



# **2009–2010 Report to Members Bay Area Clean Water Agencies**

TAKING ON CHALLENGES, FINDING NEW OPPORTUNITIES



*BACWA staff*

*Amy Chastain, Executive Director  
Alexandra Gunnell, Assistant Executive Director  
PO Box 24055, MS 702  
Oakland, CA 94623  
[www.bacwa.org](http://www.bacwa.org)*

*design and layout by*



# Table of Contents

LETTER FROM THE EXECUTIVE DIRECTOR	1
ABOUT THE BAY AREA CLEAN WATER AGENCIES	2
Serving Our Members	3
BACWA Committees & Groups	3
Planning Strategically	5
2009–2010 ACCOMPLISHMENTS	6
Compliance: Assisting Members to Fulfill Regulatory Requirements	6
Mercury Watershed Permit Reporting	7
Trainings	8
Identifying Regional Solutions and Collaborative Initiatives	10
Regional Implementation of the Copper and Cyanide Site-specific Objectives	10
Clarification of How Agencies Demonstrate Compliance with Dioxin Effluent Limits	10
Standardization of Blended Effluent Monitoring Requirements	11
Adoption and Approval of a TMDL for Polychlorinated Biphenyls	11
Advances in Implementation of Bacterial Objectives	12
Collaborating for Mutual Benefit	12
Water Operator Training	12
California Wastewater Climate Change Group	12
New Partnerships	13
Keeping Members & Stakeholders Informed	14
Promoting an Integrated Approach to a Healthy Bay	15
FUTURE PLANS & NEW INITIATIVES	15
2009–2010 FINANCIAL REPORT	17
2009–2010 BOARD MEMBERS & COMMITTEE CHAIRS	18
2010–2011 BOARD MEMBERS & COMMITTEE CHAIRS	19

*Our thanks to member agencies for providing several of the photos in this report.*





View of Boat Harbor, Angel Island

## LETTER FROM THE EXECUTIVE DIRECTOR

The past few years have brought new challenges for the country and for member agencies. Budget cuts and hiring freezes are commonplace, even in enterprise agencies. We are all in the position of having to do more with far fewer resources, and it seems unclear how long this situation will persist.

Your participation in BACWA—through member dues; committee activities; and financial support for the Bay Area Pollution Prevention Committee, Air Issues and Regulations Committee, and operator training—ensures that we can continue to make progress as a region despite the current economic climate.

The challenges facing our industry are changing rapidly. Many concerns about legacy pollutants have been or are close to being resolved through Total Maximum Daily Loads, but other issues are now coming to the forefront. Questions about the impacts of climate change, ammonia, and trace contaminants on the San Francisco Bay Estuary are many and still developing, as is our understanding of how these issues may affect the wastewater community. Uncertainty also exists around how new regulatory programs such

as sediment quality objectives, biological criteria, and Marine Protected Areas will impact agencies.

BACWA will continue to deliver the services its members find invaluable into 2011 and beyond—we will ensure that you have the assistance you need to be knowledgeable about key issues, maintain compliance with existing regulations, and enable

collaborative relationships that leverage scarce resources to benefit your agencies and the San Francisco Bay Estuary. This annual report provides a brief summary of BACWA's key projects and accomplishments from this past year and highlights our exciting plans for 2011.

We look forward to continuing to work with and serve your agency.

**Amy Chastain**  
*Executive Director*

Your participation in BACWA ensures that we can continue to make progress as a region despite the current economic climate.



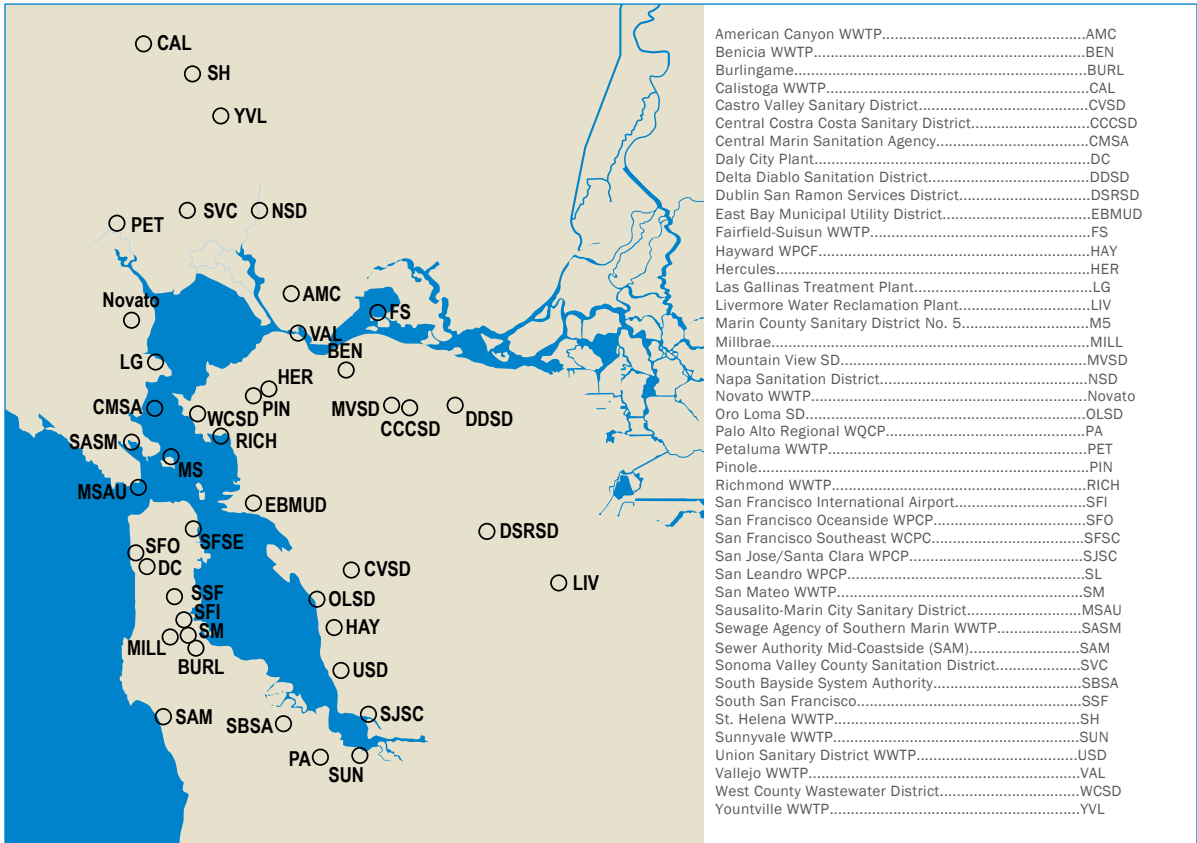
*Treatment tanks at Oro Loma Sanitary District, San Lorenzo*

## ABOUT THE BAY AREA CLEAN WATER AGENCIES

The Bay Area Clean Water Agencies (BACWA) was created in 1984 by a Joint Powers Agreement between the five largest municipal wastewater treatment plants in the San Francisco Bay region: Central Contra Costa Sanitary District, East Bay Dischargers Authority, East Bay Municipal Utility District, the City and County of San Francisco, and the City of San José. The founding purpose of BACWA was to assist agencies in carrying out mutually beneficial projects and to facilitate the collection, interpretation, and dissemination of scientific information about the water quality of the San Francisco Bay.

Today, BACWA is a thriving organization, with 10 active committees and workgroups, and a reputation for effective collaboration with municipal and regulatory agencies, non-governmental organizations, and other stakeholders.

BACWA is led by an Executive Board that includes a representative from each of the five founding agencies. The Executive Board meets monthly and is charged with ensuring that the agency is fiscally responsible to its members; that BACWA activities align with the agency's purpose and members' needs; and that it has the technical, legal, and other support necessary to fulfill its mission.



2009–2010 participating publicly owned treatment plants

## Serving Our Members

BACWA is committed to serving its member agencies and helping them protect San Francisco Bay. Through BACWA committees and the use of technical experts, BACWA provides its members with region-specific information about regulatory and utility management concerns and facilitates the pooling and leveraging of member resources, talent, and expertise. As the regional “voice” for Bay Area clean water agencies, BACWA strives to ensure that the region’s needs and concerns are clearly communicated at regional, state, and national forums. The agency pursues collaborative partnerships and projects that help

members fulfill regulatory requirements and conserve resources while also benefiting the Bay and its residents.

## BACWA Committees & Groups

BACWA’s committees are one of the agency’s cornerstones. Whereas a decade ago BACWA had just a few committees, today it has seven committees and three information-sharing groups. These committees and groups facilitate communication, keep agency staff apprised of important regulatory and policy developments, provide a venue for establishing regional

collaboration, and help ensure that the Bay Area clean water community speaks with a unified voice.

- **The Air Issues and Regulations (AIR) Committee** focuses on air quality-related issues and research and regulations that affect sanitation agencies, including state and local climate change and greenhouse gas mitigation-related policies and laws.
- **The Bay Area Pollution Prevention Group** provides member agencies with an opportunity to exchange information and ideas about effective pollution prevention. The group leverages limited resources to develop and carry out innovative regional pollution prevention projects that protect the Bay and help member agencies comply with permit requirements.
- **The Biosolids Committee** provides proactive support to member agencies on regional biosolids issues, projects, and proposed regulations and legislation. This includes support for the development and maintenance

**Committee & InfoShare**  
Group meetings are open to all agency staff. A calendar of meetings is available at [www.bacwa.org](http://www.bacwa.org). Select the meeting to automatically export the date and time to your computer's desktop calendar.

of cost-effective, sustainable biosolids management options for Bay Area agencies, which produce more than 158,000 dry metric tons of biosolids annually.

- **The Collection Systems Committee** serves as the focal point for sharing information among and addressing the regulatory issues affecting the more than 100 agencies responsible for maintaining tens of thousands of miles of sewage pipes in the Bay Area.
- **The Laboratory Committee** was the first committee formed by BACWA. It keeps members informed of current scientific and technical development affecting Bay water quality, and the analytical methods and protocols necessary for members' permit compliance.
- **The Permits Committee** assists the Bay Area publicly owned treatment plants (POTWs) with National Pollutant Discharge Elimination System Permits and to stay coordinated and informed of technical, scientific, and analytical issues impacting agencies' compliance.
- **The Water Recycling Committee** is dedicated to promoting water recycling efforts to protect the environment and to develop reliable Bay Area water supplies. The committee acts as a regional voice in state and national organizations and ensures that policies and regulations reflect the needs and concerns of Bay Area agencies.
- BACWA supports three **InfoShare Groups** that each meet quarterly: the Operations InfoShare Group, the Bay Area Maintenance InfoShare Group, and the Engineering InfoShare Group. These groups provide a setting for staff to discuss successes and challenges related to the operations, maintenance, and engineering issues faced by member agencies.





*California clapper rail*

## Planning Strategically

This past year (2009–2010) is the first full year that BACWA has been guided by a strategic plan, which was adopted by the Executive Board in April 2009. The purpose of the strategic plan is to provide direction and focus for BACWA's work to make sure that the agency best serves the needs of member agencies and the people that they, in turn, serve. The strategic plan is available on the BACWA website and articulates the agency's mission, core values, and goals. These elements of the strategic plan, as listed here, are touchstones for the development and implementation of BACWA programs and projects.

## BACWA'S MISSION

Through leadership, service, and advocacy for its members, BACWA provides an effective regional voice for the clean water industry's role in stewardship of the San Francisco Bay environment.

## BACWA'S CORE VALUES AND COMMITMENTS

- › Use the best available knowledge, including scientific/technical information
- › Support regulatory compliance by members
- › Promote stewardship of the Bay environment
- › Seek regional solutions and promote regional collaborations and partnerships

- › Conduct business in an open and transparent manner
- › Ensure prudent use of financial resources
- › Provide services which are valuable to members

**BACWA GOALS:**

1. Members are knowledgeable about critical issues and activities
2. Members are in compliance with applicable rules and regulations
3. Effective collaborative partnerships for regional environmental benefit are established
4. An integrated approach to a healthy Bay is promoted, emerging issues are identified, and effective solutions are developed
5. Stakeholders are aware of BACWA and its members' achievements and role in the stewardship of the Bay
6. Members value and actively participate in BACWA activities

## 2009-2010 ACCOMPLISHMENTS

This past year has been one of transition, with BACWA welcoming a new executive director in October 2009. The agency continued to effectively represent Bay Area agencies, thanks to the extraordinary efforts of the BACWA Executive Board members and committee chairs, as well as the continued participation of all members in a number of critical programs and partnerships. Your participation is essential to BACWA's success; we encourage you to attend and participate in Executive Board and Committee meetings.

### Compliance: Assisting Members to Fulfill Regulatory Requirements

Helping agencies meet compliance requirements is one of the chief services that BACWA provides its members. By coordinating



*View of San Francisco Bay from Point Isabel, Richmond*

regional trainings and acting as the lead in complying with region-wide regulatory requirements, BACWA increases regional consistency, efficiency, and cost-effectiveness.

### **MERCURY WATERSHED PERMIT REPORTING**

For the second year, BACWA undertook multiple efforts to ensure that all of the Bay Area publicly owned treatment works were in compliance with the Mercury Watershed Permit requirements. The second annual mass loading report submitted to the San Francisco Bay Regional Water Quality Control Board (Water Board) on April 1 clearly told a success story: the estimated total loading of mercury from treatment plants is down 74 percent from previous years, less than one-third of the

**The estimated total loading of mercury from treatment plants is down 74 percent from previous years, less than one-third of the Watershed Permit limit, and less than one-half the Mercury Total Maximum Daily Load's final wasteload allocation.**

**By 2011, 85 percent of dental offices will have received mercury pollution prevention training and/or education—well before the 2013 permit deadline.**

Watershed Permit limit, and less than one-half the final wasteload allocation in the San Francisco Bay Total Maximum Daily Load (TMDL) for mercury.

Much of the credit for this remarkable result goes to member agencies for their pollution prevention programs, and to the Bay Area Pollution Prevention Group (BAPPG) for assisting those programs. Even before the TMDL was adopted, BAPPG led efforts to encourage thermometer exchanges, fluorescent light bulb recycling, battery recycling, and the creation of dental amalgam inspection programs. BAPPG increased its efforts when the Watershed Permit was adopted by developing a step-by-step approach to creating and measuring the efficacy of local dental amalgam programs. These efforts included providing training to BACWA members and dental hygienists, as well as producing dental office outreach materials. Recent surveys show that 85 percent of dental offices that generate mercury amalgam waste will be participating in an amalgam program by 2011—well before the 2013 permit deadline.

BACWA also prepared and submitted a risk reduction progress report on behalf of its members. The Mercury Watershed Permit requires permittees to develop and implement programs that will reduce individuals' exposure to pollutants in San Francisco Bay fish, thereby reducing the human health risks caused by Bay

pollution. BACWA is working closely with the Water Board, California Department of Public Health, Aquatic Science Center, and other stakeholders to create and carry out a program that is both economical and beneficial to Bay Area residents.

### 2009–2010 Trainings

- NPDES permit requirements
- Mercury pollution reduction
- Ethics certification
- Greenhouse gas emissions reporting requirements

### TRAININGS

The BACWA committees were very active this year in developing and coordinating trainings to help Bay Area agencies.

The Laboratory and Permits committees partnered on a day-long workshop to educate agency staff about the new National Pollutant Discharge Elimination System (NPDES) permit requirements resulting from the Water Board's amendment of Attachment G to all NPDES permits in the region. The workshop featured



*BAPPG members*

analytical and technical experts and was attended by more than 70 people from dozens of agencies.

In addition, BACWA worked with BAPPG to offer extensive trainings to BACWA member agencies to help them meet pollution prevention requirements. For example, more than 90 people attended a January BAPPG training on how to inspect dental offices to ascertain compliance with dental amalgam separator requirements, and an estimated 445 dental hygienist/assistant students received training on mercury pollution reduction as the direct result of BAPPG outreach efforts.

The Laboratory Committee held a training to provide laboratory staff with required ethics certification.

BAPPG is a leader in a regional collaboration on pharmaceuticals stewardship. In addition to training BACWA members on establishing pharmaceutical take-back programs, BAPPG has written a guidance document for medical facilities in collaboration with the Hospitals for a Healthy Environment and has held three separate workshops around the Bay Area to train medical facility workers about proper management and disposal of pharmaceuticals.

The AIR Committee offered its second annual workshop on greenhouse gas emissions reporting requirements, which are likely to affect many more agencies in the coming years.



*Students attend operator training at Central Contra Costa Sanitary District*

## **IDENTIFYING REGIONAL SOLUTIONS AND COLLABORATIVE INITIATIVES**

The 2009-2010 year witnessed the culmination of several multi-year initiatives and the launching of new regional partnerships that will confer significant benefits on member agencies in the near future.

## **REGIONAL IMPLEMENTATION OF THE COPPER & CYANIDE SITE-SPECIFIC OBJECTIVES**

In March 2010, a blanket order was adopted by the Water Board to replace copper and cyanide limits with water quality-based effluent limits consistent with the San Francisco site-specific water quality objectives that BACWA helped develop. NPDES permits now reflect the new water quality standards. BAPPG has and will continue to assist with pollution prevention programs for copper and cyanide, and BACWA is

working with the San Francisco Estuary Institute's Regional Monitoring Program to ensure that all required special studies are completed.

## **CLARIFICATION OF HOW AGENCIES DEMONSTRATE COMPLIANCE WITH DIOXIN EFFLUENT LIMITS**

In 2008, BACWA worked with the San Francisco Estuary Institute to convene a panel of independent experts to review how dioxin effluent limits were being calculated in Bay Area permits and make recommendations for changes, as appropriate. This project was an effort to resolve the many permit appeals filed by BACWA on behalf of member agencies that were unable to comply with final dioxin effluent limits. The primary sources of dioxins to San Francisco Bay are stormwater runoff and air deposition, and there are virtually no source control options available to POTWs to reduce concentrations



*Eighty percent of Bay Area biosolids are beneficially reused*

in effluent. The panel's recommendations that toxicity and bioaccumulation be factored into compliance were formally adopted by the Water Board, via a region-wide permit amendment, in February 2010. This amendment not only resolved compliance challenges for many agencies, it ensures that Bay Area permits incorporate current scientific understanding of how dioxin congeners bioaccumulate in the aquatic environment.

### **STANDARDIZATION OF BLENDED EFFLUENT MONITORING REQUIREMENTS**

The blanket permit amendment adopted in February 2010 also included a requirement that established a standard and streamlined monitoring protocol for discharges of blended effluent. The standard provisions allow for the use of Total Suspended Solids (TSS) as a surrogate for many other pollutants, and requires additional analyses only if TSS is greater than 45 mg/l. This approach to monitoring will generate useful information about blended effluent and its water quality impacts while minimizing the resources that agencies must dedicate to monitoring.

### **ADOPTION AND APPROVAL OF A TMDL FOR POLYCHLORINATED BIPHENYLS**

The Bay Area continues to make progress addressing legacy contaminant issues, which can present substantial challenges to POTWs.



*View from Hawk Hill, Marin Headlands*

Although polychlorinated biphenyls (PCBs) were banned by the United States in 1979, these compounds continue to persist in the environment. In 1998, the state of California and the United States Environmental Protection Agency (EPA) listed the Bay as impaired for PCBs due to elevated levels in fish, and issued health advisories against eating the fish. In February 2008, the Water Board adopted a TMDL containing loading limits to reduce PCB concentrations in the Bay. This TMDL was approved by the State Water Resources Control Board (State Board) in October 2009 and by EPA in March 2010. BACWA participated in every stage of the TMDL development and provided comments to the state that resulted in improvements to the TMDL. Currently, BACWA is working with the Water Board and other stakeholders to identify challenges to implementing the TMDL, including the analytical limitations and the difficulty in identifying and

controlling diffuse sources of PCBs. BACWA will continue to work with member agencies, regulatory staff, and other interested parties to ensure that the final PCB permit will achieve the objectives of the TMDL without placing unattainable expectations on POTWs.

### **ADVANCES IN IMPLEMENTATION OF BACTERIAL OBJECTIVES**

The Bay has designated beneficial uses for recreation and shellfishing, both of which are protected through the inclusion of bacterial limits in NPDES permits. BACWA member agencies strive to protect these uses while also seeking to minimize the harmful environmental impacts of disinfection. BACWA continues to work with the Water Board to implement bacterial water quality objectives in a way that is both protective and reasonable. BACWA supported the Water Board's efforts this past year to update the San Francisco Bay Basin Plan to include objectives for enterococcus—which is a better salt water indicator organism of the threat to public health than are total or fecal coliforms—and to clarify that bacterial limits are water quality-based rather than technology-based. BACWA also suggested, and the Water Board adopted, an implementation plan that provides flexibility to those agencies that must analyze effluent for total coliforms to meet Title 22 standards for recycled water.

Unfortunately, the Basin Plan Amendment did not resolve the challenges that some agencies face as the result of the very stringent limits

that the Basin Plan requires to protect the shellfishing beneficial use. These limits are the same as those imposed to protect existing commercial shellfish beds, even though none exist in the Bay. BACWA is working with regulatory agencies to develop a strategy to ensure that the Bay's beneficial uses are fully protected without requiring excessive disinfection, which has concomitant environmental and water quality impacts.

## **Collaborating for Mutual Benefit**

### **WATER OPERATOR TRAINING**

For the third consecutive year, BACWA has worked with the Central Contra Costa Sanitary District and the Solano Community College to offer classes and certifications that will provide a pool of qualified employees to Bay Area agencies. This program, the Bay Area Consortium of Water and Wastewater Education, has enrolled more than 520 students in 26 classes. More than 25 of the students have been hired or promoted within the public water utilities in the Bay Area. This program is addressing the pressing need for more trained operators to fill the positions of the estimated 50 percent of current operators who will retire by 2015.

### **CALIFORNIA WASTEWATER CLIMATE CHANGE GROUP**

After Assembly Bill 32 became law, BACWA provided administrative support to a new statewide group focused on modeling, monitoring, and reporting greenhouse gas emissions and





*View from Hawk Hill, Marin Headlands*

advocating for clean water utilities across California. In FY 2009-10, the California Wastewater Climate Change Group (CWCCG) transitioned from a BACWA-managed program focused on GHG emissions to a California Association of Sanitation Agencies (CASA)-managed program with a broader mandate to engage in the development of climate change policies, regulations, and legislation. BACWA is pleased to have been instrumental in the transition of CWCCG and financially supports the statewide collaboration on climate change issues for clean water agencies. In a short period of time, CWCCG is already working to ensure that cap and trade programs, EPA's tailoring rule, and renewable electricity standards consider the wastewater community's needs and limitations.

### **NEW PARTNERSHIPS**

This year, BACWA entered into several new and exciting partnerships. BACWA became a founding member of the non-profit Clean Water

America Alliance, which is working to explore the complex issue of water sustainability and plan for the future by improving public awareness that advances holistic, watershed-based approaches to water quality and quantity challenges.

The Biosolids Committee is supporting research at the University of California, Davis to ascertain the atmospheric impacts of volatile organic compounds from composted biosolids that will inform future regulations.

In May, BACWA and representatives from member agencies were part of a day-long symposium held by Stanford University's Woods Institute titled "Wastewater as a Resource: Focus on San Francisco Bay." This meeting was partly the result of the 2010 BACWA Annual Meeting, which featured Stanford Engineering Professor Dr. Craig Criddle as a keynote speaker. The symposium brought together academics, utility managers, and expert consultants for a discussion focused on state-of-the-art technologies for water

reuse and energy and nutrient recovery from wastewater. BACWA is optimistic that these relationships will lead to exciting partnerships and projects that will profit member agencies and position the Bay Area as a leader in wastewater resource management.

## Keeping Members & Stakeholders Informed

With BACWA support, the Biosolids and Collection Systems committees prepared two excellent publications intended to assist member agencies and other stakeholders. The Biosolids Committee published and distributed *Bay Area Biosolids Management: Challenges, Opportunities, and Policies*, an easy-to-understand document on biosolids issues affecting Bay Area agencies.

In partnership with the Central Valley Clean Water Association, the Collection Systems Committee wrote and published *Best Management Practices for Sanitary Sewer Overflow Reduction Strategies*. To date, BACWA has distributed 100 copies of this manual, which contains straightforward guidance on all aspects of managing and maintaining a collection system, including demonstrating compliance with the state-issued permit for collection systems. Both of these documents are available for free downloading on the BACWA website.

BACWA also is finalizing a white paper on the diversion of stormwater to Bay Area treatment plants that includes an analysis of various regulatory, technical, and political factors that agencies should analyze before embarking on a project. The process leading up to this paper brought together representatives from stormwater agencies, the Water Board, EPA, and environmental organizations and has already stimulated dialogue about the feasibility and benefits of diversion projects.

Additionally, BACWA commissioned an analysis of sewage spill report data contained in the State Water Board's California Integrated Water Quality System (CIWQS) database. This project, which will be completed by fall 2010, generated useful information about data quality limitations that will serve as the basis for recommended improvements to the CIWQS system.



Juvenile banded California least tern



*Great white egret*

## Promoting an Integrated Approach to a Healthy Bay

The Bay Area Integrated Regional Water Management Plan (IRWMP) is a multi-agency, nine-county effort to coordinate and improve water supply reliability, protect water quality, manage flood protection, maintain public health standards, protect habitat and watershed resources, and enhance the overall health of the San Francisco Bay. Since 2003, BACWA, representing

Nearly \$4 million in DWR funds have been distributed to agencies to support projects related to water conservation and efficiency, recycling, and restoration.

wastewater and recycled water interests, has been one of the four entities that develops and oversees implementation of the IRWMP. Ensuring that the plan is current enables member agencies to stay competitive for future state funding.

Another regional collaboration that came to fruition in 2009 was the successful securing of IRWMP project funding through Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002. This process began in 2005, final contracts were signed in 2008 and, to date, almost \$4 million of the \$12.5 granted has been received from the California Department of Water Resources and distributed to agencies to fund projects related to water conservation and efficiency, recycling, and restoration.

## FUTURE PLANS & NEW INITIATIVES

The array of issues facing today's wastewater agencies is greater and more complex than those nearly three decades ago, when BACWA was first founded. Although providing cost-effective sanitary services that protect public health and the environment continues to be the primary driver for agencies, today's agencies also must address unprecedented fiscal challenges, workforce development issues,



Union Sanitary District CWEA Awards

and an increasingly aged infrastructure. While some water quality issues have been resolved, others—such as nutrients, trace contaminants, and sediment quality objectives—are still developing and the implications for agencies are uncertain. Agencies also are coming to terms with new and changing air regulations, the future effects of climate change on operations and infrastructure, and identifying opportunities for using wastewater to offset potable water use and generate renewable energy.

In the coming year, BACWA will continue to provide the core services that its members value:

- *Acting as a regional coordinator and voice for Bay Area agencies to ensure that their interests are represented at the local, state, and national levels.*
- *Assisting members in understanding and complying with regulations through trainings, workshops, publications, and committee meetings.*
- *Leveraging limited resources to help agencies comply with permit provisions, through activities that include reporting Mercury*

*Watershed Permit compliance, implementing a risk reduction program, and organizing regional education campaigns that enable agencies to meet pollution prevention requirements in their permits and the State Board's waste discharge requirements for sanitary sewer overflows.*

- *Filling scientific needs through coordination with the San Francisco Estuary Institute and public and private research institutions.*
- *Keeping members informed of how regulatory and scientific developments related to nutrients, greenhouse gas emissions, trace contaminants, selenium, and sediment quality objectives may affect their operations in the near and long term.*

# 2009–2010 FINANCIAL REPORT

Table 1 shows the revenue from member agencies. Tables 2 and 3 show how contributions were used to support key BACWA programs and Clean Bay Collaborative (CBC) projects and initiatives.

**TABLE 1: FY 2009–2010 MEMBER CONTRIBUTIONS TO SPECIFIC BACWA PROGRAMS**

	BACWA Contributions	AIR	BAPPG	CBC (WQAS)
Members	\$450,000 Signatory Members	\$86,132	\$35,000 Signatory Members	\$300,000 Signatory Members
	\$159,000 Other Members		\$30,005 Other Members	\$149,503 Other Members
Interest	\$11,210	\$496	\$795	\$9,274
<b>TOTAL REVENUE</b>	<b>\$620,210</b>	<b>\$86,628</b>	<b>\$65,800</b>	<b>\$458,777</b>

**TABLE 2: FY 2009–2010 BACWA EXPENDITURES**

Project Elements	FY 2009–2010 Obligations
Committees	\$101,250
Technical Support	\$46,250
Legal Support	\$24,000
Collaboratives and Sponsorships	\$10,250
Communications and Reporting	\$25,500
Pollution Prevention	\$35,000
General BACWA	\$18,562
Administrative Expenses	\$250,739
<b>TOTAL</b>	<b>\$511,551</b>

**TABLE 3: FY 2009–2010 GENERAL CBC (WQAS) EXPENDITURES**

Project Elements	FY 2009–2010 Obligations
Water Quality Analysis and Studies	\$178,000
Expert Consultants	\$0
CBC Reporting	\$22,880
Wet Weather Program	\$20,000
Climate Change Program	\$50,000
General CBC	\$16,383
<b>TOTAL</b>	<b>\$287,263</b>

## 2009-2010 Board Members & Committee Chairs

Dave Tucker, *BACWA Chair*

Bhavani Yerrapotu (Alternate)

Dale Ihrke (Alternate)

Kirsten Struve (Alternate, April–June)

**City of San José**

Doug Craig, *BACWA Vice Chair*

Jim Kelly

**Central Contra Costa Sanitary District**

Tommy Moala, *Board Member*

Arleen Navarret (Alternate)

Natalie Sierra (Alternate)

**San Francisco Public Utilities Commission**

Mike Connor, *Board Member*

Karl Royer (Alternate)

Rich Currie (Alternate)

**East Bay Dischargers Authority**

Dave Williams, *Board Member*

Ben Horenstein (Alternate)

Ed McCormick (Alternate)

**East Bay Municipal Utility District**

### **Recycled Water Committee**

Cheryl Muñoz, San Francisco Public Utilities

Commission, *Co-Chair*

Linda Hu, East Bay Municipal Utility District,

*Co-Chair*

### **Air Issues and Regulations Committee**

Stephanie Cheng, East Bay Municipal Utility

District, *Chair*

Randy Schmidt, Central Contra Costa Sanitary

District, *Vice Chair*

### **Bay Area Pollution Prevention Committee**

Jen Jackson, East Bay Municipal Utility District,

*Chair*

Sharon Newton, City of San José, *Vice Chair*

### **Biosolids Committee**

Greg Baatrup, Fairfield-Suisun Sewer District,

*Chair*

Matt Krupp, City of San José, *Vice Chair*

### **Permits Committee**

James Ervin, City of San José, *Chair*

### **Collection Systems Committee**

Rich Cunningham, City of Albany, *Chair*

### **Laboratory Committee**

Alo Kauravlla, City of San José, *Chair*

## 2010-2011 Board Members & Committee Chairs

Arleen Navarret, *BACWA Chair*

Tommy Moala (Alternate)

Natalie Sierra (Alternate)

### **San Francisco Public Utilities Commission**

Ben Horenstein, *BACWA Vice Chair*

Dave Williams (Alternate)

Ed McCormick (Alternate)

### **East Bay Municipal Utility District**

Bhavani Yerrapotu, *Board Member*

Kirsten Struve (Alternate)

Dale Ihrke (Alternate)

John Stufflebean (Alternate)

Dave Tucker (Alternate)

### **City of San José**

Jim Kelly, *Board Member*

### **Central Contra Costa Sanitary District**

Mike Connor, *Board Member*

Karl Royer (Alternate)

Rich Currie (Alternate)

### **East Bay Dischargers Authority**

### **Recycled Water Committee**

Cheryl Muñoz, San Francisco Public Utilities Commission, *Co-Chair*

Linda Hu, East Bay Municipal Utility District, *Co-Chair*

### **Air Issues and Regulations Committee**

Stephanie Cheng, East Bay Municipal Utility District, *Chair*

Randy Schmidt, Central Contra Costa Sanitary District, *Vice Chair*

### **Bay Area Pollution Prevention Committee**

Sharon Newton, City of San José, *Vice Chair*

Sarah Scheidt, Sunnyvale, *Vice Chair*

### **Biosolids Committee**

Greg Baatrup, Fairfield-Suisun Sewer District, *Chair*

Matt Krupp, City of San José, *Vice Chair*

### **Permits Committee**

James Ervin, City of San José, *Chair*

### **Collection Systems Committee**

Rich Cunningham, City of Albany, *Chair*

### **Laboratory Committee**

Guy Moy, Union Sanitary District, *Chair*

