14,502

BACWA EXECUTIVE BOARD MEETING

Thursday, February 24 2011, 9:00 a.m. – 2:00 p.m.

HANDOUTS

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

Pages	Handout Title	Agenda Item #
2 – 3	Agenda	
4 – 5	AIR Committee Report	1
6 – 12	BAPPG Report	1
13 – 15	Collection Systems Committee Report	1
16	Permits Committee Report	1
17	Prop 50 Grant Disbursement Summary, February 2010	2
18 – 20	Executive Director Report	3
21 – 22	Meeting Minutes from BACWA Executive Board Meeting of January 27, 2011, File 14,501	6
23 – 27	December 2010 Treasurer's Report	7
28 – 34	HDR Engineering Nutrients Scope of Work	8
35 – 55	EPA's Advanced Notice of Proposed Rulemaking Regarding the Bay Delta	9
56 – 58	Analysis of Solano County Measure E Impacts on San Francisco	12
59 – 60	Biosolids Trace Organics – Collaborative Research Letter from WERF	13

Executive Board Meeting Agenda

Thursday, February 24, 2011, 9:00 a.m. – 2:00 p.m.
EBMUD Lab Library, 2020 Wake Ave, Oakland, CA

ROLL CALL AND INTRODUCTIONS (9:00 a.m. – 9:05 a.m.)

PUBLIC COMMENT (9:05 a.m. – 9:15 a.m.)

REPORTS (9:15 a.m. – 10:15 a.m.)

1. Committee Reports Question and Answers.
2. Proposition 50 Grant Disbursements Status Report.
3. Executive Director Report.
4. Executive Board Reports.
   a. Aquatic Science Center Meeting (12/2/2010)
   b. Regional Monitoring Program Steering Committee Meeting (2/7/2011)
   c. Tri-TAC Meeting (2/20/2011)
   d. Water Board Staff Meetings (Multiple)
   e. Other
5. Chair & Executive Director Authorized Actions
   a. Executive Director authorization of agreement with Adammer to support the BAPPG Spring Cleaning Campaign; $4,999; File 12,352.
   b. Executive Director authorization of agreement with Tom Barron to support the BAPPG Amalgam Separator Update; $2,500; File 12,328.
   c. Chair authorization of catering costs for the Strass Energy Workshop; $3,200; File 12,366.

CONSENT CALENDAR (10:15 a.m. – 10:25 a.m.)

6. Minutes from January 27, 2010 BACWA Executive Board Meeting.
7. December 2010 Treasurer's Report.

OTHER BUSINESS (10:25 a.m. – 2:00 p.m.)

8. HDR Nutrients Scope of Work Review & Discussion
9. EPA's Advanced Notice of Proposed Rulemaking Regarding the Bay Delta
10. PCBS Source Control & Permit Discussion
11. e-SMR Transition Update & Discussion
12. Solano County E Measure: Amicus & Legislative Support
13. WERF Biosolids Trace Organics Collaborative Research Effort Support
14. Fiscal Year 2011 – 2012 BACWA Revenue & Expense Budget Discussion

NEXT REGULAR MEETING
The next regular meeting is scheduled for **March 24, 2011**, 9:00 a.m. to 12:00 p.m. at the EBMUD Plant Lab Library in Oakland.

ADJOURNMENT (2:00 p.m.)

Handout Packet will be available by noon on February 23, 2011 on the BACWA website (www.BACWA.org).

Report to BACWA Board from AIR Committee (February 2011)

Document Control	Prepared by Sarah Merrill (Project Engineer) Reviewed by Stephanie Cheng (Committee Chair)
Committee Request for Board Action	None at this time.
Committee Agenda Items	None at this time.

Recent Committee Actions:

Recent Committee Actions	• Committee Meeting was held January 26, 2011 and included in person discussion with BAAQMD Engineering Director, Brian Bateman • Meeting highlights are available on the website and regulatory updates are summarized below
AIR Website	http://bacwa.org/Committees/AirIssuesRegulations.aspx

News and Updates:

BAAQMD: Implementing EPA Tailoring Rule	• USEPA rule published June 3 to bring GHGs into Clean Air Act permitting programs (Title V and Prevention of Significant Deterioration) • **Implementation will occur in stages:** - **Step 1, Jan 2011:** Existing Title V sources to address GHGs in new permits and renewals - **Step 2, July 2011:** **(1)** Modifications resulting in potential to emit (PTE) GHGs ≥ 75,000 tons/yr CO_2e subject to PSD review and Title V **(2)** Sources that have PTE ≥ 100,000 tons/yr will trigger Title V, regardless of non-GHG emissions - **Step 3, 2017:** TBD
	BAAQMD Updates : • Three Bay Area WWTPs identified by BAAQMD to obtain Title V Permits - Exceed the PTE threshold (100,000 T-CO2e/yr) for general stationary combustion - However, actual emissions are below the threshold - Could avoid Title V with synthetic minor operating permits - BAAQMD indicated that they are only looking at combustion emissions and not process emissions • January 12, 2011 - EPA to defer the inclusion of CO_2 from biomass for three years - Includes digester gas, biosolids, or landfill gas • EPA has not initiated the rulemaking yet – expected by July 2011. Unclear whether they will defer PSD requirements only, or both Title V and PSD.
For more information	http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx

BAAQMD: New CEQA Guidelines	• Effective June 2010 the thresholds of significance were revised for criteria pollutants and precursors, risks & hazards, and GHGs for both operational and construction projects - New receptors guidelines were put on hold until May 1, 2011 - Workshops for Local Government: February 23rd (Oakland) and March 3rd (Mountain View)
For more information	http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Meetings.aspx

Report to BACWA Board from AIR Committee (February 2011)

BAAQMD: Reg. 9, Rule 8 Updates	• CH2M is gathering CO and NOx data for spark-ignited cogen engines of member agencies to compare it to the new thresholds that will take effect in 2012. It appears that many agencies will comply, but several are still concerned. After all of the data has been collected and tabularized, the agencies struggling to meet the thresholds will meet to devise an action plan going forward and possible plans to meet with the BAAQMD.
For more information	http://www.baaqmd.gov/~/media/Files/Compliance%20and%20Enforcement/Advisories/Combustion%20Equipment/adv_061008_9-8.ashx

Next BACWA AIR Meeting: **Wednesday, April 20, 2011**
CH2M HILL Oakland Offices, 10:00am

BAPPG Committee Report to BACWA Board

Meeting Date: February 24, 2011
Prepared By: Sharon Newton, City of San Jose
BAPPG Committee Chair

Project Updates

Project	Update	Completion Date
Holiday FOG Spanish Radio Advertisement	BAPPG conducted outreach on Bay Area Univision Spanish radio stations between Thanksgiving and New Year's Day. This year a total of 154 spots including 64 radio ads (60 sec) on KSOL and KBRG, 30 online audio streaming ads (60 sec), and 60 free radio PSAs (15 sec) aired on KSOL, KBRG, and KVVF. The advertisements promote proper disposal of kitchen fats, oils and grease. [Project Lead: Andrea Case, City of San Jose]	December 2010
Pharmaceuticals	BAPPG endorsed the Product Stewardship Statement on Controlled Substances Act delivered at the Jan 19-20 DEA public meeting to discuss procedures for the surrender of unwanted controlled substances by ultimate users and long term care facilities in preparation for development of regulations to implement the Secure and Responsible Drug Disposal Act of 2010. BAPPG also submitted writing comments (attached). BAPPG submitted a comment letter to the Centers for Medicare and Medicaid Services on the proposed rulemaking requiring short cycle dispensing in long term care facilities (attached). [Project Lead: Karin North, Palo Alto]	January 2011
FOG Asian Media Outreach Efforts	O'Rorke issued a media release targeting Asian radio stations around Lunar New Year, Feb 2-16. The effort has resulted in 9 radio station website PSAs, 1 radio PSA, and 1 newsprint story. [Project Lead: Cynthia Royer, Daly City]	February 2011
PCBs	The committee is considering the following PCB related projects for next fiscal year: 1) Coordinate a workshop/training on the source reduction requirements for PCBs under the amended Mercury Watershed Permit, and 2) Incorporate promotion of the EPA fact-sheets on caulk into Stephanie Hughes' presentations to building inspectors. In addition, the City of Richmond intends to share its research findings and fact sheet on street sweeping /maintenance that is scheduled to be completed by next fiscal year. A presentation on the PCBs in Caulk project was given at the February BAPPG committee meeting on February 3, 2011.	Ongoing

Next BAPPG Meeting

April 6, 2011, 10am – 12 pm, 1515 Clay Street, Oakland, CA, Second Floor, Room 12

Attachments

- Comment Letter to the Centers for Medicare and Medicaid Services on the proposed rulemaking requiring short cycle dispensing in long term care facilities
- Comment Letter on Procedures for the Surrender of Unwanted Controlled Substances by Ultimate Users

BAY AREA POLLUTION PREVENTION GROUP
BAPPG
A Committee of Bay Area Clean Water Agencies

January 12, 2011
Submitted electronically

Drug Enforcement Administration
Attention: DEA Federal Register Representative
ODL, 8701 Morrissette Drive
Springfield, VA 22152

Re: Docket No. DEA–316

To Whom It May Concern:

The Bay Area Pollution Prevention Group appreciates the opportunity to submit the following comments on the Procedures for the Surrender of Unwanted Controlled Substances by Ultimate Users, Docket No. DEA-316. The Bay Area Pollution Prevention Group (BAPPG) represents 43 publicly-owned wastewater treatment agencies throughout the Bay Area that work together on common pollution issues of concern. Due to the growing body of evidence that indicates the flushing of unwanted medicines threatens public health and the environment, coupled with growing public demand for convenient, secure and environmentally-sound disposal options, BAPPG member agencies have been providing residents with an environmentally-benign solution to the disposal of unwanted medications.

In 2006, the BAPPG spearheaded the first DEA-approved "Safe Medicine Disposal Days," which won the EPA's 2007 Environmental Award for Outstanding Achievement. Since 2006, BAPPG members have worked with the DEA, the Environmental Protection Agency, United States Postal Service and reverse distributors to develop a more cost effective way to dispose of all medications including controlled substances. Currently, there are over 100 permanent collection sites for unwanted pharmaceuticals in the Bay Area; unfortunately, many of these locations are unable to accept controlled substances. Therefore, we support the purpose of the Secure and Responsible Drug Disposal Act of 2010 to "allow patients to deliver unused pharmaceutical controlled substances to appropriate entities for disposal in a safe and effective manner consistent with effective controls against diversion." Effective drug take-back programs encourage the public to dispose of all unwanted medications and ensure secure collection, transportation and destruction.

Safe Disposal Options for Unwanted Controlled Substances

Capturing the largest possible quantity of leftover medications requires that convenient, secure collection opportunities are available. Diversity in the patient and caretaker population, as well as the multiplicity of settings necessitates the availability of multiple collection options. Current drug take-back programs in the Bay Area are managed by different agencies or coalitions. These groups may prefer different types of programs due to factors such as cost; convenience; rural vs. urban settings and the availability, ability, and willingness of key players such as pharmacies, clinics or municipal facilities to participate in collection.

We believe that with government oversight and adherence to security procedures, the following options for collection, transport and destruction of unwanted pharmaceuticals will be secure. All three options allow for tracking of packages from the point of mailing or drop-off through destruction, and should be implemented according to state and local environmental laws. Law enforcement agencies should have the option of implementing drug take-back programs according to their local priorities, but the regulations should not require their participation in the collection, transport or destruction of collected drugs.

1. **Collection at retail pharmacies.** Not all pharmacies may choose to collect unwanted pharmaceuticals. However, those willing and able to do so according to strict security procedures are well-placed in many communities to provide a convenient drop off location. We believe security protocols, such as those developed in Washington; provide a valuable starting point for the DEA's consideration of security protocols applicable to collection in a pharmacy setting. Some of the key security protocols are listed below:
   - All drugs should be handled together, whether controlled or not, to reduce costs as well as to reduce diversion. Comingled drugs are not as attractive as controlled substances alone.
   - Professional pharmacists must be licensed and their facilities must be inspected by State Boards of Pharmacy.
   - Inventory will not be sorted beyond representative sampling for data collection purposes. This will help ensure that no diversion occurs since comingled drugs are not as attractive as controlled substances alone.
   - Containers in the public area of the pharmacy will be locked to ensure that no member of the public can access disposed material.
2. **Mail-back from the home.** Pilot programs around the country, most notably in Maine, provide the opportunity for patients to mail their unwanted drugs in non-descript envelopes. Envelopes should be tamper-resistant and tamper-evident. Track and trace technology should be used through to the point of destruction.
3. **Collection at other community facilities (including both on-going collection and collection events).** The same security procedures applied to pharmacies could be implemented in other community locations. Many law enforcement offices currently collecting pharmaceuticals could continue to do so under these procedures. Fire stations, clinics and hospitals could provide a collection service under the same types of procedures. The same procedures should be applied for a one-day collection event as for an on-going collection.

Obstacles to the Disposal of Controlled Substances

Obstacles to the disposal of controlled substances in the San Francisco Bay Area could occur if the following options are not approved: (1) transportation and disposal options (2) flexible collection options and (3) collection of controlled substances along with all other medicines.

1. **Transportation and Disposal**.

   Options for disposal of controlled substances by medicine take-back programs would be improved and facilitated by authorization of additional providers of pharmaceutical transport and disposal services. The new regulations need to:

   a. Provide for environmentally-sound disposal options – according to California's Medical Waste Management Act, medical waste incinerators are the only disposal option for waste pharmaceuticals, BAPPG suggests that residential pharmaceuticals should be handled as medical r.
   b. Create a new license specifically for the disposal of unwanted household medications so that DEA-licensed Hazardous Waste Disposal Companies, DEA-licensed Reverse Distributors and commercial carriers (UPS, Federal Express, etc.) can legally transport and dispose of medicines collected in a medicine return program.
   c. Allow authorized medicine take-back programs to turn collected medicines over to DEA-registered disposal companies who can dispose of the medicines as hazardous waste.
   d. Allow for cost-effective witnessed destruction procedures at the incinerator.
   e. Allow for options in choosing a shipping company, if utilized, such as the U.S. Postal Service or common carriers such as Federal Express and UPS.

2. **Flexible Collection Options**. Medicine return programs need flexible options for disposal that enable them to secure the most cost-effective and safest disposal methods for their communities. These options were mentioned in page 2 of our letter (in the safe disposal options section). The Bay Area has a wide variety of communities and one size will not fit all the needs locally or throughout the nation.

3. **Combined Collection and Disposal of Controlled Substances with Other Medicines.** For a medicine take-back to be cost-effective and convenient for consumers, all medicines, including controlled substances, need to be collected together at the same locations. They should not have separate tracking or routes of disposal. It is not reasonable to expect residents to distinguish between medicines that are controlled and non-controlled substances. Relying on a pharmacist to sort the controlled from the non-controlled increases the demands on the pharmacist's time and increases the costs of the collection program. If the medicines are all collected together and then sorted afterwards, this also increases costs. Controlled substances need to be collected along with non-controlled medicines and destroyed together at the same disposal facilities, without sorting or segregation at any stage.

Considerations for Secure Drug Disposal at Long-term Care Facilities

New regulations should include options for long-term care facilities to dispose of drugs securely without flushing them. The following comments apply to the development of regulations applicable long-term care facilities.

- **Drugs shipped via general carrier for the purpose of disposal should be tracked through using track and trace technology.** Track and trace technology that has been

developed to ensure the security of valuable materials via general carrier should be used whenever drugs are shipped for disposal, whether from an individual's home or from a long-term care facility or collection point.

- **The DEA-mandated processes and procedures for drug take-back programs and long-term care facilities should be clear and consistent throughout the country.** State and local requirements may vary, but it is important that DEA requirements be communicated clearly and consistently around the country to reduce confusion. We recommend that the regulations and corresponding guidance for complying with the regulations be posted on the DEA's website and disseminated via the regional offices.

BAPPG member agencies have worked for the better part of a decade to remove the current barriers that limit the safe collection and disposal of all unwanted pharmaceuticals. In the future, we hope that pharmaceutical manufacturers will lead the effort on collecting and disposing of unwanted medications, as they do in many other countries such as Canada, Europe and Australia. Currently, pharmaceutical manufacturers use the Controlled Substances Act requirements as a barrier to collect and manage the pharmaceuticals that they profit from.

Thank you for the opportunity to comment on Procedures for the Surrender of Unwanted Controlled Substances by Ultimate Users. If you have any questions, please feel free to contact, Karin North at Karin.north@cityofpaloalto.org or (650) 494-7659 or Jennifer Jackson at jacksonj@ebmud.com or (510) 287-0818.

Sincerely,

Sharon Newton, Chair
Bay Area Pollution Prevention Group

BAY AREA POLLUTION PREVENTION GROUP
BAPPG
A Committee of Bay Area Clean Water Agencies

January 11, 2011
Sent electronically

Centers for Medicare & Medicaid Services
Department of Health and Human Services
Attention: CMS–4144–P
Mail Stop C4–26–05
7500 Security Boulevard
Baltimore, MD 21244–1850

Re: CMS–4144–P

Dear Centers for Medicare & Medicaid Services:

The Bay Area Pollution Prevention Group is grateful for the opportunity to submit the following comments regarding CMS–4144–P, the Medicare Program; Proposed Changes to the Medicare Advantage and the Medicare Prescription Drug Benefit Programs for Contract Year 2012 and Other Proposed Changes as defined in 42 CFR Parts 417, 422, and 423.

The Bay Area Pollution Prevention Group brings together representatives from 43 wastewater treatment facilities around the San Francisco Bay and beyond that work to prevent pollution in San Francisco Bay. We strongly support initiatives that provide the public and institutions with opportunities to reduce wastes that might otherwise be disposed of via the sewer.

Thank you for considering 7-day dispensing of pharmaceuticals to Medicare Part D patients in long-term care settings. While we strongly support dispensing in 7-day increments because of the potential for reducing the number of drugs that go unused and therefore must be disposed of, we urge you to include generic drugs as part of this rulemaking. Generic drugs represent a larger volume of drugs prescribed and wasted than brand name drugs and should therefore be included in this proposed rule. If necessary, this rulemaking could delay implementation for generic drugs, but a specified timeline should be included.

We also support the focus on long-term care facilities in both the statute and proposed rulemaking. However, we believe short-cycle dispensing could also reduce waste in other settings, particularly with prescriptions received by mail which are frequently dispensed in 90 day supplies. We encourage CMS to investigate further the potential to require similar reforms in other settings. While the 7-day dispensing practice would be inconvenient in the residential setting, there are other options to consider: (1) a 30-day cycle could be applied to some or all drugs covered by Medicare Part D (possibly limited to those delivered via mail-order), or (2) an initial prescription limitation could be considered for medications reimbursed by Medicare Part D or Medicaid programs (as is currently being applied to a small but growing subset of drugs in Maine).

We also support CMS's interest in collecting data about the quantity and types of pharmaceuticals that become waste. However, it is our experience that documenting all leftover pharmaceuticals is extremely labor intensive. We support the environmentally protective management of unwanted drugs from long-term care facilities, but believe data collection can be done directly from the facility without involving the pharmacy. We also believe that the management of pharmaceutical waste from long-term care facilities should be governed by the most stringent of the applicable federal, state, or local waste regulations and applicable to all drugs in the facility, as opposed to only those reimbursed by Medicare Part D, which we understand to be the sole focus of the proposed rule.

We encourage CMS to continue to investigate other opportunities to reduce the waste of pharmaceutical drugs reimbursed through Medicare and Medicaid programs. Thank you for the opportunity to provide these comments. Please do not hesitate to contact Jennifer Jackson at jacksonj@ebmud.com or (510) 287-0818 if you have any questions.

Sincerely,

Sharon Newton, Chair
Bay Area Pollution Prevention Group

Collection Systems Committee Report to BACWA Board

February 14, 2011
From: Andy Morrison, Committee Chair
Prepared By: Monica Oakley

Committee Request for Board Action:

None.

Highlights of New Items Discussed and Action Items

Annual SSO Reports Due March 15

Bay Area municipal collection systems have been advised they should submit their Annual sanitary sewer overflow (SSO) Report to the Regional Water Board by March 15.

New Reporting Approach for Annual SSO Reports on Hold

BACWA Collection Systems Committee leaders have been working with Regional Water Board staff on 13267 letter that would change requirements for Annual SSO Reports. Due to a Regional Water Board staff maternity leave that was extended, this work effort is currently in a holding pattern and is not expected to be implemented for the 2010 reporting year.

Regional Water Board Staff Request Committee Information

In December, 2010, Lila Tang requested a list of attendees and meeting summaries for the last several months. After discussion among BACWA collection systems leaders (including the executive director), this information was provided. In particular, the attached list attendees was provided, and the last three BACWA Collection Systems Committee Reports to the BACWA Board were provided.

Regional Water Board Staff to Participate in Committee Meeting March 3

Lila Tang of the Regional Water Board will attend the next BACWA Collection Systems Committee meeting. She will provide an update on Regional Water Board activities related to collection systems.

"Tech Topics" Ranked by Committee Members

In order to plan future committee meeting for 2011, committee members brainstormed potential topics for discussion in late 2010 and ranked them at the January 2011 meeting. The ranked topics are attached to this report, and the top-ranked issue, Easement Maintenance, will be discussed at the March committee meeting.

Changes Coming to State-wide SSO WDR

Revisions to the state-wide SSO Waste Discharge Requirements (WDR) are currently expected to be released in a draft form in late February, 2011, with a comment deadline in late March, and a State Water Board workshop scheduled for April. State Water Board action to adopt the new permit is expected in June.

Next BACWA Collection Systems Committee Meeting

This meeting is scheduled for Thursday, March 3, 2011, at the Boy Scouts facility in San Leandro.

BACWA Collection Systems Committee Attendance

September - December 2010

Albany, City of
Bay Area Clean Water Agencies
Belmont, City of
Berkeley, City of
Burlingame, City of
Castro Valley Sanitary District
Central Contra Costa Sanitary District
Corte Madera, Town of
Delta Diablo Sanitation District
East Bay Dischargers Authority
East Bay Municipal Utilities District
Fairfield, City of
Fairfield-Suisun Sewer District
Hayward, City of
Las Gallinas Valley Sanitary District
Livermore, City of
Milpitas, City of
Mountain View Sanitary District
North San Mateo County Sanitation District
Oakland, City of
Oro Loma Sanitary District
Piedmont, City of
Pittsburg, City of
Redwood City, City of
San Francisco Public Utilities Commission
San Francisco, City of
San Jose, City of
San Leandro, City of
San Mateo, County of
Santa Clara, City of
Stege Sanitary District
Sunnyvale, City of
Tamalpais Community Services District
Union Sanitary District
Vallejo Sanitation and Flood Control District
West Bay Sanitary District
West Valley Sanitation District

BACWA Collection Systems Committee
Tech Topics Ranking, January 2011

Score	Tech Topic
52	Easement maintenance issues
48	Field automation (e.g., use of laptops in trucks, other communication tools, etc.)
34	Lift/pump stations: manufacturers, applications, air values, maintenance
30	CCTV vendors/equipment
28	Computerized maintenance management systems (CMMS) and their use
20	Data collection (SSOs, response time, clean-up and coverage)
18	Large force main failure contingency planning
16	Pigging force mains
14	Effective connections at manhole (to prevent future roots)
14	Use of GIS
11	Siphon cleaning
7	Funding options
5	Sewer testing - air, water, CCTV,etc.
5	SSO prevention by using smart covers
5	Trenchless repairs
5	Organization -- scheduling and prioritizing preventive maintenance (paper or computer)
5	Succession planning (finding staff to fill current and future positions)
5	Getting government bodies to understand collection systems issues/needs
4	Lower lateral maintenance
4	SOP writing and updating process
4	Collection system management overview
3	Emergency response equipment
3	HOA (private) collection systems
2	Stopping manhole leaks
0	FOG removal
0	Odor control
0	Corrosion control
0	Contract maintenance
0	Natural disaster planning
0	Back-up radio communication system in natural disaster
0	Hinged manhole covers (including information regarding composite lids)
0	Peer review program of SSMPs (Work Order System, SOPS, Training, Condition Assessment Program, Sewer Cleaning Program)
0	SSMP training for update audits
0	Communication with press and media
0	Use of social media (e.g. Facebook, for communication with the public)
0	Security for vandalism

Permits Committee – Report to BACWA Board

Reporting Date: 2/17/11
Executive Board Meeting Date: 2/24/2011
Committee Chair: Jim Ervin

Committee Request for Board Action: None.

Upcoming Permits/Permit Amendments –

Feb – Napa Sanitation District
Mar – PCBs Permit Amendment
Mar – Attachment H Permit Amendment (Pretreatment)
Apr – Sanitary District No. 5 of Marin County, Paradise Cove

eSMR:

State Water Board staff held a training on eSMR in the Regional Water Board auditorium on 20 January. Many BACWA members attended. Regional Water Board staff will also be scheduling training for 1-3 agencies at a time, starting in March for the larger agencies beginning to report to eSMR by 1 April.

The BACWA Permits and Lab committees held a joint meeting on February 8 to accommodate a presentation by Johnson Lam. Johnson presented a software module for the ERS reporting system that will download data to the eSMR reporting format. The Regional Water Board intends to cease all support for the ERS system later this year. Johnson presented the information independently, i.e. not representing the Regional Water Board. Johnson plans to provide support for ERS as an independent contractor, but has not determined a price for his support. He indicated that he would like a proposal from BACWA and/or WSPA to provide support for his new software.

PCBs TMDL: BACWA submitted an extensive comment letter on the tentative order for the PCBs permit amendment to the Mercury Watershed Permit on 31 January. The PCBs amendment is scheduled for adoption by the Regional Water Board on 9 March. Ten comment letters were received by the Regional Water Board.

Whole Effluent Toxicity (WET) Assessment and Control Policy: BACWA signed a letter developed by CASA / Tr-TAC on the proposed WET testing policy. Several BACWA members participated in preparing the letter. The final letter was submitted to the State Water Board on 21 January, a 2-month extension to the original deadline. The State Water Board has indicated that a workshop will be scheduled after comments are received, but no meetings have yet been scheduled (as of 2/17/11).

Test of Significant Toxicity (TST) Training: The State Water Board provided training on the proposed TST method for chronic toxicity testing on 8 February in Sacramento. Some BACWA members attended. USEPA staff explained and promoted the method at the training.

State Board – SFB Basin Plan Amendment for Bacteria Objectives: This Basin Plan Amendment was adopted by the Regional Water Board on April 15, 2010. It is now up for approval by the State Water Board. Written comments on this amendment are due to the State Water Board on 3 March, 12 noon. It was discussed that BACWA may prepare a comment letter with similar points as in the comment letter for the Regional Water Board adoption. The public hearing for State Water Board approval has not yet been scheduled.

Numeric Nutrient Endpoint. A stakeholder advisory group workshop for the San Francisco Bay portion of the State Water Board's Numeric Nutrient Endpoint development project was held at the Water Board offices on 4 Feb. The goal of the meeting was to discuss the draft nutrient numeric endpoint conceptual framework prepared by SCCWRP in April, 2009, including science review, indicator selection, and process for developing thresholds.

Sediment Quality Objectives: The State Water Board has proposed amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries Plan for sediment quality objectives (SQOs). The amendment adds objectives for wildlife and resident fish populations, in addition to the existing public health objectives. Implementation is still expected to occur through regional monitoring. Comments are due 14 March. Adoption hearing will be 6 April.

Pretreatment Reporting Requirements. Comments on the tentative order for a permit amendment to improve pretreatment reporting requirements were due to the Regional Water Board on the tentative order for Attachment H on 27 January. The permit amendment is expected to be adopted by the Regional Water Board at the 9 March hearing.

Next BACWA Permits Committee Meeting

Tuesday, March 8th, 2011, at EBMUD Wastewater Treatment Plant Library. Water Board staff will attend.

Grant Disbursement Summary to Date (Feb. 2, 2011) 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[2] 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**	**972,800.00**	**0.00**		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**	**972,800.00**	**0.00**		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	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				
	(& San Jose)	BACWA Admin[3]	16	31,875.00	6,428.55	4,377.33	(486.37)	31,875.00			
SJ	City of San Jose	BACWA Admin for SCVWD[3]	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	Pacifica Recycled Water Proj	9	744,400.00	0.00	0.00	0.00		0.00	1,459.11	1,459.11
	(& SFPUC)	BACWA Admin[3]	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[3]	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**	**244,550.00**	**(0.00)**		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			
Grand Total				**12,500,000.00**	**7,932,912.56**	**6,490,810.56**	**(507,695.91)**	**250,000.00**	**6,343,995.01**	**49,065.55**	**6,393,060.56**

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.

2/2/2011

Director's Report to the Board

January 24, 2011 – February 18, 2011
Prepared for the February 24, 2011 Executive Board meeting

A. Organizational Developments

- ***Accounting.*** Automation of the Treasurer's Report is close to completion; automation of the fund balance report and reformatting of the Treasurer's Report is expected to be complete before the end of the Fiscal Year. Implementation of coding for Proposition 50 is underway and completion is expected within two months.
- ***Budget Development.*** A draft budget for the Fiscal Year 2011- 2012 was prepared for the February Executive Board meeting. Notice of member dues must be provided by March 1, 2011 per Joint Powers Agreement requirements.
- ***Ethics.*** Statements of Economic Interest (Form 700) must be filed by April 1, 2011. The Assistant Executive Director (AED) will be sending notice of this deadline by March 1, 2011. The Form 700 is available at www.fppc.ca.gov.
- ***Communications.*** The February BACWA e-newsletter was sent; the website is being cleaned up prior to upgrading the skin.

B. Regulatory Affairs

- ***Mercury.***

  Risk Reduction. The Executive Director (ED) submitted a report to the Regional Water Board on February 1 summarizing progress since the last deadline of March 1, 2010. We have requested that this project, funds for which are being routed through the Aquatic Science Center (ASC), be placed on the agenda for the March 3, 2011 meeting. The ED also communicated with the Central Valley Clean Water Agencies ED about coordinating on this issue.

  Mass Reporting. The annual mercury mass loading report is due to the Regional Water Board on April 1, 2011. A draft of the report will be available for BACWA Executive Board review in late February, with internal comments due on March 4, 2011.
- ***Copper & Cyanide SSO Requirements.*** The ED prepared and submitted a report to the Regional Water Board on Bay Area POTW's compliance with permit provisions related to the Copper and Cyanide site specific objective action plans and coordinated data review with SFEI to ascertain that the concentration triggers specified in the action plans were not exceeded.
- ***PCB TMDL Implementation.*** On January 31, the ED submitted comments on the draft tentative order implementing the PCBs Total Maximum Daily Load. The ED has drafted oral testimony for the adoption hearing and will provide these upon request.
- ***Bacteria.*** Comments on a State Board resolution approving the Regional Water Board's April 15, 2010 Basin Plan Amendment establishing bacterial objectives for waters designated for contact recreation are due March 3, 2011 at 12:00 p.m. BACWA anticipates submitting comments similar to those we submitted to the Regional Board.
- ***Selenium.*** In January, the Water Board issued a preliminary TMDL report for selenium. As this is not a formal action, there is no deadline for reviewing and commenting. BACWA may wish to consider engaging a consultant to provide a technical review of the report. Additionally, the ED finalized the scope of work for SFEI to assist in the collection of

speciation and particulate-bound selenium requested by the Regional Water Board. The ED continues to work with SFEI, Regional Water Board and BACWA representatives to identify the plants whose effluent will be analyzed.

- ***Nutrients.***

  Suisun Bay Monitoring Plan. The ED is coordinating with Ecosystems Consulting to coordinate pesticides/herbicides collection and analysis. A kick-off meeting to discuss logistics and TIE work is scheduled from 9:00 until 4:00 on February 25, 2011 at the Water Board offices.

  Numeric Nutrient Endpoint (NNE) Development: The ED attended the February 4, 2011 NNE Stakeholders Advisory Group meeting. The Technical Team's preliminary report, including a literature review, is expected to be available later this month or in March.

  Regional Monitoring Program Nutrient Strategy. The ED attended a January 28 meeting at SFEI to discuss mechanisms to continue the USGS' nutrient monitoring work. The meeting was also attended by Dr. Dick Dugdale and representatives from the Regional Water Board and the Regional Monitoring Program. An RMP nutrient strategy will be developed, beginning with a workshop on June 29, 2011.

- ***e-SMR Transition.*** The Laboratory and Permits Committees held a joint meeting on February 8 to hear a presentation about and discuss the e-SMR transition. The ED also met with Johnson Lam to discuss the transition and services he may offer to assist with the transition.
- ***EPA's Advanced Notice of Proposed Rulemaking.*** EPA has issued the text of an Advanced Notice of Proposed Rulemaking (ANPR) for Water Quality Issues in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. This is a non-regulatory action intended to solicit information that may lead to future action (regulatory and other). Comments will be due sixty days after publication in the Federal Register, which has yet to occur. BACWA will coordinate with CASA/Tri-TAC who are drafting a letter. The ANPR requests information about, among other things, selenium, pesticides, ammonia and contaminants of emerging concern.
- ***Sanitary Sewer Overflow Waste Discharge Requirements.*** A draft WDR for SSOs is expected to be issued in March of this year.

C. COLLABORATIONS

- ***Energy.*** The Strass Energy Workshop is scheduled for March 4 at the PG&E Energy Center in San Francisco.
- ***Pesticides.*** The ED worked with Kelly Moran and a Tri-TAC working group to develop a proposal for statewide support for pesticide regulatory tracking and response. This proposal will be taken to the Summit Partners at their February 28 meeting.

D. MEETINGS

February 25, 2011: Suisun Bay Monitoring Plan Meeting
February 28, 2011: Summit Partners' Meeting
March 3, 2011: Aquatic Science Center Meeting
March 3, 2011: Bacteria Basin Plan Amendment Comments Due
March 3, 2011: Collection Systems Committee Meeting
March 4, 2011: Strass Energy Workshop

March 8, 2011: Permits Committee Meeting
March 9, 2011: Laboratory Committee Meeting
March 9, 2011: Regional Water Board Meeting (PCB Permit and Attachment H)
March 16, 2011: Biosolids Committee Meeting
March 23, 2011: RMP Technical Review Committee Meeting
March 24, 2011: BACWA Executive Board Meeting
March 25, 2011: RMP Emerging Contaminants Workgroup Meeting

Executive Board Meeting Minutes

Thursday, January 27, 2011, 1:30 p.m. – 3:30 p.m.
Boy Scouts Facility, 1001 Davis Street, San Leandro, CA

ROLL CALL AND INTRODUCTIONS

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

Other Attendees: Kirsten Struve (City of San Jose); Sharon Newton (City of San Jose); Amanda Roa (Delta Diablo Sanitation District); Tom Hall (Sunnyvale/Eisenberg Olivieri Associates, Inc.); Amy Chastain (BACWA); Alexandra Gunnell (BACWA).

PUBLIC COMMENT

There were no public comments.

REPORTS

Proposition 50 Grant Disbursements Status Report, agenda item 1, was included in the meeting handout packet.

Agenda item 2, the **Executive Director's Report** included in the meeting handout packet, was not discussed.

The Board recommended including the final version of the Sacramento Regional County Sanitation District's Permit Fact Sheet in the upcoming BACWA e-newsletter. It was also suggested that a meeting between the San Francisco Regional Water Quality Control Board and the BACWA Board should be scheduled to continue discussions on various regulatory issues.

Executive Board (Board) members were invited to share any items of interest under **agenda item 3**, **Executive Board Reports.**

Concern was raised about various aspects of the ESMR, and the ED mentioned that the current As Needed agreement with EOA may be used to communicate those issues to the California State Water Resource Control Board.

The following **Chair and Executive Director Authorized Actions** were listed under agenda **item 4**.

a. Executive Director Authorization for As-Needed Assistance from Downey Brand for PCB Tentative Order Review (12,166); $1,500; December 20, 2010.
b. Chair Authorization of contract with Patricia McGovern Engineers for As-Needed Assistance (12,320); $9,500; December 27, 2010.
c. Executive Director Authorization for As-Needed Assistance from Larry Walker & Associates for Annual Meeting; $4,000; January 20, 2011.
d. Executive Director Authorization for a Contract with Teleosis Institute for Hospice Pharmaceutical Disposal Education; $4,999; January 21, 2011.

CONSENT CALENDAR

*Consent calendar **agenda items 5 and 6** were approved in a motion made by Mike Connor and seconded by Laura Pagano. The motion carried unanimously.*

5. Minutes from December 16, 2010 BACWA Executive Board Meeting.

6. November 2010 Treasurer's Report.

BOARD DISCUSSION ITEMS

Agenda item 7 included a discussion about the **BACWA Nutrient Strategy Assistance: Selection Committee Recommendation**, which *was approved in a motion made by Mike Connor and seconded by Margaret Orr. The motion carried unanimously.* The ED will update Kevin Kennedy, of HDR, on the RMP plan to develop a nutrient strategy.

For **agenda item 8**, **Suisun Bay Monitoring Plan Support,** a *motion was made by Margaret Orr to approve authorizing the Executive Director to undertake actions necessary to expand the Suisun Bay Monitoring Workplan in an amount not to exceed $50,000. The motion was second by Ben Horenstein, and carried with four yeses and 1 abstention.*

Concern was raised about the process for choosing what and how to measure, and fund matching specifics, but the Board agreed that it was important for BACWA to be involved. It was suggested that BACWA needs to develop a unified position on this matter.

Under **agenda item 9,** in *a motion from Bhavani Yerrapotu and seconded by Laura Pagano, the Board approved contributing up to $25,000 toward* ***Support for City of San Jose San Francisco Bay Water Quality Regional Education & Behavior Change Campaign,*** *contingent upon receipt of the grant award from the EPA. The motion carried unanimously.*

It was noted that if funding is secured the project is likely to be managed by a San Jose staff person, plans would be approved by a steering committee comprised of contributing partners, and SFEP would act as the facilitator. The ED will work with San Jose to finalize the letter. The EPA is scheduled to make their selection in April.

For **agenda item 10, BACWA and WQAS/CBC Revenues and Expenditures for Fiscal Year 2011-2012** were discussed.

Concern about continuing the current dues structure was raised from those principal agencies that are charged by their agencies with reducing their association expenditures. The Board recommended that the ED present a draft budget at Board meeting in February, based on revenues and expenditures similar to past few years, and requested that the ED develop suggestions for how designated funds could be spent.

Board members will send their agency's board meeting dates to ED as a reference for future scheduling. The budget planning meeting will likely be scheduled separately from the February 24th Board meeting.

The next regular meeting is scheduled for **February 24, 2011**, **9:00 a.m. to 2:00 p.m.** at the EBMUD Plant **Lab Library** in Oakland. The time and/or date may be changed depending on the scheduling of the budget planning meeting.

The meeting adjourned at 3:30 p.m.

February 9, 2011

MEMO TO: Bay Area Clean Water Agencies Executive Board
MEMO FROM: Gary Breaux, Director of Finance, East Bay Municipal Utilities District
SUBJECT: Six Month Treasurer's Report

As required by section eight of the Joint Powers Agreement establishing the Bay Area Clean Water Agencies (BACWA) and California Government Code Sections 6500 et seq., attached is the BACWA Treasurer's Report for the period covering **July 1, 2010 through December 31, 2010** (first six months of the Fiscal Year 2010-2011). This report covers expenditures, cash receipts, and cash transfers for the following BACWA funds:

- Bay Area Clean Water Agencies (BACWA),
- BACWA Training Fund (BCTWRNG),
- BACWA Legal Reserve (BCLWGLR),
- BACWA Operating Reserve (BCWOPR),
- Proposition 50 Grant (Prop50),
- Air Issue and Regulation Group (AIR),
- Bay Area Pollution Prevention Group (BAPPG),
- Clean Bay Collaborative/Water Quality Attainment Strategies (WQA),
- CBC/WQAS Emergency Reserve (WQEMGR),
- CBC/WQAS Technical Action Fund (WQTACT),
- CBC/WQAS Operating Reserve (CBCOPR),
- Regional Water Recycling (RWR),
- Water/Wastewater Operator Training (WOT), and
- Reserve (RESERVE).

GB/SK

Fund Balances as of month end 12/31/10

	Beginning Fund Balance 7/1/10	Total Receipts	Total Disbursements	Ending Fund Balance	Outstanding Encumbrances	Unobligated Fund Balances
BACWA	334,476.06	613,331.45	173,387.01	774,420.50	344,245.09	430,175.41
BCTWRNG	250,000.00	265.08	-	250,265.08	-	250,265.08
BCLWGLR	300,000.00	437.16	-	300,437.16	-	300,437.16
BCWOPR	153,500.00	161.85	2,562.29	151,099.56	-	151,099.56
Prop50	18,147.96	505,770.56	328,541.90	195,376.62	70,352.92	125,023.70
AIR	2,592.18	84,884.86	14,883.70	72,593.34	71,871.13	722.21
BAPPG	49,131.29	30,073.09	26,469.59	52,734.79	57,068.25	(4,333.46)
WQA	64,897.39	450,897.31	116,558.50	399,236.20	67,634.74	331,601.46
WQEMGR	400,000.00	582.87	-	400,582.87	-	400,582.87
WQTACT	250,000.00	364.30	-	250,364.30	-	250,364.30
CBCOPR	162,000.00	236.06	-	162,236.06	-	162,236.06
RWR	16,516.27	41.58	-	16,557.85	-	16,557.85
WOT	55,287.83	106,594.32	56,000.00	105,882.15	-	105,882.15
RESERVE	120,000.00	-	-	120,000.00	-	120,000.00
Total	2,176,548.98	1,793,640.49	718,402.99	3,251,786.48	611,172.13	2,640,614.35

Bay Area Clean Water Agencies (BACWA)
BACWA Training Fund (BCTWRNG)
BACWA Legal Reserve (BCLWGLR)
BACWA Operating Reserve (BCWOPR)
Proposition 50 Grant (Prop50)
Air Issue and Regulation Group (AIR)
Bay Area Pollution Prevention Group (BAPPG)
Clean Bay Collaborative/Water Quality Attainment Strategies (WQA)
CBC/WQAS Emergency Reserve (WQEMGR)
CBC/WQAS Technical Action Fund (WQTACT)
CBC/WQAS Operating Reserve (CBCOPR)
Regional Water Recycling (RWR)
Water/Wastewater Operator Training (WOT)
Reserve (RESERVE)

BACWA Revenue Report for December 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	450,000.00	-	90,000.00	-	450,000.00	450,000.00	-
Bay Area Clean Water Agencies	BDO Other Receipts	-	-	-	-	-	-	-
Bay Area Clean Water Agencies	BDO Interest Income	15,000.00	-	-	1,331.45	-	1,331.45	13,668.55
Bay Area Clean Water Agencies	BDO Assoc.&Affiliate Contr	159,000.00	-	1,500.00	-	162,000.00	162,000.00	(3,000.00)
Bay Area Clean Water Agencies	BDO Fund Transfers	37,842.00						37,842.00
BACWA TOTAL		661,842.00	0.00	91,500.00	1,331.45	612,000.00	613,331.45	48,510.55
BACWA TRAINING	BDO Interest Income	-	-	-	265.08	-	265.08	(265.08)
BACWA LEGAL RESERVE	BDO Interest Income	-	-	-	437.16	-	437.16	(437.16)
BACWA OPERATING RESERVE	BDO Interest Income	-	-	-	161.85	-	161.85	(161.85)
AIR-Air Issues&Regulation Grp	BDO Member Contributions	83,400.00	-	6,000.00	-	84,828.00	84,828.00	(1,428.00)
AIR-Air Issues&Regulation Grp	BDO Other Receipts	-	-	-	-	-	-	-
AIR-Air Issues&Regulation Grp	BDO Interest Income	-	-	-	56.86	-	56.86	(56.86)
AIR TOTAL		83,400.00	0.00	6,000.00	56.86	84,828.00	84,884.86	-1,484.86
BAPPG-BayAreaPollutnPreventGrp	BDO Member Contributions	80,505.00	-	1,150.00	-	30,005.00	30,005.00	50,500.00
BAPPG-BayAreaPollutnPreventGrp	BDO Other Receipts	50,000.00	-	-	-	-	-	50,000.00
BAPPG-BayAreaPollutnPreventGrp	BDO Interest Income	3,079.00	-	-	68.09	-	68.09	3,010.91
BAPPG TOTAL		133,584.00	0.00	1,150.00	68.09	30,005.00	30,073.09	103,510.91
WQA-WtrQualityAttainmntStratgy	BDO Member Contributions	450,000.00	-	60,500.00	-	450,500.00	450,500.00	(500.00)
WQA-WtrQualityAttainmntStratgy	BDO Other Receipts	-	-	-	-	-	-	-
WQA-WtrQualityAttainmntStratgy	BDO Interest Income	8,000.00	-	-	397.31	-	397.31	7,602.69
CBC/WQAS TOTAL		458,000.00	0.00	60,500.00	397.31	450,500.00	450,897.31	7,102.69
WQA Emergency Reserve	BDO Interest Income	-	-	-	582.87	-	582.87	(582.87)
WQA Tech Active Fund	BDO Interest Income	-	-	-	364.30	-	364.30	(364.30)
CBC Operating Reserve	BDO Interest Income	-	-	-	236.06	-	236.06	(236.06)
WOT - Wtr/Wwtr Operat Training	BDO Member Contributions	-	-	35,500.00	-	106,500.00	106,500.00	(106,500.00)
WOT - Wtr/Wwtr Operat Training	BDO Other Receipts	-	-	-	-	-	-	-
WOT - Wtr/Wwtr Operat Training	BDO Interest Income	-	-	-	94.32	-	94.32	(94.32)
WOT TOTAL		0.00	0.00	35,500.00	94.32	106,500.00	106,594.32	-106,594.32
Prop50BayAreaIntegRegnlWtrMgmt	BDO Member Contributions	-	-	-	505,508.30	-	505,508.30	(505,508.30)
Prop50BayAreaIntegRegnlWtrMgmt	BDO Other Receipts	-	-	-	-	-	-	-
Prop50BayAreaIntegRegnlWtrMgmt	BDO Interest Income	2,000.00	-	-	262.26	-	262.26	1,737.74
PROP 50 TOTAL		2,000.00	0.00	0.00	505,770.56	0.00	505,770.56	-503,770.56
RWR Regional Wtr Recycling	BDO Interest Income	-	-	-	41.58	-	41.58	(41.58)

BACWA Expense Report for December 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	(2,329.00)	2,328.50	-	17,216.00	7,783.50	-	24,999.50	0.50
Bay Area Clean Water Agencies	BC-Permit Committee	25,000	(1,566.00)	1,566.00	-	20,716.00	4,284.00	-	25,000.00	-
Bay Area Clean Water Agencies	BC-Water Recycling Committee	11,000	-	-	-	-	-	-	-	11,000.00
Bay Area Clean Water Agencies	BC-Biosolids Committee	10,000	-	-	-	-	-	-	-	10,000.00
Bay Area Clean Water Agencies	BC-InfoShare Groups	25,000	-	-	-	20,912.50	4,087.50	-	25,000.00	-
Bay Area Clean Water Agencies	BC-Laboratory Committee	7,000	-	-	46.93	-	-	3,029.18	3,029.18	3,970.82
Bay Area Clean Water Agencies	BC-Miscellaneous Committee Su	10,000	-	-	-	-	-	2,930.80	2,930.80	7,069.20
BACWA Committees Subtotal		113,000.00	-3,895.00	3,894.50	46.93	58,844.50	16,155.00	5,959.98	80,959.48	32,040.52
Bay Area Clean Water Agencies	TS-Media Relations Support	25,000	-	-	-	19,296.25	5,703.75	-	25,000.00	-
Bay Area Clean Water Agencies	TS-Consultant Support	100,000	(7,024.00)	7,023.12	-	61,192.00	8,807.62	-	69,999.62	30,000.38
BACWA Technical Support Subtotal		125,000.00	-7,024.00	7,023.12	0.00	80,488.25	14,511.37	0.00	94,999.62	30,000.38
Bay Area Clean Water Agencies	LS-Regulatory Support	20,000	-	-	-	9,616.00	384.00	3,877.53	13,877.53	6,122.47
Bay Area Clean Water Agencies	LS-Executive Board Support	10,000	-	-	-	5,000.00	-	-	5,000.00	5,000.00
BACWA Legal Support Subtotal		30,000.00	0.00	0.00	0.00	14,616.00	384.00	3,877.53	18,877.53	11,122.47
Bay Area Clean Water Agencies	CAS-CWAA	10,000	-	-	-	-	-	10,000.00	10,000.00	-
Bay Area Clean Water Agencies	CAS-PSSEP	20,000	-	-	-	-	-	-	-	20,000.00
Bay Area Clean Water Agencies	CAS-CPSC	5,000	-	-	-	-	-	5,000.00	5,000.00	-
Bay Area Clean Water Agencies	CAS-PSI	500	-	-	500.00	-	-	500.00	500.00	-
BACWA Collab & Sponsor Subtotal		35,500.00	0.00	0.00	500.00	0.00	0.00	15,500.00	15,500.00	20,000.00
Bay Area Clean Water Agencies	CAR-BACWA Annual Report	20,000	-	-	-	-	8,000.00	1,633.48	9,633.48	10,366.52
Bay Area Clean Water Agencies	CAR-BACWA Website Developr	70,000	(1,785.00)	1,785.00	720.00	14,144.00	11,606.00	1,324.97	27,074.97	42,925.03
Bay Area Clean Water Agencies	CAR-Other Communications	15,000	(750.00)	750.00	-	13,590.00	4,410.00	193.80	18,193.80	(3,193.80)
BACWA Comm & Report Subtotal		105,000.00	-2,535.00	2,535.00	720.00	27,734.00	24,016.00	3,152.25	54,902.25	50,097.75
Bay Area Clean Water Agencies	SP-BAPPG Contribution	50,000	-	-	-	-	-	-	-	50,000.00
Bay Area Clean Water Agencies	GBS-Contingency	15,000	-	-	-	-	-	-	-	15,000.00
Bay Area Clean Water Agencies	GBS- Meeting Support	10,000	(69.69)	69.69	529.54	717.25	282.75	4,873.96	5,873.96	4,126.04
BACWA General Subtotal		25,000.00	-69.69	69.69	529.54	717.25	282.75	4,873.96	5,873.96	19,126.04
Bay Area Clean Water Agencies	AS-BACWA Admin Expense	8,000	-	-	-	-	-	802.65	802.65	7,197.35
Bay Area Clean Water Agencies	AS-Executive Director	130,000	(10,833.33)	10,833.33	-	75,833.35	54,166.65	-	130,000.00	-
Bay Area Clean Water Agencies	AS-Assistant Executive Directo	70,000	(4,365.00)	4,365.00	-	42,235.00	25,965.00	-	68,200.00	1,800.00
Bay Area Clean Water Agencies	AS-EBMUD Administrative Servi	44,000	-	-	-	43,776.74	-	-	43,776.74	223.26
Bay Area Clean Water Agencies	AS-Insurance	5,000	-	-	-	-	-	3,739.87	3,739.87	1,260.13
BACWA Administration Subtotal		257,000.00	-15,198.33	15,198.33	0.00	161,845.09	80,131.65	4,542.52	246,519.26	10,480.74
BACWA TOTAL		740,500.00	-28,722.02	28,720.64	1,796.47	344,245.09	135,480.77	37,906.24	517,632.10	222,867.90

BACWA Expense Report for December 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	-	-	-	-	-	-	-	4,038.00
AIR-Air Issues&Regulation Grp	BDO Contract Expenses	86,755	(8,918.87)	8,918.87	-	71,871.13	14,883.70	-	86,754.83	0.17
AIR TOTAL		90,793.00	-8,918.87	8,918.87	0.00	71,871.13	14,883.70	0.00	86,754.83	4,038.17
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Fog	21,800	1,762.50	3,037.50	2,317.64	11,762.50	3,037.50	2,317.64	17,117.64	4,682.36
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Mercury	9,500	(2,138.00)	2,138.00	-	3,564.00	3,376.00	-	6,940.00	2,560.00
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pesticides	16,000	-	-	-	-	-	10,000.00	10,000.00	6,000.00
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Copper	4,000	(525.00)	525.00	-	2,050.00	2,010.00	-	4,060.00	(60.00)
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pharmaceutical	4,999	-	-	-	-	-	-	-	4,999.00
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-General P2	46,500	38,611.75	1,388.25	-	38,611.75	1,388.25	1,420.20	41,420.20	5,079.80
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Emerging Issues	5,000	-	-	-	-	-	-	-	5,000.00
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Other	8,396	(600.00)	600.00	-	1,080.00	2,920.00	-	4,000.00	4,396.00
BAPPG-BayAreaPollutnPreventGrp	BDO Administrative Expense	5,810	-	-	-	-	-	-	-	5,810.00
BAPPG TOTAL		122,005.00	37,111.25	7,688.75	2,317.64	57,068.25	12,731.75	13,737.84	83,537.84	38,467.16
WQA-WtrQualityAttainmntStratgy	WQA-CE-Technical Support	191,728	22,335.00	2,665.00	-	35,529.99	51,195.59	-	86,725.58	105,002.42
WQA-WtrQualityAttainmntStratgy	WQA-CE-Collaborations & Spon	50,000	-	-	-	-	-	50,000.00	50,000.00	-
WQA-WtrQualityAttainmntStratgy	WQA-CE-Trainings	7,190	-	-	-	-	-	-	-	7,190.00
WQA-WtrQualityAttainmntStratgy	WQA-CE-Commun. & Reporting	65,000	-	-	-	20,000.00	-	-	20,000.00	45,000.00
WQA-WtrQualityAttainmntStratgy	WQA-CE-Program Mgmt	39,000	-	-	-	-	-	-	-	39,000.00
WQA-WtrQualityAttainmntStratgy	WQA-CE-Other	103,430	(825.00)	825.00	5,000.00	12,104.75	6,825.00	8,537.91	27,467.66	75,962.34
WQA-WtrQualityAttainmntStratgy	BDO Administrative Expense	21,810	-	-	-	-	-	-	-	21,810.00
CBC/WQAS TOTAL		478,158.00	21,510.00	3,490.00	5,000.00	67,634.74	58,020.59	58,537.91	184,193.24	293,964.76
BACWA OperatingRsrve Fnd Trnfr	BDO Contract Expenses	-	-	-	-	-	-	2,562.29	2,562.29	-
WOT - Wtr/Wwtr Operat Training	BDO Administrative Expense	2,500	-	-	-	-	-	-	-	2,500.00
WOT - Wtr/Wwtr Operat Training	BDO Contract Expenses	81,000	-	-	-	-	-	56,000.00	56,000.00	25,000.00
WOT TOTAL		83,500.00	0.00	0.00	0.00	0.00	0.00	56,000.00	56,000.00	27,500.00
Prop50BayAreaIntegRegnlWtrMgmt	BDO Administrative Expense	8,000.00	(405.00)	405.00	-	536.00	1,464.00	167.40	2,167.40	5,832.60
Prop50BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	78,017.00	(7,575.00)	7,575.00	-	69,816.92	8,200.00	-	78,016.92	0.08
Prop50BayAreaIntegRegnlWtrMgmt	LPS Disbursement	-	-	-	-	-	-	318,710.50	318,710.50	-
PROP 50 TOTAL		86,017.00	-7,980.00	7,980.00	0.00	70,352.92	9,664.00	318,877.90	398,894.82	5,832.68

EXHIBIT A

SCOPE OF WORK

Since the adoption of the federal Clean Water Act, nutrient enrichment has not been identified as a water quality issue for the San Francisco Bay (SF Bay). Bay Area Clean Water Agencies' (BACWA's) understanding of the mechanisms by which nutrient enrichment can disrupt aquatic ecosystems has been changing rapidly, and some research suggests that nutrient enrichment may impair SF Bay beneficial uses. Additionally, recent regulatory developments at the regional, state, and local levels suggest that numeric effluent limits on dischargers of nutrients may be forthcoming with yet-unknown impacts on existing SF Bay wastewater treatment plants.

To understand and support ongoing research related to nutrient enrichment, and to develop the data necessary to inform potential regulations, BACWA has asked Consultant to assist with understanding and responding to the rapidly-changing regulatory and scientific landscape related to nutrient enrichment of the SF Bay.

The following scope of work will be provided by the Consultant:

TASK 1 – TACTICAL PLANNING

Subtask 1.1 – Kick-Off Meeting

Consultant will conduct a two-hour project kick-off meeting with BACWA's Executive Board (Board) to accomplish the following:

- Introduce the project team.
- Present and describe a preliminary strategy to respond to potential nutrient effluent limits.
- Discuss and document the Board's concerns regarding the potential development of nutrient regulations for the SF Bay.
- Discuss the development of a project plan, including deliverables and next steps.

Assumptions:

- This meeting has been tentatively schedule for March 14, 2011, from 1:00 to 3:00 p.m.
- All meeting attendees will be asked to bring their updated schedules to allow future meetings or workshops to be scheduled during the kick-off meeting.
- All Executive Board Members and selected members of the Consultant Team shall attend the kick-off meeting.

Deliverables:

- Meeting agenda, presentations, and meeting report.
    - Meeting report shall be comprised of abbreviated minutes and recommended action items.

Subtask 1.2 – Project Plan

Following the kick-off meeting, Consultant will prepare a Project Plan to guide and communicate future activities. The Project Plan shall be a living document and will be revised to

reflect significant changes in the dialog with BACWA members as strategies are developed to respond to potential nutrient effluent limits, to the extent allowed by available budget resources. The Project Plan may include some or all of the following items:

- Project schedule and key milestones.
- Subsequent workshops, dates, and identification of preliminary areas of focus.
- Key topic issue papers.
- Technical support to BACWA position papers.
- Data collection and analyses, and other technical investigations resulting from the dialog with BACWA.

Subtask 1.3 – Regional Monitoring Program Nutrient Workshop
Consultant shall prepare and provide a presentation for the June 29, 2011 Regional Monitoring Program Nutrient Workshop. The presentation shall describe nutrient removal treatment technologies and current limitations. Consultant shall rely extensively on the information they have developed for the Water Environment Research Foundation (WERF) Nutrient Challenge, particularly:

- WERF assessment of the state-of-the-art wastewater treatment for nitrogen, and possibly phosphorus control.
- Nutrient removal performance data available to help publicly owned treatment works (POTWs) select sustainable, cost-effective methods and technologies to meet permit limits.

Subtask 1.4 – Executive Board Meeting Attendance
Attendance and briefing of the Executive Board on a monthly basis either by conference call or via written progress report.

Assumptions:

- It is assumed that meeting preparation and attendance shall be limited to 1.5 hours per meeting for the months of March through June of 2011.

TASK 2 – PLANNING SUPPORT

Subtask 2.1 – Topic Papers
Consultant will prepare four (4) topic papers pertaining to the following subjects:

- Numerical nutrient endpoint (NNE) literature review[1].
- Relevant hydrodynamic and nutrient models of the SF Bay.
- Infrastructure implications of nutrient effluent limits.
- Sustainability impacts of potential nutrient effluent limits.

[1] Hereafter referred to as the NNE Literature Review.

Each topic paper shall present a factual report that provides a brief description of the issue and potential impact to SF Bay POTWs, designed to foster a common understanding of the issue for the Board. It is assumed that the later three topics papers will be no more than 10 pages in length.

NNE Literature Review

Consultant shall review the NNE Literature Review and comments, recommendations, and general input regarding the NNE Literature Review in a draft topic paper.

In addition to a summary of current and relevant study results, water quality data, etc., the NNE Literature Review is anticipated to describe the proposed California Estuarine NNE Project framework that may subsequently used for the development of SF Bay-specific NNEs. The literature review is anticipated to be available in March 2011. The comment period duration is estimated to be approximately one month.

The NNE Literature Review topic paper shall be finalized after discussion with the Board to gather a fundamental understanding of the BACWA issues about the NNE framework, and to develop a suggested strategy or framework or modifications and improvements. Ultimately, this topic summary shall represent the collective concerns of the BACWA Executive Board and members, coupled with Consultant's understanding of the technical issues surrounding NNE development.

Each topic summary will be submitted to the Board for review and comment. After receiving one consolidated set of comments, Consultant will incorporate agreed-upon comments into a final topic summary.

Assumptions:

- Revisions of each draft topic paper shall be based on a single set of compiled BACWA comments collected and compiled by BACWA staff.

Deliverables:

- One PDF copy of the draft and final topic paper.

Hydrodynamic and Nutrient Models of the San Francisco Bay

There are a number of hydrodynamic models (e.g., SUNTANS, UNTRIM, RMA, and MIKE-21) currently being employed within the SF Bay and Delta systems. However, none of these models appear to have a true water quality component.

Consultant will review relevant models of the SF Bay, as well as other public-available models suitable for use within the SF Bay, and determine what adaptations would be required to allow their use in modeling nutrients and nutrient-related processes within the SF Bay. Due to the number of models available, Consultant may elect to describe model adaptation requirements for similar model groups, rather than on a model-by-model basis. Consultant shall describe relative advantages and disadvantages. Advantage and disadvantage descriptions shall be consistent with respect to adaption requirement description being on a model-by-model or model group basis.

Assumptions:

- Modeling topic paper shall be no more than ten pages in length.
- Revisions to draft topic paper shall be based on a single set of compiled BACWA comments collected and compiled by BACWA staff.

Deliverables:

- One PDF copy of the draft and final topic paper.

Nutrient Effluent Limit Infrastructure Implications

Infrastructure implications topic paper shall be based on the preliminary work contained in Consultant's proposal, which, by comparison, depicts the magnitude of changes required to achieve more stringent nutrient regulations in terms of flow.

Consultant shall prepare a summary of BACWA POTW infrastructure, including readily-available treatment technologies currently utilized and planned, current nutrient removal capabilities, and estimated effluent nutrient loading to the SF Bay with and without potential nutrient limits. Consultant shall prepare two (2) conceptual cost estimates for infrastructure modifications based on assumed ammonia and total nitrogen effluent limits.

Assumptions:

- Where agency planning data is not readily available to Consultant or provided by BACWA, infrastructure modifications and cost estimates shall be based on broad nutrient removal capabilities associated with existing biological treatment processes.
- Infrastructure implications topic paper shall be no more than 10 pages in length.
- Revisions to draft topic paper shall be based on a single set of compiled BACWA comments collected and compiled by BACWA staff.

Deliverables:

- One PDF copy of the draft and final topic paper.

Sustainability Impacts of Potential Nutrient Effluent Limits

Sustainability impacts topic paper shall describe Consultant's WERF nutrient sustainability analysis and its relevance to potential SF Bay nutrient effluent limits. Topic paper shall discuss whether stringent nutrient effluent criteria represent a point of diminishing returns where the sustainability impacts of increased levels of nutrient removal outweigh the benefits of improved water quality. Consultant shall use greenhouse gas emissions (GHG) as the measurement used to quantitatively express the environmental impacts, as it provides a means to normalize data for comparative purposes. Comparison of a hypothetic POTW GHG benefits and detriments shall be limited to the quantification of GHG emissions, capital costs, operating costs (e.g., staffing, chemicals, etc.), energy demand, air and water quality, and consumables, such as gas, diesel, etc.

Assumptions:

- Cost estimates prepared for the infrastructure implications topic paper shall serve as the basis for capital cost estimate development.
- Sustainability impacts topic paper shall be no more than 10 pages in length.

- Revisions to draft topic paper shall be based on a single set of compiled BACWA comments collected and compiled by BACWA staff.

Deliverables:

- One PDF copy of draft and final topic paper.

Subtask 2.2 – NNE SAG, Suisun Bay MPW, and RMP Monitoring Assistance

Consultant's project manager will assist the BACWA Executive Officer in monitoring activities related to estuarine nutrient criteria development that are currently underway. Consultant shall attend up to nine (9) meetings related to the following efforts:

- Subtask 2.2.1 - San Francisco Bay NNE Stakeholders Advisory Group (NNE SAG). Attendance at four (4) meetings is assumed.
- Subtask 2.2.2 - Suisun Bay Monitoring Plan Workgroup (Suisun Bay MPW). Attendance at three (3) meetings is assumed, one of these meetings to be with CCCSD staff.
- Subtask 3.3 - Regional Monitoring Program Nutrient Workgroup (RMP). Attendance at three (3) meetings is assumed.[2]

As budget permits, Consultant will provide other assistance upon written request from the Executive Director.

Assumptions:

- Consultant shall coordinate with the Executive Director to determine at which meetings their attendance is desired.
- Consultants shall review reports, plans, and other materials resulting from these efforts and make recommendations to BACWA regarding next steps.

Deliverables:

- Brief monthly progress summaries will be delivered in writing at the monthly BACWA Executive Board meetings.

TASK 3 – PROJECT MANAGEMENT AND QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

This task includes the management activities required to ensure that the project is completed on time and within budget, and addresses BACWA's concerns. Consultant will prepare invoices on a monthly basis. Other activities include within this task include scheduling of staff and coordinating the quality assurance effort.

Assumptions:

- Project shall be completed by June 30, 2011.

Deliverables:

- Monthly invoices.

[2] See Subtask 1.3 for June 29, 2011 RMP presentation.

Bay Area Clean Water Agencies (BACWA)

Nutrient Strategy Assistance

Proposed Project Schedule

Task No.	Task Description	Deliverable Description	Month: Feb	Mar	Apr	May	Jun	July	Deliverable Responsibility
Task 1 - Tactical Planning									
1.1	Kick-off Meeting (March 14, 2011)	(1) Agenda, (2) Presentation, (3) Meeting Report, and (4) Attendance		★					(1) Kennedy, (2) Clark, (3) Kennedy, and (4) Clark, Reardon, Kennedy, and Falk
1.2	Project Plan	(1) Document describing project schedule, key milestones, workshop, dates, preliminary areas of focus, topic papers, etc.		◆					(1) Kennedy
1.3	Regional Monitoring Program Nutrient Workshop	(1) Presentation and (2) Attendance					★		(1) Neethling and Falk, (2) Clark, Neethling, Kennedy, and Falk
1.4	Executive Board Meetings	(1) Attendance via conference call or written progress report (2) Physical attendance at one meeting - to be determined		☆	☆	☆	☆		(1) Kennedy and (2) Kennedy and Clark
Task 2 - Planning Support									
2.1	Topic Papers (4)	Up to 4 topic papers. (1) NNE Literature Review, (2) Modeling, (3) Infrastructure Implications, (4) Sustainability. and (5) NNE Literature Review Presentation. Deadlines for 3 of the 4 topics papers to be determined		1 ◆	★				(1) Fitzpatrick, (2) Gallagher, (3) Evans, (4) Reardon and Falk, and (5) Fitzpatrick
2.2	NNE SAG, Suisun Bay MWP, and RMP Monitoring Assistance	(1) NNE Sage up to four meetings, Suisun Bay RMP up to three meetings; one of these with CCCSD, and RMP up to three meetings, Actual dates to be determined	X	X	X	X	X	X	X	X	(1) Kennedy
Task 4 - Project Management									
4.1	Monthly Invoices	(1) Monthly invoices		◆	◆	◆	◆		(1) Kennedy

◆ Deliverables (Project Plan and Updates and Compiled Literature Review Comments)

★ Workshops

X Actual Meeting Dates To Be Determined

☆ Executive Board Meetings (conference call or written progress report

★ Executive Board Meeting (physical attendance)

Task No.	Task Description	Project Manager	Tech Specialist III	Tech Specialist II	Tech Specialist I	Eng II	Project Controller	Admin/ Clerical	Total HDR Labor Hours
Task 1 - Tactile Planning									
1.1	Kick-off Meeting	12	12	8		8			40
1.2	Project Plan	18	4			40		2	64
1.3	Regional Monitoring Program Nutrient Workshop	8		16	16	36		6	82
1.4	Executive Board Attendance	6	2						8
	Subtotal Task 1	**44**	**18**	**24**	**16**	**84**	**0**	**8**	**194**
Task 2 - Planning Support									
2.1	Topic Papers (up to 4)	28	8	88	160	66		20	370
2.2	NNE SAG, Suisun Bay MWP, and RMP Monitoring Assistance	40							40
	Subtotal Task 2	**68**	**8**	**88**	**160**	**66**	**0**	**20**	**410**
Task 3 - Project Management									
4.1	Project Management and Monthly Invoices	16					10	12	38
	Subtotal Task 3	**16**	**0**	**0**	**0**	**0**	**10**	**12**	**38**
COLUMN TOTALS		**128**	**26**	**112**	**176**	**150**	**10**	**40**	**642**

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Chapter I

EPA-09-0W-2010-0976-FRL

RIN-2009-ZA00

Water Quality Challenges in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

AGENCY: Environmental Protection Agency.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is publishing an advance notice of proposed rulemaking (ANPR) to seek comments from interested parties on possible EPA actions to address water quality conditions affecting aquatic resources in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay Delta Estuary) in California. EPA is asking the public to consider broadly whether EPA should be taking new or different actions under its programs to address recent significant declines in multiple aquatic species in the Bay Delta Estuary. EPA is not limiting its request to actions that would require rulemaking. There may be a range of changes in EPA"s activities in the Bay Delta Estuary that would be constructive, including enforcement, research, revisions to water quality standards, etc. EPA will consider all comments before deciding what changes, if any, should be pursued. After reviewing the comments and completing its evaluation, EPA will provide the results of its review and any proposed next steps to the public. This ANPR identifies specific issues on which EPA solicits comment, including potential site-specific water quality standards and site-specific changes to pesticide regulation. In addition to the specific issues on which EPA

solicits comments, EPA is interested in comments on any other aspects of EPA‟s programs affecting Bay Delta Estuary aquatic resources. This notice contains a summary version of the ANPR. Information on accessing the unabridged version is included in the SUPPLEMENTARY INFORMATION section below.

DATES: Written comments must be submitted 60 days from [insert date of publication].

ADDRESSES: Written comments, identified by docket number EPA-R09-OW-2010-0976, may be submitted electronically at the *Federal Rulemaking Portal* (http://www.regulations.gov). Hard copy comments should be addressed to Erin Foresman, U.S. Environmental Protection Agency, 75 Hawthorne Street, WTR-3, San Francisco, California 94105. See SUPPLEMENTARY INFORMATION for file formats and other information about filing.

Filing Instructions: All comments will be included in the public docket without change and will be made available online at *http://www.regulations.gov,* including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through *http://www.regulations.gov* or e-mail. *Regulations.gov* is an „„anonymous access‟‟ system and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send email directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

Docket: The index to the docket for this action is available electronically at *http://www.regulations.gov* and in hard copy at EPA Region 9, 75 Hawthorne Street, San Francisco, California. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (*e.g.,* copyrighted material), and some may not be publicly available in either location (*e.g.,* confidential business information). To inspect the hard copy materials, please schedule an appointment during normal business hours with Erin Foresman, foresman.erin@epa.gov, (916)557-5253.

FOR FURTHER INFORMATION CONTACT: Erin Foresman at U.S. Environmental Protection Agency, Region 9, Water Division, 75 Hawthorne Street, San Francisco, California 94105; foresman.erin@epa.gov, (916)557-5253.

SUPPLEMENTARY INFORMATION: Detailed information describing the current state of Bay Delta Estuary aquatic resources, summaries of scientific knowledge regarding Bay Delta Estuary water quality stressors, and water quality regulatory and non-regulatory activities in the Bay Delta Estuary is contained in the Unabridged ANPR provided on EPA Region 9"s website (http://www.epa.gov/region9/water/watershed/sfbay-delta/index.html) and in the electronic docket available at *http://www.regulations.gov*, docket number EPA-R09-OW-2010-0976. EPA suggests reviewing this document prior to submitting comments.

This ANPR has no regulatory impact or effect. The ANPR contains descriptions of certain EPA programs relevant to the Bay Delta Estuary and poses questions about how these programs could better protect and improve water quality for the benefit of

aquatic resources in the Bay Delta Estuary. This ANPR marks the beginning of a process to consider possible changes to EPA programs in the Bay Delta Estuary.

If EPA decides to pursue regulatory changes as a result of this ANPR, those regulatory changes will be made pursuant to appropriate formal rulemaking procedures. If changes to any regulations, rules, guidance or statutes are proposed and ultimately made final, to the extent such changes would require and/or authorize changes to state or tribal water quality standards or other regulations, states or authorized tribes would be affected. If changes to state or tribal regulations result from any final rule that EPA may promulgate in the future, entities subject to compliance with state or tribal regulations would also potentially be affected. For example, states and tribes authorized to implement the National Pollutant Discharge Elimination System (NPDES) Permit Program would need to ensure that permits they issue include any limitations on discharges necessary to comply with any water quality standards established as a result of any subsequent final rulemaking. Therefore, entities discharging pollutants to waters of the United States under NPDES could be affected by subsequent proposed and final rulemaking.

I. Purpose of this ANPR

The Bay Delta Estuary is a complex web of waterways, islands, and levees at the junction of the San Francisco Bay and the Sacramento and San Joaquin Rivers.[1] The Bay Delta Estuary is the hub of California's water distribution system, supplying some or all

[1] There is no commonly accepted precise geographic definition of the Bay Delta Estuary. The "legal Delta" is well-defined for purposes of the California Delta Protection Commission and related California statutes, but is not co-terminous with the functioning estuary. This ANPR will generally refer to the larger estuary upstream of the San Francisco Bay as the Bay Delta Estuary or the Estuary. It will also refer to the Delta, which usually means the "legal Delta" plus Suisun Marsh and Suisun Bay. Occasionally, this ANPR may also reference the Bay Delta Estuary watershed, which is a huge land area that includes the drainages of the Sacramento and San Joaquin River basins.

of the drinking water to 25 million people and irrigation water to 4 million acres of farmland.

Water quality and aquatic resources in the Bay Delta Estuary are under serious stress. All of the waters of the Bay Delta Estuary and most of its tributaries are listed as impaired for one or more parameters under the federal Clean Water Act.[2] Populations of many formerly abundant open-water (i.e., pelagic) fish species, including delta smelt, longfin smelt, and threadfin shad, have collapsed in recent decades. Anadromous[3] fishes, including the winter run chinook salmon, have suffered a similar decline. The decline of these aquatic resources has generated debate over water resource management in the Bay Delta Estuary. Delta interests, including state and federal agencies, environmental groups, urban and agricultural water users, commercial and recreational fishermen, and others have spent many years grappling with Bay Delta Estuary resource issues.

Concerns regarding Bay Delta Estuary water resource management increased during the 2009 water year[4] as water users and resource managers struggled with the effects of three years of drought. Water export limitations caused by the drought and by restrictions imposed under the federal Endangered Species Act (ESA)[5] to assist struggling endangered species significantly reduced the availability of water for agricultural and urban uses.[6] At the same time, the salmon fishery was closed on most of

[2] Clean Water Act, 33 U.S.C. §§ 1281-1387 (2006).
[3] "Anadromous" species are those, such as chinook salmon and steelhead, that spend at least some of their life cycle in salt water. Usually, these species return to freshwater to spawn.
[4] Water years in California are defined as October 1 through the following September 30. For example, the 2011 water year began October 1, 2010 and continues through September 30, 2011. Water years in California are categorized based on the particular rainfall that year. The categories are wet, above normal, below normal, dry, and critically dry.
[5] Endangered Species Act, 16 U.S.C. §§ 1531-1544 (2006).
[6] *See* CAL. DEP'T OF WATER RES. & BUREAU OF RECLAMATION, WATER SUPPLY CONDITIONS 2009 (Aug., 2009), *available at* http://www.water.ca.gov/news/newsreleases/2009/08122009martinmilligan2.pdf (suggests that approximately a quarter (500 thousand acre feet) of the 2.1 million acre feet water export

the West Coast for a second consecutive year as a result of declines in that fishery. Both the agricultural and fishery sectors suffered job losses as a result of the drought and the water export restrictions.

The federal government responded to this ongoing water management crisis with a broad set of actions.[7] One of those actions was the creation of the Federal Bay Delta Leadership Committee, a Cabinet-level, multi-agency committee charged with coordinating federal responses to Bay Delta Estuary issues.[8] The Federal Bay Delta Leadership Committee released its Interim Federal Action Plan for the California Bay-Delta (Federal Action Plan) on December 22, 2009, outlining the federal government‟s plan to address the Bay Delta Estuary and to work with the State of California to build a sustainable water future.[9] The Federal Action Plan includes actions by EPA to "assess the effectiveness of the current regulatory mechanisms designed to protect water quality in the Delta and its tributaries, including standards for toxics, nutrients, and estuarine habitat protection." EPA will also evaluate voluntary mechanisms that may be used to restore water quality in the Bay Delta Estuary. This ANPR is the beginning of this assessment.

New scientific information about the Bay Delta Estuary and its aquatic resources has substantially increased in the past few years. This information has been developed

---

shortfall in 2009 was due to new environmental restrictions, whereas three quarters (1.6 million acre feet) of the shortfall was due to the drought itself).

[7] *See* Press Release, U.S. Dep‟t of the Interior, Secretary Salazar, Senior Administration and Congressional Officials Hold Town Hall Meeting on California Water Shortage (June 28, 2009), *available at* http://www.doi.gov/news/pressreleases/2009_06_28_release.cfm (discussing several water augmentation initiatives).

[8] California Bay-Delta Memorandum of Understanding among Federal Agencies (Sept. 29, 2009), *available at* http://www.doi.gov/documents/BayDeltaMOUSigned.pdf.

[9] INTERIM FEDERAL ACTION PLAN FOR THE CALIFORNIA BAY-DELTA (Dec. 22, 2009), *available at* http://www.doi.gov/documents/CAWaterWorkPlan.pdf.

and/or reviewed in reports[10] synthesizing information on aquatic resources and water quality by the following entities: the State/Federal Interagency Ecological Program Pelagic Organism Decline science team,[11] the State"s Delta Vision Blue Ribbon Task Force, the Public Policy Institute of California, the U.S. Fish and Wildlife Service and National Marine Fisheries Service as part of their biological opinions and associated independent science reviews, the California State Water Resources Control Board (State Board) and the Central Valley Regional Water Quality Control Board (Central Valley RWQCB).[12] Most of these studies and reports involve resources protected under the Clean Water Act and other EPA programs.

EPA is using this ANPR to solicit and synthesize existing scientific information regarding the biological, chemical, and physical integrity of the Bay Delta Estuary"s aquatic resources. EPA will comprehensively review this information as it evaluates its statutory and regulatory options in the Bay Delta Estuary and will develop an appropriate response. Specifically, the purposes of this ANPR are:

(1) To review the current status of the EPA and Water Boards"[13] responses to adverse water quality conditions that have been identified as potential contributors to the Bay Delta Estuary"s aquatic resources decline;

(2) To determine how best to implement existing programs under the Clean Water Act and the Federal Insecticide, Fungicide and Rodenticide Act[14] to improve Bay Delta Estuary water quality for aquatic resources;

[10] Citations to these many reports and reviews are provided in the Unabridged ANPR, as each issue is discussed in detail.
[11] RANDALL BAXTER, ET AL., PELAGIC ORGANISM DECLINE PROGRESS REPORT: 2010 SYNTHESIS OF RESULTS (2010), *available at* http://www.water.ca.gov/iep/docs/FinalPOD2010Workplan12610.pdf.
[12] The State Board, Central Valley RWQCB, and San Francisco Regional Water Quality Control Board (San Francisco RWQCB) will sometimes be referred to collectively as the "Water Boards."
[13] Much of EPA"s statutory mandate is to perform oversight and review of state water quality agency activities.

(3) To identify barriers, either programmatic or statutory, to improving Bay Delta Estuary water quality;

(4) To identify any additional scientific information regarding water quality related to aquatic resources in the Bay Delta Estuary; and

(5) To solicit input on whether EPA should be taking new or different actions under its programs to address aquatic resource problems in the Bay Delta Estuary.

Specific topics on which EPA is requesting comments appear in the sections below.

Related Efforts in the Bay Delta Estuary

There are several major efforts underway to address Bay Delta Estuary resources, including the regulatory programs of the Water Boards under state and federal water quality statutes. In July 2008, the Water Boards adopted a Strategic Workplan to coordinate and guide their Bay Delta Estuary activities.[15] Over the next several years, these state activities will include, among others, multiple point source permit renewals, new pollutant and flow standards for the southern Delta and lower San Joaquin River, and Total Maximum Daily Loads (TMDLs) for pesticides in the Central Valley. EPA continues to support many of the elements in the State"s Workplan through technical and financial assistance.

Any EPA action taken as a result of this ANPR will complement the Water Boards" actions, as EPA"s priority is to support and augment these efforts. As these efforts unfold, EPA will monitor their progress and determine whether additional actions, consistent with its statutory authorities and responsibilities, are needed to ensure that the

[14] Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. § 136-136y (2006).

[15] STATE WATER RES. CONTROL BD., CENT. VALLEY WATER BD., & SAN FRANCISCO BAY WATER BD., STRATEGIC WORKPLAN FOR ACTIVITIES IN THE SAN FRANCISCO BAY/SACRAMENTO-SAN JOAQUIN DELTA ESTUARY (2008), *available at* http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/strategic_plan/docs/baydelta_workplan_final.pdf.

requirements of the Clean Water Act are satisfied. Finally, regardless of whether EPA pursues any new actions as a result of this ANPR, EPA believes the information gathered through the ANPR process may provide a factual basis for EPA"s ongoing activities under the Clean Water Act, the National Environmental Policy Act,[16] and other federal statutes in the Bay Delta Estuary.

There are other federal and state water resource planning efforts underway in the Bay Delta Estuary. Stakeholders and relevant government agencies are engaged in developing the Bay Delta Conservation Plan (BDCP) under the federal Endangered Species Act and the California Natural Community Conservation Plan Act.[17] The BDCP focuses on the recovery of ESA-listed species and their habitat in the Bay Delta Estuary and is expected to include major proposals for changing how water is diverted and conveyed through the Bay Delta Estuary to the state and federal water export facilities in the south Delta.[18] The EPA"s responsibilities under the Clean Water Act to protect designated uses, such as estuarine habitat, fish migration, and threatened and endangered species, overlap with ESA requirements being addressed in the BDCP. Some actions taken pursuant to the BDCP will need to comply with both the ESA and Clean Water Act. To that end, EPA will ensure that any action it might take as a result of this ANPR will be closely coordinated with other federal and state actions related to the BDCP, any biological opinions on water operations affecting the Bay Delta Estuary, and any other actions requiring ESA compliance.

[16] National Environmental Policy Act, 42 U.S.C. § 4321-4370f (2006).
[17] Natural Community Conservation Plan Act, CAL. FISH & GAME CODE § 2800-2835 (2003).
[18] Although the scope of the BDCP covers at least nine listed aquatic species and a geographic area of over one-half million acres, the BDCP is not intended to be a comprehensive Delta recovery plan. By its own terms, it is intended to meet ESA requirements by addressing only the operations of the state and federal water export projects and their impacts on listed species and their habitat.

In addition, recent state legislation has established the Delta Stewardship Council (DSC), an independent state agency charged with developing a comprehensive resource management plan, the Delta Plan, by January 2012.[19] The Delta Plan is intended to guide state and local agencies to help achieve the state's coequal goals of a reliable water supply and a restored Delta ecosystem. To inform the Delta Plan, the DSC‟s Independent Science Board will evaluate the multiple stressors in the Bay Delta Estuary.[20] Any EPA action taken as a result of this ANPR will also be coordinated with this and other related efforts.

The National Academy of Sciences (NAS) has initiated a review of some aspects of the science supporting ESA protections in the Bay Delta Estuary. Much of that scientific information is also relevant to Clean Water Act programs. Accordingly, EPA is coordinating with the NAS to assure that scientific evaluations serve the multiple regulatory programs in the Bay Delta Estuary.

Scope of this ANPR

This ANPR is focused on the most significant water quality factors adversely affecting aquatic species designated uses in the Bay Delta Estuary. Aquatic species, specifically the salmonids and pelagic species suffering significant population collapse during the last decade, brought the Bay Delta Estuary‟s water resource management issues into sharp focus in recent years. EPA recognizes that the Bay Delta Estuary supports over 750 species of fish, mammals, birds, reptiles, amphibians, invertebrates, and plants, and that forty or more of these species are listed under state and/or federal

[19] CAL. WATER CODE § 85300-85350 (2010).
[20] Letter from Delta Independent Science Board to Phil Isenberg, Chair, Delta Stewardship Council (Jan. 26, 2011), *available at* http://www.deltacouncil.ca.gov/delta_science_program/pdf/isb/d-isb_20110126_stressor_short_memo_final.pdf.

endangered species laws.[21] This ANPR is focused on aquatic species designated uses for waterbodies in the Bay Delta Estuary, but welcomes comment on how other species are being affected by water quality.

This ANPR does not comprehensively discuss water quality issues related to other designated uses, including drinking water, recreation, fish consumption, agriculture, etc. For example, water contact has been restricted in certain Bay Delta Estuary waters due to toxic blue-green algae blooms. EPA acknowledges the ongoing need to address these other issues.

II. Program Areas for Public Comment

In this ANPR, EPA is asking the public to consider broadly whether EPA should take new or different actions under its programs to address problems in the Bay Delta Estuary. EPA is not limiting its request to actions that would require actual rulemaking; there may be a range of changes in EPA"s activities in the Bay Delta Estuary that would be constructive, including enforcement, research, revisions to water quality standards, etc. Any change in EPA activities would be dependent on existing authority and the availability of existing or new resources. Any changes requiring EPA rulemaking would provide for public comment through the notice and comment rulemaking process.

A substantial amount of research was performed and evaluated in connection with the scientific review of the pelagic organism decline. As noted above, that process identified a number of potential stressors affecting the Bay Delta Estuary aquatic

[21] DELTA VISION BLUE RIBBON TASK FORCE, DELTA VISION STRATEGIC PLAN (Oct. 2008), *available at* http://deltavision.ca.gov/StrategicPlanningProcess/StaffDraft/Delta_Vision_Strategic_Plan_standard_resolution.pdf; Estimate of federal and state endangered and threatened species based on discussion with U.S. Fish & Wildlife Service biologists; BAY DELTA CONSERVATION PLAN, STEERING COMMITTEE WORKING DRAFT (Nov. 18, 2010), *available at* http://baydeltaconservationplan.com/Libraries/Whats_in_Plan/draft_BDCPreport_11292010_ClickableLinks7.pdf; CALFED BAY DELTA PROGRAM, MULTI-SPECIES CONSERVATION STRATEGY, FINAL PROGRAMMATIC EIS (July 7, 2000), *available at* http://dfg.ca.gov/erp/envcomp_mscs.asp.

ecosystem. Many of those potential stressors are directly or indirectly affected by the EPA programs described above. EPA has identified certain topics for more focused consideration in this ANPR. These are:

- Ammonia
- Selenium
- Pesticides
- Contaminants of Emerging Concern
- Estuarine Habitat
- Fish Migration Corridors
- Wetlands

EPA has not made any attempt to rank these topics as to their importance in resolving Bay Delta Estuary issues.[22] EPA's preliminary evaluation suggests that each of these topics, if addressed, could contribute to a resolution of Bay Delta Estuary resource conflicts. While this ANPR discusses these topics separately, EPA is mindful that the more significant concern is the cumulative and interactive effects of multiple stressors on the Bay Delta Estuary's aquatic inhabitants. Commenters may also identify additional topics that impact Bay Delta Estuary resource management, if EPA has some programmatic involvement in the topic.

Many activities discussed in this notice have been or are now the subject of a formal or informal rulemaking process conducted by either EPA or a related state or

[22] The National Research Council panel currently evaluating several Bay Delta Estuary science issues may be "ranking" factors associated with the decline of ESA listed species and other at-risk species. That ranking and the associated report is not due until 2011. Similarly, the Delta Independent Science Board has initiated a process to evaluate and rank the relative importance of multiple stressors and, especially, to consider the interactive effects of these multiple stressors. *See* DELTA STRESSORS WORKSHOP, MEETING NOTICE (Dec. 30, 2010), *available at* http://www.deltacouncil.ca.gov/delta_science_program/pdf/isb/d-isb_2011_01_workshop_stressors_mtg_notice_122810.pdf.

federal agency. Nothing in this notice is intended to supersede those ongoing processes, nor does this notice constitute a decision under any of those processes. If commenters have submitted material in connection with those other processes that is believed to be relevant to the issues raised in this notice, the commenter may either reference the earlier submission (if it was submitted to EPA), attach the earlier submission (if it was submitted to a different agency), or, if appropriate, provide a link to the material online. Please provide the reason(s) for answers to the following questions and scientific, policy, and/or legal information with citations that support your comments.

A. Contaminants

1. Contaminants – General

a. Are there contaminants, other than those named above, causing adverse impacts to aquatic resource designated uses in the Bay Delta Estuary and that should receive more focused review?

b. How can pollutant-specific water quality criteria effectively address or incorporate interactive effects between multiple contaminants and other physical, chemical, and biological stressors?

c. What methods can be used in developing and implementing TMDLs to effectively address or incorporate interactive effects between multiple contaminants and other physical, chemical, and biological stressors on individual water bodies or for water bodies within a watershed?

d. What information exists about how climate change impacts will affect contaminant pollution (generally or for individual contaminants)?

2. Ammonia: Toxic and Nutrient Effects

a. What, if any, information is available on the sources or impacts of total ammonia nitrogen in the Bay Delta Estuary that is not reflected or cited above?

b. Is there any information available that suggests site-specific water quality standards for total ammonia nitrogen in the Bay Delta Estuary may be more effective than current standards due to unique hydrological, chemical, biological, or physical conditions?

c. What information is needed to determine effective site-specific water quality standards for total ammonia nitrogen, including narrative or numeric criteria?

d. What information is available on nonpoint sources of total ammonia nitrogen and how they may most effectively and efficiently be controlled?

3. Selenium

a. What, if any, additional information is available to better characterize selenium sources, loadings and impacts within the watershed of the Bay Delta Estuary?

b. What data, studies, and analytical techniques (for example, models) could be used to improve our understanding of the physical processes, including surface-groundwater interactions, controlling selenium mobilization and transport to and within the Bay Delta Estuary?

c. What data are needed to track selenium impacts in the Bay Delta ecosystem as currently configured, and to evaluate potential impacts of

selenium under changed flow and transport conditions into and within the Delta?

d. Are there additional selenium control methods or programs that should be considered for reducing selenium inputs and impacts?

4. Pesticides

a. What, if any, additional scientific information is available on (a) the effects of pesticides in stormwater discharges, or (b) the potential interactive effects of combinations of pesticides on aquatic resources in the Bay Delta Estuary?

b. What, if any, actions should EPA take under its authority to improve the effectiveness of regulating pesticide contamination of the Bay Delta Estuary watershed?

c. How can the process for establishing numeric water quality criteria be streamlined while maintaining technical integrity?

d. What are the benefits and constraints of using fish tissue in place of or in addition to water column concentrations when establishing water quality criteria for pesticides?

e. Are there testing protocols that would effectively and efficiently identify synergistic toxic effects in the Bay Delta Estuary?

f. What, if any, specific combinations of contaminants are of particular concern in the Bay Delta Estuary?

g. Should EPA and our state partners move away from evaluating isolated aquatic species for one or two pollutants, and towards evaluations of water

conditions more representative of the actual aquatic conditions in the Bay Delta Estuary? How might this be done?

h. What new or revised effluent limitations, monitoring requirements or other permit requirements could be included in NPDES permits for discharges of pesticides from Municipal Separate Storm Sewer Systems (MS4s) in the Bay Delta Estuary in order to better meet the regulatory standard of reducing discharges to the maximum extent practicable? What information is necessary to determine permit requirements, such as identifying effluent limits that can effectively reduce ambient contaminant concentrations and restore designated uses? Please provide any available information on water quality benefits that may result from such requirements.

i. What new or revised effluent limitations, monitoring requirements or other permit requirements could be included in NPDES permits for stormwater discharges associated with construction activity and/or stormwater discharges associated with industrial activity to address pesticides? What information is necessary to determine permit requirements, such as identifying effluent limits that can effectively reduce ambient contaminant concentrations and restore designated uses? Please provide any available information on water quality benefits that may result from such requirements.

j. Should EPA use its residual designation authority at 40 C.F.R. 122.35 to designate currently unregulated small MS4s to ensure that municipalities have programs in place to control the discharge of pesticides in

stormwater to the maximum extent practicable? What information is necessary to determine permit requirements, such as identifying effluent limits that can effectively reduce ambient contaminant concentrations and restore designated uses? Please provide any available information on water quality benefits that may result from such requirements.

k. Should EPA use its residual designation authority at 40 C.F.R. 122.26(a)(9)(i)(C)-(D) to designate currently unregulated stormwater discharges that contribute pesticides to surface waters? What information is necessary to determine permit requirements, such as identifying effluent limits that can effectively reduce ambient contaminant concentrations and restore designated uses? Please provide any available information on water quality benefits that may result from such requirements.

5. Contaminants of Emerging Concern

a. What, if any, additional information is available regarding the effects of CECs on aquatic resources in the Bay Delta Estuary?

b. What, if any, specific information exists to identify the sources and nature of discharges of CECs into the Bay Delta Estuary?

c. What, if any, monitoring mechanisms or methodologies are available to assist in identifying CECs?

d. What, if any, methods are most effective to minimize introduction of CECs into the Bay Delta Estuary?

B. Protecting Estuarine Habitat, Fish Migration Corridors and Wetlands

1. Estuarine Habitat

a. What information is available on the effect of lower salinities in the western Delta on undesirable species, such as *Microcystis*, overbite clams, or jellyfish? What, if any, information is available to determine if an increase in low salinity habitat would affect the fate, concentration and distribution of nutrients and toxics that are potentially negatively affecting the estuarine food web?

b. Could the frequency, area, and/or duration of low salinity habitat be changed so as to achieve ecosystem benefits for the suite of species that use the low salinity zone? If so, how? Is historical data on inter- or intra-annual frequency of variability the best basis for setting goals or are there other bases that could be used? How might climate change impacts, including sea level rise, affect the size, frequency, and duration of low salinity habitat?

c. Are methods available for more systematically addressing ecological or biological connections between springtime locations of low salinity habitat and subsequent conditions of the low salinity zone in the fall? If so, what are they and what are their strengths and weaknesses?

d. Would changes in water system operations to move the low salinity zone seaward in the fall adversely affect the reservoir storage needed to conserve salmonid fish spawning and other designated uses in the watershed? If so, under what conditions?

e. What information is available on the effects of salinity management on terrestrial plant communities and/or tidal marsh endemic species? What indirect effect does this have on aquatic communities?

f. Does the geographic location of low salinity habitat have an effect on the quality of the habitat or its availability to species of concern? If so, what is the nature and extent of such effect? Is the distribution pattern of low salinity habitat important in determining its quality?

g. Are spring/neap differences in tidal water quality important for aquatic species? If so, how should these habitat characteristics be evaluated?

h. How can performance measures for species population and/or habitat condition be used to evaluate restoration of Bay Delta Estuary water quality?

2. Fish Migration Corridors

a. What role, if any, do gradients in physical and chemical constituents of water play in the suitability of the Bay Delta Estuary and San Joaquin River Basin migratory corridor for salmon?

b. What are the best measures of success for restoration of a migratory corridor? Could these measures be incorporated into new or revised biological criteria protecting the fish migration designated use?

c. Should temporal characteristics be included in the definition of the physical and/or chemical properties of a migration corridor based on a reference condition? If so, how? What frequency and duration of such a

corridor is required for salmonids? How might these characteristics change with the impacts of climate change?

d. Would establishing a migratory corridor for upmigrating adult chinook salmon succeed in improving adult migration success if temperatures in the river channels upstream of Vernalis are unchanged? If so, how? How might actions to establish a migratory corridor in the south Delta also moderate temperature and/or dissolved oxygen problems in the San Joaquin River?

e. Are additional efforts to improve dissolved oxygen regimes in the Delta necessary to provide an adequate migratory corridor for San Joaquin salmonids? If so, what should those efforts include?

f. What other information is available on the barriers to salmon migration in the Bay Delta Estuary and San Joaquin River watershed?

3. Wetlands

a. What different approaches under the Clean Water Act Section 404 program should EPA consider, in consultation with the U.S. Army Corps of Engineers, to improve the protection of aquatic resource functions in the Bay Delta Estuary?

b. What information exists that describes the relationship between the quantity and quality of wetlands and Bay Delta Estuary water quality and fish populations?

c. In light of projected impacts of climate change (including sea level rise and its effects on levee stability), what specific activities can EPA

undertake to improve long-term protection of existing and future wetlands, especially those resources on subsided islands?

IV. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866, entitled *Regulatory Planning and Review* (58 Federal Register 51,735, October 4, 1993), this is a "significant regulatory action". Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action.

Because this action does not propose or impose any requirements and instead seeks comments and suggestions for the Agency to consider in possibly developing a subsequent proposed rule, the various statutes and Executive Orders that normally apply to rulemaking do not apply in this case. Should EPA subsequently determine to pursue a rulemaking, EPA will address the statutes and Executive Orders as applicable to that rulemaking.

Dated: 2/10/11

(original signed by)

Jared Blumenfeld

Regional Administrator, U.S. Environmental Protection Agency, Region 9

Solano County Measure E's Waste Import Barrier – A Threat to San Francisco Recycling and Responsible Waste Management

On May 12, 2010, a Solano County judge re-wrote and ordered the enforcement of a long-forgotten county voter initiative that drastically limits the volume of solid waste that can be brought into Solano County for disposal or recycling. The 1984 initiative – Measure E – is opposed by the Solano County Board of Supervisors, the California Attorney General, and a broad coalition of entities that rely on the free flow of waste and other commerce across county lines. The enforcement of Solano County's Measure E will undermine San Francisco's recycling programs for food scraps and biosolids and impose enormous costs on consumers and governments across Northern California. Measure E upsets the modern waste management policies embodied in California's Integrated Waste Management Act of 1989 ("IWMA"), which encourages regional facilities to efficiently and safely recycle and dispose of wastes. The specter of one county's voters barring waste from crossing county lines, thwarting regional waste management, and imposing new costs on millions of Californians has triggered widespread opposition among diverse stakeholders. As post-trial proceedings conclude and the case enters the appellate stage, the City and County of San Francisco could play a decisive role in convincing the California Court of Appeal to overturn Measure E.

Measure E, Disregarded Since 1992, Poses a Direct Threat to San Francisco's Environmental Initiatives to Recycle Organic Wastes

Measure E was passed by Solano County voters in 1984 as part of a strategy by local antigrowth activists to block the construction of a new landfill in Solano County. Measure E sets a draconian cap on out-of-county waste of 95,000 tons per year, which means that up to 90% of the waste imported into Solano County landfills and composting facilities in recent years -- approximately 500,000 to 820,000 tons annually -- will be barred by Measure E. Measure E's broad definition of waste encompasses municipal solid waste, compostable and recyclable materials including food waste, and biosolids. Measure E imposes no restrictions on wastes generated inside Solano County.

While Measure E will threaten current waste management practices in over 22 Northern California counties that export waste to Solano, the impacts will be particularly serious for San Francisco. As part of its goal of becoming a zero waste city by 2020, San Francisco now requires all compostable material be separated from other waste. SF Ordinance 100-09. The City then sends tens of thousands of tons of this organic residual material to Solano County every year for composting. According to its website, the Jepson Prairie Organics Compost Facility in Vacaville (northern Solano County) processes approximately 11,000 tons per month of mixed organics. *See* http://www.jepsonprairieorganics.com/compostprocess.htm. Based on press reports, approximately 64% of this waste was composed of food scraps from San Francisco, while the remainder was composed of food scraps from other Northern California cities and yard trimmings from inside Solano County. Extrapolating these data for an entire year, Jepsen receives about 85,000 tons per year of San Francisco food scraps. In 2009, San Francisco also recycled or disposed of about 17,000 tons of other waste (including biosolids) in Solano County, which represents about 3% of its waste. This percentage may increase in the future as the City has less than 5 years of landfill capacity left at Altamont Landfill (based on

2007 disposal rates). SF Ordinance 100-09 ¶10. Given Measure E's 95,000 ton/year limit on out of county waste, nearly all of San Francisco's waste and compostable tonnage would be banned from Solano County. Of course, were other counties and jurisdictions to follow Measure E's lead, the impacts would multiply and paralyze waste management in the state.

Measure E's damage to surrounding communities and its blatant, illegal discrimination have been apparent for years. In 1992, the Solano County Counsel and the California State Legislative Counsel both issued formal opinions that Measure E violated the Commerce Clause of the Federal Constitution because it discriminates against and excludes waste by place of origin. Solano County ceased enforcement of Measure E at that time.

Measure E Threatens California's Solid Waste Infrastructure

After being declared unenforceable by State and local legal authorities in 1992, Measure E was forgotten until the late 2000s, when special interests opposed to the expansion of Potrero Hills Landfill in Solano County discovered the old ordinance. In 2009, these groups sued Solano County, asking the court to compel the County to enforce Measure E.

The County and Potrero Hills Landfill, supported by numerous waste hauling companies and the California Attorney General, argued in response that Measure E was illegal, pointing to federal courts that had struck down similar waste barriers erected at the county line and an on-point, California Court of Appeal decision that struck down an effort by Orange County to ban out-of-county garbage. A Solano County Superior Court judge rejected these arguments and instead re-wrote Measure E to bar only waste from other California counties and not waste generated outside of the State.

Measure E threatens to roll back waste management to the environmentally destructive and inefficient era of local dumps. It is a barrier to the free movement of waste that undermines competitive, efficient, and environmentally sound waste management. If other counties also bar waste movement across county lines, it will force numerous counties to build their own landfills. At least 18 jurisdictions in six northern California counties exported between 15 and 100 percent of their waste to Solano County in 2009 and would be forced to find alternative disposal sites that are more expensive, more distant or both. Disposal fees for local governments, their taxpayers and businesses will soar. Seventeen northern California counties, including San Francisco, have little or no landfill capacity and depend on their ability to export waste to modern, regional landfills located in Solano County and elsewhere, which provide state-of-the art waste management at competitive prices.

Measure E has Spurred Diverse, Statewide Opposition

Measure E is bad law and bad policy. State and local government, trade associations, businesses, and citizens are all rallying against Measure E. The California Attorney General is on record in two briefs opposing Measure E because it undermines competition in the solid waste industry. Other groups concerned about Measure E and considering next steps include the California Association of Sanitation Agencies, the California Refuse and Recycling Council, the National Solid Wastes Management Association, and many local jurisdictions and haulers that depend on waste exports to Solano and other counties. Support for Measure E is limited to small groups of

antigrowth activists and recycling companies subsidized by tipping fees from landfills outside of Solano County. The plaintiffs that have sued Solano County to enforce Measure E are the Sustainability, Parks, Recycling and Wildlife Legal Defense Fund (SPRAWLDEF), the Northern California Recycling Association and the Solano Chapter of the Sierra Club.

Participation by California's Counties and Cities in the Case is Critical

Measure E is a voter initiative and the Solano County Board of Supervisors -- which continues to oppose Measure E and plans to appeal the decision -- is powerless to rescind it legislatively. With a trial court now on record upholding a county's right to discriminate against out-of-county waste -- and, by extension of its reasoning, other articles in commerce -- overturning that ruling in the California Court of Appeal is essential. The appeal is the most direct route to restoring fairness and reliability to waste management in California. The Court of Appeal needs to hear directly from other jurisdictions about the economic and environmental costs imposed on them by enforcement of Measure E. A broad coalition of private and public sector stakeholders participating in the case is the surest way to impress upon the Court the gravity of the threat of Measure E and the flaws in the trial court's analysis. San Francisco -- a world leader in recycling and sustainable waste management -- is uniquely positioned to lead these voices against this parochial and balkanizing local ordinance.

WERF
Water Environment Research Foundation
Collaboration. Innovation. Results.

635 Slaters Lane, Suite G-110
Alexandria, VA 22314-1177
Tel: 571-384-2100
Fax: 703-299-0742
Email: werf@werf.org
www.werf.org

February 8, 2011

Mr. Greg Kester
California Association of Sanitation Agencies
1215 K Street, Suite 2290
Sacramento, CA 95814

Re: Biosolids Trace Organics – Collaborative Research Effort

Dear Greg:

The Water Environment Research Foundation very much appreciates all of your contributions to our research on behalf of the California Association of Sanitation Agencies. We are writing today to let you know about an opportunity for your member agencies to participate in a collaborative research effort to determine the significance of trace organic chemicals in land-applied biosolids.

Land application of biosolids has a long history of demonstrated beneficial use and minimal environmental and human health risks when conducted in accordance with best practices and existing regulations. However, concerns raised in response to published reports of the presence of ppm levels of trace organic chemicals (TOrCs) in biosolids necessitate additional evaluation and risk assessment. Of course, the risk of a chemical will depend on both the exposure and adverse effects to receptors living in the proximity of land that receive biosolids as a soil amendment. There are well established standard methods to evaluate risks but what is missing for many of these chemicals are the data to establish their exposure and toxicity.

WERF is seeking support for a short-term project that will gather and evaluate all available data for a short list of high priority chemicals so we can quickly answer the questions - which of these chemicals do not pose a risk, and which (if any) may pose a risk and therefore need further research.

WERF, a number of wastewater utilities and the U.S. EPA are collaborating on this issue. WERF published a *State-of-the-Science Review of Occurrence and Physical, Chemical and Biological Processes Affecting Biosolids-borne Trace organic chemicals in Soils* in September 2010. A number of wastewater utilities (many working in partnership with university researchers) have developed, or are planning to develop, data for chemicals in their biosolids.

The WERF report and data provided by the wastewater utility collaborators, is currently being used by EPA to support the development of a *Database and Prioritization Tool* for trace organics in land-applied biosolids. The tool/database is designed to (1) facilitate the prioritization of trace organic chemicals (TOrCs) or classes of TOrCs that should be evaluated for potential risks to human health and the environment; (2) identify key gaps in the data required to model these high priority TOrCs; and (3) serve as a repository for new data as they become available (and, therefore, support updates of research priorities). The EPA is evaluating the 145 chemicals monitored in the 2009 EPA Targeted National Sewage Sludge Survey (TNSSS). EPA's efforts are aimed at identifying those high priority TOrCs for which there are insufficient data to perform a screening level risk assessment. That list will be WERF's starting point to do a more targeted look for available data from chemical and pharmaceutical manufacturers, and from recent voluntary and mandatory data "call-ins" by the US and European governments. WERF will immediately issue a contract for a 3-4 month effort to look for, gather and evaluate all available data. Once those data are assembled, EPA will further characterize risk where data are sufficient. Such an evaluation, incorporating any new data, will be used to further refine the list

of chemicals, identify chemicals that pose potential health and/or ecological risks, and determine what, if any, key data gaps should be addressed to improve the quality of the risk estimates for high priority chemicals. At that point, WERF along with its partners would be poised to launch a research program to fill those key data gaps and bring resolution to this important issue.

WERF's effort, both the initial step of data collection and screening analysis and any follow-on research to fill key data gaps, is being guided by a WERF Exploratory Team. This group of WERF subscribers and other subject matter experts was established to guide WERF on how best to address the pressing issue of whether chemicals in biosolids pose a risk when those biosolids are land applied. I am pleased that you are a member of the Exploratory Team and very much appreciate your valuable contributions. As you are aware, the Exploratory Team has recommended issuing a "targeted" Request for Proposal to a short-list of contractors for a quick turnaround study to find additional data on the chemicals from the EPA Targeted *National Sewage Sludge Survey* that are missing data to feed into the *Database and Prioritization Tool*. It is believed that there are additional data in sources that include the chemical manufacturers unpublished data, as well as recent voluntary and mandatory data "call-ins" by the US and European governments.

The estimated cost for this "data gathering and evaluation" contract is $50,000. In December, the WERF Board of Directors approved $25,000 for this contract with the stipulation that an equal amount come from other partners including WERF subscribers. EPA has already spent considerable funds on the Database and Prioritization Tool and has committed to continue to support this effort, including having its contractor incorporate any new data that comes out of WERF's data gathering and evaluation effort.

There are two ways interested parties can support this effort and we would welcome a quick reply of interest.

(1) Cash funds (or at least a commitment of funds that could be paid within the next 6 months). We need at least $25,000 from subscribers/partners and so a commitment of $1,000 to $5,000 would be ideal.

(2) Data (e.g., physical/chemical properties, environmental fate, mammalian toxicity, ecotoxicity) for any of the short-listed TOrCs. The list of chemicals will be forthcoming as soon as EPA releases its screening assessment for the 145 TNSSS chemicals. This may be a preferred option for WERFs chemical industry and pharmaceutical subscribers.

CASA members interested in collaborating in this effort, or in finding out more information should contact Dan Woltering, WERF's Director of Research, at (571) 384-2095 or dwoltering@werf.org or Alan Hais, WERF's Program Director for Biosolids Research, at (571) 384-2098 or ahais@werf.org, with an expression of interest.

We hope to hear from interested parties before the end of February, 2011 so we are able to issue an RFP as soon as we have the short-list of chemicals. We thank you and your members for their consideration, and look forward to the possibility of working with them.

Sincerely,

For Daniel M. Woltering, Ph.D.
Director of Research

Alan Hais, P.E., BCEE
Program Director