



**WATER CONSERVATION PROGRAM
ANNUAL REPORT
FISCAL YEAR 2009-2010**

December 2010



BAWSCA WATER CONSERVATION PROGRAM
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1 Introduction

The Bay Area Water Supply and Conservation Agency (BAWSCA) represents the interests of 24 cities and water districts, one water company, and one private university that purchase water from the San Francisco Public Utilities Commission (SFPUC) Regional Water System. A map showing the 26 BAWSCA member agencies is presented in Figure 1-1. Collectively the BAWSCA member agencies provide water to 1.7 million people, and over 30,000 businesses and community organizations in Alameda, Santa Clara and San Mateo counties.

BAWSCA was established as a multicounty agency authorized to “*plan for and acquire supplemental water supplies, to encourage water conservation and use of recycled water on a regional basis....*” (Bay Area Water Conservation Agency Act, AB2058)¹. Consistent with the legislature’s intent, BAWSCA’s water management objective is to ensure that there is a reliable supply of water where and when people within the BAWSCA service area need it. To this end, BAWSCA manages a Regional Water Conservation Program that is made up of several different conservation measures and is designed to support and augment the member agency and customer efforts to use water more efficiently. Water conservation is a key element of BAWSCA’s water management efforts because:

- Water conservation extends the limited supplies of water that are available to meet both current and future water needs;
- Water conservation is good public policy;
- Water conservation increases the drought reliability of the existing water system; and
- Water conservation saves money for both the agency and the customer.

In Fiscal Year (FY) 2009/10, as part of its work plan, BAWSCA implemented a Regional Water Conservation Program that was designed to be consistent with the Water Conservation Implementation Plan (WCIP; September 2009). These efforts included the administration of several regional water conservation measures, including measures designed to educate member agency customers about water-efficient landscaping, and the development of template Indoor and Outdoor Water Use Efficiency Ordinances. As can be seen in Table 1-1, all 26 member agencies benefitted from the core conservation measures implemented by BAWSCA, and more than seventeen different member agencies participated in one or more of

¹ California Water Code Section 81301(d)

the five subscription measures offered by BAWSCA, including rebate and landscape audit measures.

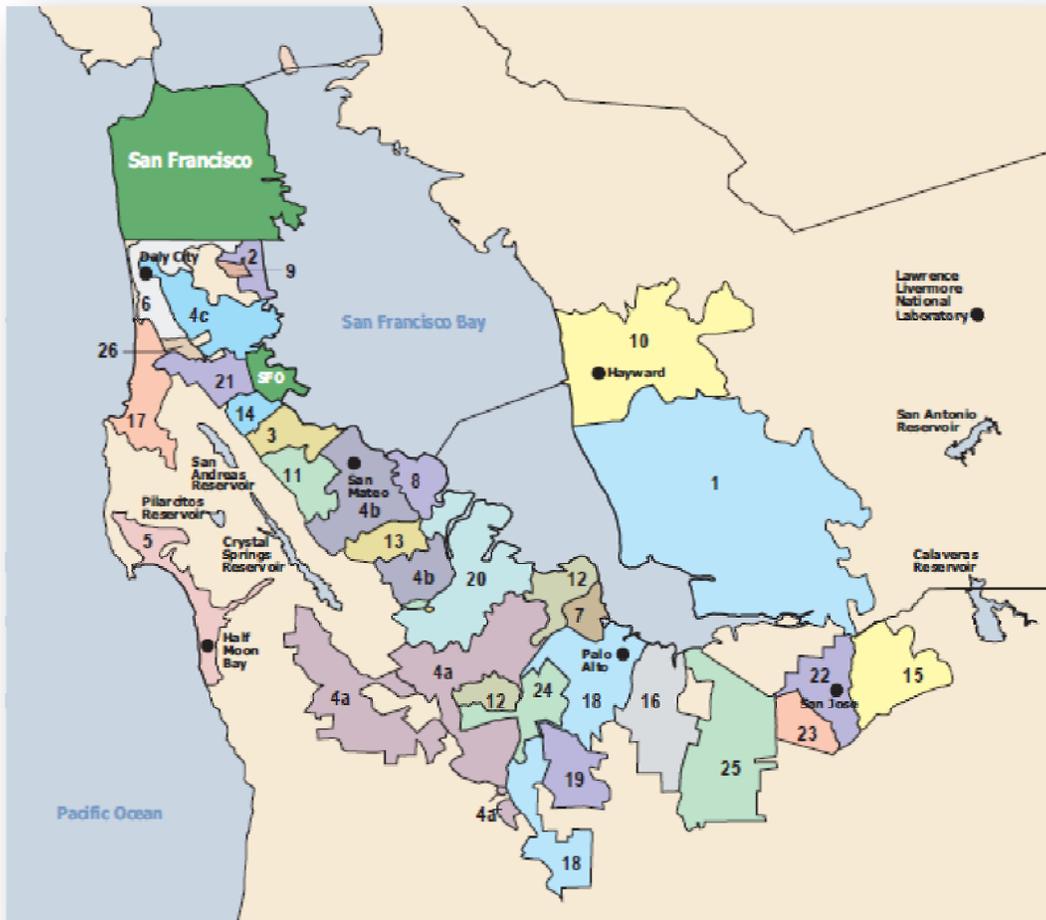
This report documents BAWSCA's implementation of its Regional Water Conservation Program, which includes conservation measures that are included as part of its annual work plan and that are consistent with the objectives of the WCIP (2009). This report does not include information regarding the additional conservation measures or activities that the individual BAWSCA member agencies administer or participate in independently or through another entity such as the Santa Clara Valley Water District (SCVWD).

In addition to implementing the WCIP (2009) and managing the Regional Water Conservation Program, BAWSCA worked with the member agencies to develop a Water Conservation Database (WCDB). The WCDB is designed to:

- Facilitate consistent electronic data collection to track progress related to implementation of water conservation activities.
- Facilitate data collection and long-term data management to support the following activities:
 - Internal agency reporting and budgeting;
 - BAWSCA Annual Survey Report;
 - California Urban Water Conservation Council (CUWCC) Best Management Practice (BMP) reporting; and
 - California Department of Water Resources (DWR) Urban Water Management Plan (UWMP) and annual Public Water Supervision System (PWSS) reporting requirements.
- Gather the data necessary to monitor quantifiable water savings in the BAWSCA region.

As evidenced in the data presented in the subsequent sections, participation in the BAWSCA Regional Water Conservation Program, and in the individual measures, continues to increase. These trends are expected to continue into the future, and BAWSCA will continue to adaptively manage the type and number of conservation measures that it manages to match the needs of its member agencies and their customers. As part of this effort, BAWSCA staff will continue to evaluate the resources needed to successfully manage and implement the Regional Water Conservation Program.

**FIGURE 1-1
BAWSCA SERVES 26 MEMBER AGENCIES IN THREE COUNTIES**



- | | |
|------------------------------------|---------------------------------------|
| 1. Alameda County Water District | 13. Mid-Peninsula Water District |
| 2. City of Brisbane | 14. City of Millbrae |
| 3. City of Burlingame | 15. City of Milpitas |
| 4a. CWS – Bear Gulch | 16. City of Mountain View |
| 4b. CWS – Mid-Peninsula | 17. North Coast County Water District |
| 4c. CWS – South San Francisco | 18. City of Palo Alto |
| 5. Coastside County Water District | 19. Purissima Hills Water District |
| 6. City of Daly City | 20. City of Redwood City |
| 7. City of East Palo Alto | 21. City of San Bruno |
| 8. Estero MID | 22. San Jose Municipal Water System |
| 9. Guadalupe Valley MID | 23. City of Santa Clara |
| 10. City of Hayward | 24. Stanford University |
| 11. Town of Hillsborough | 25. City of Sunnyvale |
| 12. City of Menlo Park | 26. Westborough Water District |

**TABLE 1-1
BAWSCA AGENCIES PARTICIPATE WIDELY IN BAWSCA'S REGIONAL WATER CONSERVATION PROGRAM (a) (b)**

Agency	BAWSCA Core Water Conservation Program				BAWSCA Subscription Water Conservation Program					
	Landscape Education Classes	Ordinances	WaterWise Garden On-Line Tool	Public Outreach (c)	Washing Machine Rebates	High-Efficiency Toilet Rebates	School Education: WaterWise Kits	School Education: EarthCapades Assemblies	Large Landscape Audits	Bulk Purchase: Spray-Rinse Nozzles
Alameda County										
Alameda CWD	X	X	X	X						
Hayward	X	X	X	X	X	X	X	X		X
San Mateo County										
Brisbane/GVMID	X	X	X	X	X	X				
Burlingame	X	X	X	X	X	X	X			X
CalWater-BG	X	X	X	X	X	X	X	X	X	X
CalWater-MidPen	X	X	X	X	X	X	X	X	X	X
CalWater-SSF	X	X	X	X	X	X	X	X	X	X
Coastside CWD	X	X	X	X	X	X	X	X	X	X
Daly City	X	X	X	X	X	X	X	X	X	X
East Palo Alto	X	X	X	X	X					
Estero MID	X	X	X	X	X	X	X		X	
Hillsborough	X	X	X	X	X	X	X		X	
Menlo Park	X	X	X	X	X	X	X	X	X	
Mid-Peninsula WD	X	X	X	X	X	X	X	X	X	
Millbrae	X	X	X	X	X	X	X	X	X	X
North Coast CWD	X	X	X	X	X		X		X	X
Redwood City	X	X	X	X	X	X	X	X	X	
San Bruno	X	X	X	X	X	X	X	X	X	
Westborough WD	X	X	X	X						
Santa Clara County										
Milpitas	X	X	X	X			X	X		
Mountain View	X	X	X	X					X	
Palo Alto	X	X	X	X						
Purissima Hills WD	X	X	X	X						
San Jose	X	X	X	X			X	X		
Santa Clara	X	X	X	X			X	X		
Stanford	X	X	X	X						
Sunnyvale	X	X	X	X						

Notes:

- (a) Tables includes an "X" if an agency has participated in a specific measure in at least one fo the last three years (FY 2007-08, FY 2008-09, and/or FY 2009-10).
- (b) An absence of an "X" does not necessarily mean that agency does not participate in a measure, just that it does not participate through BAWSCA on that measure.
- (c) Includes several different activities that benefit the region, including Garden Tours, Outreach Events, and Sponsorships.

2 Overview of the BAWSCA Regional Water Conservation Program

In creating and implementing the BAWSCA Regional Water Conservation Program, BAWSCA follows several key principles:

- The BAWSCA Regional Water Conservation Program is designed to meet the specific needs and requirements of the BAWSCA agencies.
- The BAWSCA Regional Water Conservation Program must offer increased water savings at a lower cost to the agency and its customers.
- Agencies pay the costs for each conservation measure in which they participate.

BAWSCA's Regional Water Conservation Program is a two-tier program that offers a "Core Program" and a "Subscription Program":

- The Core Program is funded through the annual BAWSCA budget and contains those conservation measures that benefit from regional implementation and that provide regional benefit, irrespective of individual agency jurisdictions.
- The Subscription Program is fully funded by the individual agency that elects to participate in the measure based on their participation level and includes conservation measures whose benefits can be realized in individual water agency service areas.

The following sections summarize the Core Programs and Subscription Programs that were offered as part of the BAWSCA Regional Water Conservation Program in FY 2009/10. This summary does not reflect all of the conservation activities that occur throughout the BAWSCA service area as many of the member agencies administer additional water conservation measures independently or through another entity such as the SCVWD.

2.1 Water Conservation Programs - Fiscal Year 2009-2010

In FY 2009/10, BAWSCA offered the following water conservation measures as part of the Core and Subscription Programs that make up the Regional Water Conservation Program:

Core Program

- Water Efficient Landscape Education Classes
- *Water-Wise Gardening in the Bay Area* Landscape Educational Tool
- Native Garden Tours and Symposiums
- Development of Template Indoor and Outdoor Water Efficiency Ordinances

Subscription Program

- High-Efficiency Toilet (HET) Rebates
- High-Efficiency Residential Washing Machine Rebates
- School Education (Water-Wise School Education Kits)
- Large Landscape Audits
- Bulk Purchase – Spray Rinse valves

Each of the above water conservation measures were administered at a regional level through BAWSCA in a cost-effective and efficient manner. In addition, BAWSCA continued its efforts to, among other things:

- Conduct public outreach promoting water awareness and conservation;
- Develop and foster regional partnerships;
- Administer existing grants and investigate alternatives to secure grants or other financial support;
- Support agency water conservation reporting and budgeting efforts;
- Provide technical support and training to the member agencies; and
- Provide analysis on specific legislation for the member agencies.

Figures 2-1 and Tables 2-1 and 2-2 show the level of participation by the member agencies in specific water conservation measures that BAWSCA has offered on a regional basis since FY 2001/02. Detailed information regarding each measure appears in the following sections. As can be seen in Figure 2-2, the overall participation level in the BAWSCA Regional Water Conservation Program has increased significantly since BAWSCA began offering regional measures (i.e., total funding has increased from \$147,243 in FY 2001/02 to \$1.644 Million in FY 2009/10).

Figure 2-3 and Tables 2-1 and 2-2 show the level of participation in BAWSCA water conservation measures in terms of total dollars spent by all agencies per measure since FY 2001/02. The Residential Washing Machine Rebate measure has the highest level of spending, and these rebates now total almost one million dollars per year. The overall participation level in terms of funding for the Residential Washing Machine Rebate measure has increased by over 600% since FY 2001/02 (i.e., total funding has increased from \$144,603 in FY 2001/02 to \$942,381 in FY 2009/10).

BAWSCA agencies have expressed a continued desire to participate in the ongoing and new conservation measures that BAWSCA will be offering in FY 2010/11 and in the future. In

recognition of that interest, BAWSCA worked with the member agencies to develop a Water Conservation Implementation Plan (WCIP, 2009), which is a coordinated, regional plan for implementing water conservation throughout the BAWSCA service area. As part of its work plan, BAWSCA is actively working with the member agencies to implement the WCIP (2009).

2.2 BAWSCA Support for Agency Water Conservation Reporting

Participation in the BAWSCA Regional Water Conservation Program assists agencies in complying with the Best Management Practices (BMPs) for Urban Water Conservation as described by the California Urban Water Conservation Council (CUWCC). Specifically, the BAWSCA Regional Water Conservation Program offer member agencies the chance to satisfy requirements of the following BMPs:

- Foundational – Education
- Programmatic – Residential
- Programmatic – Commercial, Industrial and Institutional
- Programmatic – Landscaping

FIGURE 2-1

PARTICIPATION IN THE BAWSCA REGIONAL WATER CONSERVATION PROGRAMS CONTINUES TO INCREASE

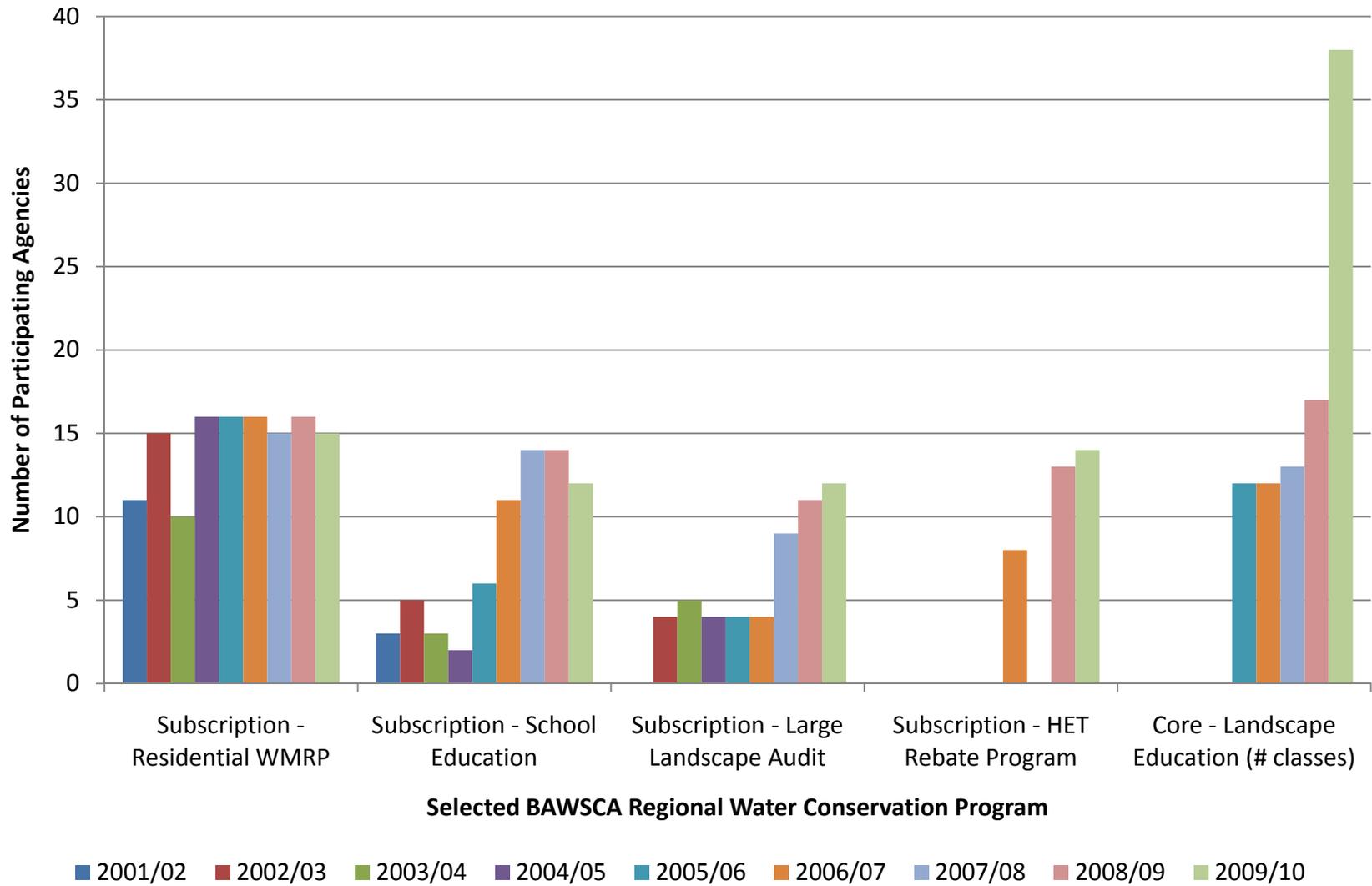


FIGURE 2-2
THE TOTAL BAWSCA SUBSCRIPTION PROGRAM BUDGET CONTINUES TO INCREASE

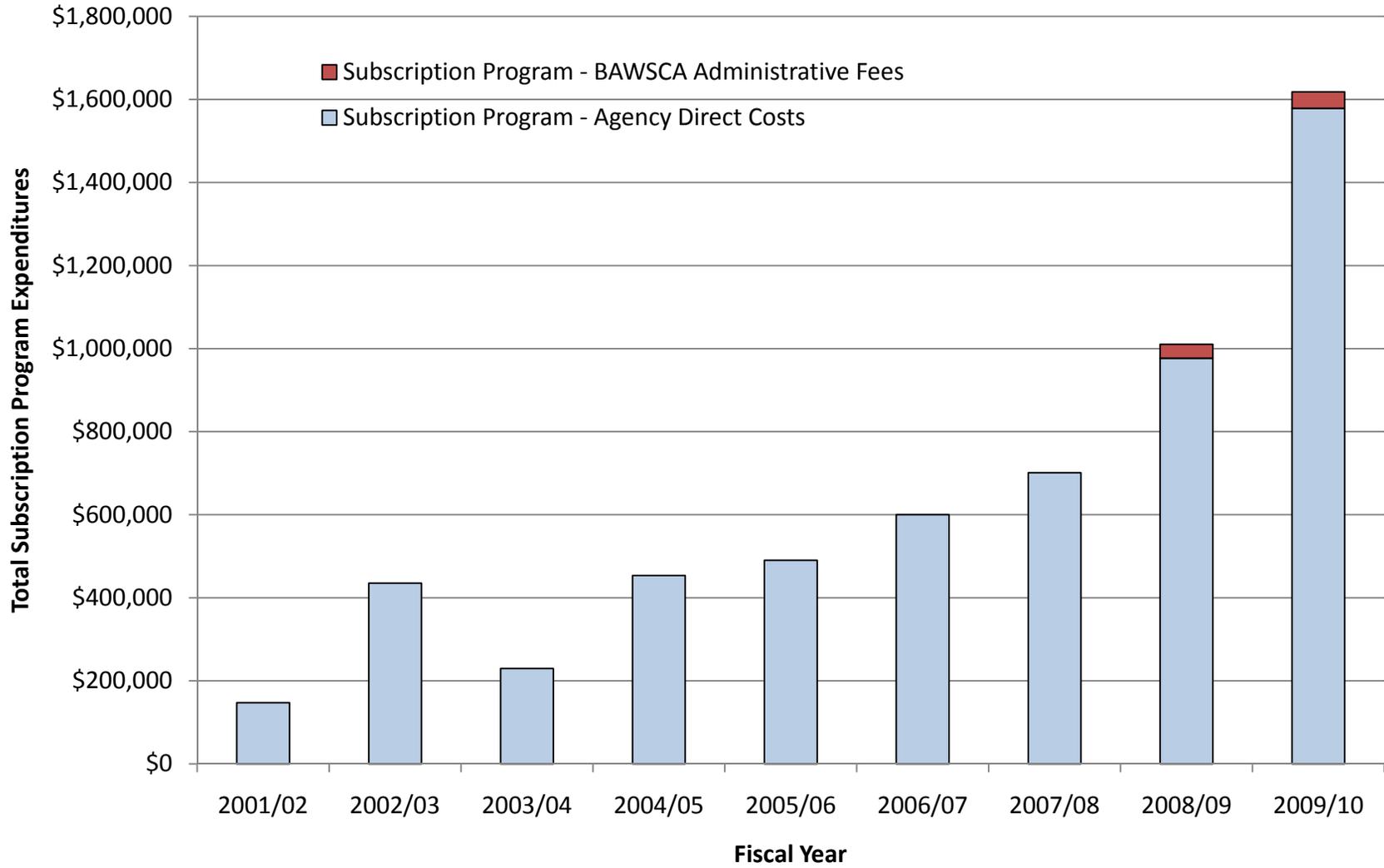
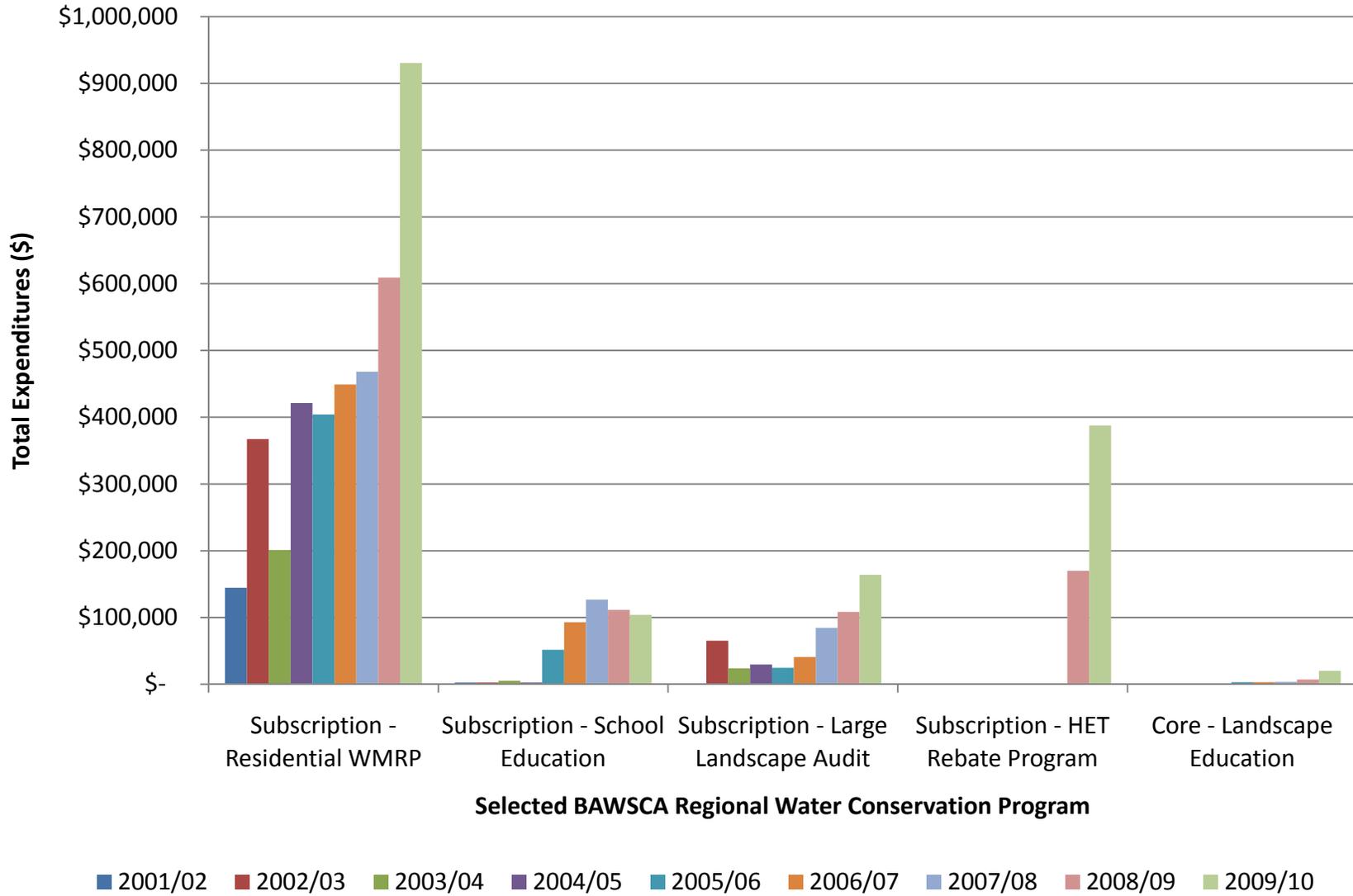


FIGURE 2-3

BUDGETS FOR THE INDIVIDUAL BAWSCA WATER CONSERVATION MEASURES CONTINUE TO INCREASE



**TABLE 2-1
BAWSCA CORE REGIONAL WATER CONSERVATION PROGRAM SUMMARY - FY 2009/10**

Fiscal Year	Landscape Education Classes (# of classes)		Native Garden Tours & Symposiums	
	Number of Classes	Budget	Number of Agencies	Budget
2005/06 (a)	12	\$3,173	--	--
2006/07 (a)	12	\$3,150	all	\$3,000
2007/08 (b)	13	\$3,620	all	\$4,000
2008/09 (c)	17	\$7,199	all	\$5,000
2009/10	38	\$20,059	all	\$5,814

Notes:

- (a) In 2005/06 and 2006/07 BAWSCA partnered with member agencies to offer 4 landscape classes. However, BAWSCA also helped promote 8 additional classes that were being held by additional member agencies (i.e., a total of 12 classes).
- (b) In 2007/08, BAWSCA co-sponsored 7 classes and co-promoted 13.
- (c) In 2008/09 BAWSCA co-sponsored 10 classes and co-promoted 17.

**TABLE 2-2
BAWSCA REGIONAL SUBSCRIPTION WATER CONSERVATION PROGRAM SUMMARY - FY 2009/10**

Fiscal Year	Residential Washing Machine Rebates		Commercial Washing Machine Rebates		School Education		Landscape Audit		High-Efficiency Toilet Rebate Program		Pre-Rinse Spray Valves	
	Number of Agencies	Budget	Number of Agencies	Budget	Number of Agencies	Budget	Number of Agencies	Budget	Number of Agencies	Budget	Number of Agencies	Budget
2001/02	11	\$144,603	--	--	3	\$2,640	--	--	--	--	--	--
2002/03	15	\$367,391	--	--	5	\$2,640	4	\$65,132	--	--	--	--
2003/04	10	\$200,832	--	--	3	\$5,100	5	\$23,802	--	--	--	--
2004/05	16	\$421,287	--	--	2	\$2,655	4	\$29,663	--	--	--	--
2005/06	16	\$404,113	--	--	6	\$51,671	4	\$24,720	--	--	3	\$9,750
2006/07	16	\$449,100	--	--	11	\$93,023	4	\$40,826	--	--	10	\$17,250
2007/08	15	\$468,199	12	\$21,780	14	\$126,819	9	\$84,425	--	--	--	--
2008/09	16	\$573,132	8	\$47,300	14	\$111,515	11	\$108,382	13	\$169,997	--	--
2009/10	15	\$942,381	--	--	12	\$104,091	12	\$163,879	14	\$393,786	7	\$14,239

3 BAWSCA Core Water Conservation Program

The following sections present detailed information on the individual conservation measures that constituted the BAWSCA Core Program in FY 2009/10.

3.1 Water-Efficient Landscape Education Classes

In FY 2009/10 BAWSCA partnered with the member agencies to offer Water-Efficient Landscape Education Classes in both the Spring and Fall. The BAWSCA Water-Efficient Landscape Education Classes are free to the public and are designed to introduce homeowners and landscape professionals to the concepts of sustainable landscape design, with a focus on creating beautiful, water-efficient gardens.

BAWSCA offered its Fall 2009 series of Water-Efficient Landscape Education Classes from September through November 2009. A total of 16 landscape classes were held throughout the BAWSCA service area during Fall 2009, 13 of which were directly coordinated and sponsored by BAWSCA, in partnership with the member agencies, see Figure 3-1. Topics covered in the Fall 2009 series included a focus on the use of California native plants to create a beautiful low water use and drought-tolerant garden, as well as tips to create Japanese and Mediterranean style gardens. The total attendance for the 13 landscaping classes that BAWSCA sponsored was approximately 361 people from 19 different agencies, see Figure 3-2.

BAWSCA offered its Spring 2010 series of Water-Efficient Landscape Education Classes from the beginning of March 2009 through the end of May 2009. Topics covered in the Spring 2010 series included a focus on efficient irrigation and alternatives to lawns, as well as the use of gray water and rainwater to supplement irrigation. BAWSCA coordinated and sponsored a total of 25 landscape classes throughout the service area of the BAWSCA member agencies during Spring 2010, see Figure 3-1. The total attendance for the 25 landscaping classes that BAWSCA sponsored was approximately 557 people from 24 different agencies, see Figure 3-2.

BAWSCA began offering Water-Efficient Landscape Education Classes throughout the BAWSCA region in Spring 2006. Customer interest in the classes has increased and as a result, the number of classes has continued to increase throughout the region to meet customer demands. Figure 3-1 presents the number of classes that have been offered by BAWSCA, in partnership with the member agencies, over the past several years. Figures 3-3 and 3-4 present a sample copy of the fliers for the Fall 2009 and Spring 2010 class series.

3.2 Water Wise Gardening in the Bay Area Landscape Educational Tool

In FY 2009/10, the BAWSCA agencies continued to promote the popular landscape educational tool - *Water-Wise Gardening in the Bay Area*. Initially created as a CD-Rom in FY 2006/07, the educational tool is now available on-line via BAWSCA's website so that it can be readily accessed by the public. The *Water-Wise Gardening in the Bay Area* tool contains information on how to create and maintain a beautiful, low-water-use garden and includes photographs of water-efficient gardens and provides links to the plants that compose the featured gardens. The featured gardens are primarily composed of sites in the Bay Area, specifically within the BAWSCA service area.

In FY 2009/10, approximately 7,137 unique visitors, and 10,321 total visits were made to the BAWSCA website to access the *Water-Wise Gardening in the Bay Area* information.

3.3 Native Garden Tours and Symposiums

BAWSCA cosponsored 2 garden tours in FY 2009/10 that took place in the months of April and May (see copies of the fliers in Figure 3-5). Each tour was designed to showcase homes around the Bay Area that have beautiful water conserving gardens comprised primarily of California native plants. The tours are regional in nature, showcasing gardens throughout the Bay Area, although many of gardens featured in the tours were located within the BAWSCA service area.

The first tour was the *Going Native Garden Tour*, which took place in San Mateo and Santa Clara Counties on Sunday April 18th. The tour featured a total of 67 gardens and had 4,673 registrants. Gardens were visited a total of 12,447 times. Three hundred volunteers contributed 1,200 hours of their time at the gardens where they answered questions about gardening with native plants, conserving water, sustainability, and attracting wildlife. Many visitors expressed interest in on-site rainwater harvesting strategies. The locations of the gardens in this tour ranged from as far north as the Cities of Belmont and Redwood City and south to Morgan Hill in Santa Clara County.

The second tour, *Bringing Back the Natives Garden Tour*, took place in Alameda and Contra Costa Counties on Sunday May 2nd. The following is an excerpt from the tour final report:

The tour received overwhelming interest from the public; this year 5,920 people registered for the tour on-line; a 9% increase in registrants over last year's tour. On the day of the tour an additional 257 people visited the same day walk-in registration sites, which were set up in Alameda, Berkeley, Castro Valley, Concord, El Cerrito, Livermore,

Martinez, Moraga, Oakland, and Richmond. With more than 6,000 registrants, this was the most well-attended tour yet. On the day of the tour 15,594 garden visits were made.

3.4 Template Indoor and Outdoor Water Use Efficiency Ordinances

The following sections describe the background as to why BAWSCA developed Template Indoor and Outdoor Water Use Efficiency Ordinances and the process that BAWSCA used to develop the Template Ordinances. A summary of the actions that the agencies have taken to date adopt either the BAWSCA template or another template ordinance is also provided.

3.4.1 Background for the Development of the BAWSCA Template Ordinances

BAWSCA developed Template Indoor and Outdoor Water Use Efficiency Ordinances to respond to two critical issues being faced by the BAWSCA member agencies: (1) Projected Water Supply Shortfall, and (2) California Legislative Requirements.

Projected Water Supply Shortfall:

The SFPUC provides water to all of the BAWSCA member agencies. On October 31, 2008 the SFPUC made the unilateral decision to limit the water supply available from the San Francisco Regional Water System to 265 MGD (with the BAWSCA member agencies being limited to 184 MGD) until at least 2018. As a result, based on current projections, and in absence of increased water conservation, water demands within the BAWSCA service area are projected to exceed available supplies by 2015.

Furthermore, the SFPUC has determined that, in addition to limiting BAWSCA's aggregate deliveries to 184 MGD, it will impose an interim supply limitation on each BAWSCA member agency. The sum of the individual BAWSCA agency interim supply limitations will be equal to the 184 MGD. In the event that purchases from the RWS exceed the 265 MGD limit established by SFPUC, agencies that exceed their Individual Supply Limitations will be subject to environmental surcharge fees. Individual BAWSCA agency Interim Supply Limitations and environmental surcharge fees will be set by SFPUC in December 2010.

Lastly, it is uncertain what, if any, additional supplies will be available from SFPUC after 2018. Demand projections through 2035 indicate that, in absence of additional supplies developed by the SFPUC, BAWSCA, or the individual member agencies, there may be a significant gap between demand and available supply. Thus, it is prudent to take steps at this time to reduce demand in conjunction with exploration of alternative supplies. To this end, BAWSCA, in coordination with the member agencies, prepared the WCIP (2009) to identify additional water conservation measures that the member agencies could potentially implement to achieve the

water savings necessary to maintain water demands within available supplies until at least 2018. Based on the WCIP development and analysis process, BAWSCA and the member agencies identified the adoption of Indoor and Outdoor Water Use Efficiency Ordinances as two of five new water conservation measures, which, if fully implemented throughout the BAWSCA service area, could help the member agencies reduce water demands and live within current supply limitations.

California Legislative Requirements:

There are efforts at the State level to reduce water consumption throughout California. The Governor called for a 20 percent reduction in per capita water use by 2020, and, as described below, recent legislation adopted by the State Legislature targets indoor and outdoor water use efficiency to meet these goals.

Assembly Bill 1881 (State Model Water Efficient Landscape Ordinance): AB 1881 requires cities and counties, no later than January 1, 2010, to adopt the updated California Department of Water Resources (DWR) Model Water Efficient Landscape Ordinance (MWELO) or an equivalent ordinance which is “at least as effective” as the MWELO in conserving water. In the event cities and counties do not take such action, the MWELO will be deemed to be automatically adopted by statute.

Senate Bill 7x-7 (Steinberg; 7th Extraordinary Session): SB7x-7 requires that individual urban retail water suppliers (URWS) which deliver more than 3,000 acre-feet of water or that serve more than 3,000 connections meet specified 2015 and 2020 water use targets (Targets) using one of four methods: (1) Method 1: a 20 percent reduction in baseline per capita water use, (2) Method 2: compliance with established performance standards, (3) Method 3: a 5 percent reduction from the applicable state hydrologic region target set in the DWR 2009 Draft 20x2020 Water Conservation Plan, or (4) Method 4: a method that will be developed by DWR by December 31, 2010. At a minimum, an URWS must reduce its per capita daily water use by at least 5 percent, unless they have a baseline water use less than 100 gallons per capita per day.

California Green Building Standards Code: The Green Building Standards Code came into effect in August 2009, with the requirements for water savings becoming mandatory in 2011. The Green Building Standards Code requires that, at a minimum, a water budget be developed for landscape irrigation at new development in accordance with methodology outlined in either the DWR MWELO or pursuant to a locally-adopted Ordinance.

California Plumbing Code: Updates to the 2007 California Plumbing Code that will directly impact the water efficiency of indoor fixtures are the mandatory installation of HETs and high-efficiency urinals in all projects requiring a building permit after January 1, 2014.

Senate Bill 407 (Padilla): Pursuant to SB 407, which was signed into law in October, 2009, any property that is remodeled on or after January 1, 2014 is required to replace all noncompliant plumbing fixtures with water-conserving plumbing fixtures. SB 407 also requires that all residential and commercial properties replace all noncompliant plumbing fixtures by 2017 and 2019, respectively.

3.4.2 Description of the BAWSCA Template Ordinances

The BAWSCA Template Ordinances are consistent with, or in some cases exceed, the standards set forth by the new regulations described above and provide agencies with a tool that they can use to comply with the new regulations. The Ordinances were also designed to be as simple as possible (i.e., facilitating a checklist format) to make the process straightforward for the project applicant and to make it easy for agency staff to review a project for compliance. Moreover, adoption and implementation of the Template Ordinances will assist agencies to reduce per capita consumption and to keep purchases from SFPUC below the interim supply limitation through 2018.

BAWSCA Template Indoor Water Use Efficiency Ordinance:

The BAWSCA Template Indoor Water Use Efficiency Ordinance was designed to achieve a 20 percent water savings in indoor water use at all new developments and major remodels (as defined by agency) relative to the current plumbing code and other building standards. In addition, the Template Indoor Ordinance requires water efficient fixtures and appliances to be installed in all remodeled kitchens and bathrooms.

The water-efficient fixtures and appliances that comply with the standards set forth by the Template Indoor Ordinance are readily available on the market and their performance has been verified by third parties, where available (e.g., EPA Water Sense, EnergyStar, PG&E). In many cases, applicants may also be eligible for rebates for the purchase of water conserving fixtures and appliances (i.e., from the water agency and/or PG&E). These rebates are designed help offset the cost of the more water-efficient models, making them more attractive options.

BAWSCA Template Outdoor Water Use Efficiency Ordinance:

The Template Outdoor Water Use Efficiency Ordinance was designed to achieve a 25 percent water savings on outdoor water use at applicable new development projects and landscape

rehabilitations, and to be at least as effective as the DWR MWEL0 in terms of achieving water savings.

3.4.3 Process for Developing the BAWSCA Template Ordinances

The BAWSCA Template Ordinances were developed through extensive research and as part of a multi-agency, multi-county stakeholder process that was facilitated by BAWSCA. BAWSCA's legal counsel provided support to BAWSCA throughout the process. Specifically, BAWSCA facilitated the following:

- Two meetings with all agency stakeholders in attendance (July and November 2009)
- Two working group meetings to develop the Template Indoor Ordinance (August and September 2009)
- Two working group meetings to develop the Template Outdoor Ordinance (August and September 2009)

In all cases BAWSCA requested that the agencies invite, and communicate with, all potentially interested parties within their respective organizations. To that end, legal counsel for several agencies, as well as planners, building officials and others were integrated into the Template Ordinance development process.

3.4.4 Support for Agency Adoption

In addition to involving the agency stakeholders in the development of the Template Ordinances, BAWSCA provided the following material support to the agencies for their adoption process:

Development of Template Materials:

In order to support the agencies in the adoption and implementation of the Template Ordinances, BAWSCA developed template collateral materials (e.g., Staff reports) that the agencies could modify for purposes of communicating to their respective governing bodies. BAWSCA also compiled links to key websites and information that the agencies could use directly or provide to their customers to educate them with respect to compliance with the requirements of the Template Ordinances. Specifically, BAWSCA developed the following:

- BAWSCA Indoor Water Use Efficiency Ordinance
 - Indoor Water Use Efficiency Checklist
 - Template Staff Report – Indoor Water Use Efficiency Ordinance
 - Indoor Ordinance Frequently Asked Questions (FAQs)

- Memorandum: *Implementation and Timing of the BAWSCA Indoor Water Use Efficiency Ordinance Relative to the California Plumbing Code and Related Regulations*
- Reference Websites
- BAWSCA Outdoor Water Use Efficiency Ordinance
 - Outdoor Water Use Efficiency Checklist
 - Water Budget Calculation Worksheets
 - Template Staff Report – Water Conservation in Landscaping Ordinance
 - Outdoor Ordinance FAQ
 - Form Letter to DWR #1 – Status Update
 - Form Letter to DWR #2 – Transmittal of Adopted Ordinance
 - Reference Websites

Outreach:

BAWSCA conducted outreach to the agencies, the cities served by the BAWSCA member agencies, local organizations that serve the region (e.g., San Mateo County, Silicon Valley Leadership Group, Foster City Sustainability Task Force, and the Manor Association), and local environmental groups (e.g., Sierra Club, Tuolumne River Trust, Clean Water Action). At the request of some agencies, BAWSCA attended also City Council meetings to speak in support of adopting the Ordinance(s).

Education and Training:

In Spring 2010, BAWSCA partnered with several member agencies to offer classes that focused water-efficient landscaping, including one class that specifically focused on the requirements of the new landscaping ordinances. BAWSCA also supported a Spring 2010 lecture series that focused on indoor and outdoor water conservation (i.e., the Taste and Talk series).

3.4.5 Agency Progress on Adopting Ordinances

In FY 2009/10, approximately 14 BAWSCA agencies adopted or were in the process of considering adopting some version of the BAWSCA Template Indoor Ordinance. In other instances, agencies opted to rely on their individual Green Building Ordinances or the California Green Building Code to require indoor water use water efficiency in new development. Several agencies are still working through the process and will finalize their approach in FY 2010/11. In some cases, cities that are not BAWSCA member agencies, but that are served by a BAWSCA member agency, also adopted a version of the BAWSCA Template Indoor Ordinance.

In FY 2009/10, approximately 14 BAWSCA agencies adopted or were in the process of considering adopting some version of the BAWSCA Template Outdoor Ordinance. Approximately three agencies formerly adopted or defaulted to the DWR MWELo, and approximately three adopted the Bay Friendly MWELo or another model ordinance to require outdoor water efficiency in new development. Several agencies are still working through the process and will finalize their approach in FY 2010/11.

3.5 School Education

In FY 2009/10, BAWSCA teamed up with the Tuolumne River Trust (TRT) to conduct water conservation outreach to elementary schools in the BAWSCA service area. The TRT's school outreach is called "That's the Tuolumne in my Tap" and includes a slideshow presentation to fourth and fifth graders about the Tuolumne river resource and water conservation. The TRT's outreach is designed to educate local students about where their water comes from and to promote an ethic of environmental stewardship. The presentation focuses on the history and special qualities of the Tuolumne River, the animals that depend on the River, and what can be done to help protect the River by conserving water. More information about the TRT's School education efforts can be seen on their website, <http://www.tuolumne.org>.

BAWSCA supplied the TRT with information and materials that described the local water conservation options that the TRT distributed to the students. Such materials included information about the HET and washing machine rebates, schedules for the Water-Efficient Landscape Education Classes, information about the online WaterWise gardening tool, and Water Saving Hero brochures. In total, the TRT gave presentations to 2,757 students in 102 classrooms and 30 schools throughout the BAWSCA service area.

FIGURE 3-1
THE NUMBER OF LANDSCAPE CLASSES OFFERED BY BAWSCA CONTINUES TO INCREASE

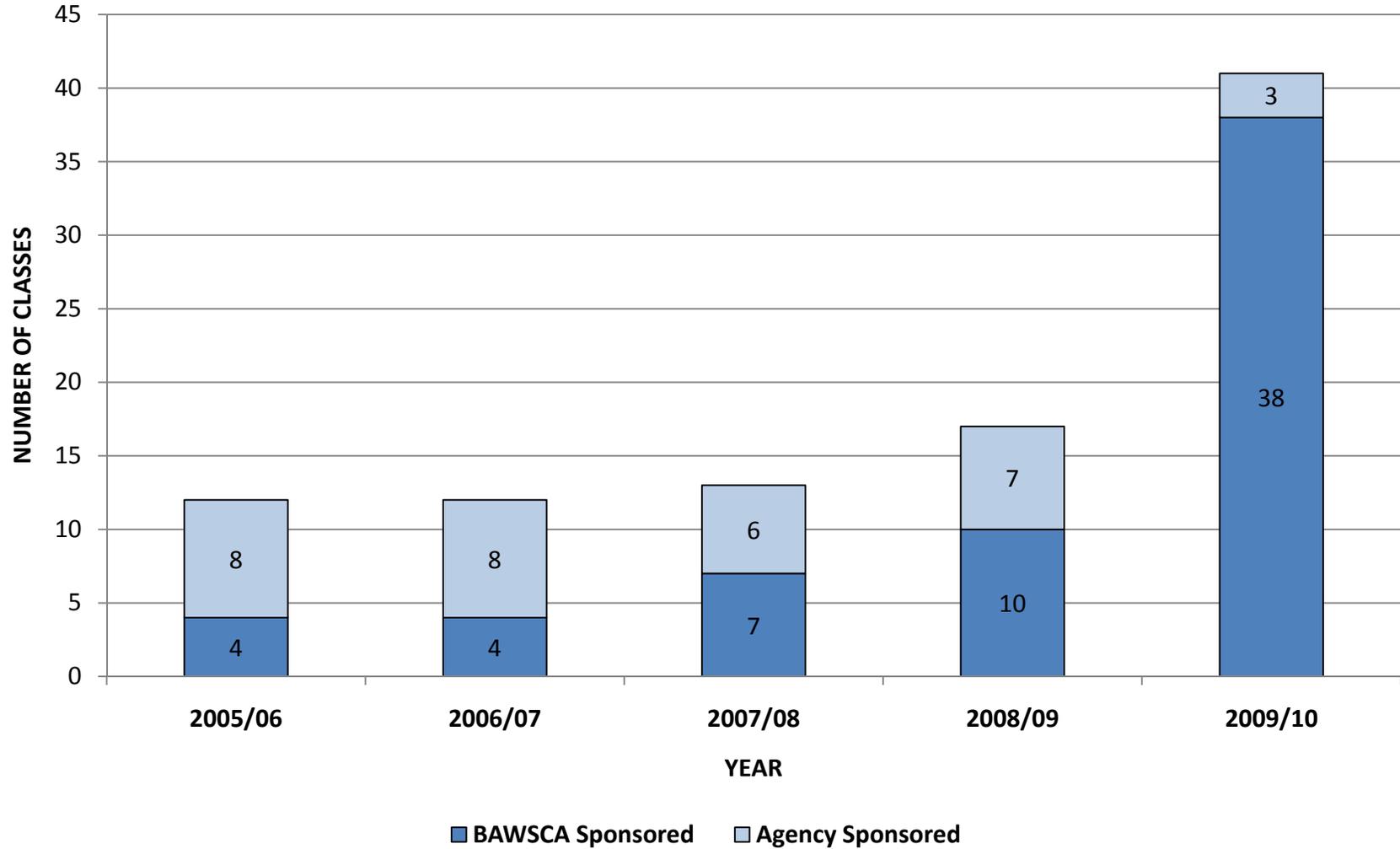


FIGURE 3-2

THE LANDSCAPE CLASSES ARE BROADLY ATTENDED BY BAWSCA MEMBER AGENCY CUSTOMERS

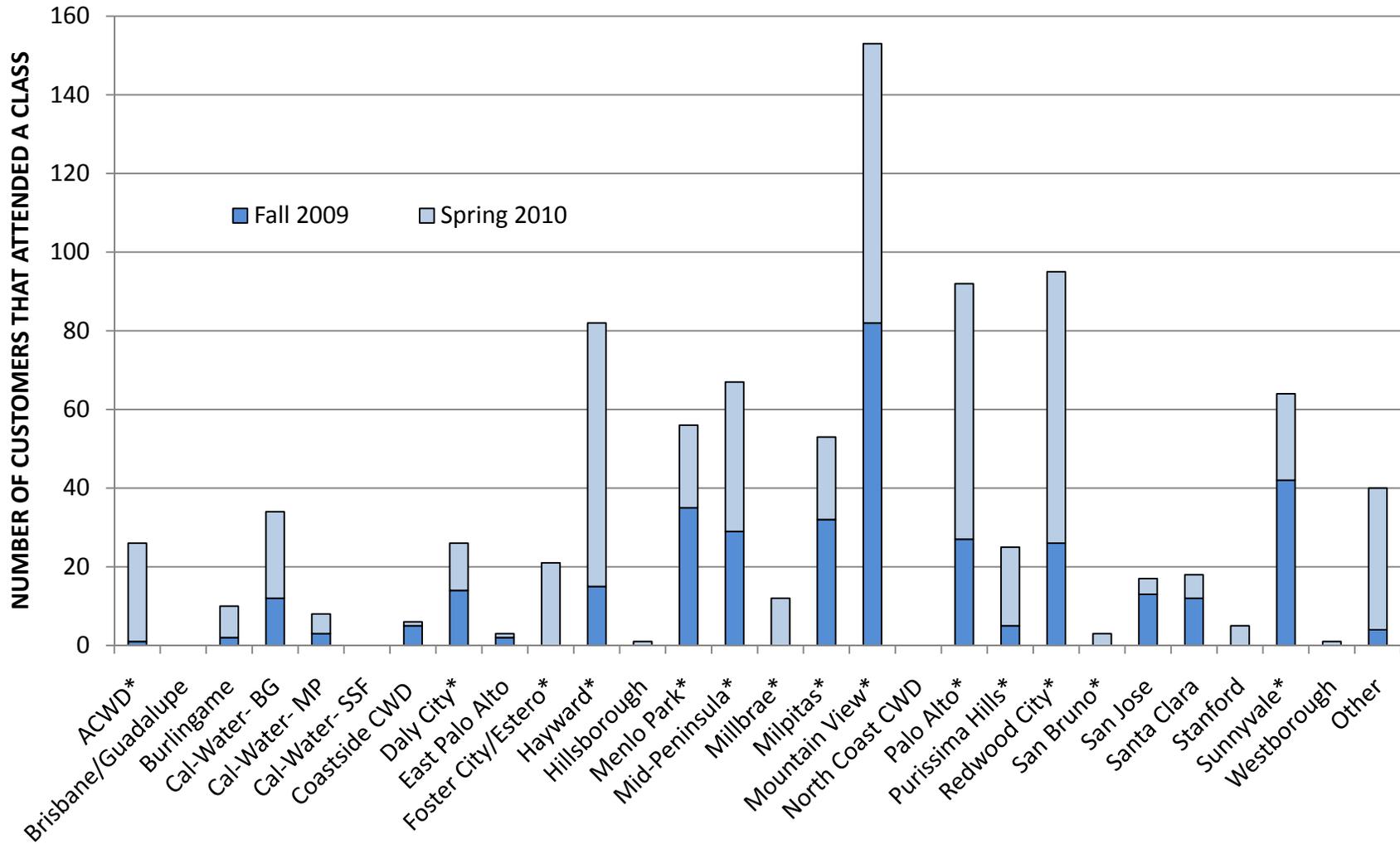


FIGURE 3-3

FLIER FOR THE BAWSCA FALL 2009 LANDSCAPE CLASS SERIES

BAWSCA

Bay Area Water Supply & Conservation Agency
Fall 2009 Landscape Class Series

It's Beautiful to be Water-Efficient



Transform your current landscaping to the garden you want and use water more efficiently in these Bay Area water-wise landscaping classes. All classes are **FREE** and offered on a first come first served basis. **Registration is required.**

To Register:

Call (650) 349-3000, or

email landscape@bawasca.org

Registration for Millbrae class, call (650) 259-2348

Bay-Friendly Workshops, go to www.BayFriendly.org or
call 510-444-SOIL

FIGURE 3-4
FLIER FOR THE BAWSCA SPRING 2010 LANDSCAPE CLASS SERIES



FREE

Water-Efficient Landscape Classes

SPRING 2010

MARCH 6th - JUNE 5th

Learn the concepts of sustainable landscaping
while creating beautiful, water-efficient gardens!



Twenty-five classes focusing on Native Plants, Irrigation,
Lawn Alternatives, and more! All Classes are **FREE!**
First-Come, First-Served. Registration is required.

To register and for more information

Call (650) 349-3000, or
email landscape@bawasca.org

**FIGURE 3-5
SELECT GARDEN TOUR FLIERS - FY 2009/10**

Free Tour of Showcase Native Plant Gardens

Sunday
May 2, 2010
10 am-5 pm



Bringing Back the Natives

Garden Tour

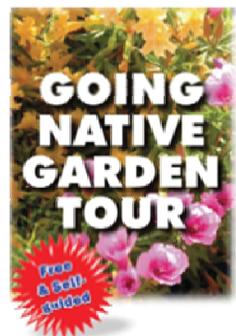
Companion event
Native Plant Sale Extravaganza
Saturday and Sunday May 1 & 2

A free, self-guided tour of 50 Alameda

This delightful collection of gardens ranges from collector's garden to brand new installations, from local native plants to natives from throughout the state, installed by owners to those designed and installed by professionals.



- Free!
- Passes to 50 gardens
- Garden Guide
- Garden talks
- Learn how to:
- Select and care for natives
- Attract butterflies
- Garden with natives
- Lower your water use



SPONSORS:
Alameda Valley Nursery • Arroyo • Bay Area Water Supply & Conservation Agency • Bay Native Nursery • Central Coast Wildflower Nursery • Foothill Master Gardeners of Santa Clara County • Mediterranean Garden Society • Middlebrook Gardens Nursery • Native Retail Nursery • Santa Clara Valley Water District • Woodhill Wash • Yuba State Nursery

SUPPORTERS:
Aptos • Bay Native Magazine • Capital Wholesale Nursery • Coastline • City Neighborhood Association • Don Edwards San Francisco Bay National Wildlife Refuge • Guadalupe River Park & Gardens • Japanese Neighborhood Association • Loma South National Wildlife Refuge • Neighborhood Development Center (City of San Jose) • Old Mission View Neighborhood Association • Our City First • Rancho Viejo Neighborhood Association • Santa Clara Valley Audubon Society • Shasta/Hanford Park Neighborhood Association • Sierra Club (Loma Prieta Chapter) • Sunnyvale Garden Club • Women Horticultural Society

To sponsor or support the tour, contact info@GoingNativeGardenTour.org

Photo: Anna Kassar, Sophie Morris, Ag Kassar

The California Native Plant Society (Santa Clara Valley Chapter)
in association with
UCCE Master Gardeners of Santa Clara County

Eighth Annual Going Native Garden Tour

Sunday, April 18, 2010, 10 am-4 pm

More and more Bay Area homeowners are turning to California native plants to save water and make their gardens aesthetically pleasing, attractive to birds and butterflies, and low maintenance. You can visit gardens landscaped with California native plants on this free annual tour.

Many different gardens will be open for viewing, from town home gardens to acre lots, from newly planted gardens to established ones. The gardens are located all over the Santa Clara Valley and the Peninsula, so you won't have to go far to see one. Some gardens will feature talks, others will have plants for sale. Visit as many as you like — for inspiration, for photos, for meeting other garden enthusiasts.

Free admission • Registration required
at www.GoingNativeGardenTour.org

Garden information, maps, and directions will be emailed to registrants the week of April 1. Web registrations will be accepted until noon of April 18 or until the tour reaches capacity. For information, visit www.GoingNativeGardenTour.org, or email info@GoingNativeGardenTour.org







4 BAWSCA Subscription Water Conservation Programs

The following sections present detailed information on the individual conservation measures that constituted the BAWSCA Subscription Program in FY 2009/10.

4.1 High-Efficiency Toilet Rebates

The BAWSCA HET Rebates measure was initiated in September 2008. Prior to the BAWSCA HET Rebates measure, a very small number of BAWSCA agencies offered HET rebates to their customers. As part of the BAWSCA HET Rebates measure, the participating BAWSCA agencies offer customers up to a \$150 rebate for replacing a high-volume toilet (i.e., 3.5 gallons per flush, GPF, or more) with a toilet that uses 1.28 GPF or less.

Fourteen agencies participated in the BAWSCA HET Rebates measure in FY 2009/10. In total, the BAWSCA member agencies issued 2,515 rebates in FY 2009/10, for a total expenditure of approximately \$394,000. This volume of rebates represents a more than doubling of activity from the prior fiscal year, indicating that both customer interest has increased and that the market is beginning to transform (i.e., HETs are more readily available). To the extent that the agencies can support additional budgets in the future, it is expected that the number of rebates that are issued each year will continue to grow. Additional details for measure implementation and BAWSCA agency participation are shown in Table 4-1 and Figure 4-1.

As part of its administration of the BAWSCA HET Rebates measure for the participating member agencies, BAWSCA performed the following activities:

- Development and production of promotional materials;
- Advertising and outreach;
- Hosting information and application forms on the BAWSCA website;
- Receive and process rebate applications;
- Manage HET database;
- Coordinating management of rebate distribution and approvals to the participating agencies;
- Technical and customer support agencies and rebate applicants; and
- Track progress against Agency conservation targets.

In FY 2009/10, the BAWSCA HET Rebates measure was still relatively new to the BAWSCA service area. As part of the WCIP (2009) process, HET rebates were identified as a key measure

to focus on for the next few years to drive market penetration and transformation. It is expected that significantly more rebates will be offered through the BAWSCA HET Rebates measure in future years as HET's become more widely available on the market and customer awareness about HETs and the available rebates grows.

As can also be seen in Table 2-2, the cost-effectiveness of the BAWSCA HET Rebates measure in FY 2009/10 is estimated at \$552 per AF of water saved. Thus, this measure is a cost-effective means of achieving water conservation savings in the home, especially when compared to the wholesale cost of purchasing water from the SFPUC, which was \$719 per AF for FY 2009/10.

4.2 High-Efficiency Residential Washing Machine Rebates

The BAWSCA High-Efficiency Residential Washing Machine Rebates measure (BAWSCA WMR) started in October 2001. In 2002, nine large Bay Area water agencies, including BAWSCA, joined forces to offer a single Bay Area Water Utility Regional Washing Machine Rebate Program (Bay Area WMRP) that collectively targeted 2.7 million residential accounts. In addition to BAWSCA, the other participants in the Bay Area WMRP include Contra Costa Water District, Zone 7 Water Agency, East Bay Municipal Utility District (EBMUD), Alameda County Water District, SCVWD, Marin Municipal Utility District, Sonoma County Water Agency, City of Davis, and beginning July 1, 2006, the SFPUC. From 2001 to 2006, Electric & Gas Industries Association (EGIA) supported the administration of the Bay Area WMRP. In 2006, BAWSCA and the other Bay Area Water Utilities contracted with Pacific Gas & Electric (PG&E) to administer and advertise the Bay Area WMRP.

During Fall 2009 the BAWSCA WRM supported up to \$200 rebates for Tier 3 machines (\$125 from the water utilities and \$75 from PG&E) and \$125 rebates for Tier 2 machines (\$90 from the water utilities and \$35 from PG&E). In Spring 2010, the BAWSCA WMR was modified to support \$175 rebates for Tier 3 machines (\$125 from the water utilities and \$50 from PG&E).

BAWSCA member agency participation in the BAWSCA WMR has been strong since BAWSCA began implementing this measure. There were fifteen agencies that participated in the BAWSCA WMRP in FY 2009/10. In total, the BAWSCA member agencies issued 6,941 rebates in FY 2009/10; 6,616 for Tier 3 machines and 325 for Tier 2 machines, for a total expenditure of approximately \$942,000. Additional details for measure implementation and BAWSCA agency participation are shown in Table 4-2 and Figure 4-1.

To date, through the BAWSCA WMR, a total of 31,082 rebates have been paid to customers within the BAWSCA service area. As this measure has evolved, the market penetration and

customer participation in the measure has increased. This has been evidenced by the increase in number of rebates given by the BAWSCA member agencies from 1,244 in FY 2001/02 to 6,941 in FY 2009/10.

As part of its administration of the BAWSCA WRM for the participating member agencies, BAWSCA performed the following activities:

- Development and production of BAWSCA-specific promotional materials;
- Advertising and outreach;
- Hosting information on the BAWSCA website;
- Contract negotiation with PG&E;
- Coordination with other members of the Bay Area WRMP;
- Coordinating management of rebate distribution and approvals to and from PG&E and the participating agencies;
- Liaison between agencies and PG&E;
- Manage agency invoicing for rebate payment; and
- Track progress against individual agency conservation targets.

In addition, for the last several years, BAWSCA and the other participating Bay Area water agencies were successful in applying for and receiving grant funding from the State to support the Bay Area WMRP. The latest grant was awarded in May 2007 in the amount of \$2,981,350 from Proposition 50. The BAWSCA share of this grant award was \$300,000. BAWSCA is in the process of developing an application for a second round of grant funding for the WMRP which is expected to be available beginning July 2011.

Through BAWSCA's successful efforts to secure these grants, all BAWSCA member agencies have had access to grant funds to increase customer participation in the BAWSCA WMR and benefit from the overall cost-effectiveness of the BAWSCA WMR. As can also be seen in Table 4-2, the cost-effectiveness of the BAWSCA WMR in FY 2009/10 is estimated at \$408 per AF of water saved. Thus, this measure continues to be a very cost-effective means of achieving water conservation savings in the home, especially when compared to the wholesale cost of purchasing water from the SFPUC, which was \$719 per AF for FY 2009/10.

4.3 School Education

Since FY 2005/06, BAWSCA has contracted with Resource Action Programs to implement the Water Wise school education measure that includes in-classroom water conservation informational materials and the distribution of water conservation kits (i.e., the Water Wise Kit)

to 5th grade students. Resource Action Programs works directly with the teachers and schools to provide them with this turn-key, in-classroom program and the Water Wise Kits.

The Water Wise curriculum has been designed to be easily implemented by teachers, and easily understood and taken back into the home by the students. The Water Wise Kits include water saving devices that can be installed at the student's homes (e.g., low-flow showerheads and faucet aerators) and a water audit that the students can perform with their parents. The students are provided with the motivation, information, and tools they need to perform an in-home water audit. The information and material provided to the teachers and students also includes methods that can be used to quantify the water savings as a result of installing the equipment contained in the kit and performing the recommended, water-conserving actions.

After the student performs the audit and installs the water and energy saving devices, affidavits signed by the parents are returned to the school, collected by the teacher, and forwarded to Resource Action Programs for documentation of measure implementation and the estimated water savings. Resource Action Programs then prepares a final report for distribution to the participating agencies.

Based on information provided by Resource Action Programs, each student that fully participates in the Water Wise school education measure (i.e., installs a Water Wise Kit) is expected to cumulatively save the following over the next 10 years:

- 2,098 Kwh of electricity
- 441 therms of gas
- 174,515 gallons of water
- 174,515 gallons of wastewater

In addition to helping member agencies save water, the Water Wise school education measure assists participating agencies in implementing several of the CUWCC BMPS, including:

- BMP 1: Residential Surveys
- BMP 2: Residential Audits
- BMP 8: School Education

As stated above, FY 2005/06 was the first year that BAWSCA agencies participated in Water Wise school education measure. By FY 2009/10, participation in the Water Wise school education measure has doubled to 12 agencies. To date, 14,750 students and teachers have participated in the Water Wise school education measure with an estimated total lifetime water savings of as much as 4,100 AF, see Table 4-3 and Figure 4-1.

In a further metric of the value of the Water Wise school education measure, the students test scores on a quiz related to water conservation increased by an average of 15% after participating in the Water Wise school education measure. This result indicates that even in the event that they did not fully participate in the home audit (i.e., install all of the water-saving devices in their homes), the students benefitted from the educational aspect of the Water Wise school education measure.

As part of its administration of the Water Wise school education measure for the participating member agencies, BAWSCA performed the following activities:

- Development and production of BAWSCA-specific promotional materials to insert into the waterwise kits;
- Hosting information on the BAWSCA website;
- Contract negotiation with Resource Action Programs;
- Liaison between agencies and Resource Action Programs;
- Manage agency invoicing; and
- Track progress against individual agency conservation targets.

As can also be seen in Table 4-3, the cost-effectiveness of the Water Wise school education measure in FY 2009/10 is estimated at \$203 per AF of water saved. Thus, this measure continues to be very cost-effective means of achieving water conservation savings and educating students, especially when compared to the wholesale cost of purchasing water from the SFPUC, which was \$719 per AF for FY 2009/10.

4.4 Large Landscape Audits

BAWSCA first offered Large Landscape Audits to member agencies in FY 2002/03. This measure enables participating BAWSCA agencies to save water used for outdoor landscaping and to meet the requirements of the CUWCC BMP 5 in a cost-effective manner.

The Large Landscape Audit measure includes large landscape surveys to assess landscape watering needs and monthly distribution of landscape water budgets for selected accounts. This work is done by John B. Whitcomb, under contract to BAWSCA. A key component of the measure implementation is the ongoing tracking of actual water use and estimated water savings at surveyed sites. Audits are offered to qualifying commercial and residential accounts.

A total of 958 sites in 12 different agencies were part of the Large Landscape Audit measure in FY 2009/10, see Figure 4-1. Of those, 661 sites have been included in the Large Landscape Audit measure since prior to 2009. The annual water use at those 661 sites has been reduced

by a total of 1,080 AFY (i.e., when comparing 2009 water use at those sites to pre-audit water use). The water use data from these sites has indicated that the Large Landscape Audit measure reduces total outdoor water use at participating landscape sites by over 20 percent.

Approximately 269 additional sites were added to the Large Landscape Audit measure in 2009. Reliable water savings estimates are not yet available for those sites that were more recently added. However, future water savings are expected to be consistent with the historical results for the other sites that are included in the Large Landscape Audit measure.

As part of its administration of the BAWSCA Large Landscape Audit measure for the participating member agencies, BAWSCA performed the following activities:

- Hosting information on the BAWSCA website;
- Contract negotiation with Water Use Reports;
- Liaison between agencies and Water Use Reports; and
- Manage agency invoicing; and
- Track progress against individual agency conservation targets.

As can be seen in Table 4-4, the cost-effectiveness of the Large Landscape Audit measure in FY 2009/10 is conservatively estimated at \$58 per AF of water saved. Thus, this measure continues to be very cost effective, especially when compared to the wholesale cost of purchasing water from the SFPUC, which was \$719 per AF for FY 2009/10.

4.5 Bulk Purchase – Low-Flow Pre-Rinse Spray Valves

On behalf of the member agencies, BAWSCA initiated a bulk purchase of Low-Flow Pre-Rinse Spray Valves in FY 2009/10. In total, seven agencies participated. A total of 230 valves with a flow rate of 1.15 GPM at 60 pounds per square inch (PSI) were purchased and 49 valves with a flow rate of 0.64 GPM at 60 PSI were purchased. All of the valves purchased met the California low-lead standards pursuant to the requirements established by Assembly Bill 1853.

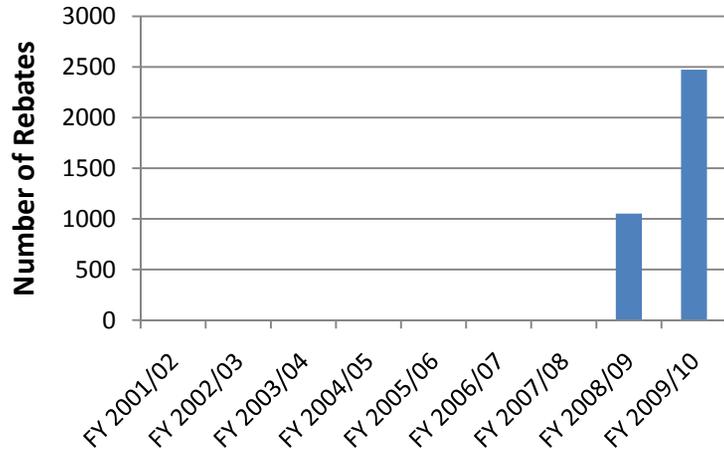
As part of its administration of the bulk purchase for the participating member agencies, BAWSCA performed the following activities:

- Negotiating pricing and bulk purchasing of valves from manufacturers and suppliers;
- Hosting information on the BAWSCA website; and
- Coordinating valve distribution to the participating agencies.

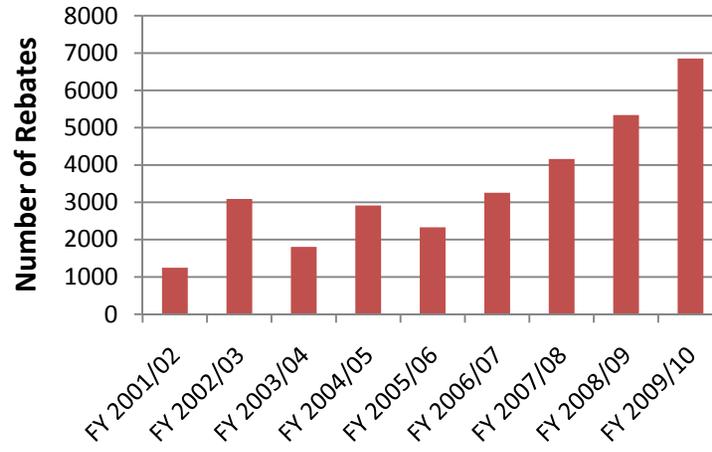
FIGURE 4-1

PARTICIPATION IN BAWSCA'S SUBSCRIPTION PROGRAMS CONTINUES TO INCREASE

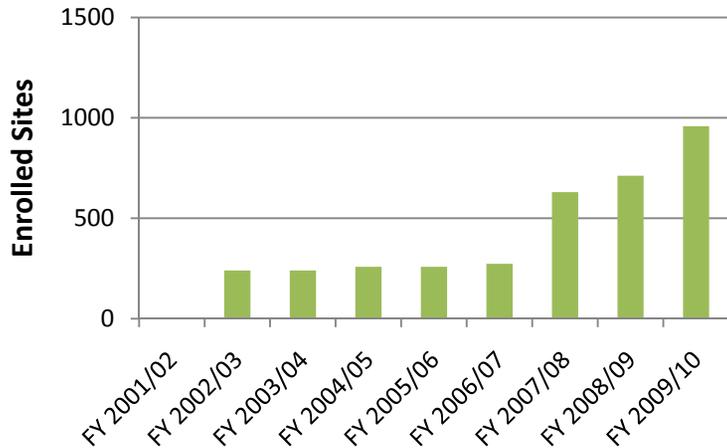
HET Rebates



WMRP Rebates



Large Landscape Audit



Water Wise School Program

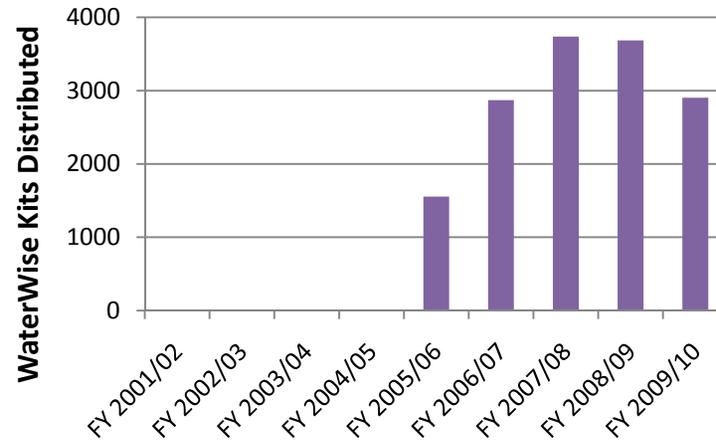


TABLE 4-1
BAWSCA HIGH-EFFICIENCY TOILET REBATE MEASURE SUMMARY - FY 2009/10

Program Information	FY 2008/09	FY 2009/10
Number of Participating BAWSCA Members	13	14
Total Rebates Issued	1,053	2,515
Estimated Annual Water Savings (acre-feet, AF) (a)	16	38
BAWSCA Administrative Cost (b)	\$12,047	\$16,536
Program Cost (Rebates Paid to Customers) (c)	\$157,950	\$377,250
Unit Cost of Water Saved (\$/AF) (d)	\$447	\$552

Notes:

- (a) Estimated water savings based on water use differential between a 3.5 gallon per flush (gpf) toilet and a 1.28 gpf toilet. Assumes 5 flushes per toilet per day per person, 2.64 persons per household, and 2.2 toilets per household (modified from Vickers, Handbook of Water Use and Conservation, 2001). Water savings assumptions are only associated with the level of new activity documented for single year, and do not represent cumulative savings over time. Further, since this calculation is based only on single family, it likely underestimates savings because it does not account for savings at multi-family or commercial accounts.
- (b) Includes BAWSCA staff hours, database management, materials design and printing and other administrative services.
- (c) Cost to agencies is \$150 per rebate.
- (d) Assumes a 15-year toilet life and 15 years of resultant water savings. Assumes a discount rate of 3.01% and a cost of water and wastewater of \$719 per acre-foot each.

**TABLE 4-2
BAWSCA RESIDENTIAL WASHING MACHINE REBATE MEASURE SUMMARY - FY 2009/10**

Program Information	FY 2001/02	FY 2002/03	FY 2003/04	FY 2004/05	FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10
Number of Participating BAWSCA Members	11	15	10	16	16	16	15	16	15
Total Rebates Issued	1,244	3,091	1,805	2,914	2,332	3,254	4,162	5,339	6,941
Estimated Annual Water Savings (acre-feet, AF) (a)	23	58	34	55	44	61	73	93	122
Program Administrator Cost (b)	\$19,308	\$31,192	\$22,433	\$41,913	\$33,484	\$36,300	\$30,015	\$40,356	\$69,558
BAWSCA Administrative Cost (c)	--	--	--	--	--	--	--	\$21,501	\$21,448
Program Cost (Rebates Paid to Customers) (d)	\$125,325	\$336,200	\$178,400	\$379,375	\$404,113	\$449,100	\$468,199	\$511,275	\$851,375
Unit Cost of Water Saved (\$/AF) (d)	\$417	\$336	\$315	\$409	\$530	\$422	\$338	\$322	\$408

Notes:

- (a) Estimated water savings based on water use differential between a 1990's era washing machine that uses 43 gallons per load and a present era washing machine that uses 27 gallons per load. Assumes 2.64 persons per household and 0.37 loads per person per day (Vickers, Handbook of Water Use and Conservation, 2001). Water savings assumptions are only associated with the level of new activity documented for single year, and do not represent cumulative savings over time.
- (b) Includes EGIA or PG&E staff hours, database management, materials design and printing and other administrative services.
- (c) Includes BAWSCA staff hours, database management, materials design and printing and other administrative services.
- (d) Cost to agencies after accounting for grant funding. In FY 2008/09, \$130,650 of grant funding was available for the Residential WMRP program.
- (e) Assumes a 15-year machine life and 15 years of resultant water savings. Assumes a discount rate of 3.01% and a cost of water and wastewater of \$719 per acre-foot each.

TABLE 4-3
BAWSCA WATER WISE SCHOOL EDUCATION MEASURE SUMMARY - FY 2009/10

Program Information	FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10
Number of Participating BAWSCA Members	6	11	14	14	12
Number of Participants (# of kits disbursed)	1,554	2,871	3,737	3,685	2,903
Estimated Annual Water Savings (gallons per kit) (a) (b)	17,451	17,451	17,451	9,785	6,475
Estimated Lifetime Savings for Kits Installed (acre-feet, AF) (a) (b)	499	922	1,201	975	512
BAWSCA Administrative Cost	--	--	--	--	--
Program Costs (Kit Distribution)	\$51,671	\$93,023	\$126,819	\$111,515	\$104,091
Unit Cost of Saved Water (\$/AF) (b)	\$103	\$101	\$106	\$114	\$203

Notes:

- (a) For years prior to FY 2008/09, water savings estimated based on an assumed 60 percent installation rate and a 10 year lifetime.
- (b) For FY 2008/09 and FY 2009-10, water savings estimated based on actual reported installation rate and a 10 year lifetime (Resource Action Reports, 2008; 2009).

**TABLE 4-4
BAWSCA LARGE LANDSCAPE AUDIT MEASURE SUMMARY - FY 2009/10**

Program Information	FY 2002/03	FY 2003/04	FY 2004/05	FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10
Number of Participating BAWSCA Members	4	5	4	5	6	9	11	12
Number of Landscaping Sites	240	240	258	258	273	630	712	958
Estimated Annual Water Savings (acre-feet, AF) (a)	N/A	299	212	520	543	602	435 (b)	1,080 (c)
BAWSCA Administrative Cost (d)	--	--	--	--	--	--	--	\$1,776
Program Cost	\$65,132	\$23,802	\$29,663	\$24,720	\$23,362	\$84,425	\$108,382	\$162,103
Unit Cost of Saved Water (\$/AF) (e)	N/A	\$80	\$140	\$48	\$43	\$63 - 124	\$83 - 125	\$58

Notes:

- (a) Water savings estimated on a calendar year basis.
- (b) For FY 2008/09, only includes water use for the sites that have been in the program since at least 2004.
- (c) For FY 2009/10, only includes water use for the sites that have been in the program prior to 2009.
- (d) Includes BAWSCA staff hours, materials printing and other administrative services.
- (e) For FY 2007/08 though FY 2009/10, unit cost of saved water from Landscape Program Summary Reports (2007; 2008; 2009).

5 BAWSCA Public Outreach and Regional Partnerships

The following sections summarize some of the additional public outreach and partnership activities that BAWSCA pursued in FY 2009/10 to support and promote the Regional Water Conservation Program.

5.1 Silicon Valley Water Conservation Awards

In FY 2009/10, BAWSCA joined with the Tuolumne River Trust, Clean Water Action, Sustainable San Mateo, Sustainable Silicon Valley, Joint Venture Silicon Valley, SCVWD and others to form the Silicon Valley Water Conservation Award Coalition (<http://www.waterawards.org/>). The purpose of the Silicon Valley Water Conservation Award Coalition is to recognize those organizations, agencies, businesses and individuals whose programs and leadership have advanced water conservation in Silicon Valley (i.e., San Mateo County, Santa Clara County and portions of Alameda County). Award categories include Agriculture, Business, Government Agency, Education, Greenscape Management, and Organization. Figure 5-1 shows a copy of the 2010 Water Awards nomination Form. The City of Hayward, a BAWSCA member, was among the 2010 award recipients.

5.2 Water Conservation Showcase

Over the last several years BAWSCA has formed close and productive partnerships with other water utilities and organizations in the Bay Area. For example, BAWSCA is a Founding Partner and sponsor the Water Conservation Showcase, which is put on by PG&E, the United States Green Building Council, and EBMUD. The Water Conservation Showcase is a one-day event that presents cutting edge water-conserving strategies through expert-led presentations and exhibits. The Water Conservation Showcase is designed to encourage cross industry dialogue, and brings together government agencies, private and non-profit organizations, and consumers. An estimated 800 people attended the event.

5.3 Public Outreach

BAWSCA attended and was a featured speaker at several events in FY 2009/10 with the purpose of educating the public and others about BAWSCA, the Regional Water System, BAWSCA's water supply strategy, and water conservation opportunities. These events and forums, hosted by several entities and/or organizations, included but were not limited to:

- Various City and Regional Sustainability Task Forces in the BAWSCA service area;

- Various Earth Day and Sustainability Fairs;
- Sustainable Silicon Valley;
- Joint Venture Silicon Valley;
- San Mateo Leadership Program;
- Bay Area Landscape Association;
- Silicon Valley Leadership; and
- Women in Water, Energy and the Environment.

In all cases, BAWCSA was approached by the above entities and asked to present, host a booth, or sponsor an event. In each case BAWSCA evaluated how the purpose and message of the event aligned with BAWSCA outreach objectives and the audience that BAWSCA would be able to target. BAWSCA then made the decision to allocate its limited resources in the most effective way possible to reach a specific target audience with a specific message.

5.4 Green Gardener

In FY 2009/10 BAWCSA partnered with Redwood City, Menlo Park, the Bay Area Gardeners Association, Acterra, and the San Mateo County Water Pollution Prevention Program to offer a Bay Area Green Gardener Training and Certification course, the first of its kind in San Mateo County. The Green Gardener course provides training and development to professional residential landscapers so they can operate in a more sustainable and environmentally friendly way. The demand is increasing for landscape services that help residents reduce their water usage, incorporate drought tolerant plants, and minimize the need for pesticides. These newly-certified Green Gardeners are now trained to meet this growing demand.

The Green Gardener Training and Certification course included two hours of class time per week for 11 weeks, out of class assignments, a field trip to Hidden Villa Farm and Wilderness Preserve, and a final exam. A total of three classes were offered, two in Spanish and one in English, with a total of 90 participants. One-hundred percent of the students passed the exam and are now Certified Green Gardeners.

5.5 Taste and Talk Series

In FY 2009/10 BAWCSA partnered with Redwood City, San Mateo County Recycle Works, and Pacific Gas & Electric to offer a five-part lecture series from March through June 2010. This “Taste & Talk” lecture series included a reception, a presentation, and a question and answer session, and was designed to be a forum for both interested people and professionals to network and learn about specific topics. The focus of the Spring 2010 series was on indoor and outdoor water use efficiency. Figure 5-2 shows a copy of the flier advertising the 2010 Taste &

Talk lecture series. A total of 210 people attended the lecture series. Specific topics that were covered included:

- Outdoor Water Use Efficiency: Inspired Planting for Your Climate;
- Outdoor Water Use Efficiency: Beautiful Lawns for Less Water;
- Outdoor Water Use Efficiency: The Latest in Greywater and Rainwater Capture;
- Indoor Water Use Efficiency: Stop Wasting and Start Saving; and
- Case Study: Model Water-Efficient Home.

FIGURE 5-1
ANNOUNCEMENT FOR THE 2010 WATER CONSERVATION AWARDS



SILICON VALLEY
WATER CONSERVATION
AWARDS

Awards Ceremony & Water Expo
Monday, March 22, 2010 (World Water Day)
11am to 1pm • Free!

KEYNOTE ADDRESS Santa Clara County Board President Ken Yeager
LOCATION Applied Materials, 3050 Bowers Ave., Santa Clara
PLEASE RSVP info@WaterAwards.org or (415) 882-7252 ext. 302
MORE INFO www.WaterAwards.org

Recognizing the primacy of water issues to the health and economic vitality of our region and to the environment, the Water Awards are presented to organizations, agencies and businesses whose programs and leadership have advanced water conservation in Silicon Valley (San Mateo County, Santa Clara County and Alameda County from Hayward south).

AWARD CATEGORIES

Government Agency/Water Utility • Business • Organization • Agriculture
Greenscape Management • Education • Multiple Benefit

SPONSORED BY

Acterra, Bay Area Water Supply and Conservation Agency, Clean Water Action, California Native Plant Society, Joint Venture: Silicon Valley Network, Santa Clara County Creeks Coalition, Santa Clara Valley Water District, Sierra Club Loma Prieta Chapter, Silicon Valley Leadership Group, Sustainable San Mateo County, Sustainable Silicon Valley and Tuolumne River Trust.

HOSTED BY



**FIGURE 5-2
FLIER FOR THE 2010 TASTE AND TALK SERIES**

“Taste and a Talk” Water-Wise Series

*“Whiskey is for drinking, water is for fighting over”
-Mark Twain*

Come and learn how you can save water and reduce your bills through smart practices and innovative products.

When: Thursday nights, 5 - 6:30 pm
 5 pm - Networking
 5:30 pm - Presentation

Where: Redwood City Council Chambers
 1017 Middlefield Road
 Redwood City

Cost: FREE! Refreshments provided

To **RSVP**, visit

www.tasteandtalk.eventbrite.com



Date	Topic
4/8	Inspired Planting for Your Climate
4/22	Beautiful Lawns for Less Water
5/6	The Latest in Greywater and Rainwater Capture
5/20	Stop Wasting and Start Saving
6/3	Model Water-Efficient Home

Sponsored by:

6 BAWSCA Regional Water Conservation Database

In addition to implementing the regional water conservation measures and conducting outreach efforts described in previous sections, BAWSCA worked with the member agencies to develop a regional water conservation database (WCDB) to track agency water conservation efforts associated with implementation of the WCIP (2009).

The objectives of the WCDB were to:

- Facilitate data collection and data management to support the following activities:
 - Internal agency reporting and budgeting;
 - BAWSCA Annual Survey Report;
 - CUWCC BMP reporting; and
 - DWR UWMP and annual Public Water Supervision System (PWSS) reporting requirements.
- Streamline collecting data to support tracking of water conservation activities in the region.
- Reduce difficulty for agencies to provide consistent data to support regional program planning and progress.
- Monitor quantifiable water savings in the BAWSCA region.

The WCDB was developed primarily with the input of BAWSCA and a focused 7-member agency Working Group. In addition, one meeting was held with all the member agencies to solicit their feedback in the WCDB development process. The WCDB was developed as follows:

- Consultant, BAWSCA, and Working Group collaboratively developed database inputs, outputs, functionality.
- Consultant, BAWSCA, and Working Group collaboratively performed a needs analysis develop user requirements list.
- Consultant created several iterations of the WCDB using the Microsoft SharePoint Platform:
 - Prototype (verify functionality);
 - Alpha (tested by BAWSCA and Working Group, and presented to all member agencies to solicit feedback walkthrough);
 - Beta (BAWSCA and Working Group conducted user acceptance testing); and
 - Production (complete development of WCDB).

The final design of the WCDB provides for the following:

- BAWSCA is the administrator of the WCDB.
- The WCDB is accessible to the 26 member agencies via the Internet.
- The WCDB provides a user-friendly data input and export interface for tracking water conservation measures and other key agency information (e.g., water use).
- The WCDB can be modified to add, remove or change the data that are being requested or tracked.
- The WCDB provides the ability to collect data for agency characteristics (e.g., population, water use, etc) and for activity on up to 20 water conservation measures, including 5 generic measures that agencies can uniquely define.
- The WCDB provides the ability for agencies to upload and store key supporting information (e.g., spreadsheets or other information to support their reporting).
- The WCDB provides the ability to export data to Excel to support reporting for BAWSCA Annual Report, UWMP, CUWCC, and other reporting.
- The WCDB provides the ability to track Interventions and Activities
 - Does not directly calculate “quantifiable” water savings; and
 - Collects data used in water demand projection models.
- The WCDB has customized outputs of dashboards and charts to display agency activity.
- Added benefits to BAWSCA include:
 - Reduced manual data management and coordination with the member agencies; and
 - Increased efficiency in communicating with the agencies using WCDB’s calendar and email tools.

The WCDB will be deployed in FY 2010/11 wherein it will be configured for all agency users and the agencies will be trained as to how to use the WCDB. The WCDB will also further be configured to interact directly with the existing BAWSCA databases for the Regional HET Rebates and BAWSCA WMR measures so that agencies who participate in those measures through BAWSCA do not have to enter that data into the WCDB separately.

7 BAWSCA Water Conservation - Current Activities

BAWSCA is currently implementing specific components of the WCIP (2009) and evolving its water conservation offerings, as described below.

Water Conservation Database. During FY 2009/10 BAWSCA worked with the member agencies to develop the Regional WCDB. The WCDB will be deployed in early FY 2010/11 and will be the format that the Agencies use to submit data for the BAWSCA Annual Survey, among other things. It is expected that BAWSCA and its consultant will provide extensive support to the agencies as they initially learn to operate the WCDB.

Indoor and Outdoor Ordinances. BAWSCA is also continuing to support the agencies in the adoption of the Indoor and Outdoor Water Use Efficiency Ordinances. This support includes, but is not limited to, providing additional information to agencies that request it, outreaching to various organizations to describe the Ordinances, and hosting training classes to educate landscape professionals and the public about the Ordinances and water-efficient landscaping (e.g., through sponsorship of the Landscape Class Series, Green Gardner Training and Certification Course, and the Certified Landscape Irrigation Association course).

School Education. BAWSCA expanded its school education efforts for FY 2010/11 to include a school assembly program run by EarthCapades. Currently, fourteen agencies have opted to participate and have provided funding for up 122 assemblies. EarthCapades performances combine age-appropriate state science standards with circus skills, juggling, music, storytelling, comedy, and audience participation to teach environmental awareness, water science and conservation. The EarthCapades assemblies are designed to include local water source and watershed education and information that the participating member agencies would like to share with the community. BAWSCA and the participating member agencies will provide specific information to EarthCapades regarding the San Francisco Regional Water System and other topics (e.g., recycled water). EarthCapades will integrate this information into the specific script used for assemblies conducted within the participating member agencies service areas. EarthCapades will also coordinate with Resource Action Programs, where applicable, to have the timing of the assemblies coincident with the implementation and messages of the WaterWise school education measure.

In addition to facilitating the coordination between EarthCapades and Resource Action Programs, BAWSCA worked with Resource Action Programs to increase participation in, and

results from, the WaterWise school education measure. As part of this effort, BAWSCA will provide an incentive to the classrooms and students in the participating service areas. The incentives will be provided by BAWSCA and distributed by Resource Action Programs based on the following protocols:

- A \$100 cash prize will be given to the classrooms where the teachers enroll in the WaterWise school education measure and the WaterWise surveys are returned with at least an 80% response rate; and
- A gift with an up to \$5 value will be given to those students that complete the WaterWise surveys that document whether they installed the water conserving-devices from the kits in their homes, complete all the homework, and/or score a greater than 80% on the final written test that is given as part of the WaterWise school education measure.

By administering the incentives in a manner such as the one described above, BAWSCA's goal is to incentivize both the teachers and the students to engage in the educational aspects of the WaterWise school education measure, and to increase the kit installation rates.

Rebate Measures. BAWSCA has also expanded its outreach efforts for all its regional water conservation measures, but especially for the BAWSCA HET Rebates and WRM measures. Outreach efforts included developing promotional materials for store displays and hand-outs (including materials in Spanish, Tagalog, and Mandarin), using Constant Contact to send email blasts about events, rebate information and other news, developing language for radio and television Public Service Announcements, staffing booths and/or speaking at key events, and doing more direct outreach to stores. BAWSCA also partnered with the Tuolumne River Trust and Resource Action Programs to distribute information materials promoting BAWSCA's water conservation measures as part of the BAWSCA School Education efforts.

The visibility of the BAWSCA HET Rebates measure is expected to increase in FY 2010/11 because BAWSCA has now partnered with EPA Watersense (<http://www.epa.gov/owm/water-efficiency/>) to promote HETs. All HETs marked with a WaterSense label are now eligible for a rebate. This partnership will increase the HET visibility and make the process easier and more streamlined for customers and the participating agencies.

BAWSCA has also modified the BAWSCA WMR to make the measure more flexible to accommodate agency budgets. In FY 2010/11, agencies will be able to choose to offer one of two different rebate amounts as part of the BAWSCA WMR, \$50 or \$125. By lowering the rebate amount, agencies are able to stretch their budgets further, and because the measure is

run as a partnership with PG&E, who offers a \$50 rebate, the customer still gets at least a \$100 rebate.

New Measure and Conservation Program Development. At the request of the member agencies, BAWSCA has also formed two working groups to develop a Lawn Replacement Incentive measure and a Regional Water Conservation Marketing Campaign for full implementation in FY 2010/11. Both of these efforts, as well as the on-going HET and WRM rebate measures, are part of a grant proposal that BAWSCA has initiated with the Bay Area Integrated Regional Water Management Plan for Proposition 84 funds. Any grant funds received would potentially be available as early as July 2011.

8 BAWSCA Water Conservation Programs for Fiscal Year 2010-2011

For FY 2010/11, BAWSCA is planning continue to offer all the measures that were offered in FY 2009/10, but with goals to accelerate measure visibility and participation, to the extent requested by the agencies and supported by agency budgets. In response to agency requests, BAWSCA is also proposing to add two new measures that target school education and outdoor water use, respectively. Specifically, BAWSCA is proposing to offer the following water conservation measures in FY 2010/11:

Core Programs

- Water Efficient Landscape Education Classes;
- *Water-Wise Gardening in the Bay Area* Landscape Educational Tool;
- Native Garden Tours and Symposium; and
- Public Outreach & Regional Partnerships.

Subscription Programs

- High-Efficiency Toilet Rebates (coordinated with EPA WaterSense);
- High-Efficiency Residential Washing Machine Rebates (Optional Rebate Amounts);
- School Education (Water-Wise School Education Kits);
- NEW School Education (EarthCapades Assemblies);
- Large Landscape Audits;
- NEW Pilot Lawn Replacement Incentive; and
- Bulk Purchase.

BAWSCA will continue to support expansion of the existing Core and Subscription Programs though increased public outreach and regional partnerships. BAWSCA will also work with the agencies on the deployment of the WCDB and the development of the Long-Term Water Supply Reliability Strategy, and will provide as needed support for the development of agencies' 2010 Urban Water Management Plans and their 20 by 2020 targets. Lastly, BAWSCA will be working with its regional partners to review grant-funding opportunities that would allow for increased conservation within the region. As part of all of the above efforts, BAWSCA staff will continue to evaluate the resources needed to successfully manage and implement the Regional Water Conservation Program and related activities.