

**BACWA EXECUTIVE BOARD MEETING**  
**Thursday, December 16, 2010, 9:30 a.m. – 11:30 a.m.**

**HANDOUTS**

Handout Packet is available on the BACWA website ([www.BACWA.org](http://www.BACWA.org)).

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## **AGENDA**

### **Executive Board Meeting**

Thursday, December 16, 2010  
9:30 a.m. – 11:30 a.m.

EBMUD Plant Ops Center  
2020 Wake Ave., Oakland, CA

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#### **ROLL CALL AND INTRODUCTIONS (9:30 a.m. – 9:35 a.m.)**

#### **PUBLIC COMMENT (9:35 a.m. – 9:45 a.m.)**

#### **REPORTS (9:45 a.m. – 10:30 a.m.)**

1. Committee Reports Question and Answers.
2. Proposition 50 Grant Disbursements Status Report.
3. Executive Director Report.
4. Executive Board Reports.
5. Chair & Executive Director Authorized Actions
  - a. Chair Execution of agreement with Solano Community College to support the Water Operator Training Program for Spring 2011; \$70,000; File 12,312.
  - b. ED Authorization of As-Needed Assistance from Larry Walker & Associates to assist with WET policy meeting; \$2,000; File 12,163.

#### **CONSENT CALENDAR (10:30 a.m. – 10:40 a.m.)**

6. Minutes from November 18, 2010 BACWA Executive Board Meeting.
7. October 2010 Treasurer's Report.
8. Authorize the Executive Director to Execute a Contract with the Aquatic Science Center to Determine Selenium Speciation in Treated Municipal Effluent; \$24,000; File 12,314.
9. Resolution establishing the Arleen Navarret Leadership Award; File 12,315.

#### **OTHER BUSINESS (10:40 a.m. – 11:30 a.m.)**

10. *Nutrient Updates & Discussion*: SWAMP Monitoring Workplan; Request for Proposals for Consultant Assistance; next steps.
11. *Energy Updates & Discussion*: November 23, 2010 PG&E Meeting; Sustainable Silicon Valley Water, Energy, Smart Technology Summit.
12. *PCB TMDL Implementation*.
13. *WET Policy*.
14. *Pollution Prevention/ Clean Water Program Education*.

**NEXT REGULAR MEETING**

The next regular meeting is scheduled for **February 24, 2011**, 9:00 a.m. to 12:00 p.m. at the EBMUD Plant Lab Library in Oakland. There will be NO Executive Board Meeting for January 2011 to accommodate the BACWA Annual Member Meeting on January 27, 2011 at the Boy Scouts Facility in San Leandro.

**ADJOURNMENT (11:30 a.m.)**

*Handout Packet will be available by noon on December 15, 2010 on the BACWA website ([www.BACWA.org](http://www.BACWA.org)).*

**BAPPG Committee Report to  
BACWA Board**

Meeting Date: December 16, 2010  
Prepared By: Sharon Newton, City of San Jose  
BAPPG Committee Chair

**Project Updates**

Project	Update	Completion Date
Regional Holiday FOG Outreach	<p>The Regional Holiday FOG outreach campaign was conducted in November. The purpose of the campaign was to promote proper disposal of turkey fryer grease. BAPPG provided Turkey fryer stickers and posters with information on proper FOG disposal to Bay Area Home Depot and OSH stores. OSH distributed 350 stickers and 10 posters to its retail outlet and Home Depot distributed 2,100 stickers and 42 posters. In addition, various BAPPG agencies distributed a total of 1055 stickers and 139 posters within their jurisdictions.</p> <p>O'Rorke issued a FOG media release in November that has resulted in multiple print, radio, and online media stories and PSAs.</p> <p>[Project Lead: Cassie Prudhel, City of South San Francisco]</p>	November 2010
Revised DTSC Green Chemistry Safer Alternatives Regulations	<p>BAPPG and BACWA jointly submitted a comment letter on the revised DTSC Green Chemistry Safer Consumer Products Alternatives Regulations. See attachment.</p> <p>[Project Lead: Jen Jackson, EBMUD]</p>	December 2010
Holiday FOG Spanish Radio Advertisement	<p>BAPPG will conduct outreach on Bay Area Univision Spanish radio stations between Thanksgiving and New Year's Day. The advertisements promote proper disposal of kitchen fats, oils and grease.</p> <p>[Project Lead: Andrea Case, City of San Jose]</p>	December 2010
Pharmaceuticals	<p>BAPPG will begin working with the Teleosis Institute to develop two sets of brochures for hospice care workers to distribute to patients and their families - one set upon entering hospice and another for end of life.</p> <p>[Project Lead: Karin North, City of Palo Alto]</p>	Fall 2010

**Next BAPPG Meeting**

February 2, 2010, 10am – 12pm, 1515 Clay Street, Oakland, CA, Second Floor, Room TBD

**Attachments**

- Comment Letter on the Revised DTSC Green Chemistry Safer Consumer Products Alternatives Regulations

December 2, 2010

*Sent via e-mail*

Maziar Movassaghi  
Acting Director  
California Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, CA 95812  
([MMovassa@dtsc.ca.gov](mailto:MMovassa@dtsc.ca.gov))

Re: Revised Safer Consumer Products Alternatives Regulations (Green Chemistry)

Dear Mr. Movassaghi:

On behalf of the Bay Area Clean Water Agencies (BACWA) and the Bay Area Pollution Prevention Group (BAPPG), we would like to express our concern about changes in the Revised Safer Consumer Products Alternatives Regulations. While our organizations supported the initial proposed regulation issued in September, this revision is so dramatically different and narrow that we can no longer support it. Furthermore, we believe that the 15-day comment period was not sufficient for the kinds of changes presented in the revision and should be re-noticed per state regulation with a 45-day comment period.

Our members, which include fifty-five wastewater treatment plants serving millions of Bay Area residents, are charged with safeguarding our receiving waters. Our members have noted with some alarm consumer products that contain antimicrobial compounds, toxic metals and nanomaterials – ingredients that may compromise effluent quality, treatment plant operations, biosolids management options, and our compliance with NPDES permit requirements. We have generally supported the concept of Green Chemistry with the hope it could stem this tide of harmful chemicals now available in the marketplace.

However, the Revised Safer Consumer Products Alternatives Regulation does not lead us down a road to safer products. While we appreciate several revisions made by DTSC, such as inclusion of chemicals and pollutants identified in Sections 303 (c) and (d) of the Clean Water Act, we have numerous specific concerns about the regulation. We have outlined a few of these concerns below; however, due to the abbreviated comment period, we are unable to list all of our concerns in this letter.

#### Notice Period

Per Government Code Section 11346.8(c) and California Code of Regulations Title 1, Division 1, Chapter 1, Article 2, Section 42, the 15-day comment period was insufficient for the scope of the revisions. Instead a 45-day comment period should have been issued, as the changes presented were not "sufficiently related" to the original regulatory notice. The revised regulation is so dramatically different, that we could not have reasonably predicted these changes. We urge you to re-open the comment period for a full 45 days so as to comply with state regulation and provide adequate time for stakeholders to review the revisions and provide more comprehensive comments.

Narrowing of Eligible Product Categories

One of the most unacceptable revisions to the regulation is the narrowing of eligible products for inclusion in the list of Priority Products. Until 2016, the regulation only allows review of personal care products, children’s products or household cleaning products, eliminating a vast array of consumer products in the marketplace that have the potential to harm water quality, such as swimming pool products; goods containing Nanomaterials, mercury, perfluorinated compounds, and flame retardants; professional cleaning products; and paint containing PCBs and other compounds of concern.

Focus on Proof of Harm

The spirit of green chemistry is to prevent harm to human and environmental health; however, these revised green chemistry regulations require proof of environmental impact before DTSC may act. There is little reason to create new regulations that do nothing to change the current system.

Degradation Products No Longer Covered

As chemicals travel through a wastewater treatment facility, they often undergo degradation or transformation into other compounds, some of which may have more adverse impacts than the parent compound. Such is the case of alkylphenol ethoxylates, whose degradation compound nonylphenol is an endocrine disruptor. The revised regulation no longer covers degradation concerns, presenting a problem specifically for POTWs that may soon have NPDES limits on discharges of nonylphenol.

Cost of Compliance/Treatment No Longer Considered

Many Bay Area wastewater facilities have had NPDES permit compliance difficulties due to unregulated chemicals found in consumer products used in homes and businesses. The cost to the public to treat and otherwise manage harmful pollutants and the cost to comply with regulatory requirements associated with these chemicals should be considered in the prioritization of Chemicals of Concern and Priority Products as well as in Alternatives Assessments.

Definition of De Minimis

Many pollutants are extremely harmful to water quality at trace levels that are lower than hazardous waste standards. For example, copper is toxic to aquatic life at very low concentrations (parts per billion), but because it is not as harmful for humans, the hazardous waste standard is more than 1,000 times higher (25 parts per million).

Thank you for your consideration of our concerns. Because the wastewater community supports the spirit of Green Chemistry, we stand ready to assist DTSC in developing a better regulation that will protect human and environmental health. Please contact Jen Jackson at 510-287-0818 or [jacksonj@ebmud.com](mailto:jacksonj@ebmud.com) if you have any questions.

Sincerely yours,



Amy Chastain  
Executive Director



Sharon Newton  
Chair, Bay Area Pollution Prevention Group

cc: Regulations Coordinator, Department of Toxic Substances Control ([gcregs@dtsc.ca.gov](mailto:gcregs@dtsc.ca.gov))

**Committee Request for Board Action:**

None.

**Highlights of New Items Discussed and Action Items**

**New Reporting Approach for Annual SSO Reports**

BACWA Collection System Committee leaders have reviewed a draft 13267 letter that will change requirements for Annual SSO Reports, and are expecting to meet with Regional Water Board staff later this month to discuss their concerns. In addition to challenges presented by the proposed Excel reporting template, it was noted that the draft letter would increase requirements for reporting planned activities. Regional Water Board staff would like these changes implemented for the 2010 reporting year.

**Changes to SSO WDR**

A recent status update from State Water Board (SWB) staff indicated that a second workshop in front of SWB members is expected in January or February, 2011, with the adoption of changes to the SSO WDR now anticipated for May or June, 2011. The outlook is favorable on the two potentially controversial topics that came up at the September 21, 2010 SSO WDR workshop; at this time, SWB staff are still planning to recommend (1) not including mandatory certification for collection system operators, and (2) keeping the permit as a WDR, rather than including an NPDES component, as well.

**Changes to CIWQS – SSO Reporting**

Many Legally Responsible Officials (LROs) recently received an email identifying errors in previously-submitted SSO reports. Andy Morrison reported that Victor Lopez of the State Water Board had been very helpful in interpreting the error messages, and recommended that others contact him with questions at (916) 323-5511.

Suggestions for improvements to the required Questionnaire were discussed at a SSO Data Review Committee meeting held on November 9, 2010 at SWB offices. The suggested changes include re-organizing and revising the Questionnaire to make it more “user-friendly”, providing more guidance on budget-related questions, and adding a question regarding inclusion of laterals.

**Round Robin for Root Control Methods**

A “round robin” was held at the December 2 meeting in which members shared basic information about current root control activities. Many of the agencies represented at the meeting reportedly make use of both mechanical and chemical methods for controlling roots, while a number of agencies employ only mechanical methods. Many, but not all use a contractor to apply the chemicals used for root control. All three of the products allowed for use in California are being used. *Vaporooter*- Metam-Sodium and Dichlobenil, *Razor Rooter*- Diquat Dibromide, and *Root-X*- Dichlobenil are the three products.

**Next BACWA Collection Systems Committee Meeting**

This meeting is scheduled for Thursday, January 27, 2011, immediately following the BACWA Annual Meeting.

**Lab Committee:**      Lab Committee meeting:      8 December 2010  
                                 Executive Board meeting:      16 December 2010

**Report prepared by:** Guy Moy

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**Technical/Regulatory Discussions:**

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Bhupender Dhaliwal presented information on the Whole Effluent Toxicity and the gray areas regarding toxicity. CCCSD has hired Sue Anderson as a consultant to assist them. She was involved in the early stages of the development of the WET.

Selenium: Members discussed SFEI's proposal for the Determination of Selenium Speciation in Treated Municipal Effluent. The study would consist of effluent from 6 different agencies during wet and dry season conditions. There will be four events where the effluents would be analyzed for particulate Se and dissolved Se species. The estimated cost was \$31,500.

EPA Method 1668 PCB's – François Rodigari is working on a draft to the Regional Board to insure method compliance. Francois discussed that the method needed to be standardized in user's approach on qualifiers and how co-eluters are handled.

Whole Effluent Toxicity – With the extension, TST calculators were send out for testing. A few members had a chance to test drive the system. Gillian Silva from Vallejo Sanitation Flood Control District said at 10% dilution there were 2 failures out of 12 events. Darrell from Delta Diablo described his as a complete crash using 50% dilution. Recalculating using 12.5%, he found 1 out of 8 failed. Alo from San Jose had 2-3 failures over a 5 year period in which they did monthly. Concerns were raised regarding the consistency of use. Some members will be attending the permit committee's meeting to see the outcome of others and possibly gain some guidance.

eSMR – Group discussed the draft announcement of the Water Boards eSMR workshop schedule for dischargers. Members were placed in 4 groups. Members were informed of their tentative dates 2011.

Next Lab Committee Meeting: January 12<sup>th</sup> 2011

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Grant Disbursement Summary to Date (Dec 16, 2010)											
Bay Area Integrated Regional Water Management (IRWM) Prop 50 Grant											
Agr. No.	Implementing Agency	Project Title	DWR Proj. No.	Max. State Grant Funds by Project	Grant Funds Invoiced to date	Paid by DWR to date	DWR Retention	Admin <sup>2</sup> Funds Rec'd by BACWA	Funds paid out to date	Payable as of this date	Total Paid and Payable
1	Contra Costa Water District	Regional Intertie (VFDs)	1	500,000.00	500,000.00	181,397.33	(50,000.00)		176,731.44	0.00	176,731.44
		BACWA Admin	16	15,625.00	7,142.85	5,959.11	(662.12)	15,625.00			
2	East Bay Municipal Utility District	Reg. Conservation Outreach	2	250,000.00	250,000.00	225,000.00	(25,000.00)		1,889,049.85	2,340.41	1,891,390.26
		California WaterStar Initiative -	3	525,000.00	0.00	0.00	0.00				
		New Business Guidebook Pilot	4	75,000.00	0.00	0.00	0.00				
		Richmond Adv Recycling	8	2,127,600.00	2,127,600.00	1,648,512.93	(183,168.10)				
		BACWA Admin	16	46,875.00	21,428.55	17,877.33	(1,986.37)	46,875.00			
3	City of Redwood City	Redwood City Recycled WP	5	972,800.00	972,800.00	<b>972,800.00</b>	<b>0.00</b>		978,759.11	0.00	978,759.11
		BACWA Admin	16	15,625.00	7,142.85	5,959.11	(662.12)	15,625.00			
4	City of Palo Alto	Mt.View-Moffett Recycl WP	6	972,800.00	972,800.00	<b>972,800.00</b>	<b>0.00</b>		965,858.13	2,275.98	968,134.11
		BACWA Admin	16	15,625.00	7,142.85	5,959.11	(662.12)	15,625.00			
5	Santa Clara Valley Water District (& San Jose)	Reg. Conservation Outreach	2	125,000.00	125,000.00	112,500.00	(12,500.00)		80,625.00	4,377.33	85,002.33
		South Bay Adv Recycl WTP	7	2,934,600.00	0.00	0.00	0.00				
		BACWA Admin <sup>3</sup>	16	31,875.00	6,428.55	4,377.33	(486.37)	31,875.00			
SJ	City of San Jose	BACWA Admin for SCVWD <sup>3</sup>	16	15,000.00	15,000.00	13,500.00	(1,500.00)	15,000.00	7,000.00	6,500.00	13,500.00
6	North Coast County WD (& SFPUC)	Pacifica Recycled Water Proj	9	744,400.00	0.00	0.00	0.00		0.00	1,459.11	1,459.11
		BACWA Admin <sup>3</sup>	16	10,625.00	2,142.85	1,459.11	(162.12)	10,625.00			
SF	S.F. Public Utilities Comm	Reg. Conservation Outreach	2	297,550.00	297,550.00	267,795.00	(29,755.00)		242,045.00	20,918.22	262,963.22
		BACWA Adm for Reg.Consrv	16	31,250.00	14,285.70	11,918.22	(1,324.25)	31,250.00			
		BACWA Admin for NCCWD <sup>3</sup>	16	5,000.00	5,000.00	4,500.00	(500.00)	5,000.00			
SOL	Solano Co. Water Agency	Reg. Conservation Outreach	2	50,000.00	50,000.00	45,000.00	(5,000.00)		45,000.00	0.00	45,000.00
7	North Marin Water District	North Marin Recycled Water	10	244,550.00	244,550.00	<b>244,550.00</b>	<b>(0.00)</b>		241,750.47	0.00	241,750.47
		BACWA Admin	16	9,375.00	4,285.71	3,575.47	(397.27)	9,375.00			
8	Zone 7 Water Agency	Reg. Conservation Outreach	2	60,000.00	60,000.00	54,000.00	(6,000.00)		720,000.00	5,959.11	725,959.11
		Mocho GW Demin Project	11	740,000.00	740,000.00	666,000.00	(74,000.00)				
		BACWA Admin	16	15,625.00	7,142.85	5,959.11	(662.12)	15,625.00			
9	Marin Municipal Water District	Reg. Conservation Outreach	2	200,000.00	200,000.00	180,000.00	(20,000.00)		374,451.90	468.08	374,919.98
		Direct Installation HET Prog	12	366,800.00	311,894.35	197,719.52	(21,968.84)				
		BACWA Admin	16	9,375.00	4,285.71	3,575.47	(397.27)	9,375.00			
10	Montara Water & Sanitary District	Groundwater Exploration Project	13	37,100.00	37,100.00	33,390.00	(3,710.00)		33,390.00	1,191.82	34,581.82
		BACWA Admin	16	3,125.00	1,428.57	1,191.82	(132.42)	3,125.00			
11	Alameda County Water District	Reg. Conservation Outreach	2	60,000.00	60,000.00	54,000.00	(6,000.00)		589,334.11	0.00	589,334.11
		Alameda Creek Phase 2 Fish	14	600,000.00	600,000.00	540,000.00	(60,000.00)				
		BACWA Admin	16	15,625.00	7,142.85	5,959.11	(662.12)	15,625.00			
12	Sonoma Valley County Sanit. Dist.	Sonoma-Napa Marsh RWP	15	366,800.00	269,332.62	0.00	0.00		0.00	3,575.47	3,575.47
		BACWA Admin	16	9,375.00	4,285.71	3,575.47	(397.27)	9,375.00			
<b>Grand Total</b>				<b>12,500,000.00</b>	<b>7,932,912.56</b>	<b>6,490,810.56</b>	<b>(507,695.91)</b>	<b>250,000.00</b>	<b>6,343,995.01</b>	<b>49,065.55</b>	<b>6,393,060.56</b>

Notes: 1. BACWA Administration Costs invoiced and paid to date:

114,285.59

92,070.65

3. Reimburse SFPUC and San Jose for Admin Costs until reimbursement = \$80k then pay SCVWD & NCCWD

2.Admin funding = \$152,250 in upfront funding plus grant check deductions.

## DIRECTOR'S REPORT TO THE BOARD

Prepared for the December 16, 2010 Executive Board Meeting  
November 13, 2010 – December 12, 2010

### A. Executive Board & Administrative Matters

#### *Financial & Administrative Matters*

The Executive Director (ED) and Assistant Executive Director (AED) continue to work with EBMUD accounting and Brian Campbell to integrate Proposition 50 into BACWA's new accounting system. The details of reporting under the new system, including timing and the Treasurer Report format, are still being worked out.

### B. Regulatory Affairs & Developments

#### *Mercury Risk Reduction*

The ED attended part of the first Stakeholder Advisory Group (SAG) for the risk reduction program held December 7, 2010. Funding from BASMAA for this project has not yet been obtained; the ED had discussions with BASMAA about the funding and will continue them with ASC, BASMAA and the Regional Water Board.

#### *PCB TMDL Implementation*

An administrative draft of the permit has been prepared and distributed among the principals. The ED coordinated with technical consultants on preparing preliminary comments. The final permit is expected to be noticed the third week in December and adopted at the March Regional Water Board meeting.

#### *CIQWS*

This Regional Water Board sent a notice to all NPDES permittees on December 7 that included a schedule for transitioning reporting from the Regional Water Board's ERS to the State Board's e-SMR. There will be a training on the transition on January 20, 2011. All BACWA principals are to register for the new system by March 1, 2011 and to begin reporting to e-SMR by April 30, 2011.

#### *Nutrients*

The Central Valley Regional Board unanimously adopted the permit for the Sacramento County Regional Sanitation District, which requires ammonia removal. The hearing and permit adoption was covered in more than thirty news stories.

The ED participated in two meetings with Water Board staff and BACWA principals to discuss ammonia issues, including the Suisun Bay workplan. The ED prepared a draft request for proposals for strategic assistance related to nutrients.

#### *Selenium*

The ED and BACWA representatives Bhupinder Dhaliwal and Mike Conner will attend the December 14 EPA meeting on Selenium criteria for San Francisco Bay. Materials for Aquatic Science Center (ASC) assistance responding to a Regional Water Board request for information on selenium speciation were prepared for the December BACWA Board meeting.

#### *Other*

The ED coordinated and participated in a meeting of Regional Water Board staff, State Board staff, and BACWA representatives regarding the draft Whole Effluent Toxicity Policy.

The ED and Collection System Committee representatives continued communications with Regional Water Board staff regarding changes to regional SSO reporting. We concur that electronic submission of annual reports, via upload to the Regional Water Board ftp site, is reasonable for the 2010 reports but

have requested that all other changes (electronic submission of SSO summary tables and inclusion of information about capital and other program changes) be put on hold until Claudia Villacourt returns in mid-December.

### **C. Committee Affairs & Regional Collaboration**

*Committees* See Committee Reports for actions undertaken by the Committees during this period, including progress made under the leadership.

The ED worked with BAPPG to submit comments on DTSC's Green Chemistry regulations, and to prepare a letter to the editor regarding the changes. The ED will also work with the Recycled Water Committee to prepare comments on the draft monitoring policy issued by the State Water Board.

*Workshops & Trainings* Work is still underway for the Strass energy workshop and the BACWA Annual Meeting. Speakers Alexis Strauss and Bruce Wolfe are confirmed; the committees have been asked to provide regulatory updates on key issues.

*IRWMP* BACWA assisted the City of San Jose and San Francisco in applying Prop 50 reimbursements towards their share of the Prop 84 application preparation costs. The Department of Water Resources is recommending that the Bay Area's request for \$840,000 (out of \$1.4 million) to update our Integrated Regional Water Management Plan be fully funded.

*Other* The ED continues to work with consultant Paul Causey on the rate survey and BACWA will commence distribution of it this month. We are working out details related to the notification process, and document storage.

The ED attended the December 2 Aquatic Science Center meeting at which the agency's strategic plan was further discussed.

### **D. Membership**

*Member Communications* BACWA prepared and distributed its second html e-newsletter to approximately 420 recipients. In both November and December almost 40% of recipients opened and viewed the contents. BACWA worked with Circle Point to make minor adjustments to its logo to make it more polished, ensure consistent use and reduce printing costs. We will begin making additional minor changes to the website shortly.

### **E. Upcoming Meetings**

- January 11: Permits Committee
- January 11: Tri-TAC Meeting (Ontario)
- January 12-14: CASA Meeting (Palm Desert)

- January 12: Laboratory Committee
- January 19: Biosolids Committee
- January 26: AIR Committee
- January 26: Engineering Infoshare
- January 27: Annual Members' Meeting
- January 27: Collection Systems Committee Meeting

## MINUTES

### Executive Board Meeting

Thursday, November 18, 2010  
9:30 a.m. – 12:00 p.m.

EBMUD Plant Lab Library  
2020 Wake Ave., Oakland, CA

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#### ROLL CALL AND INTRODUCTIONS

Executive Board Representatives: Tommy Moala, Vice Chair (San Francisco Public Utilities Commission); Dave Williams (East Bay Municipal Utility District); Margret Orr (Central Contra Costa Sanitary District); Mike Connor (East Bay Dischargers Authority); Bhavani Yerrapotu (City of San Jose).

Other Attendees: Gail Chesler (Central Contra Costa Sanitary District); Jim Ervin (City of San Jose); Rod Miller (San Francisco Public Utilities Commission); Karl Royer (East Bay Dischargers Authority); Greg Baatrup (Fairfield Suisun Sewer District); Andy Morrison (Union Sanitary District); Tom Hall (Eisenberg Olivieri Associates, Inc.); Denise Conners (Larry Walker Associates); Kathryn Gies (West Yost Associates); Amy Chastain (BACWA); Alexandra Gunnell (BACWA).

#### PUBLIC COMMENT

There were no public comments.

#### REPORTS

**Committee Reports, agenda item 1**, were included in the meeting handout packet and Committee Chairs were given the opportunity to provide further clarification, as requested by meeting attendees.

For **agenda item 2**, the **Proposition 50 Grant Disbursements Status Report**, prepared by Brian Campbell (EBMUD), was included in the packet.

Under **agenda item 3**, the Executive Director (ED) referred to the **Executive Director's Report** included in the meeting handout packet and provided updates on a few items.

The ED will forward information on a December 14<sup>th</sup> meeting at EPA on the development of fish and wildlife selenium criteria for the San Francisco Bay.

The ED is continuing discussions with staff at the San Francisco Regional Water Quality Control Board (RWQCB) regarding implementation of the PCB TMDL. A draft amendment to the Watershed Permit is expected to be released by the RWQCB next week.

The first html electronic BACWA newsletter was sent to members at the beginning of November. Future editions are expected to follow each month. Feedback and content suggestions should be directed to the ED.

Executive Board (Board) members were invited to share any items of interest under **agenda item 4, Executive Board Reports**.

Central Contra Costa Sanitary District (CCCSD) is planning to submit comments regarding the USEPA proposed rules defining sewage sludge as solid waste, specifically as it pertains to mercury emissions resulting from incineration.

East Bay Municipal Utility District (EBMUD) is continuing to work with the RWQCB regarding removal of unidentified toxicants.

City of San Jose is also working to address toxicity issues for unidentified toxicants that are appearing intermittently. They will be releasing their master plan for public comment next week and are still looking into options for reducing odor.

San Francisco Public Utilities Commission (SFPUC) is also investigating odor control solutions for their master plan, including Cambi's thermal hydrolysis process and efforts undertaken by the District of Columbia Water and Sewer Authority (DC Water). The latest election results may affect staffing at SFPUC and Arleen Navarret officially retired on November 1, 2010.

East Bay Dischargers Authority (EBDA) is in process of renewing their National Pollutant Discharge Elimination System (NPDES) Permit. Mike Connor of EBDA will work with the ED to investigate the need for consultant support to address Selenium issues, and the December meeting agenda may include a contract for Board approval. A meeting is scheduled with PG&E for next week. Those agencies interested in having a representative attend the meeting should contact Mike Connor. It was also mentioned that the Recycled Water Committee may want to include Stanford's Dick Luthy and Heather Bischelas guest speakers at an upcoming committee meeting.

The following **Chair and Executive Director Authorized Actions** were listed under agenda **item 5**.

- a) Purchase Order for Jolly Whaler Printing and Cassie Prudhel to provide Regional FOG Outreach; \$2,300; File 12,294.
- b) Authorization for RMC/Oakley Water Strategies to provide assistance to the Executive Director and Laboratory and Permits Committee in responding to the State Water Board's draft Whole Effluent Toxicity Policy; \$3,200; File 12,162.

## **CONSENT CALENDAR**

*Consent calendar **agenda items 6, and 8 through 11** were approved in a motion made by Dave Williams and seconded by Tommy Moala. The motion carried unanimously.*

6. Minutes from October 28, 2010 BACWA Executive Board Meeting.
7. October 2010 Treasurer's Report.
8. Resolution recognizing Arleen Navarret for her service to the Bay Area Clean Water Agencies.
9. Contract with CH2MHill to present an energy management workshop; \$25,000; File 12,302.
10. Contract with O'Rorke for BAPPG Spring Cleaning outreach campaign; \$40,000; File 12,300.

***Agenda item number 7** was removed from the Consent Calendar and will be brought back for approval at December Board meeting.*

## BOARD DISCUSSION ITEMS

Under **agenda item 11**, the **Draft Whole Effluent Toxicity (WET) Policy** was discussed. The State Water Resources Control Board (SWRCB) has extended the deadline for submitting comments on proposed revisions to the WET Policy to January 21, 2011. The California Association of Sanitation Agencies (CASA) has retained Peter Chapman to review technical aspects of policy and assist in making recommendations to the SWRCB. The ED worked with the Permits Committee Chair, Jim Ervin and Monica Oakley of RMC Environmental (RMC) to develop comment letter template that was distributed to applicable member agencies. BACWA will be included as a signatory on the comment letter developed by CASA and Tri-TAC. The ED will continue to work with the Permits Committee to develop talking points that will be circulated to member agencies.

Margaret Orr of CCCSD distributed and reviewed a *Toxicity Test Data Evaluation: "Road Test"* handout. Concerns were raised about statistical issues with the testing method that may produce false positives. RMC will be providing consultant support and the ED will work with the Permits and Lab Committees to encourage member agencies to perform the proposed TST evaluation using historical data. Discussions will continue between Tam Doduc of the SWRCB, the RWQCB staff and the ED at an upcoming meeting.

For **agenda item 12** the **Nutrient Strategy & Monitoring Workplan** included in the handout packet was discussed. CCCSD is planning to submit comments on this workplan. The ED will work with Margaret Orr of CCCSD to investigate supporting the RWQCB with design and implementation of this study. This item will also be added to the next joint BACWA/RWQCB meeting for discussion.

For **agenda item 13 Stormwater Diversions** were discussed. Executive summaries of reports produced by EBMUD and BACWA were included in the meeting handout packet. The ED will circulate the report from the Bay Area Stormwater Management Agencies Association (BASMAA) to the Board. Concern was raised about selection criteria that are being used to determine sites for stormwater diversion as required by the Municipal Regional Stormwater Permit (MRP). BACWA will continue to monitor this issue and add it to upcoming Board meeting agendas for discussion as needed.

Under **agenda item 14** the **eSMR Transition Plan and Support Proposal** included in the handout packet was discussed. The ED will work with the Permits Committee Chair, Jim Ervin, Mike Connor, and Margaret Orr to develop a scope for consultant assistance, and will work with the Chair for contract approval.

Instead of scheduling a **Finance Committee Meeting, agenda item 15**, a discussion of financial tracking and 2012 budget preparation will be included as an agenda item at an upcoming monthly Board meeting.

The next regular meeting is scheduled for **December 16, 2010, 9:30 to 11:30** at the EBMUD Plant **Ops Center** in Oakland. A holiday luncheon will follow.

The meeting adjourned at 12:00 p.m.

	<b>BEGINNING FUND BALANCE 7/1/10</b>	<i>Total Receipts</i>	<i>Total Disbursements</i>	<b>ENDING FUND BALANCE 10/31/10</b>	<i>Outstanding Encumbrances</i>	<b>UNOBLIGATED FUND BALANCE 10/31/10</b>
BACWA	334,476.06	520,500.00	102,703.79	752,272.27	408,673.06	343,599.21
BCTWRNG	250,000.00	-	-	250,000.00	-	250,000.00
BCLWGLR	300,000.00	-	-	300,000.00	-	300,000.00
BCWOPR	153,500.00	-	-	153,500.00	-	153,500.00
Prop50	18,147.96	505,508.30	1,851.40	521,804.86	78,332.92	443,471.94
AIR	2,592.18	78,828.00	5,964.83	75,455.35	80,790.00	(5,334.65)
BAPPG	49,131.29	28,855.00	12,418.20	65,568.09	10,002.00	55,566.09
WQEMGR	400,000.00	-	-	400,000.00	-	400,000.00
WQTACT	250,000.00	-	-	250,000.00	-	250,000.00
CBCOPR	162,000.00	-	-	162,000.00	-	162,000.00
WQA	64,897.39	390,000.00	95,495.50	359,401.89	38,697.74	320,704.15
RWR	16,516.27	-	-	16,516.27	-	16,516.27
WOT	55,287.83	71,000.00	56,000.00	70,287.83	-	70,287.83
RESERVE	120,000.00	-	-	120,000.00	-	120,000.00
<b>Total</b>	<b>2,176,548.98</b>	<b>1,594,691.30</b>	<b>274,433.72</b>	<b>3,496,806.56</b>	<b>616,495.72</b>	<b>2,880,310.84</b>

BACWA: Bay Area Clean Water Agencies  
 BCTWRNG: BACWA Training Fund  
 BCLWGLR: BACWA Legal Reserve  
 BCWOPR: BACWA Operating Reserve  
 Prop50: Proposition 50 Grant  
 AIR: Air Issue and Regulation Group  
 BAPPG: Bay Area Pollution Prevention Group

WQEMGR: WQAS Emergency Reserve  
 WQTACT: WQAS Technical Action Fund  
 CBCOPR: CBC Operating Reserve  
 WQA: Clean Bay Collaborative/Water Quality Attainment Strategies  
 RWR: Regional Water Recycling  
 WOT: Water/Wastewater Operator Training  
 RESERVE: Reserve



# BACWA Revenue Report for October 2010

DEPT_DESCR	PROG_DESCR	AMENDED	CP_DIRECT	CP_INVCED	YTD_DIRECT	YTD_INVCED	YTD_ACTUAL	UNRECON_BUD
Bay Area Clean Water Agencies	BDO Member Contributions	450,000	0	0	0	360,000	360,000	90,000
Bay Area Clean Water Agencies	BDO Other Receipts	0	0	0	0	0	0	0
Bay Area Clean Water Agencies	BDO Interest Income	15,000	0	0	0	0	0	15,000
Bay Area Clean Water Agencies	BDO Assoc.&Affiliate Contr	159,000	0	1,500	0	159,000	159,000	0
Bay Area Clean Water Agencies	BDO Fund Transfers	37842						
BACWA TOTAL		661,842.00	0.00	1,500.00	0.00	519,000.00	519,000.00	105,000.00
AIR-Air Issues&Regulation Grp	BDO Member Contributions	83,400	0	0	0	78,828	78,828	4,572
AIR-Air Issues&Regulation Grp	BDO Other Receipts							
AIR-Air Issues&Regulation Grp	BDO Interest Income							
AIR TOTAL		83,400.00	0.00	0.00	0.00	78,828.00	78,828.00	4,572.00
BAPPG-BayAreaPollutnPreventGrp	BDO Member Contributions	80,505	0	0	0	28,855	28,855	51,650
BAPPG-BayAreaPollutnPreventGrp	BDO Other Receipts	50,000	0	0	0	0	0	50,000
BAPPG-BayAreaPollutnPreventGrp	BDO Interest Income	3,079	0	0	0	0	0	3,079
BAPPG TOTAL		133,584.00	0.00	0.00	0.00	28,855.00	28,855.00	104,729.00
WQA-WtrQualityAttainmntStratgy	BDO Member Contributions	450,000	0	0	0	389,500	389,500	60,500
WQA-WtrQualityAttainmntStratgy	BDO Other Receipts							
WQA-WtrQualityAttainmntStratgy	BDO Interest Income	8,000	0	0	0	0	0	8,000
WQA-WtrQualityAttainmntStratgy	BDO Interest Income	8,000.00	0	0	0	0	0	8000
CBC/WQAS TOTAL		16,000.00	0.00	0.00	0.00	0.00	0.00	16,000.00
WOT - Wtr/Wwtr Operat Training	BDO Member Contributions	0	0	0	0	71,000	71,000	-71,000
WOT - Wtr/Wwtr Operat Training	BDO Other Receipts							
WOT - Wtr/Wwtr Operat Training	BDO Interest Income	350						
WOT TOTAL		350.00	0.00	0.00	0.00	71,000.00	71,000.00	-71,000.00
Prop50BayAreaIntegRegnlWtrMgmt	BDO Member Contributions	-		-	505,508	0	505,508	-505,508
Prop50BayAreaIntegRegnlWtrMgmt	BDO Other Receipts							
Prop50BayAreaIntegRegnlWtrMgmt	BDO Interest Income	2,000.00						
PROP 50 TOTAL		2,000.00	0.00	0.00	505,508.30	0.00	505,508.30	-505,508.30

## BACWA Expense Report for October 2010

DESCR	DESCR	AMENDED	CP_ENC	CP_PV	CP_DA	YTD_ENC	YTD_PV	YTD_DA	OBLIGATED	UNOBLIGATED
Bay Area Clean Water Agencies	BC-Collections System	25,000	0	0	0	22,225	2,775	0	25,000	0
Bay Area Clean Water Agencies	BC-Permit Committee	25,000	0	0	0	23,335	1,665	0	25,000	0
Bay Area Clean Water Agencies	BC-Water Recycling Committee	11,000	0	0	0	0	0	0	0	11,000
Bay Area Clean Water Agencies	BC-Biosolids Committee	10,000	0	0	0	0	0	0	0	10,000
Bay Area Clean Water Agencies	BC-InfoShare Groups	25,000	-4,088	4,088	0	20,913	4,088	0	25,000	0
Bay Area Clean Water Agencies	BC-Laboratory Committee	7,000	0	0	0	0	0	2,982	2,982	4,018
Bay Area Clean Water Agencies	BC-Miscellaneous Committee Sup	10,000	0	0	0	0	0	2,931	2,931	7,069
	<b>BACWA Committees Subtotal</b>	<b>113,000.00</b>	<b>-4,087.50</b>	<b>4,087.50</b>	<b>0.00</b>	<b>66,472.50</b>	<b>8,527.50</b>	<b>5,913.05</b>	<b>80,913.05</b>	<b>32,086.95</b>
Bay Area Clean Water Agencies	TS-Media Relations Support	25,000	0	0	0	25,000	0	0	25,000	0
Bay Area Clean Water Agencies	TS-Consultant Support	100,000	0	0	0	70,000	0	0	70,000	30,000
	<b>BACWA Technical Support Subtotal</b>	<b>125,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>95,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>95,000.00</b>	<b>30,000.00</b>
Bay Area Clean Water Agencies	LS-Regulatory Support	20,000	0	0	0	9,902	98	0	10,000	10,000
Bay Area Clean Water Agencies	LS-Executive Board Support	10,000	0	0	0	5,000	0	0	5,000	5,000
	<b>BACWA Legal Support Subtotal</b>	<b>30,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>14,901.90</b>	<b>98.10</b>	<b>0.00</b>	<b>15,000.00</b>	<b>15,000.00</b>
Bay Area Clean Water Agencies	CAS-CWAA	10,000	0	0	0	0	0	10,000	10,000	0
Bay Area Clean Water Agencies	CAS-PSSEP	20,000	0	0	0	0	0	0	0	20,000
Bay Area Clean Water Agencies	CAS-CPSC	5,000	0	0	0	0	0	5,000	5,000	0
Bay Area Clean Water Agencies	CAS-PSI	500	0	0	0	0	0	0	0	500
	<b>BACWA Collab &amp; Sponsor Subtotal</b>	<b>35,500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>15,000.00</b>	<b>15,000.00</b>	<b>20,500.00</b>
Bay Area Clean Water Agencies	CAR-BACWA Annual Report	20,000	-8,000	8,000	1,633	0	8,000	1,633	9,633	10,367
Bay Area Clean Water Agencies	CAR-BACWA Website Development/	70,000	0	0	0	25,750	0	605	26,355	43,645
Bay Area Clean Water Agencies	CAR-Other Communications	15,000	0	0	0	18,000	0	0	18,000	-3,000
	<b>BACWA Comm &amp; Report Subtotal</b>	<b>105,000.00</b>	<b>-8,000.00</b>	<b>8,000.00</b>	<b>1,633.48</b>	<b>43,750.00</b>	<b>8,000.00</b>	<b>2,238.45</b>	<b>53,988.45</b>	<b>51,011.55</b>
Bay Area Clean Water Agencies	SP-BAPPG Contribution	50,000	0	0	0	0	0	0	0	50,000
Bay Area Clean Water Agencies	GBS-Contingency	15,000	0	0	0	0	0	0	0	15,000
Bay Area Clean Water Agencies	GBS- Meeting Support	10,000	-177	0	1,110	672	151	4,309	5,132	4,868
	<b>BACWA General Subtotal</b>	<b>25,000.00</b>	<b>-177.05</b>	<b>0.00</b>	<b>1,110.00</b>	<b>671.91</b>	<b>151.04</b>	<b>4,309.02</b>	<b>5,131.97</b>	<b>19,868.03</b>
Bay Area Clean Water Agencies	AS-BACWA Admin Expense	8,000	0	0	0	0	0	627	627	7,373
Bay Area Clean Water Agencies	AS-Executive Director	130,000	-10,833	10,833	0	97,500	32,500	0	130,000	0
Bay Area Clean Water Agencies	AS-Assistant Executive Directo	70,000	-5,580	5,580	0	46,600	21,600	0	68,200	1,800
Bay Area Clean Water Agencies	AS-EBMUD Administrative Servic	44,000	0	0	0	43,777	0	0	43,777	223
Bay Area Clean Water Agencies	AS-Insurance	5,000	0	0	0	0	0	3,740	3,740	1,260
	<b>BACWA Administration Subtotal</b>	<b>257,000.00</b>	<b>-16,413.33</b>	<b>16,413.33</b>	<b>0.00</b>	<b>187,876.75</b>	<b>54,099.99</b>	<b>4,366.64</b>	<b>246,343.38</b>	<b>10,656.62</b>
	<b>BACWA TOTAL</b>	<b>690,500.00</b>	<b>-28,677.88</b>	<b>28,500.83</b>	<b>2,743.48</b>	<b>408,673.06</b>	<b>70,876.63</b>	<b>31,827.16</b>	<b>511,376.85</b>	<b>179,123.15</b>

## BACWA Expense Report for October 2010

DESCR	DESCR	AMENDED	CP_ENC	CP_PV	CP_DA	YTD_ENC	YTD_PV	YTD_DA	OBLIGATED	UNOBLIGATED
AIR-Air Issues&Regulation Grp	BDO Administrative Expense	4,038	0	0	0	0	0	0	0	4,038
AIR-Air Issues&Regulation Grp	BDO Contract Expenses	86,755	0	0	0	80,790	5,965	0	86,755	0
AIR TOTAL		90,793.00	0.00	0.00	0.00	80,790.00	5,964.83	0.00	86,754.83	4,038.17
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Fog	21,800	0	0	0	0	0	0	0	21,800
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Mercury	9,500	0	0	0	6,527	413	0	6,940	2,560
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pesticides	16,000	0	0	0	0	0	10,000	10,000	6,000
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Copper	4,000	0	0	0	3,475	585	0	4,060	-60
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pharmaceutical	4,999	0	0	0	0	0	0	0	4,999
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-General P2	46,500	0	0	0	0	0	1,420	1,420	45,080
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Emerging Issues	5,000	0	0	0	0	0	0	0	5,000
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Other	8,396	0	0	0	0	0	0	0	8,396
BAPPG-BayAreaPollutnPreventGrp	BDO Administrative Expense	5,810	0	0	0	0	0	0	0	5,810
BAPPG TOTAL		122,005.00	0.00	0.00	0.00	10,002.00	998.00	11,420.20	22,420.20	99,584.80
WQA-WtrQualityAttainmntStratgy	WQA-CE-Technical Support	191,728	-5,628	5,628	0	25,768	35,958	0	61,726	130,002
WQA-WtrQualityAttainmntStratgy	WQA-CE-Collaborations & Sponso	50,000	0	0	50,000	0	0	50,000	50,000	0
WQA-WtrQualityAttainmntStratgy	WQA-CE-Trainings	7,190	0	0	0	0	0	0	0	7,190
WQA-WtrQualityAttainmntStratgy	WQA-CE-Commun. & Reporting	65,000	0	0	0	0	0	0	0	65,000
WQA-WtrQualityAttainmntStratgy	WQA-CE-Program Mgmt	39,000	0	0	0	0	0	0	0	39,000
WQA-WtrQualityAttainmntStratgy	WQA-CE-Other	103,430	-3,375	3,375	0	12,930	6,000	3,538	22,468	80,962
WQA-WtrQualityAttainmntStratgy	BDO Administrative Expense	21,810	0	0	0	0	0	0	0	21,810
CBC/WQAS TOTAL		478,158.00	-9,003.34	9,003.34	50,000.00	38,697.74	41,957.59	53,537.91	134,193.24	343,964.76
WOT - Wtr/Wwtr Operat Training	BDO Administrative Expense	2,500	0	0	0	0	0	0	0	2,500
WOT - Wtr/Wwtr Operat Training	BDO Contract Expenses	81,000	0	0	56,000	0	0	56,000	56,000	25,000
WOT TOTAL		725,898.00	-12,378.34	12,378.34	106,000.00	51,627.49	47,957.59	113,075.82	212,660.90	513,237.10
Prop50BayAreaIntegRegnlWtrMgmt	BDO Administrative Expense	8,000	-203	203	0	941	1,059	167	2,167	5,833
Prop50BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	78,017	-625	625	0	77,392	625	0	78,017	0
Prop50BayAreaIntegRegnlWtrMgmt	LPS Disbursement	0	0	0	0	0	0	301211	0	0
PROP 50 TOTAL		86,017.00	-828.00	828.00	0.00	78,332.92	1,684.00	301,378.40	80,184.32	5,832.68



## BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 8

FILE NO.: 12,314

MEETING DATE: December 16, 2010

### TITLE: Aquatic Science Center Contract for Selenium Speciation Determination

MOTION \_\_\_\_\_  RESOLUTION \_\_\_\_\_

### RECOMMENDED ACTION

Authorize the Executive Director to enter into a contract with the Aquatic Science Center (ASC) to determine the speciation of selenium in Bay Area municipal wastewater discharges, in an amount not to exceed \$24,000 through December 31, 2011.

### SUMMARY

On September 28, 2010, the San Francisco Bay Regional Water Quality Control Board (Regional Board) informally requested that municipal wastewater agencies submit data to inform their development of a Total Maximum Daily Load for Selenium. Similar information is being required of other permittees via formal request pursuant to section 13267 of the California Water Code. Specifically, the Regional Board requested the following:

1. Updated selenium loads based on at least one year of flow and concentration data from a minimum of all major publicly owned treatment works (POTWs);
2. Information on the "typical" selenium speciation in POTWs using analytical methods comparable to those used by the other permittees; and
3. Information on the proportion of particulate (versus dissolved) selenium in POTW effluent.

This contract will generate the data needed to respond to the request for information on the speciation of selenium and the proportion that is particulate bound. Four samples (two wet and two dry) will be collected from six POTWs beginning the first quarter of 2011.

This work will be supervised by the Executive Director and Board Member Mike Connor. The project workplan will be shared with the laboratories of the larger POTWs.

### FISCAL IMPACT

This project is included in, and consistent with, the approved Fiscal Year 2010-2011 CBC/WQAS budget ("Technical Support) and workplan (Line 7, "[T]echnical support for TMDL development"). \$30,000 is budgeted for this project. Funds are available in the Technical Support line. To date \$69,997 has been obligated, with \$105,003 remaining.

### ALTERNATIVES

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

### Attachments:

1. ASC Proposal

Submitted: Amy Chastain, Executive Director Executive Director Approval: /s/ Amy Chastain



December 7, 2010,

Dr. Mike Connor  
General Manager  
East Bay Dischargers Association  
2651 Grant Avenue  
San Lorenzo, CA 94580

Re: Revised Proposal to Determine of Selenium Speciation in Treated Municipal Effluent

Dear Mike;

Thank you for the opportunity to submit a proposal to determine dissolved selenium concentrations in municipal effluent. Based on the preliminary information you have provided, we understand that the Regional Water Quality Control Board is requesting additional information regarding the percentages of particulate and dissolved selenium, and the speciation of dissolved selenium in Bay Area effluent. This information will be used in the review of the Total Maximum Daily Load (TMDL) for selenium (Se).

#### Background

The Conceptual Model of Selenium in North San Francisco Bay developed (Tetra Tech 2008) for the Se TMDL highlights a number of key pathways for understanding the fate of Se in the Bay, including the speciation of Se detected in the water column. Although Se chemical species can be altered through abiotic and biological processes in the Bay, understanding the speciation of Se loads is important to understand their magnitudes relative to in-Bay transformation and uptake processes.

Previous work on San Francisco Bay characterized ambient concentrations of various Se species as well as those of major inputs to the system including refineries and municipal wastewater treatment plant dischargers (Cutter and San Diego-McGlone 1990). In that work, selenate in municipal wastewater effluent was frequently 70 to 90 percent of the total dissolved Se, selenite was 10 to 20 percent, and all other species (primarily organo selenides) typically comprising 0-10% of dissolved Se. However, there were many exceptions, with instances where effluents were not dominantly selenate, including cases

of 100 percent selenite, >50 percent organoselenides, and others less extreme. Total Se concentrations in that work ranged from approximately 3 to 28 ug/L.

A recent survey of North Bay dischargers for the period 2008 to 2009 observed effluent concentrations much lower, more typically <1 ug/L, suggesting overall decreases in total Se discharges (BACWA, unpublished data). The typical distribution of Se species in current effluent discharges is unknown and represents a data gap for understanding the current sources of Se to biota (from the dissolved phase to phytoplankton and bacteria), and once in particulate forms (including phytoplankton and organic detritus) to zooplankton, bivalves, and higher trophic organisms.

The Se TMDL project uses first order rate constants from the literature for application to a model to estimate uptake rates to phytoplankton. Selenite uptake rates are 4-5x rates for selenate, and organoselenide uptake rates are half those for selenite (2-2.5x rates for selenate). Therefore, any nondetects for selenite should ideally be <10% of the concentration for selenate. With a higher selenite detection limit at 20% of the selenate concentration for a given sample, the potential uptake rates for selenate and selenite could be equivalent. Similarly organo-selenium species method detection limits could be at most half the selenate concentration to have equivalent uptake rates.

Measurement of particulate Se concentrations in effluent can provide information on the loading of particulate sources of Se to the Bay and can be compared to model estimated phytoplankton uptake/adsorption. The Se TMDL model applies the USGS dynamic multi-pathway bioaccumulation model (DYBAM; Luoma et al., 1992; Stewart et al., 2004; Presser and Luoma, 2006), which calculates zooplankton and bivalve uptake rates based on dissolved Se in the water column and solid concentrations on suspended particulate matter. Uptake rates from water for zooplankton used in the model are around  $.025 \text{ L/g}_{\text{tissue}}/\text{d}$  ( $\times C_w$ , the ug/L dissolved Se concentration in water) from the dissolved phase, and  $0.4 \text{ g/g}_{\text{tissue}}/\text{d}$  ingestion rate  $\times$  50% assimilation efficiency  $\times$   $C_p$  (concentration in particulate, ug/g).

Bay dissolved selenium concentrations are typically around 0.1 ug/L, with particulate concentrations about 10 times lower (0.01 ug/L), and TSS 10-20 mg/L, yielding 0.5-1.0 ug/g concentrations on suspended particles. Based on these estimates, direct uptake from the water column accounts for only 2% of selenium uptake for low trophic level animals such as zooplankton. It will be important to have quantitative results for the particulate phase in order to compare these results to particulate selenium generated by processes in the Bay. Assuming Se partitioning in wastewater is similar to that in ambient waters, if the detection limit for the particulate phase (in ug/L) is about 2% that for the dissolved phase, the uncertainty in uptake rates for the dissolved and particulate phase will be about the same order of magnitude, even if we get non-detects on the particulate phase.

## Approach

Based on your correspondence to us, we understand that you would like us to collect effluent from six San Francisco Bay Area wastewater treatment plants during wet and dry

season conditions. The baseline assumption for this proposal is that six facilities will be sampled for 4 events (2 each in wet and dry seasons); the number of samples can be adjusted to include more locations or more samples per season with roughly a proportional change in cost. It is our understanding that you would like the project to begin in the first quarter of 2011. The effluent will then be analyzed for particulate Se and dissolved Se species using the approaches described below.

It is likely that the fraction of particulate Se in the effluent samples will be low, as the concentrations of total dissolved solids are not very high (typically < 20 mg/L). If this is indeed the case, it will not be feasible to determine particulate Se by difference between the total Se concentrations in a filtered and an unfiltered sample aliquot (after digestion), because the sum of the analytical errors would likely be larger than the actual particulate fraction. Specifically, this approach may suggest the presence of a significant particulate Se fraction in some samples when there is in fact none.

The better approach to measure particulate Se is to filter a large volume of water in order to collect the particulate matter, and then digest the filter and measure the Se associated with the particles. This “positive” measurement approach will determine accurately if and how much particulate Se there is in a water sample, but it requires a much larger sample volume and significantly more time/effort for the sample filtration. We understand that large volume samples (10-20 L) will be collected from six wastewater plants for four events to cover a range of seasonal flows. Samples would be filtered “in house” by the POTWs and the filters would be sent to a BACWA laboratory (likely EBMUD) for analysis. Although many POTW’s may have in house capabilities for Se analysis, especially if large enough samples are collected, we recommend that all participating plants send a sample to the same BACWA laboratory to minimize questions of comparability, optionally analyzing collected duplicate samples in house if desired.

Samples will be filtered to < 0.45  $\mu\text{m}$ . The filtrate will be collected, with subsamples of the collected filtrate for a given site (e.g. for 10 filters of 1L each, 100ml of filtrate will be taken from each filtration to make a 1L composite sample). SFEI staff will be sent to the different POTWs to collect the filtrate composites for shipment to the analytical laboratory (Trent University, the laboratory of Prof. Dirk Wallschläger). Filtrate will be analyzed undiluted for discrete dissolved Se species by anion exchange chromatography-inductively-coupled plasma-mass spectrometry (AEC-ICP-MS) (Wallschläger & Roehl, 2001) with estimated detection limits around 0.01  $\mu\text{g/L}$  per species. It is expected that selenite (= Se(IV)) and selenate (= Se(VI)) will be the only Se species detected by this method, but if any other discrete Se species are present in the samples and elute from the chromatographic separation (e.g. selenomethionine or selenocyanate), they will be detected and can be quantified. Their identity can possibly be determined by co-elution with standards.

The same sample will be analyzed for total dissolved Se by ICP-MS with similar detection limits to establish the dissolved Se mass balance (= sum of individual species / total dissolved Se concentration). This will check for the presence of any major dissolved Se species that are not detected by the AEC-ICP-MS method and can be used to estimate

by difference the “organic Se” species similar to that operationally estimated by difference in previous work by Cutter and coworkers for Bay ambient waters.

A parallel sample split will be analyzed at Laurentian University for “total dissolved organic” Se by selective sequential hydride generation-atomic fluorescence spectrometry (SSHG-AFS) using UV-assisted breakdown of organic matter and discrete organic Se compounds to the hydride generation-active Se(IV) (Chen et al., 2005). This would provide a more specific breakdown of the chemical species to get a “positive” determination of contributions to “organic” Se. Optionally, organo-Se could be reported using only one of the two methods, with a reduction in analysis cost by ~\$2,400.

#### Deliverables

San Francisco Estuary Institute will provide a short memorandum highlighting the findings which will include a summary table of results and appendix with the data reported by the laboratory. The laboratory will report the results to us within a one month sample turn around time. SFEI review of results after the first sampling event will allow adjustment of sample sizes for future events as needed. Based on one month lab turnaround, we anticipate the summary memorandum could be completed in the fourth quarter of 2011 (e.g. by sampling in January, April, July, and September).

#### Cost Estimate

For purposes of developing the cost estimate, we have assumed that we will be collecting already filtered effluent samples from six facilities for four events during the course of 2011. We have assumed that we can collect effluent from all six facilities in two days or less. Plant staff will conduct the large volume filtration at the plants using 10-20 liter samples, and provide composites of filtrate for SFEI staff to collect and send to Trent Univ. in Peterborough, ON, Canada. SFEI staff can also drop off particulate samples collected from other plants at any designated treatment plant laboratory (e.g. EBMUD) while arranging pickup of filtrate from that plant.

The cost to conduct this work is:

SFEI labor	\$14,000
Indirect costs	\$ 1,500
<u>Laboratory</u>	<u>\$ 8,300</u>
Total cost	\$23,800



If the scope of work that we have outlined above or a variant thereof (e.g. adjustments to sample number, timing, types of analyses) is of interest to BACWA, please let us know so that we can develop a contract. We look forward to working with you.

Regards,

Donald Yee  
Senior Scientist

Meg Sedlak  
RMP Program Manager



## BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 9

FILE NO.: 12,315

MEETING DATE: December 16, 2010

### TITLE: Resolution Establishing the Arleen Navarret Leadership Award

MOTION \_\_\_\_\_  RESOLUTION \_\_\_\_\_

### RECOMMENDED ACTION

Approval of a resolution establishing the Arleen Navarret Leadership Award.

### SUMMARY

On November 18, 2010 Bay Area Clean Water Agencies (BACWA) Executive Board adopted a resolution to formally recognize Arleen Navarret for her outstanding contributions to BACWA and the municipal wastewater community. This resolution would establish the Arleen Navarret Leadership Award to recognize individuals in the San Francisco Bay Area wastewater community who embody those leadership qualities exhibited by Arleen Navarret, former BACWA Board Chair and San Francisco Public Utilities Commission (SFPUC) representative. A committee comprised of BACWA and SFPUC representatives will be convened to develop general guidelines and eligibility criteria to recommend to the BACWA Executive Board for adoption.

### FISCAL IMPACT

Contributions to fund this award will be accepted from interested donors. Funding from BACWA will be determined during the drafting and adoption of each fiscal year budget and workplan.

### ALTERNATIVES

This action does not require consideration of alternatives.

### Attachments:

None.

Submitted: \_\_\_\_\_

Executive Director Approval: /s/ Amy Chastain  
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**Bay Area Clean Water Agencies  
Request for Proposals  
Nutrient Strategy Assistance**

The Bay Area Clean Water Agencies (BACWA) is seeking proposals to help the agency develop a strategy for addressing nutrient-related regulatory and scientific uncertainties that may impact Bay Area publicly-owned treatment works.

Despite having relatively high concentrations of nitrogen and phosphorous San Francisco Bay does not experience the nature or degree of nutrient-related water quality problems experienced by other large coastal estuaries in the United States. Prior to the adoption of the federal Clean Water Act eutrophication and fish kills were regular occurrences, especially in the South, Suisun and San Pablo Bays. Since federal legislation mandated a minimum of secondary treatment for all publicly owned treatment works (POTWs) such problems have largely disappeared and none have been traced to wastewater discharges for many years. A variety of factors – such as high turbidity, substantial flushing, and the presence of an invasive clam species – are also believed to prevent impacts to beneficial uses that might otherwise arise from such high ambient nutrient concentrations.

Our understanding of the mechanisms through which nutrient enrichment can disrupt aquatic ecosystems, however, is developing and endpoints other than eutrophication are emerging as concerns. Additionally, conditions in the Bay are changing in ways that suggests that the impacts of nutrient enrichment may become more severe. There are various efforts underway to better understand nutrient loading to the Bay as well as its impacts. For example, the San Francisco Bay Regional Water Quality Control Board (Regional Board) is coordinating studies on the impacts of ammonium on phytoplankton in Suisun Bay, the State Water Resources Control Board has initiated its process to develop nutrient numeric endpoints (NNEs) for the Bay, the United States Geological Survey continues to monitor nutrient and chlorophyll a trends in the Bay.

BACWA is seeking a consultant to assist us in understanding and responding to developments in science and regulations that may affect Bay Area POTWs. The assistance may include some or all of the following:

1. Regulatory Changes. Summary of the federal (NRDC's petition to re-define secondary treatment, EPA establishment of numeric nitrogen criteria), state (numeric nutrient endpoint development), and regional (Sacramento County Regional Sanitation District draft permit) regulatory efforts that could influence the development of numeric nutrient criteria for San Francisco Bay.
2. Scientific Knowledge. Summary of the existing state of scientific knowledge of nutrients' current and potential impacts on Bay beneficial uses, identify data gaps and existing monitoring/research efforts to fill those gaps, and recommend steps BACWA should

consider in terms of advancing our collective understanding of potential and actual impacts to beneficial uses in different segments of the Bay.

3. Existing Infrastructure. Summary of existing Bay Area infrastructure, including the treatment technologies used by Bay Area POTWs and their estimated nutrient loading.
4. Other Factors. Identification of factors that should be considered by Bay Area POTWs considering enhanced nitrogen removal including, but not limited to, sustainable nutrient removal and recovery technologies, climate change, cost-effectiveness, reliability, and impacts to resource recovery programs.
5. Facilitation. Identify a suite of near-term (one to three years) and longer-term (three to five years) actions for BACWA to consider undertaking to assist the Bay Area regulatory community in developing, if appropriate, management actions and to assist BACWA members in planning for regulatory uncertainty.

### **Project**

The BACWA Executive Board has approved the following Request for Proposals (RFP) for a consultant to assist BACWA in developing and implementing a nutrients strategy.

### **Response Requirements**

Firm name  
Qualifications of the firm & any identified team members  
Qualifications of the identified team member(s)  
Benchmarks/timeline  
Potential conflicts of interest  
Elements of final work product  
Cost range (not to exceed \$75,000)  
List of similar projects completed

Proposals should not exceed three (3) pages and can be submitted electronically to BACWA Executive Director Amy Chastain at [achastain@bacwa.org](mailto:achastain@bacwa.org).

### **Deadline for Submittal**

Proposals must be received no later than 5:00 p.m. on January 7, 2011.

December 1, 2010

Dear Mike,

I am pleased to hear that your meeting on November 23<sup>rd</sup> went well, and appreciative of your effort to conclude us in the conversation going forward. Per our discussion, here is an outline of the role the Center for Law, Energy, and the Environment at Berkeley Law could serve in advancing the very constructive conversation you and your members have begun with PG&E. The work would center around a large group meeting for 50-150 people to be held on a Monday or Friday between February 25 and March 7, 2011. There are dollars associated with each of the activities described below, and the ultimate cost depends on which activities you and PG&E would like us to take on. Here are the major areas:

1. Undertake pre-convening work with meeting participants to ensure that the face-to-face session is as productive as possible.
2. Host the meeting on campus, complete with lunch, and morning and afternoon refreshments.
3. Moderate/facilitate the meeting.
4. Prepare a post-meeting report summarizing the session and identifying next steps.
5. Work with all parties to set the next steps in motion.

Our budget for all 5 items would be as follows:

Meeting room rental: \$600

Food: \$3000

Administrative support time: \$2000

My time: \$5,000

Graduate student assistant time: \$1200

We are very interested in helping you to take the conversation to the next level and are eager to talk further with you and PG&E about the process at your convenience.

Sincerely,  
Steve