



Bay Area Clean Water Agencies Report to Members

June 2009



**Members of the Bay Area Clean Water Agencies (BACWA)
Executive Board:**

David W. Tucker, City of San Jose, Chair of Executive Board

Doug Craig, Central Contra Costa Sanitary District, Vice Chair of Executive Board

David Williams, East Bay Municipal Utilities District, Board Member

Tommy Moala, San Francisco Public Utilities District, Board Member

Michael Connor, East Bay Dischargers Authority, Board Member

Michele M. Pla, Executive Director



Prepared by





Contents

| | | |
|---|---|----|
| Executive Summary | 1 | |
| BACWA Accomplishments | 5 | |
| Major Initiatives Completed in FY 2007-2008 | 5 | |
| Regulatory Initiatives Started in FY 2007-2008 | 6 | |
| Sanitary Sewer Overflows and Other Wet Weather Issues | 6 | |
| Dioxin Permit Limits | 7 | |
| PCB TMDL | 8 | |
| Selenium TMDL | 8 | |
| Bacteria Limits and Basin Plan Requirements | 8 | |
| Ammonia Toxicity | 8 | |
| Pollution Prevention..... | 9 | |
| Energy Use and Air Quality | 9 | |
| Organizational Initiatives Started in FY 2007-2008 | 10 | |
| Member Engagement | 10 | |
| Mercury Watershed Permit Annual Report..... | 11 | |
| Aquatic Science Center..... | 11 | |
| BACWA-supported Programs | 12 | |
| Operator Training | 12 | |
| Water Conservation Campaign | 13 | |
| Proposition 50 Grant Management | 13 | |
| Organizational Structure of BACWA..... | 15 | |
| Management and Administration | 16 | |
| Committees | 16 | |
| Info Share | 16 | |
| Support through Expert Consulting | 17 | |
| Finances and Audit..... | 19 | |
| Tables | | |
| 1 | FY 2007-2008 Member Contributions to Specific BACWA Programs.....19 | |
| 2 | FY 2007-2008 General BACWA Budget | 19 |
| 3 | Water Quality Attainment Strategies..... | 20 |





Executive Summary

The Bay Area Clean Water Agencies (BACWA) identifies and addresses regional environmental, regulatory, and policy issues on behalf of its members, the public wastewater utilities in the San Francisco Bay region. As an organization comprising many members, BACWA can address regional issues more effectively than individual members can address them alone. This Report to Members provides a summary of BACWA accomplishments in Fiscal Years (FY) 2007-2008 and 2008-2009. Also included is an organizational summary that demonstrates cost-effectiveness and the value that BACWA provides to you, our members.

Each year an independent auditor reviews BACWA's financial records; we have included the results of the FY 2007-2008 audit as well as a table illustrating BACWA's management of the Water Quality Attainment funds in 2007-2008 and 2008-2009.

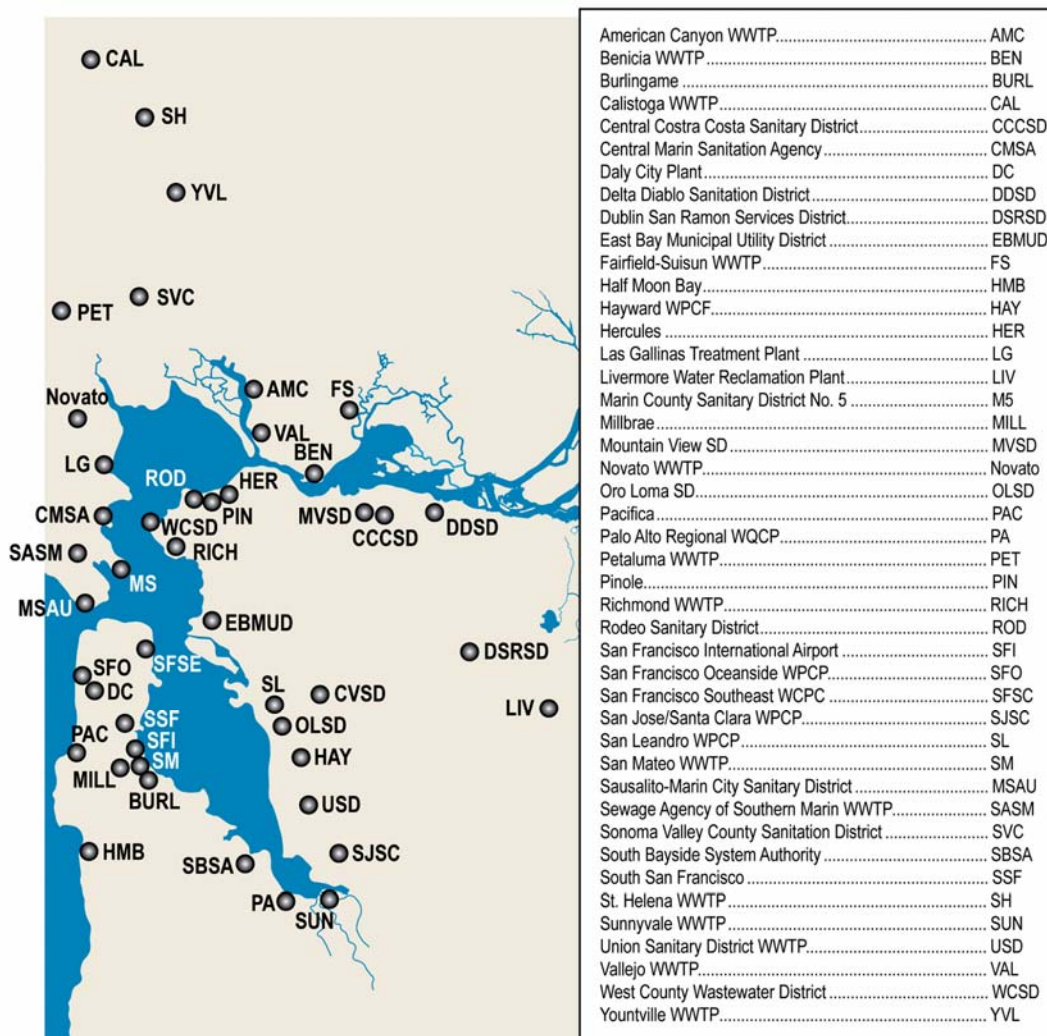
During FY 2007-2008, BACWA's credibility and technical objectivity influenced the regulatory strategies on mercury, cyanide, and copper regulations, resulting in an adopted mercury watershed permit, cyanide and copper site-specific objectives, and National Pollutant Discharge Elimination System (NPDES) permits with which the BACWA membership can comply. BACWA began several new regulatory initiatives in FY 2007-2008, with the goal of keeping the BACWA membership ahead of the regulatory curve. These initiatives included sanitary sewer overflows (SSOs) and other wet weather issues and dioxin permit limits. BACWA began work on several additional regulatory concerns in FY 2008-2009, including polychlorinated biphenyl (PCB) total maximum daily load (TMDL) compliance, selenium TMDL development, bacteria criteria, and ammonia toxicity.

BACWA will continue to address the broad regulatory topics of pollution prevention (P2) and climate change. While previous P2 efforts have been highly successful, new pollutants, including pharmaceuticals, endocrine disrupters, and nanoparticles, require a new focus. BACWA's efforts will ensure that BACWA members continue to lead in P2 and develop their roles as leaders in climate change. The BACWA Air Committee continued to track and comment on the development of regulations by the California Air Resources Board (CARB) following the adopted legislation of California Assembly Bill 32 regulating



greenhouse gases (GHGs). BACWA, along with the Central Valley Clean Water Agencies (CVCWA) and the Southern California Association of Publicly Owned Treatment Works (SCAP) comprise the CWCCG or the California Wastewater Climate Change Group, which is recognized as a leading statewide organization addressing climate change issues.

BACWA began new organizational initiatives in FY 2007-2008, all of which enhance our ability to serve as an educational and research resource. Workshops provided a forum that enhanced member collaboration and problem solving. Specific workshop topics included breaking down the barriers to water reuse, wet weather issues, and biosolids management options, and monitoring and reporting on GHGs consistent with mandatory requirements in Assembly Bill 32. In addition, BACWA participated in the creation of the Aquatic Science Center (ASC), a new entity that improves the fiscal stability of the San Francisco Estuary Institute (SFEI) and enhances its ability to serve many entities – including BACWA – that are committed to the health of the San Francisco Bay.



The BACWA Joint Powers Agreement (JPA) promotes and initiates programs designed to support all BACWA members, as well as encourages programs that are of specific interest to a subset of the members. During the past 2 years, the Operator-training Program, a water conservation campaign, and the successful acquisition of a Proposition 50 Grant are all considered programs of special interest to a subset of the full membership.

In April 2009, BACWA delivered to the Regional Water Board the first Annual Report for the Mercury Watershed Permit. This Region-wide report provided detailed information on all mercury discharges from the public clean water agencies covered in the watershed permit and calculations of the total public clean water agencies' mass loading to the Bay. The Mercury Watershed Permit and two additional reports were submitted separately in March 2009, detailing BACWA members' engagement in P2 efforts, the mercury monitoring strategy, the Water Environment Research Foundation cooperative research study findings on methylmercury, and other requirements under the TMDL and Mercury Watershed permit.

BACWA successfully develops regional solutions and provides advocacy and information exchange for all members through the voluntary participation of member agencies' staff and the judicious use of professional consultants. BACWA member agencies have the opportunity to advance their knowledge on a broad spectrum of issues, engage in the development of innovative solutions, and provide professional development for their staff by participating in the numerous technical committees and InfoShare groups that BACWA provides.

BACWA welcomes your comments and questions and looks forward to continuing to serve you.





BACWA Accomplishments (FY 2007-2008 and 2008-2009)

The last 2 years have been particularly productive for BACWA. The major initiatives described below are often the culmination of many years of working across BACWA and with the regulators and interested public. The engagement of members and particularly the Executive Board and Committee Chairs was essential to achieving these accomplishments.

Major Initiatives Completed in FY 2007-2008

In FY 2007-2008, BACWA facilitated the progress on three major water quality initiatives that had been studied and reviewed for many years. These initiatives contributed to an enhanced understanding of the San Francisco Bay's current water quality using sound, site-specific data. Further, these initiatives changed the permit requirements for mercury, cyanide, and copper. This Bay-wide approach is more cost-effective and sensible for the regulators, clean water agencies, and ultimately, the public, because these constituents are now addressed uniformly and with a comprehensive scientific understanding rather than on a tactical, permit-by-permit basis.



As a result of BACWA's multi-year effort, our membership has a resolution to long-standing regulatory issues concerning copper, mercury, and cyanide. The following policies were either adopted or moved forward in FY 2007-2008:

- **Mercury TMDL.** As of March 2008, the mercury TMDL is implemented through a watershed permit. This permit applies uniform effluent standards and data collection, focused P2 requirements, and requires participation in the same scientific studies for all municipal and industrial discharges in the region. Both BACWA and the Regional Water Quality Control Board (Water Board) believe this is an effective approach to TMDL implementation.





BACWA Accomplishments (FY 2007-2008 and 2008-2009)

The last 2 years have been particularly productive for BACWA. The major initiatives described below are often the culmination of many years of working across BACWA and with the regulators and interested public. The engagement of members and particularly the Executive Board and Committee Chairs was essential to achieving these accomplishments.

Major Initiatives Completed in FY 2007-2008

In FY 2007-2008, BACWA facilitated the progress on three major water quality initiatives that had been studied and reviewed for many years. These initiatives contributed to an enhanced understanding of the San Francisco Bay's current water quality using sound, site-specific data. Further, these initiatives changed the permit requirements for mercury, cyanide, and copper. This Bay-wide approach is more cost-effective and sensible for the regulators, clean water agencies, and ultimately, the public, because these constituents are now addressed uniformly and with a comprehensive scientific understanding rather than on a tactical, permit-by-permit basis.



As a result of BACWA's multi-year effort, our membership has a resolution to long-standing regulatory issues concerning copper, mercury, and cyanide. The following policies were either adopted or moved forward in FY 2007-2008:

- **Mercury TMDL.** As of March 2008, the mercury TMDL is implemented through a watershed permit. This permit applies uniform effluent standards and data collection, focused P2 requirements, and requires participation in the same scientific studies for all municipal and industrial discharges in the region. Both BACWA and the Regional Water Quality Control Board (Water Board) believe this is an effective approach to TMDL implementation.




- **Cyanide Site-specific Objective.** The Water Board, the State Water Resources Control Board (SWRCB), and the U.S. Environmental Protection Agency (USEPA) adopted a San Francisco Bay site-specific objective for cyanide. The site-specific objective was developed from years of data and numerous studies demonstrating how cyanide could enter the Bay as a by-product of chlorine disinfection and the rate at which it naturally breaks down in the environment. This groundbreaking approach to cyanide allows dilution for shallow water discharges where models demonstrate appropriate attenuation and dilution at the specific discharge location. The new site-specific objective with the application of dilution is already in NPDES permits.
- **Copper Site-specific Objective.** On January 15, 2008, the SWRCB adopted the site-specific objective for copper for North of the Dumbarton Bridge. The site-specific study, which began in 1998, clearly demonstrated that low concentrations of copper were causing no toxicity, nor was any impairment due to copper found in the San Francisco Bay. Although the USEPA did not approve of the site-specific objective until January 6, 2009, the Water Board began to apply the water effects ratio, developed as part of the objective, in 2008. This new copper objective provides clean water agencies the benefit of a science-based site-specific objective and a uniform guideline for future copper monitoring and P2 efforts.

Regulatory Initiatives Started in FY 2007-2008

BACWA started initiatives in FY 2007-2008 in response to outside forces that were putting BACWA members in the spotlight, as in the case of the SSO program changes, and the changes to water and air quality regulations. One of BACWA's strengths is its ability to react quickly and develop a programmatic and regional approach to proposed or potential regulatory requirements.

Sanitary Sewer Overflows and Other Wet Weather Issues

In November 2007, an oil tanker collided with the Bay Bridge and spilled 54,000 gallons of oil into the Bay. The oil spill sparked a resurgence of the public's expression of their concern for the San Francisco Bay and its myriad values. In this atmosphere, the sewer spills of January and February 2008 received attention from the press, the public, and regulators at the Regional, Federal, and State levels. BACWA's Collection System Committee and the Executive Board developed a three-pronged response:




Focusing on SSO and wet weather issues keeps BACWA's members ahead of the regulatory curve.



- Developed a series of frequently asked questions about collection systems to ensure a common literacy; this material can be downloaded from the BACWA Web site.
- Worked with Water Board staff to understand technical, financial, and public issues that affect the utilities' ability to prevent and respond to SSOs.
- Conducted a Wet Weather Issues workshop in May 2008 where details about the new statewide spill notification requirements, recent spill enforcement incidents, and complaints, as well as information about the then-pending Leno Legislation were presented to the BACWA membership.

Dioxin Permit Limits

Fish consumption advisories for the San Francisco Bay exist as a result of dioxin concentration found in some fish tissues. Consequently, the Water Board has included numerical dioxin discharge limits in NPDES permits. These numerical limits are below the analytical detection point, which means it may be impossible for BACWA members to determine compliance and any valid measurement would result in non-compliance with these requirements. Additionally, the Water Board, its staff, and BACWA recognize that dioxin impairment to San Francisco Bay comes from other sources such as air deposition and not wastewater treatment.



Scientific and regulatory review provides regulators proven, alternative approaches to dioxin regulation.

To resolve this problem, BACWA and regulators jointly developed an issue paper and engaged the SFEI to convene an independent panel of experts to provide objective expert review. The goal was to compile scientific information to better describe the dioxin problem and develop an approach to dioxin regulation that would protect the Bay and provide rational discharge limits, given the minimal control dischargers have over dioxin sources. This panel met for discussion on February 22, 2008, and issued a report recommending the following:

- Applying the Great Lakes Initiative approach to dioxin, an approach approved and adopted by the USEPA in the Federal Register
- Gathering and analyzing more dioxin data describing inputs and impacts to the Bay
- Developing a TMDL using a comprehensive environmental approach to investigate the sources and controllability of dioxin



Based on this report, BACWA has worked with the Water Board to develop a new permit strategy that can be applied to all clean water agencies' NPDES permits to achieve compliance. In addition, the SFEI has initiated, through the Regional Monitoring Program, a Dioxin Workgroup that has begun a new 5-year, \$500,000 dioxin monitoring program.



PCB TMDL

The Water Board adopted a PCB TMDL in February 2008. This TMDL is based on limited data and, as a result, some individual waste load allocations are not well developed. In summer 2009, the TMDL will be before the SWRCB for approval. BACWA is currently developing a position on this critical TMDL.

Selenium TMDL

The State of California and the USEPA listed the entire San Francisco Bay as impaired for selenium. The Water Board initiated a TMDL for the Bay north of the Oakland/Bay Bridge. BACWA has engaged in this process by reviewing technical memoranda, developing comments, participating in advisory committee meetings, reviewing effluent data, and developing proposals for wasteload allocations and implementation plans.

Bacteria Limits and Basin Plan Requirements

BACWA is working for adoption of water quality standards for bacteria that are consistent with USEPA requirements. The standards currently in use in San Francisco Bay require excessive chemical disinfection. This imposes unnecessary expense on clean water agencies and also results in unwarranted levels of chemical byproducts in the San Francisco Bay. BACWA is assisting the Water Board in its efforts to complete the current Basin Plan Amendment for bacteria before 2011, when the new round of permit issuance begins.

Ammonia Toxicity

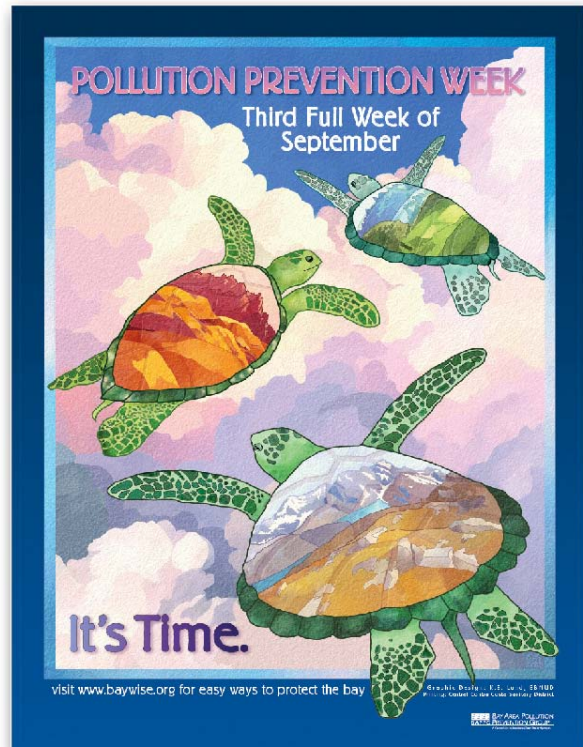
Low concentration nutrient interactions in fresh water and saltwater bodies can be extraordinarily complex. Some recent research with limited peer review has suggested that ammonia may impair the health of the San Francisco Bay. BACWA is evaluating this new literature and intends to engage in broader discussion about the role of ammonia, nitrogen, and nutrients on impacts to



San Francisco Bay. BACWA has participated in an independent review of this research and will monitor this issues in the years to come.

Pollution Prevention

P2 continues to be a major focus for BACWA. The Bay Area Pollution Prevention Group (BAPPG) and individual BACWA members are the nation's leaders on P2 efforts, targeting a broad range of pollutants such as fats, oils, and grease; pesticides; mercury; copper; and PCBs among others. More work remains, as regulators move beyond TMDLs and permits that address legacy pollutants (mercury, PCB, dioxin, selenium, and pesticides); BACWA will review new findings regarding "emerging contaminants" such as pharmaceuticals, endocrine disrupters, and nanoparticles. The BAPPG are dedicated leaders of BACWA's P2 efforts toward product stewardship and green chemistry, with a continued focus on public education and cooperation.



Energy Use and Air Quality

California State agencies are engaged in ensuring that climate change considerations are part of their programs and policies. The SWRCB, CARB, California Energy Commission (CEC), and California Public Utilities Commission (CPUC) are developing new policies and requirements that implement the GHG laws. In the next few years, water quality, biosolids management, and air quality programs may be highly influenced by goals and means to reduce GHGs.

BACWA will identify opportunities to coordinate across committees to provide an overarching discussion of climate change adaptation and mitigation strategies.



Organizational Initiatives Started in FY 2007-2008

In addition to the completion of the mercury, cyanide, and copper initiatives, BACWA also began several new organizational initiatives during the last 2 years. The organizational initiatives focus on enhancing our ability to serve as an educational and research resource, which is consistent with the requirements of the BACWA JPA.

Member Engagement

BACWA's structure focuses on member engagement in committees and workgroups. This provides the platform for collaborative development of solutions to regulatory and environmental challenges. In FY 2007-2008, BACWA built upon this platform by holding three major workshops that engaged our members in discussions of water reuse, wet weather, and biosolids management challenges and opportunities. These workshops raised the level of understanding among our members and provided new opportunities to communicate and consider innovative solutions.



The specific workshops held in FY 2007-2008 included the following:

- **Breaking Down Barriers to Water Reuse.** This workshop was a natural progression from the successful white paper, "The Importance of Recycled Water for the San Francisco Bay Region" developed in FY 2006-2007. BACWA recognized that barriers to water reuse arose from both the regulatory and the political community, and arranged a workshop in which our members engaged with regulators, elected officials, and their peers to develop new approaches for increasing water reuse. Participants identified several approaches to breaking down existing barriers, including: bringing financial resources to the region, working together regionally, and continuing to educate the public about the benefits of water reuse.
- **Wet Weather Issues.** The oil spill of November 2007 and the subsequent sewage spills in January and February 2008 provided the opportunity to focus on the regulatory and



public atmosphere in which BACWA members are now operating. This workshop included presentations by Ken Greenberg from the USEPA, Bobbi Larson from the California Association of Sanitation Agencies (CASA), staff from the Regional Water Board, representatives from Bay Keeper, utility managers, and utility attorneys.

- **Biosolids Management and Management Options.** BACWA held a 1-day biosolids management workshop to inform its members about new requirements for continued land application in Solano County, discuss the technical challenges of developing a regional biosolids management project, and explore additional biosolids management concerns. Afternoon breakout sessions provided opportunities for members to work together on policy, technical, and public education challenges. As a result of this workshop, the BACWA Biosolids Committee is developing a white paper and an action plan for future activities.

BACWA's Air Issues and Regulations Committee presented the first workshop specifically for clean water agencies on measuring and reporting GHG under the requirements of Assembly Bill 32.

Mercury Watershed Permit Annual Report

In March and April 2009, BACWA submitted the first Annual Reports required under the Mercury Watershed Permit to the Regional Water Board. The Mercury Watershed Permit requires both municipal clean water agencies and industrial dischargers to develop, or cause to be developed, a risk-reduction program that targets consumers of San Francisco Bay-caught fish and to conduct or cause to be conducted special studies for adaptive management. BACWA's report on these activities was submitted on March 2, 2009; and on April 1, 2009, BACWA submitted the first annual group report showing compliance with the group wasteload allocation. The report includes a summary narrative of the data and information submitted by participating agencies, as well as a calculated annual mercury mass emission for all municipal entities. The P2 activities of the municipal clean water agencies were also summarized. BACWA is now engaged with members to support implementation of dental amalgam programs and to determine how best to measure implementation and the effectiveness of these programs across the region.

Aquatic Science Center

Creation of the ASC improves the fiscal stability of the SFEI and enhances its ability to serve BACWA and other entities committed to the health of the Bay.

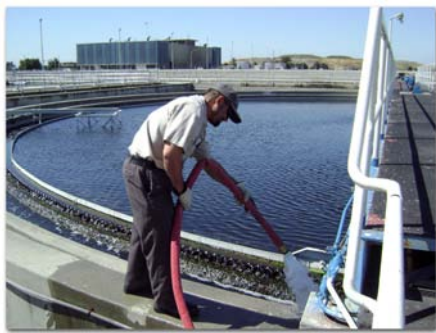


BACWA, in partnership with the SWRCB, created the ASC, under which the SFEI is an operating entity. This arrangement enhances SFEI's ability to secure State and Federal funding, reduces its reliance on clean water agencies for funding, and enhances its ability to serve a larger community with interest in the health of the Bay.



BACWA-supported Programs

The BACWA JPA encourages programs designed to support all BACWA



members as well as programs of specific interest to a subset of the BACWA membership. These programs, which may or may not be initiated by BACWA, provide benefits to our members. Over the past 2 years, these programs included support of an operator training program, a water conservation campaign, and successful acquisition and management of a Proposition 50 Grant.

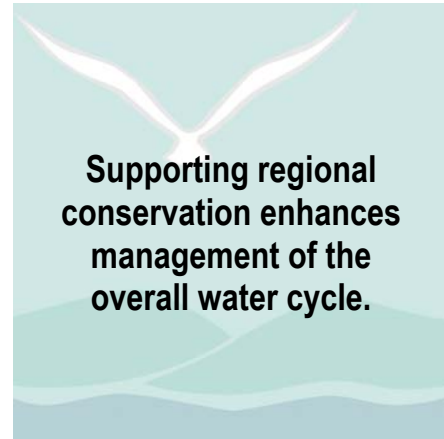
Operator Training

In FY 2007-2008 BACWA began supporting a group of members located in Solano, Contra Costa, and Alameda Counties to develop a water and wastewater operator training program under the auspices of the Solano Community College. These night classes are for individuals who want to become operators or to advance in their operations careers. BACWA provides administrative contracting and financial management support for this program. Thus far, more than 200 students have completed classes.



Water Conservation Campaign

With the deepening drought, regional water supply utilities asked BACWA to provide administrative and management support for a regional water conservation advertising campaign. Water conservation reduces influent flows, thereby reducing chemicals and energy demands for wastewater treatment. Moreover, a number of BACWA members are also water utilities with a dual responsibility to protect and conserve our water resources. BACWA was able to provide efficient, cost-effective support for a regionally financed program. This campaign began in FY 2007-2008, with the “Water Heroes” campaign.



Proposition 50 Grant Management

In FY 2006-2007, 12 Bay Area utilities, five of which are BACWA members, requested BACWA to apply for a grant available under Proposition 50,



Chapter 8, to support development of water recycling, water conservation, and water resources projects in the Bay Area. Proposition 50 Grant guidelines indicated a preference for regional applications and because BACWA is one of few qualified regional entities in the Bay Area, BACWA’s application provided the necessary regional approach. In FY 2007-2008, BACWA was awarded a \$12.5 million grant for 14 projects with a total estimated value of \$108,278,220.





Organizational Structure of BACWA

BACWA is a member-supported organization made up of 55 publicly owned clean water agencies. There are three membership levels for public wastewater utilities:

- Signatory Agencies are those five agencies that entered into the JPA in January 1984.
- Associate Members include all other public wastewater agencies that have treatment facilities that treat 5 mgd or more.
- Affiliate Members are public treatment agencies that treat less than 5 mgd, or collection system-only agencies.

Participation by member agencies' staff and judicious use of professional consultants provides cost-effective advocacy, information exchange, and regional solutions.

An Executive Board leads BACWA. The JPA establishes the membership of the Executive Board as representatives from the five original signatory agencies (East Bay Municipal Utilities District [EBMUD], San Francisco Public Utilities Commission [SFPUC], East Bay Dischargers Authority [EBDA], Central Contra Costa Sanitary District [CCCSD], and the City of San Jose). The Executive Board is responsible for ensuring:

- The financial viability of the organization, including adoption and management of an annual budget and work plan
- BACWA activities align with its mission and are meeting the membership's needs
- BACWA has the technical, legal, and other support necessary to fulfill its mission



Management and Administration

BACWA uses membership dues to pay two part-time consultants to provide ongoing management and administrative support. These consultants are the Executive Director and the Assistant to the Executive Director.

The Treasurer of EBMUD is also the Treasurer of BACWA, as designated by the JPA. EBMUD provides fee-based accounting and financial management services (including issuing invoices for member contributions and payment of vendor/consultant invoices).



Committees

BACWA has the following eight active committees, each of which focuses on compliance issues and regulatory and policy trends in a distinct area:

- Air Issues and Regulations (AIR)
- BAPPG
- Biosolids
- Collection Systems
- Laboratory
- Media Relations (a joint committee with the Bay Area Stormwater Management Agencies Association)
- Permits
- Water Recycling

Info Share

BACWA sponsors three groups (Operations InfoShare; Bay Area Maintenance InfoShare [BAMI]; and Engineering Infoshare) that provide an interactive information-sharing forum for wastewater operations and maintenance supervisors, chiefs, and engineers. These InfoShare groups are supported by a paid consultant who schedules quarterly meetings and prepares meeting minutes that provide value for all BACWA members.



Support through Expert Consulting

BACWA uses consultants to assist committee administration and provide technical assistance as needed. These expert consultants provide:

- Support for specific committees
- Support for the InfoShare groups
- Technical expertise and professional support on a task-order basis





Finances and Audit

The FY 2007-2008 revenues are included in Table 1. The general budget categories are included in Table 2.

TABLE 1
FY 2007-2008 Member Contributions to Specific BACWA Programs

| | BACWA Contributions | AIR | BAPPG | CEP/Water Quality Attainment Strategy |
|----------------------|--------------------------------|-----------------|-------------------|--|
| Members | \$450,000 | \$88,671 | \$29,451 | \$450,000 |
| | Signatory Members | | Signatory Members | Signatory Members |
| | \$160,500 | | \$19,202 | \$150,001 |
| | Other Members | | Other Members | Other Members |
| Interest | \$40,019 | \$2,699 | \$3,076 | \$63,393 |
| Total Revenue | \$650,519 | \$91,370 | \$51,729 | \$663,394 |

TABLE 2
FY 2007-2008 General BACWA Budget

| Project Elements | Budget | Expenditures at End of FY |
|---|------------------|----------------------------------|
| Permit/ Water Quality | \$156,250 | \$71,754 |
| Collection Systems | \$50,000 | \$39,698 |
| Communication of Technology and Regulatory Issues | \$108,000 | \$106,250 |
| Pollution Prevention | \$32,500 | \$29,500 |
| General BACWA | \$146,609 | \$108,418 |
| Project Totals | \$463,359 | \$335,620 |
| Administrative Expenses | \$202,641 | \$187,168 |
| Budget Totals | \$666,000 | \$522,788 |

In FY 2007-2008, BACWA also started and completed several water quality attainment strategy initiatives. The investments BACWA made over FY 2006-2007, 2007-2008, and partial year 2008-2009, in these successful initiatives, are shown in Table 3.



TABLE 3
Water Quality Attainment Strategies

| Subject | Fiscal Year | Contract | Vendor | Amount Spent |
|-----------------------|-------------------|--|-----------------------|-----------------------|
| Bacteria | 2007-2008 | Soller Environmental PO for Shellfish | Soller Environmental | (\$2,998.21) |
| | 2007-2008 | ICF Incorporated PO for Shellfish | ICF Incorporated | (\$3,887.44) |
| | 2007-2008 | Kinnetic Laboratories PO for Shellfish | Kinnetic Laboratories | (\$3,999.04) |
| | | | Total | (\$10,884.69) |
| Cn | 2006-2007 | LWA Cyanide SSO | LWA | (\$4,992.50) |
| Cu/Ni | 2006-2007 | LWA Cu/Ni BPA | LWA | (\$4,301.19) |
| Dioxin | 2007-2008 | Keith Linn Dioxin Review | K. Linn | (\$608.16) |
| | 2007-2008 | Grubbs Independent Review of Dioxin Issue Paper | Grubbs | (\$14,991.21) |
| | 2007-2008 | LimnoTech Independent Review of Dioxin Issue Paper | LimnoTech | (\$8,972.36) |
| | 2006-2008 (BACWA) | LimnoTech Dioxin Issue Paper Assistance, Phase I | LimnoTech | (\$19,869.00) |
| | 2007-2008 | SFEI Management of the Independent Review | SFEI | (\$5,000.00) |
| | 2008-2009 | Oakley Water for Dioxin Bioaccumulative Equivalency Factors Justification | OWS | (\$18,748.75) |
| | | | Total | (\$68,189.48) |
| Hg | 2005-2008 | WERF for Cooperative Research on Bioavailability of Methyl Mercury | WERF | (\$170,300.00) |
| | 2006-2007 | OWS Hg Watershed Permit, Step 1 | OWS | (\$6,195.31) |
| | 2006-2007 (BACWA) | OWS Watershed Permit, Step 2 | OWS | (\$21,415.91) |
| | 2006-2008 | Somach, Simmons and Dunn (SSD) Hg TMDL | SSD | (\$4,512.66) |
| | 2007-2008 (BACWA) | LWA Hg Data Management | LWA | (\$5,888.20) |
| | 2008-2009 | Oakley Water Strategies Hg Watershed Permit Annual Report Support Services | OWS | (\$20,360.75) |
| | 2008-2009 | EOA Hg Watershed Permit Support Services | EOA | (\$8,774.62) |
| | 2008-2009 | SFEI Risk Reduction Workshop and Report | SFEI | (\$3,078.65) |
| | 2008-2009 | Hughes Hg TMDL Dental Amalgam Support | Hughes | (\$5,198.25) |
| | | | Total | (\$245,724.35) |
| NH₃ | 2008-2009 | Hydroqual Ammonia (NH ₃) Summit; \$10,000 | Hydroqual | \$0.00 |
| PCB | 2007-2009 | LWA PCB TMDL | LWA | (\$92,280.67) |
| | 2008-2009 | Association of Bay Area Governments (ABAG) Workplan | ABAG | (\$24,655.99) |
| | | | Total | (\$116,936.66) |
| Se | 2007-2009 | CH2M HILL/LWA Se TMDL | CH2M HILL/LWA | (\$45,699.38) |
| | 2008-2009 | Brown and Caldwell Se TMDL | Brown and Caldwell | (\$1,949.00) |
| | 2008-2009 | OWS Se Data Review | OWS | (\$4,444.00) |
| | | | Total | (\$52,092.38) |





www.BACWA.org