to comment on the draft when released. The committee's concerns/comments include the following:
  - Can BAAQMD establish a BACT limit for GHGs when they are not regulated pollutants?
  - BAAQMD seems to be moving forward with NOx limits for biogas flares. For example, EBMUD recently received an Authority-To-Construct permit for new biogas flares with such limits.
  - CASA is working with CARB to understand and quantify N<sub>2</sub>O emissions at POTWs. It is expected that these efforts are also being coordinated with BAAQMD to inform future decisions regarding POTWs' GHG inventories.
- Proposed revisions to Regulation 2, Rule 5, implement the State's revised Health Risk Assessment (HRA) and Risk Management Guidelines for Stationary Sources, incorporate new and revised toxic air contaminant emission rate trigger levels for HRA requirements, and simplify TAC emission calculation procedures for modified sources. The new trigger levels pertain only to the New Source Review regulations, which are for new or modified sources of toxics. The BAAQMD's approach for revising health risk assessments for existing facilities has not yet been disclosed.

**Potential Topics for spring meeting with BAAQMD staff**

- What are BAAQMD's plans to update health risk assessments for existing facilities, in accordance with the latest statewide guidance?
- What are BAAQMD's primary concerns with regards to H<sub>2</sub>S? For example, are they more concerned with sulfur emissions for a combustion stack or from a fugitive source?
- With regards to the Clean Air Plan/Regional Climate Protection strategy:
  - How will BAAQMD prioritize control measures for criteria pollutants vs. control measures for GHG?
  - How will BAAQMD handle conflicting control measures?
  - Can BAAQMD provide any details on implementation of suggested control measures?

**Committee Business:**

The committee is seeking feedback from members on whether to continue the 3-year integration into a BACWA sub-committee, fully integrate into a BACWA sub-committee beginning in FY 17, or return to an independent committee. The meeting attendees discussed the benefits and disadvantages of the possible outcomes, including a consensus that 4 meetings per year was sufficient unless a new regulatory issue of particular importance arises. To facilitate a final decision, a survey will be circulated to AIR Committee members, and will include a summary of what the committee might look like and/or how the committee will function under each option. Since the CH2M-Hill contract for technical support ends on June 30, 2016, Committee Co-Chairs will work with BACWA Staff during the 2<sup>nd</sup> Quarter to prepare an RFP for technical support.

**Next Meeting:** The next meeting will be with the Air District in the May/June timeframe. It has not yet been scheduled.

**Committee Budget:** \$31,700 of \$52,000 spent as of March 4, 2016.





# BAY AREA POLLUTION PREVENTION GROUP

A Committee of Bay Area Clean Water Agencies

Please join us for the next BAPPG meeting!

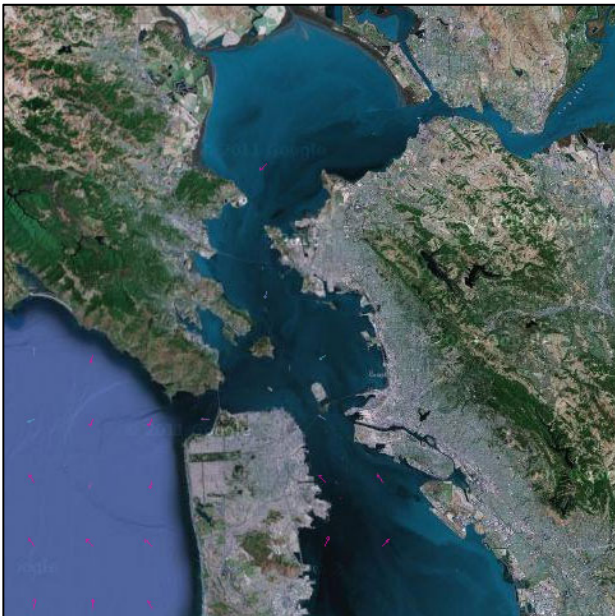
April 6, 2016  
10 am – Noon

Regional Board Office\*  
1515 Clay Street, Room 2  
Oakland, CA

*Featuring presentations by:*

Dr. Becky Sutton with SFEI on new wastewater pesticides monitoring data and the upcoming meeting on CEC monitoring in San Francisco Bay.

Dr. Kelly Moran and Stephanie Hughes on pesticide activities over the last year and opportunities for further impact with pesticide registration agencies.



\*This location is also accessible via Oakland City Center BART station. Please allow extra time to go through security.

**Committee Request for Board Action: None****22 attendees****Managing sewer lateral SSOs**

Vince Falzon of Burlingame gave a [presentation](#) on managing sewer lateral SSOs. The presentation covered the following topics:

- Burlingame System Overview
- Water & Sewer Rates
- Burlingame Sewer Lateral Ordinance
- Lateral Program History
- Customer Service & Information
- Private Owner Responsibilities
- Laterals Maintenance
- Lateral Program History
- Equipment & Cleaning Methods
- Poor Pipe Conditions & Solutions
- Safety

**Metrics to define well performing collection system**

The Regional Water Board is considering offering agencies penalties as protection against third party lawsuits for SSOs, if they can demonstrate that they are “well performing” collection systems. They do not have the staff resources to enforce upon each agency that has an SSO, and need help in having the necessary information to develop an enforcement action in the 60 days after an NOI is issued to a “well performing” collection system by a third party.

A Collections Systems Committee subgroup has been convened to strategize about how we should approach this request, define a process to follow, and engage the Regional Water Board to ensure that the group understands what they are really looking for.

**Challenges:**

- Will it work? There was a recent case where a court found that MMPs did not constitute a bar to citizen suits when the enforcement action is much less than the maximum. The details of this case and the community’s violation were different than for SSOs, since it pertained to the discharge of an industrial chemical over several months. This case had many issues and doesn’t clearly hold that MMPs are not sufficient, but there is a concern that a court may view it that way.
- Would penalties apply to each SSO that an agency has experienced since the previous litigation or would it depend on SSO volume?
- How to define metrics that are relevant for all the different sizes, ages, etc. of collection systems in the Region.
- If we do develop metrics, how will they be implemented?

**Private Sewer Lateral Ordinance Survey**

Several agencies have adopted ordinances or other formal policies governing private sewer lateral inspection and repair. The Regional Water Board has expressed interest in finding out how many agencies have ordinances requiring lateral inspection and repair, and in the past has looked favorably on agencies with such ordinances when considering enforcement. Agencies that are considering developing such an ordinance would benefit from information about the details of how others in the Region implement these ordinances and policies. The Collection System Committee has developed a survey to gather information about private sewer lateral ordinances, and will be collecting responses through April 1. So far, 24 agencies have responded to the survey.

**News Items**

- Agencies have so far not had major problems related to winter storms this year.
- Oro Loma will be audited by Region 2 in April. They will distribute the 4-page audit questionnaire to the committee.
- San Mateo reported having problems with plumbing companies damaging their system while doing lateral repair

- Burlingame reported an SSO that was due to contractors misconfiguring the storm drain relative to the sewer main while performing repairs.

**Announcements of Upcoming Training, Conferences, and Meetings**

- CWEA SF Bay Section training holds ongoing collection systems [meetings and training events](#). The next meeting was to be held on March 23.
- Maintenance Superintendents Association Meeting - Sept 5-9, 2016 at the Berkeley Marina. They also have a monthly [workshop schedule](#).

**Next Collection System Committee Meeting**

Our next committee meeting will be held on May 12, at 1:30 PM, at the Boy Scouts facility in San Leandro.

# Laboratory Committee – Report to BACWA Board

Laboratory committee meeting on: 09 March 2016

Executive Board Meeting Date: March 2016

Committee Chair : Nirmela Arsem

## **Committee Request for Board Action:** None

### **Environmental Laboratory Accreditation Program (ELAP) update :**

- The new by-laws governing Environmental Laboratory Technical Advisory Committee (ELTAC) members were appointed by Department of Drinking Water. Mindy Boele of Vacaville and Mark Koekemoer of Napa Sanitation District are two of the appointed members closely affiliated with BACWA laboratory committee.
- A workshop was organized by CWEA to understand the implications of TNI standards for laboratories of all sizes. The 2003 TNI standards are available to the public at no cost; the 2009 standard are available for purchase only. The workshop focused on the 528 clauses required in the QA manual. While the standards are good laboratory practices, they are heavy on documentation, and therefore time consuming. The general guideline is that the transition from ELAP to TNI standards would take up to 18 months with one full time employee focused on implementing the quality systems.
- The first ELAP sponsored TNI standards seminar will take place April 5

### **CWEA Laboratory Professional Examination Series:**

- Vivien Malig, Certification manager for CWEA gave an overview of the process CWEA embarked on to re-validate laboratory examination series. The process took 18 months to complete. KSAs for each grade was reviewed and updated. Along with new series of questions there are also study guides available. The exams based on the revalidation will take place in April 2016. The next validation is scheduled for 2023.

### **Audits:**

- Palo Alto laboratory was audited on January 19<sup>th</sup> by ELAP auditor Caron Lee. The following are some of the recommendations/findings:
  - The auditor watched analysis from beginning to end.
  - Required the laboratory verifying that there is no auto-fluorescence associated with enzyme substrate for Coliloert and other enzyme substrate based microbiology methods; this was in addition to testing the sampling containers for auto-fluorescence.
  - Required the laboratory verify dechlorination capacity of the sampling containers with dechlorinating agents.
  - Auditor recommended MDL studies to be conducted over at least three days along with method blanks.
  - For solids analysis evaporating and drying cycles need to be documented.
  - For turbidity gel standard degradation check is required.
  - For pH determination, pH meter must be calibrated just before measuring.
- City of San Jose laboratory is schedule to be audited by ELAP in March.

### **General discussions:**

- City of San Leandro is recruiting for laboratory interns.
- The popular press articles on chlorine resistant superbugs were discussed.

### **Upcoming meetings, conferences, etc.:**

- NorCal SETAC annual meeting April 27-28, Oakland, 1301 Clay St.
- AWWA Cal-Nevada conference: March 21-24, Sacramento
- CWEA annual conference, April 26-29, Santa Clara Convention Center

**Next BACWA Laboratory Committee Meeting:** April 13

# Operations and Maintenance Infoshare Group Report to BACWA Board

Committee Meeting on: 2/24/16  
Executive Board Meeting Date: 3/18/16  
Committee Chair: David Stoops

Committee Request for Board Action: None

**18 attendees representing 7 member agencies**

## Highlights of New Items Discussed and Action Items

### Technology Use Round Table Discussion

The topic for the committee's discussion was how agencies are leveraging the use of technology to increase efficiency, reduce paper waste, and/or provide easier access to reference material. Some advantages and new uses for technology are below:

- Staff can simultaneously track flows from different sources via IP protocol.
- Staff can untether from their desktop computers, and carry tablets to conduct mobile device monitoring.
- Agencies use wikis to keep SOPs up to date, and make changes while maintaining version control.
- Staff use web-based bulletin board to share information more efficiently.
- Agencies use wireless cellular alarms circumvents failure of wired phone system during storms.
- Agencies can track each piece of equipment via a number that is reflected in documents and drawings
- Better technology allows operators to remotely assess situation at facility through VPN and reduces the number of times they need to come in to deal with possible emergencies.

Challenges:

- A single company is buying up many SCADA systems, and may discontinue support to some of their acquired properties.
- The success of these mobile solutions is dependent on the wifi strength throughout the facilities.

### Ecotone Tour

The meeting was followed by a tour of Oro Loma's Ecotone pilot project. Plan effluent will be sent to support the marshland, then recirculated back to the headworks.



Picture from tour of Ecotone marshland with new plantings.

### Committee Business

The committee agreed to go to Google Groups as an email distribution list. An online survey will be distributed to prioritize future meeting topics.

**Next Meeting: May 25, 2016, location TBD**



**Committee Request for Board Action: None**

**19 attendees, representing 12 member agencies**

**Adoption of Permits/Permit Amendments:**

**April - Calistoga** – Calistoga's permit has been pushed from March until April because the Water Board is recalculating mixing zones and the resultant dilution credits.

**Petaluma** – Petaluma received an Administrative Draft of their permit which included reduced BOD and TSS limits, similar to the Napa River dischargers. The rationale given was that Petaluma has advanced secondary treatment, and this reflects a performance-based approach to setting limits. However, the Tentative Order (released in February) did not reflect these reduced limits. They are happy with their TO and only have a few minor comments.

**May - Mt. View** – The TO contains requirements for extra nutrients monitoring in their marshlands due to concerns about algae and odors. It also requires enhanced reporting via a Marsh Management Plan.

**Monitoring Reductions**

The Regional Water Board plans to adopt the Alternative Monitoring TO at the March 9 Board meeting as an uncontested item. In their response to comments, they noted the following:

- In response to BACWA's comment, an agency's surcharge will be held steady for their five-year opt-in period
- The date to opt in will be September 30, consistent with the RMP's fee deadline. This means that agencies that choose to opt in will receive 6 months of reduced monitoring credit, beginning April 1, before needing to pay the surcharge.
- Agencies with more frequent monitoring requirements due to effluent limits will not be given credit for current frequencies, since the surcharge is based on effluent characterization monitoring, not compliance monitoring
- Agencies should use code "9" in their DMR reporting to indicate they have been waived from the monitoring requirement. CIWQS does not track required monitoring frequencies.
- Constituents that are required to be monitored twice per year, i.e. once between January and June, can be waived for that monitoring period in 2016

There was a question about whether any agencies had taken advantage of the Attachment H allowance to reduce pretreatment monitoring if the results had been mostly ND for eight years. Benicia, Burlingame and Delta Diablo all have done so.

**Microplastics and CECs**

- *Update from microplastics workgroup* – The NOAA method does not fully digest natural fibers such as toilet paper. They are looking to develop a more robust protocol.
- The State Water Board has developed a pilot monitoring plan for CECs that is based on the 2012 recommendations from the SCCWRP Expert Panel. The cost for these studies is more than \$400K over two years for the San Francisco Bay Region. State Board staff did not consult the RMP CECs program when developing the pilot plan. BACWA and BASMAA submitted a [letter](#) to the State Water Board insisting that they work within the framework of the RMP CECs program.
- *RMP CECs Meeting* – BACWA members are invited to participate in the RMP CECs meeting on April 15 to help guide the direction of future research. It was noted that this is the same day as the April Executive Board meeting.

**Toxicity**

LACSD was given chronic toxicity limits via the TST in their permits. They get no dilution credit. Seven out of eight of their facilities are now in violation for toxicity. They suspect there is a problem with the test since they sent split samples to different labs and got different results, but there is no recourse allowed by their Regional Water Board. For example, they are not allowed to use the five-concentration test to invalidate test results.

## Nutrients

- *SAG Meeting* - On February 9, the Regional Water Board hosted a [Stakeholder Advisory Group](#) meeting to present the findings of the report entitled ***Scientific Basis to Assess the Effects of Nutrients on San Francisco Bay Beneficial Uses***. This report proposes an Assessment Framework for the Bay which could serve as a decision tool for determining whether the Bay is impaired due to nutrients. [Appendix C](#) of the report contains a manuscript that the authors intend to submit to a peer reviewed journal for publication. The Assessment Framework was developed outside of the Nutrient Management Strategy governance structure, and the manuscript contains policy statements about the future of nutrient objectives in the San Francisco Bay. BACWA has submitted a [comment letter](#) to the Regional Water Board and the manuscript's authors highlighting data gaps, and requesting that the manuscript's publication be delayed until it is peer reviewed as part of the Nutrient Management Strategy. BACWA also requested that it be involved in future "test driving" of the Assessment Framework's assumptions.
- *Optimization/Upgrade Studies* – The CMG is working with the consultant on the assumptions used and the structure of the individual facility reports. They are also performing sensitivity analyses on their assumptions to ensure that the outcome won't be wildly different depending on the interest rate used, flow assumptions, etc. One issue that has come up is that in some cases when reducing nitrogen, phosphorus increases. The cost associated with then reducing the phosphorus makes the project extremely expensive. There was a discussion about decoupling nitrogen and phosphorus reductions for these analyses.
- *Recycled Water* – The consulting team will be requesting information from agencies about their 2015 recycled water use, as well as plans to increase recycled water use in the future. The information will be used to estimate nutrient loads removed through consumptive use. Future recycled water plans will be categorized as either "budgeted", "master planned", or "conceptual". The Recycled Water Committee is working on refining the data request so that it can be used to satisfy the nutrient effort, the DWR request for information, as well as Urban Water Management Plans.
- *Nutrient Strategy Team* – The team that negotiated the Nutrient Watershed Permit is being reconvened to begin strategizing for the Watershed Permit reissuance.

## Announcements

- *Private Sewer Lateral Repair/Replacement Ordinances* - Respond to sewer lateral ordinance [survey](#)
- *Third Party Lawsuits* - Mariposa CWA case may limit use of MMPs as defense against third party lawsuits. The Collection Systems Committee is working with the Regional Water Board to explore ways to protect "well-performing" collection systems against third party lawsuits, and the Mariposa case calls this effort into question.
- *CASA Regulatory Workgroup meeting in San Leandro 3/10* – CASA Leadership will be meeting with EPA and will set up regular meetings between Workgroups and EPA when the Workgroup meets in San Leandro twice a year
- *North Bay Selenium TMDL* – Set for adoption March 15

## Report out from the 2/19 Executive Board meeting, and 2/29 Joint meeting with the Regional Water Board

- Annual Members Meeting – Notes from Regulator Priorities have been distributed ([Notes](#))
- 2/19 Executive Board Meeting (Agenda) – Most items covered above. BACWA will participate in the Bay Area Region Reliability taskforce to give the wastewater community's input into recycled water and conservation planning.
- 2/29 Joint meeting with Regional Water Board ([Agenda](#)) – Most items discussed above. Also, BACWA is working with SFEI on a possible Prop 1 grant project related to recycled water concentrate management.

**Next BACWA Permits Committee Meeting:** Tuesday, April 12, 1-3pm, at EBMUD Plant Library. The committee chair will distribute a poll on alternative meeting venues and conference call-only meetings to plan the future of permits committee meetings.

**Committee Request for Board Action: None**

**Detailed notes from meetings are posted [online](#).**

**13 attendees (including 4 on phone) representing 9 member agencies**

**Surface Water Augmentation Regulation**

DWR is in the process of developing regulations allowing surface water augmentation (SWA) with recycled water for potable use. However, the current draft will require reservoirs to have a minimum residence time of six months, which can't be met by a number of reservoirs in the Bay Area. In the regulations for groundwater recharge, there is a clause allowing consideration of equivalent level of public health protection where there is not sufficient retention time, which would be a strategy to use for SWA as well. WaterReuse put together a White Paper on the alternatives clause that could be used for SWA.

**Comprehensive Conservation Management Plan (CCMP)**

At the January meeting, Darcy Luce of the San Francisco Estuary Partnership (SFEP) provided a presentation on the CCMP. Before the March meeting, they delivered an updated draft of the recycled actions from the CCMP to BACWA, now with the three recycled water actions incorporated into one. They responded to BACWA's previous key comments about working with stakeholders, and recognizing other important uses for effluent such as support of marsh habitat. For the next draft, the committee will make the following comments to SFEP:

- The CCMP includes specific reports with deadlines, but there is no ownership assigned for these tasks, which will be key to the success of the Plan.
- Recycled water goals should be divided into use for potable offsets, and beneficial uses such as habitat and sea level rise.
- Much of the coordination that the CCMP is proposing is already happening and should be recognized in the document.

The schedule for releasing the report is spring 2016, and so SFEP will need comments within the month.

**Truck Fill Stations**

Recycled water residential fill station projects are gearing up for 2016. DSRSD will start up their residential fill station program this year again with two sites. They will be monitoring a small group of large users. Palo Alto has contractors who want to perform a service to collect and apply recycled water to residences. There was a question of offsite storage, and whether agencies could permit it.

The committee discussed providing training for recycled water users. Agencies are looking at broadening their message to a wider group of users to make sure we have a consistent message in the Bay Area. There was discussion about using the same materials and running local training sessions.

**Recycled Water Survey**

BACWA will be updating its 2011 Bay Area Recycled Water Survey as part of the work associated with the Nutrient Watershed Permit. The approach includes using the information DWR is collecting as part of the Urban Water Management Plans updates, and that agencies report via 96-011, and adding projections data. The State Water Board is also requesting recycled water data. The committee's goal is to report standard information to each entity requesting the data. Petaluma is currently test driving the recycled water information request to ensure it is feasible.



**State General Order for Recycled Water Use**

The State Water Board has proposed a [Water Reclamation Requirements for Recycled Water Use](#) (State General Order) that will replace [2014-0090-DWQ General Waste Discharge Requirements for Recycled Water Use](#). Some agencies in our Region have stated that they do not want to seek coverage under the 2014 State General Order, since its requirements are more onerous than Region 2's recycled water General Permit 96-011. The Committee convened a workgroup to develop a comment letter on the proposed General Order. In the [draft comment letter](#), BACWA recommends that Finding 34 be revised to state "Discharges covered under other existing orders (water reclamation requirements, master reclamation permits, general or individual waste discharge requirements, or waivers of waste discharge requirements) may: (i) operate under that authority for existing, expanded and new coverage under existing orders or; (ii) apply for coverage under this General Order."

**Next Meeting** – May 4, 2016 from 10:00 am to 12:00 pm, 2nd Floor Small Training Room at EBMUD Headquarters.



## **Executive Director's March 2016 Report**

### **NUTRIENTS:**

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

- Attended and participated in conference calls as well as the 17<sup>th</sup> meeting of the Steering Committee's Planning Subcommittee and provided BACWA in-kind services by serving as scribe. Following the meeting prepared detailed meeting minutes and summary of action items.
- Chaired the monthly CMG meetings with the main topic being the review of the progress and decisions affecting the cost estimates on the Optimization/Upgrade studies.
- Worked with the membership to prepare and submit a comment letter on the Assessment Framework.
- Coordinated with the OP/Upgrade consulting team on administrative issues.
- Attended the NMS Steering Committee Meeting #8 and provided note taking services. Prepared a summary of the meeting with action items and distributed to the Facilitator for dissemination to the Steering Committee members.
- Prepared and distributed a Request for Proposal seeking technical assistance in reviewing documents produced as part of the Nutrient Management Strategy.
- Arranged for the first meeting of the Nutrient Strategy Team to discuss the BACWA potential positions on the reissuance of the watershed permit.

### **BACWA BOARD MEETING AND CONFERENCES:**

- Worked with staff in preparing for the March BACWA Board meeting including reviewing the agenda with the Board Chair.
- Prepared for and attended the BACWA monthly Board meeting in February.
- Organized and attended the bi-monthly Joint Meeting with the Water Board in February.
- Continuing to track all action items to completion.

### **ASC/SFEI:**

- As a member of the Executive Committee, coordinated with SFEI Executive Director on Board activities.

### **CASA:**

- Attended the annual Washington DC conference and received update on national legislation and regulations as well as meet with the Bay Area Congressional delegation in support of wastewater issues (not funded by BACWA).



**FINANCE:**

- Reviewed the monthly BACWA financial reports with the AED.
- Continued coordinating with the AED in tracking the revenues coming in from the BACWA FY 16 member invoices.
- Worked with the AED to prepare the BACWA FY 17 budget.
- Presented the draft FY 17 Budget and 5 Yr. Plan at the monthly BACWA Board meeting.
- Prepared and distributed a Request for Proposal for a new contract for the Regulatory Program Manager.

**BAPPG COMMITTEE:**

- Worked with BAPPG and BASMAA to prepare and submit a comment letter on the new CEC State-wide Monitoring Pilot Study.

**COLLECTION SYSTEM COMMITTEE:**

- Attended the CSC meeting and engaged in the discussion on the opportunity to establish an enforcement program that could be implemented when sixty days notices are received for SSOs.

**AIR COMMITTEE:**

- Coordinated with the AIR Committee leadership on the progress for the AIR Committee becoming a full-fledged Committee of BACWA...

**RECYCLED WATER COMMITTEE:**

- Responded to the request by the Bay Area Regional Reliability group to name a BACWA representative to their advisory Task Force.
- Attended the monthly meeting of the Recycled Water Committee.
- Worked with the membership to prepare and submit a comment letter on the new SWRCB General Order for Recycled Water

**LAB COMMITTEE:**

- Coordinated with the Lab Committee Chair on progress on developing protocols for testing wastewater effluent for microplastics.

**ADMINISTRATION:**

- Held the monthly BACWA staff meeting to coordinate and prioritize activities.
- Signed off on invoices, reviewed correspondence, prepared for upcoming Board meeting, responded to inquiries on BACWA efforts, oversaw updating of web page and provided general direction to BACWA staff.
- Worked with the RPM in the preparation of the monthly BACWA bulletin.
- Coordinated with the AED to plan activities and review duties, schedules, and priorities.



**BACWA**  
**BAY AREA**  
**CLEAN WATER**  
**AGENCIES**

**Executive Director**  
**March 2016 Report**

-Developed and responded to numerous emails and phone calls as part of the conduct of BACWA business on a day-to-day basis.

**MISCELLANEOUS MEETINGS/CALLS:**

- Paul Gilbert Snyder on Prop 50 and Prop 84
- BACWA Chair and Committee Chairs on items that arose during the month
- Water Board staff on coordinating the nutrient activities
- other misc. calls and inquiries regarding BACWA activities
- participated in coordination calls with the HDR project manager
- responded to Board members requests for information



## BACWA ACTION ITEMS

Number	Subject	Task	Deadline	Status
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### Action Items from February 19, 2016 BACWA Executive Board Meeting

2016.2-55	FWQC updates	provide information in the Bulletin (RPM)	2/29/2016	completed
2016.2-54	FWQC email list	add Lori S. from CCCSD to list (RPM)	2/29/2016	completed
2016.2-53	Risk Reduction	add presentation from non-profit to future agenda (RPM/AED) AED - Added to July, 2016 on BodCal	10/1/2016	completed
2016.2-52	Nutrient Strategy Team	add Lori S. from CCCSD to team (ED)	2/29/2016	completed
2016.2-51	CWEA Conference	BACWA asked to make presentation on nutrients, ED to provide Jim E. presentation	3/1/2016	completed
2016.2-50	BAAQMD Fall Workshop	Ask presenters to share papers with BACWA membership for review (ED)	7/1/2016	completed
2016.2-49	Prop 1 Proposal	Contact WB about timing of RFP (RPM)	2/29/2016	completed
2016.2-48	SWRCB Recycled Water General Order	Submit Comment Letter (ED/AED)	2/22/2016	completed
2016.2-47	AWT Cetification Committee	Add BACWA Rep Maura Bonnarens of EBMUD to Succession & Agenda docs (AED)	2/29/2016	completed
2016.2-46	Bay Area Regional Reliability Project	Reply with Mike C. as rep and Roger B. as alternate (ED), Add BACWA Reps to Succession & Agenda docs (AED)	2/29/2016	completed
2016.2-45	LIFT	Add Information on LIFT to BACWA Bulletin (RPM)	2/29/2016	completed
2016.2-44	Technical Review of Nutrient Docs	Update RFP and send to Board for final comments before distribution (ED)	2/26/2016	completed
2016.2-43	Assessment Framework	Request raw data from WB (ED)	2/26/2016	completed
2016.2-42	SAG	Draft Comment letter on AF Process and review with Board before sending (ED)	2/24/2016	completed
2016.2-41	Water Board Jt Mtg Agenda	Add Reg'l Planning, (RPM)	2/22/2016	completed
2016.2-40	Nutrient Opt/Upgrade Data	Plan workshop once more cost analyses have been completed (ED/RPM/AED)	4/30/2016	completed

### Action Items Remaining from Previous BACWA Executive Board Meetings

2015.12-36	Microplastics	Develop Proposal for Consultant Assistance (Nirmela Arsem)	3/31/2016	pending

FY 16: 54 of 55 ction Items completed.  
FY 15: 90 of 90 Action Items completed.  
FY 14: 128 of 128 Action Items completed.  
FY 13: 67 of 67 Action Items completed.



DATE	AGENDA
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**April 2016 to March 2017**

<b>4/15/2016</b>	<b><u>Consent</u></b>
<b>Monthly Board Mtg</b>	Previous Board Meeting Minutes (AED)
Items due: 4/10	Monthly Treasurer's Report (EBMUD Accounting)
Pagano; Connor; Horenstein;	
Ervin; Bailey	<b><u>Authorizations &amp; Approvals</u></b>
Williams; Fono; Hull	Approval: FY17 Budget
	<b><u>Other Business - POLICY/STRATEGIC</u></b>
	Discussion: WB Joint Meeting Debrief
	<b><u>Other Business - OPERATIONAL</u></b>
	Discussion: Succession Planning FY17
	<b><u>Reports</u></b>
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)

<b>5/?/2016</b>	
<b>Joint Meeting</b>	<b><u>Other Business: Discussions</u></b>
Items due: ?	
Pagano; Connor; Horenstein;	
Ervin; Bailey	
Williams; Fono	

<b>5/20/2016</b>	<b><u>Consent</u></b>
<b>Monthly Board Mtg</b>	Previous Board Meeting Minutes (AED)
Items due: 5/13	Monthly Treasurer's Report (EBMUD Accounting)
Pagano; Connor; Horenstein;	
Ervin; Bailey	<b><u>Authorizations &amp; Approvals</u></b>
Williams; Fono; Hull	Approvals: FY17 Agreements
	Approval: Succession Plan (Board Members, Chair, Committee Leaders)
	Approval: BACWA Reps to ASC/SFEI Governing Board
	<b><u>Other Business - POLICY/STRATEGIC</u></b>
	Discussion: Biannual Update on CWCCG (SDeslauriers)
	Discussion: Draft Agenda Joint Meeting with WB
	Discussion: Pesticides Update (Kelly Moran)
	<b><u>Other Business - OPERATIONAL</u></b>
	Request for updated Board Designee Letters for FY17
	Review Brown Act with Board

**Reports**

Committee Reports (Committee Chairs)  
Board Reports (Executive Board)  
ED Report (ED)  
RPM Report (RPM)

**6/?/16****Nutrient Optimization/Upgrade Workshop**

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono

Optimization/Upgrade Studies  
Early Actions

**6/17/2016 Consent****Monthly Board Mtg**

Items due: 6/10

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono; Hull

Previous Board Meeting Minutes (AED)  
Monthly Treasurer's Report (EBMUD Accounting)

**Authorizations & Approvals**

Approvals: FY17 Agreements

**Other Business - POLICY/STRATEGIC**

Discussion: HDR Quarterly Update on Optimization/ Upgrade studies  
Discussion: WB Joint Meeting Debrief

**Other Business - OPERATIONAL****Reports**

Committee Reports (Committee Chairs)  
Board Reports (Executive Board)  
ED Report (ED)  
RPM Report (RPM)

**7/?/16****BAAWMD Workshop**

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono

**7/?/2016****Joint Meeting**

Items due: ?

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono

**Other Business: Discussions**

Presentation: Risk Reduction

**7/15/2016 Consent****Monthly Board Mtg**

Items due: 7/8

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono; Hull

Previous Board Meeting Minutes (AED)  
Monthly Treasurer's Report (EBMUD Accounting)

**Authorizations & Approvals**

Approval: Annual Nutrient WS Payment  
Approval: FY16 Closeout & FY17 Amended Budget

Approvals: FY17 Agreements

**Other Business - POLICY/STRATEGIC**

Discussion: Draft Agenda Pardee Technical Seminar

Discussion: RMP Update (Phil Trowbridge)

Discussion: Draft Agenda Joint Meeting with WB

Discussion: Risk Reduction Update

**Other Business - OPERATIONAL**

**Reports**

Committee Reports (Committee Chairs)

Board Reports (Executive Board)

ED Report (ED)

RPM Report (RPM)

**8/19/2016 Consent**

**Monthly Board Mtg**

Items due: 8/12

Pagano; Connor; Horenstein;

Ervin; Bailey

Williams; Fono; Hull

Previous Board Meeting Minutes (AED)

Monthly Treasurer's Report (EBMUD Accounting)

Update on FY18 Invoicing

**Authorizations & Approvals**

Approval: Solano Comm College Agrmt - Fall 2016

**Other Business - POLICY/STRATEGIC**

Discussion: Draft Agenda Pardee Technical Seminar

Discussion: WB Joint Meeting Debrief

**Other Business - OPERATIONAL**

**Reports**

Committee Reports (Committee Chairs)

Board Reports (Executive Board)

ED Report (ED)

RPM Report (RPM)

**8/?/2016**

**Joint Meeting**

Items due: ?

Pagano; Connor; Horenstein;

Ervin; Bailey

Williams; Fono

**Other Business: Discussions**

**9/16/2016 Consent**

**Monthly Board Mtg**

Items due: 9/9

Pagano; Connor; Horenstein;

Ervin; Bailey

Williams; Fono; Hull

Previous Board Meeting Minutes (AED)

Monthly Treasurer's Report (EBMUD Accounting)

**Authorizations & Approvals**

**Other Business - POLICY/STRATEGIC**

Discussion: Draft Agenda Pardee Technical Seminar

Discussion: Annual Meeting Planning

**Other Business - OPERATIONAL**



**Reports**

Committee Reports (Committee Chairs)  
Board Reports (Executive Board)  
ED Report (ED)  
RPM Report (RPM)

**10/12-14/2016****Pardee Technical Seminar**

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono; Hull

**11/18/2016 Consent****Monthly Board Mtg**

Items due: 11/11

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono; Hull

Previous Board Meeting Minutes (AED)  
Monthly Treasurer's Report (EBMUD Accounting)  
FY16 Annual Report & Audited Financials

**Authorizations & Approvals****Other Business - POLICY/STRATEGIC**

Discussion: Pardee Debrief & Survey  
Discussion: Draft Agenda Joint Meeting with WB  
Discussion: Biannual Update on CWCCG (SDeslauriers)

**Other Business - OPERATIONAL**

Discussion: Annual Meeting Planning

**Reports**

Committee Reports (Committee Chairs)  
Board Reports (Executive Board)  
ED Report (ED)  
RPM Report (RPM)

**12/?/2016****Joint Meeting**

Items due: ?

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono

**Other Business: Discussions****12/16/2016 Consent****Monthly Board Mtg**

Items due: 12/9

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono; Hull

Previous Board Meeting Minutes (AED)  
Monthly Treasurer's Report (EBMUD Accounting)

**Authorizations & Approvals****Other Business - POLICY/STRATEGIC**

Discussion: HDR Quarterly Update on Optimization/ Upgrade studies  
Discussion: WB Joint Meeting Debrief

**Other Business - OPERATIONAL**

Discussion: FY18 Budget Planning Schedule  
Discussion: Annual Meeting Planning

**Reports**

Committee Reports (Committee Chairs)  
Board Reports (Executive Board)  
ED Report (ED)  
RPM Report (RPM)

**1/?/2017****Annual Members Mtg**

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono; Hull

**2/?/2017 Consent****Monthly Board Mtg**

Items due: 2/12/15

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono; Hull

Previous Board Meeting Minutes (AED)  
Monthly Treasurer's Report (EBMUD Accounting)

**Authorizations & Approvals**

Approval: Solano Comm College Agrmt - Spring 2016

**Other Business - POLICY/STRATEGIC**

Presentation: CPSC Update (Heidi Sanborn)

**Other Business - OPERATIONAL**

Discussion: FY2017 Budget Planning  
Discussion: Annual Meeting Debrief

**Announcements**

Pardee Seminar Dates

**Reports**

Committee Reports (Committee Chairs)  
Board Reports (Executive Board)  
ED Report (ED)  
RPM Report (RPM)

**3/?/2017****Monthly Board Mtg**

Items due: 3/?

Pagano; Connor; Horenstein;  
Ervin; Bailey  
Williams; Fono; Hull

**Consent**

Previous Board Meeting Minutes (AED)  
Monthly Treasurer's Report (EBMUD Accounting)

**Authorizations & Approvals****Other Business - POLICY/STRATEGIC**

Discussion: WB Joint Meeting Debrief  
Discussion: HDR Quarterly Update on Optimization/ Upgrade studies  
Discussion: Draft Agenda April Water Board Jt Mtg  
Presentation: CPSC Update (Heidi Sanborn)

**Other Business - OPERATIONAL**

Discussion: Second Draft of FY17 Budget

**Announcements**

Conflict of Interest Filing Deadline - April 1st

**Reports**

Committee Reports (Committee Chairs)  
Board Reports (Executive Board)

***CURRENTLY UNSCHEDULED AND SIGNIFICANT***

- \* Aug 2017: Discussion: FY18 Arlene Navarrett Award
- \* BACWA Membership Engagement Opportunities
- \* Tech Seminar/Workshop: CCCSD Cogen explosion need to schedule
- \* SFPUC force main leak and repair, need to schedule
- \* Chlorine Residual Analyzer Investigation
- \* Suggestions for Monthly Meeting Guest Speakers/Presenters: i.e. Jim McGrath, State Water Board
- \* CEC's (Kelly Moran)



## Regulatory Program Manager's Report to the Board

**February 22 – March 15, 2016**

Prepared for the March 18, 2016 Executive Board Meeting

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**NUTRIENT SUPPORT:** Incorporated member comments into the BACWA comment letter on the Assessment Framework Report and manuscript. Participated in CMG conference call. Attended Nutrient Strategy Team kickoff meeting. Updated schedule of activities for Optimization/Upgrade Studies. Worked with Recycled Water Committee on recycled water information request for the Optimization/Upgrade Studies.

**BACWA BULLETIN:** Drafted and distributed March BACWA Bulletin.

**ALTERNATIVE MONITORING TENTATIVE ORDER:** Communicated with Regional Water Board Staff about the Monitoring Program implementation, and passed information to Permits Committee. Spoke at Regional Water Board adoption hearing in favor of the Alternate Monitoring Program.

**CECs:** Participated in CASA conference call to discuss how to deal with the State Pilot CECs Monitoring Plan. Collaborated with BASMAA in drafting a letter insisting that the State Water Board work within the framework of the RMP CECs program to do CECs work in the San Francisco Bay Region. Forwarded Palo Alto's Pollution Prevention Report to Regional Water Board staff to respond to their request for CEC management actions.

**CASA REGULATORY WORKGROUP:** Attended 3/10 meeting. EPA staff including Nancy Wu and Dave Smith will be attending some meetings in the future on a regular basis. A key discussion at the meeting was about how to ensure stakeholder involvement in SCCWRP work that informs policy. The CASA representative gave an update about the White Paper on Citizen Lawsuits that was produced by UC Berkeley.

**PROPOSITION 1 PROPOSAL:** Scheduled kickoff conference call with BACWA Workgroup for 3/22.

**BACWA INFORMATION SHARING TOOLS:** Contacted website provider about embedding Google Groups in BACWA webpages.

### **COMMITTEE SUPPORT:**

**AIR –** Attended meeting and drafted Board Report.

**Collections –** Attended committee meeting, and drafted agenda and Board report for committee meeting. Attended subgroup meeting to discuss penalties as protection against Citizen Lawsuits, as well as metrics for a “well performing” collection system.

**Operations/Maintenance Infoshare –** Collected lunch RSVPs, attended meeting and drafted Board Report.

**Permits –** Attended meeting, and drafted agenda and Board Report for meeting.

**Recycled Water –** Attended committee meeting and drafted Board Report. Migrated committee email distribution list to Google Groups.

**Executive Board –** Finalized agenda for joint meeting with Regional Water Board on 2/29, and drafted meeting summary. Contributed to meeting minutes for 2/18 Executive Board meeting.

**MEETINGS ATTENDED:** Operations/Maintenance Infoshare (2/24), Joint meeting with Regional Water Board (2/29), Recycled Water Comm. (3/2), CASA CECs Conference Call (3/2), Collections Committee Subgroup Meeting (3/3), NACWA Regional Call (3/3), Permits Comm. (3/8), Regional Water Board meeting (3/9), AIR Comm. (3/9), CASA Regulatory Workgroup Meeting (3/10), Collection Systems Comm. (3/10), CMG Conference call (3/10), BACWA Staff meeting (3/15), Nutrient Strategy Team Meeting (3/15).

## Sherry Hull

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**From:** Sherry Hull  
**Sent:** Sunday, March 13, 2016 8:55 PM  
**To:** Sherry Hull  
**Subject:** Summit Partners

**From:** Bobbi Larson [<mailto:blarson@casaweb.org>]  
**Sent:** Thursday, March 10, 2016 11:11 AM  
**To:** Elizabeth Allan; Dave Williams; John Pastore; Debbie Webster  
**Cc:** [gkester@casaweb.org](mailto:gkester@casaweb.org); Adam Link; Cheryl Mackelvie  
**Subject:** April 4 Clean Water Summit Meeting

Fellow EDs:

Our next Clean Water Summit meeting is scheduled for Monday, April 4th. Please use the link below to indicate your availability for a call to set the agenda. In the meantime, if you have a suggestion for a guest speaker please send it along ASAP so we can extend an invitation.

Thanks!

<http://doodle.com/poll/rvv4ea9bqmqhs4in>

Bobbi Larson  
Executive Director  
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Sacramento, CA 95814  
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## Sherry Hull

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**From:** Sherry Hull  
**Sent:** Monday, March 7, 2016 2:10 PM  
**To:** Sherry Hull  
**Subject:** FW: CASA Nutrient Workgroup Meeting Summary / Next Steps

**From:** Adam Link [<mailto:alink@casaweb.org>]  
**Sent:** Tuesday, March 1, 2016 2:10 PM  
**To:** [dpedersen@lvmwd.com](mailto:dpedersen@lvmwd.com); [dhix@slocity.org](mailto:dhix@slocity.org); [jdeakin@simivalley.org](mailto:jdeakin@simivalley.org); [lmcgovern@ci.camarillo.ca.us](mailto:lmcgovern@ci.camarillo.ca.us); [jeff.palmer@ojaisan.org](mailto:jeff.palmer@ojaisan.org); [SGryczko@cityofdavis.org](mailto:SGryczko@cityofdavis.org); [efiladelfia@riversideca.gov](mailto:efiladelfia@riversideca.gov); [lgarcia@wmwd.com](mailto:lgarcia@wmwd.com); [tpirondini@cityofvacaville.com](mailto:tpirondini@cityofvacaville.com); [MitchM@lwa.com](mailto:MitchM@lwa.com); [drynn@ci.burbank.ca.us](mailto:drynn@ci.burbank.ca.us); [joyj@emwd.org](mailto:joyj@emwd.org); [jpastore@dudek.com](mailto:jpastore@dudek.com); [eofficer@cvcwa.org](mailto:eofficer@cvcwa.org); [mitchellt@sacsewer.com](mailto:mitchellt@sacsewer.com); Dave Williams; [Hassan.Rad@lacity.org](mailto:Hassan.Rad@lacity.org); [AshliD@lwa.com](mailto:AshliD@lwa.com); [CReyes@lvmwd.com](mailto:CReyes@lvmwd.com); [GGallis@lacsdsd.org](mailto:GGallis@lacsdsd.org); [PMarkle@lacsdsd.org](mailto:PMarkle@lacsdsd.org); [abraham.razon@lacity.org](mailto:abraham.razon@lacity.org); [DianaE@lwa.com](mailto:DianaE@lwa.com); Levi Fuller; Dougall, Jan; Rebecca Franklin; Bishop, Shannon; Jennifer Shepardson; Dougall, Jan; Dorn, Linda (SDA)  
**Cc:** Adam Link; Tom Grovhoug; Bobbi Larson  
**Subject:** CASA Nutrient Workgroup Meeting Summary / Next Steps

CASA Nutrient Workgroup,

Last Friday several representatives from the POTW community met with State Water Board staff to discuss the approach to the proposed statewide nutrient policy, now being referred to as the “biostimulatory substances” amendment. The “options/implementation” document I sent out a few weeks ago was the basis for our discussion.

The meeting (and generally, the direction of the document and staff’s presentation) were very encouraging. The preferred path they intend to pursue is a statewide narrative objective (for wadeable streams) with numeric translators, with a preferred program of implementation that promotes a coordinated watershed management approach. Staff seemed to understand and agree that the “ecoregion” and purely numerics driven approaches being pushed in other parts of the country would not work, and they seemed open to the process of refining expectations as part of the adaptive management process. These are things that had been said many times over the last year, but the document reflects this in writing, which is something we have been requesting for some time. Notes from this focus meeting (and the others) should be available in the coming months, and should further confirm this approach.

In terms of timeline, we were the first focus group of many and SWRCB staff will be hosting several more of these between now and July. We expect the full stakeholder advisory group to meet again in the August/September 2016 timeframe. As of right now, SWRCB staffs’ plan is to develop a staff report for release by Winter of 2017, conduct a hearing on the amendment by Summer of 2017, and have the Board adopt the amendment by Winter of 2018. All of this is subject to change, of course, but at least we have a sense of their initial proposed timeline.

Please let Tom or I know if you have any follow up questions. Thanks.

- Adam

Adam D. Link  
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# AGENDA

## CASA – EPA Joint Collaboration Meeting

March 10, 2016

1:00 pm – 3:00 pm

EPA Headquarters San Francisco

Meeting called by CASA

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**1:00 pm – 1:10 pm**

### **Introductions**

EPA Staff  
CASA Staff

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**1:10 pm – 1:20 pm**

### **Purpose of Re-establishing Meetings**

- To collaborate and find areas of understanding on specific issues before EPA or the water boards make final rulings
  - Highlight successes and identify developing issues that are likely to command our mutual attention in the near future
  - Identify opportunities for information sharing or collaboration in which EPA and CASA might partner
  - Identify issues that EPA Region 9 might need to engage with EPA at a national level
- 

**1:20 pm – 1:40 pm**

### **Hot Topics General EPA**

- Wastewater reuse and resource recovery opportunities and impediments
  - Wastewater infrastructure futures and risks (e.g. associated with aging systems, climate change, regulatory trends), and needs for EPA support to build system resiliency and sustainability
- 

**1:40 pm – 2:20 pm**

### **Hot Topics CASA – EPA Water**

- Whole Effluent Toxicity Regulation
  - Future of TMDL program and implications for CASA members
  - Antibiotic Resistant Bacteria in Wastewater
- 

**2:20 pm – 2:50**

### **Hot Topics CASA – EPA Land**

- Electronic reporting rule implementation - Biosolids, are we on track?
- 

**2:50 pm – 3:00**

### **Next Steps**

- Schedule future meetings on specific topics
  - Discuss EPA involvement at select CASA meetings
-