

WATER FORUM

YEAR-THREE

WATER CONSERVATION REPORT



Year-Three Water Conservation Report
Prepared by the Water Forum

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WATER FORUM YEAR-THREE WATER CONSERVATION REPORT

In April 2000 representatives of over 40 business, environmental, public and water interests in the region signed a Memorandum of Understanding to implement the *Water Forum Agreement (WFA)*. The stakeholders agreed to a series of actions, or elements, to achieve the Water Forum's two co-equal objectives:

- Provide a reliable and safe water supply for the region's economic health and planned development to the year 2030; and
- Preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River.

The Water Conservation Element of the *Agreement* is essential to meeting both of the co-equal objectives of the Water Forum. It helps meet the region's water supply needs, and minimizes the need for increased groundwater pumping and increased use of surface water, including diversions from the American River. Each water supplier in the region committed to implementing a comprehensive water conservation plan, which is to be fully implemented in 2004.

This document is a progress report. It is intended to help water purveyors and the other Water Forum signatories gauge progress towards full implementation and to make adjustments, if necessary, early in the process. It covers the third calendar year of implementation following the signing of the *Water Forum Agreement*, January 1 through December 31, 2003.

Water Conservation Element of the *Water Forum Agreement*

The *Water Forum Agreement* (page 94) requires water purveyors to prepare annual reports on the implementation of their negotiated Water Forum Water Conservation Plans and share these reports with the Water Forum Successor Effort. In addition, progress toward implementation is annually reviewed and reported upon in the Water Forum's Annual Report.

The Water Conservation Negotiation Team (WCNT), consisting of members from each caucus (business, environmental, water, public) provides oversight for water conservation plan implementation.

The Water Conservation Element focuses on municipal and industrial water conservation programs. Water suppliers and customers must implement active water conservation programs to demonstrate that water is being used efficiently. Efficient water use is a requirement for contracts for federal surface water diversions. Water conservation programs are also often a requirement for participation in grant and loan programs.

Agricultural water conservation is projected to increase over the life of the WFA. The federal Central Valley Project (CVP) provides a portion of the surface water used by agriculture in the Sacramento region. Its use is subject to conservation requirements of the CVP Improvement Act.

The Water Forum will negotiate other specifics on agricultural water conservation at a later time. This report does not cover agricultural water conservation.

Each purveyor negotiated a water conservation plan consisting of Best Management Practices (BMPs) and implementation criteria. These BMPs were adapted from the California Urban Water Conservation Council's *Statewide Memorandum of Understanding Regarding Urban Water Conservation Best Management Practices* (1994).

While some purveyors accepted the standard recommended BMP implementation criteria, others chose to negotiate "functionally equivalent" criteria that better met the needs and conditions in their service area. (For the full water conservation plans, see Appendix J of the Water Forum Agreement.)

A "**Best Management Practice**" (BMP) is a policy, rule, regulation or ordinance of the use of devices, equipment or facilities that is an established and generally accepted practice that results in more efficient use or conservation of water, or a practice that has been proven to indicate that significant conservation benefits can be achieved.

This report covers the third calendar year of implementation, January 1 through December 31, 2003. Purveyors submitted reports in February 2004 for review by Water Forum staff and the WCNT.

Water Forum Best Management Practices At A Glance	
BMP	Title
1	Interior & Exterior Water Audits & Incentive Programs for Single Family Residential, Multi-Family Residential, and Institutional Customers
2	Plumbing Retrofit of Existing Residential Accounts
3	Distribution System Water Audits, Leak Detection and Repair
4	Non-Residential Meter Retrofit
4	Residential Meter Retrofit
5	Large Landscape Water Audits and Incentives for Commercial, Industrial, Institutional (CII), and Irrigation Accounts
6	Landscape Water Conservation Requirements for New and Existing Commercial, Industrial, Institutional and Multi-Family Developments
7	Public Information
8	School Education
9	Commercial and Industrial (CII) Water Conservation
11	Conservation Pricing for Metered Accounts
12	Landscape Water Conservation for New/Existing Single Family Homes
13	Water Waste Prohibition
14	Water Conservation Coordinator
16	Ultra-Low Flush Toilet Replacement Program for Non-Residential Customers
--	Citizens Involvement Program

Reporting During Three-Year Ramp Up

The Water Forum Water Conservation Plans were designed with a three-year “ramp up” to full implementation. Several of the BMPs have a calculated number of “interventions” or actions (based on number of customers) to be completed annually. Agencies agreed to be implementing the full number of interventions by Year Four (2004) with years one through three used to prepare staff, budget and program design.

Each year during the ramp up period, purveyors were asked to submit a two-part report:

1. Text copy of its negotiated Water Conservation Plan indicating which elements were implemented, not implemented, or added
2. An Excel worksheet indicating specific negotiated BMP targets for Year Three, Revised Year-Three targets and actual Year-Three interventions.

General Assessment of Year three

Fifteen of the 16 water purveyors submitted Water Conservation Program Annual Reports for 2003. Of the 15 water purveyors reporting, all are fully implementing Public Information and School Education programs and have a designated Water Conservation Staff person (BMP 14), as was the case in 2002. Many reached their Public Information (BMP 7) and School Education (BMP 8) goals through membership in the Regional Water Authority Water Efficiency Program. Also, once again 14 of the 15 reporting agencies are fully implementing Water Waste Prohibitions (BMP 13).

Purveyors improved implementation in 2003 with significant progress made in almost every category.

Progress was made in 2003 toward implementation of BMP 1 (single family audits). Water Forum purveyors performed 1,686 such reviews this year, which is an increase of over 500 audits compared to 2002. This BMP remains a challenge for those purveyors who are not billing customers on a metered rate. Without the incentive to save money on water bills, water providers are finding it hard to market this service to customers in their service areas. However, Water Forum water purveyors are finding success in the distribution of plumbing retrofit devices (BMP 2) and are ahead of schedule in the distribution of these devices.

Leak detection programs (BMP 3) also showed improvement in 2003, with more purveyors implementing programs to fulfill the requirements of this BMP. The goal of a leak detection program is to ensure that unaccounted water losses are no more than 10 percent of production. Over half of all water purveyor signatories indicated that in 2003 they were implementing all aspects of this BMP.

Depending upon their individual agreements, water purveyor signatories agreed to meter 85 to 90 percent of all non-residential customers within five to ten years of the Water Forum Agreement signing (BMP 4). As of the end of 2003, the third year of the Agreement, 11 of the 15 agencies have completed requirements for BMP 4. Installation of meters is the first step in transitioning non-residential customers to metered rates. Although not required as part of the Water Forum

Agreement, four of the signatory purveyors have completed metering of residential customers. In addition to installing meters, more water purveyors began transitioning customers to metered rates in 2003 (BMP 11). Each water purveyor individually negotiated a schedule for basing customer charges on the quantity of water used. In 2003, 11 of the 15 reporting agencies were fully implementing this BMP.

BMP 5, Large Landscape Water Audits, requires a program that provides audits to irrigation and commercial, industrial and institutional accounts with landscapes of one acre and larger. The purpose is to provide system reviews and identify necessary irrigation system repairs. Purveyors then track repairs through follow-up reviews and surveys. Incentives such as rebates and grants are provided to achieve annual participation by 12 percent of the customer type. In 2003, Water Forum water purveyors conducted a total of 128 large landscape audits on a regional basis. This is a significant improvement over the first year of implementation during which only 24 audits were conducted.

Two other landscape-related BMPs, 6 and 12, received partial implementation in 2003. This is because a large component of these two BMPs included the establishment of a regional landscape task force. The responsibility to convene this task force was not assumed until early 2004 when the Water Forum held the first meeting. Water purveyors continued to implement the other aspects of these BMPs in 2003. BMP 6 is Landscape Water Conservation Requirements for New and Existing Commercial, Industrial, Institutional and Multifamily Development. BMP 12 is Landscape Water Conservation for New/Existing Single Family Homes. Both of these BMPs focus on getting information on water efficient landscapes to customers, adopting or supporting ordinances requiring water efficient landscapes, and other landscape related tasks.

A great deal of the landscape-related outreach to customers in the region is achieved through programs of the Regional Water Authority (RWA). RWA and its member agencies operates and maintains an automated weather station to provide evapotranspiration data to the area landscapers. The Authority also conducts landscape workshops for homeowners throughout the year; conducts an annual media campaign to notify residents to make seasonal irrigation schedule changes; develops water efficient landscape materials for member agencies, free distribution at retail outlets and through university extension programs; and participates in home and garden shows.

BMP 9, Commercial and Industrial Water Conservation, has proven to be a challenge to implement throughout the ramp-up period. In this BMP, water purveyors are required to identify the top ten percent of their commercial and industrial water users and then offer them water-use reviews. Purveyors are expected to design a program with enough incentives to achieve at least 20 percent annual participation of the targeted customers. In addition, other aspects of the BMP promote more efficient water-use technology in the commercial and industrial sector. For the first two years of reporting, water purveyors were, for the most part, unable to meet their target goals for water-use reviews.

In 2003 the Regional Water Authority contracted with the California Urban Water Conservation Council (CUWCC) to participate in the CUWCC's "Rinse and Spray" program which is aimed at replacing high water using pre-rinse spray valves with new 1.5 gallon per minute nozzles at food

service facilities at no charge to the customer in an effort to implement BMP 9. This regional approach brought the installation of 475 water saving pre-rinse spray valves installed at 348 restaurants and other food service facilities in Sacramento and Placer counties. Annual savings are estimated at 77,000 gallons of water per nozzle. In addition to installation of the nozzles, trained contractors surveyed other water-using equipment in the kitchens and rest rooms. The Water Forum Water Conservation Negotiation Team accepted these visits as water audits for the purpose of BMP 9, thus helping the participating agencies achieve their water audit targets.

Toilet replacement (BMP 16) has proven to be a challenge to Water Forum water purveyor signatories during this three-year ramp up period. Under the Agreement, programs for replacement of residential toilets are voluntary while nonresidential programs are required as part of water conservation plans. In 2003, water purveyor signatories fell short of their goals for installation of nonresidential ultra-low flush toilets. Although water purveyors were able to offer incentives that achieved the installation of 187 nonresidential toilets in 2003, a significant increase over the 23 toilets replaced in 2002, the actual combined goal for all purveyors was almost 10,000. Water purveyors found more success with voluntary residential programs, giving away rebates for the installation of over 800 residential ultra-low flush toilets. A program conducted through the Regional Water Authority in which RWA partnered with the Sacramento Regional County Sanitation District enhanced implementation of toilet rebate programs. RWA contracted with seven water suppliers and the sanitation district to receive funds for toilet replacement incentives.

Most purveyors run into the same challenges in the implementation of a nonresidential toilet retrofit program. Nonresidential toilets are more expensive to retrofit and rebates offered usually do not cover the entire cost of the toilet. In addition, many jurisdictions require the issuance of a building permit for a commercial toilet replacement, which complicates the project and adds to its expense. This can often trigger issues with regards to compliance with the American Disabilities Act; therefore, turning a simple toilet replacement project into a remodeling project costing several thousand dollars. Water purveyors have no control over these complications and are working to find ways to increase incentives and participation in their non-residential toilet replacement programs.

Individual Purveyor Accomplishments

Arden-Cordova Water Service

Arden-Cordova met requirements for Public Information, School Education, Conservation Pricing, Water Waste Prohibition and Conservation Staff in 2003. In addition, the agency completed its requirements for BMP 4, Non-Residential Meter Retrofits. In 2003 Arden-Cordova participated in the Regional Water Authority's (RWA) Rinse and Save program, which helped the agency meet its goals audits under BMP 9, Commercial and Industrial Water Conservation, although the agency must still fulfill other aspects of this BMP. Arden-Cordova also continues to partially implement BMP 3, Leak Detection. Implementation of BMP 1, Water Audits for Residential and Institutional Customers, continues to prove challenging for Arden-Cordova. Although the water company has trained staff and materials available, the company is having difficulty garnering the audits it committed to doing when signing the Water Forum Agreement. According to Arden-Cordova staff, this is because most residential customers are on a flat rate, which provides no incentive to participate in an audit in order to assess water use efficiency. The company believes that this problem will be addressed as they move customers to a consumption-based rate following meter retrofit.

Arden-Cordova Water Service is a private water company (owned by Southern California Water Company). The company has lost more than half of its water supply wells due to groundwater contamination over the last several years. It has responded by devoting significant amounts of resources, with both company personnel and capital, in its efforts to keep the water system viable.

Carmichael Water District

Carmichael Water District continues to be on track for full implementation of its Water Conservation Plan. In 2003 the water district was fully implementing all but one BMP. The district continued to distribute more plumbing retrofit kits than necessary to meet its commitments under BMP 2 and performed 17 commercial water audits (BMP 9), which is ten audits over its commitment of seven for the year. Eight of these audits were through the RWA Rinse and Save program.

Large landscape audits proved to be more challenging for Carmichael in 2003. Carmichael has instituted a program to conduct large landscape audits; however, the district completed one out of six required large landscape water audits last year.

As part of its Water Forum Purveyor Specific Agreement, Carmichael negotiated to increase meter retrofits (BMP 4) until they are completed and delay participation in the ultra low flush toilet rebate program (BMP 16). Carmichael has completed requirements for BMP 4, non-residential meters and the district's residential customers will be fully metered and billing at a metered rate by 2012.

California American Water Company

California American Water Company met commitments for Public Information (BMP 7) and School Education (BMP 8) in 2003 through participation in RWA programs and through the

company's own programs. California American programs include direct mailings, customer newsletters, media coverage and local school programs. The company also continues to have designated water conservation staff (BMP 14).

Non-residential customers are fully metered and use volumetric pricing (BMP 4). For the past three years, California American has modified services and installed on the average 600 water meters on previously non-metered residential customers (BMP 4). California American spent over \$1 million on the meter retrofit program in 2003. The company also participated in the RWA Rinse and Save program, installing eight spray valves for two customers (BMP 9).

California American is an investor-owned utility. As such, its ability to generate funding for conservation programs is dependent upon the approval of the California Public Utilities Commission. California American filed for its first rate increase for Sacramento customers in over five years in September 2002. This rate case was not resolved until May 2004 for implementation in June 2004. The financial impact of that delay affected conservation programs. As a result, local management focused water conservation efforts toward its meter retrofit program.

Citrus Heights Water District

In 2003, Citrus Heights Water District (CHWD) met or exceeded goals for 9 BMPs. The district conducted 179 single-family home water audits last year and distributed over 300 plumbing retrofit kits to older homes. CHWD continued public information and school education program in 2003. These programs, which include a regional Water Awareness Month poster contest, presentations to local schoolchildren, a biannual newsletter, ads for programs and services in local newspapers and a web site are in addition to participation in Regional Water Authority efforts.

CHWD also participated in RWA's Rinse and Save Program in 2003. Through this program 13 Citrus Heights restaurant and food service facilities received 18 efficient spray nozzles. The district also performed one separate commercial audit. Although the district did not reach its goal for the number of audits performed, the Rinse and Save program allowed for significant progress on BMP 9 implementation. CHWD has established the necessary components of a large landscape audit program and conducted six of 26 targeted audits in 2003. The district did not meet goals last year in implementation of its non-residential toilet retrofit program, reporting no commercial toilet rebates. However, the district did participate in the joint Regional Water Authority/Sacramento Regional County Sanitation District toilet rebate program. Despite no success in the commercial toilet category, CHWD reported rebates for 123 high water use toilets for residential customers through the RWA program.

CHWD is on track for full implementation of its Water Conservation Plan.

Del Paso Manor Water District

Del Paso Manor fully implemented nine BMPs in 2003. Del Paso Manor is a small district with a service area of only one square mile. As a result, the district has a good history of communication with its customers. While some BMPs are difficult for a district this size to implement, such as toilet retrofits and residential water audits, the district has made a substantial

effort to meter its non residential customers and provide them with water efficiency information. Last year Del Paso Manor installed 15 non-residential water meters, which is 13 more than their agreement called for. District personnel are also busy installing meter setters on residential customer accounts in preparation for metered rates. In addition, the district has an active water waste program. District personnel responded to over 50 water waste calls in 2003 and used these calls as an opportunity to talk to residents about more efficient outdoor water use. While Del Paso Manor offered no toilet rebates last year, the district reported that 100 ultra low flow toilets were installed at commercial accounts as a result of a shopping center remodel in the district's service area. The district also participated in the Rinse and Save program offered by Regional Water Authority.

Fair Oaks Water District

Fair Oaks continues to be committed to implementing its water conservation plan. The district fully implemented ten BMPs in 2003, including completion of its non-residential meter retrofit program. District personnel conducted 122 single-family and 238 multi-family residential water audits last year through its Water Wise House Calls program, well above the number required under its agreement. In addition, Fair Oaks distributed over 300 plumbing retrofit kits to district customers and met its commitments for large landscape water audits. In addition to participation in other Regional Water Authority programs, the district took advantage of RWA's Rinse and Save program. Nine customers in Fair Oaks' service area participated in this program, receiving a total of 12 spray nozzles. This helped Fair Oaks reach its goals for BMP 9. Fair Oaks continues to implement a Citizens Involvement Program and publishes a biannual newsletter. District personnel participate in a variety of community and school events in its service area.

Fair Oaks reports that staff will be able to accurately complete identification of the top ten percent water users among its commercial and industrial customers in 2004, thus completing requirements for BMP 9. This will be accomplished by initiating a new automated radio read meter reading program combined with newly installed state-of-the-art billing and reporting packages. Also, the district was able to provide rebates for 104 residential toilets in 2003, yet only five commercial toilet rebates were accomplished even with expanding its current stand-alone program by participating in the joint RWA/Sacramento County Regional Sanitation District Toilet Rebate Program.

Florin County Water District

Florin County Water District serves an area adjacent to the Sacramento City limits in the Florin area. The district has approximately 2,200 connections and serves an area of 2.5 square miles. The district relies solely on groundwater. Florin County Water District did not submit a 2003 water conservation report as it failed to do so in 2001 and 2002.

City of Folsom

The City of Folsom continues to be on-track for full implementation of its water conservation program. Significant progress was made in several areas. Folsom went from performing 48 single-family audits in 2002 to completing 145 in 2003. The City also increased the number of large landscape audits last year, carrying out 17 compared to five the previous year. These improvements point to an active effort to communicate with customers regarding landscape water conservation. Like other purveyors in the area, Folsom participated in the Rinse and Save

program. Fourteen customers in the City received water efficient spray nozzles through this program. This effort helped the city meet its goals for commercial water audits although Folsom still needs to implement the other aspects of BMP 9 in order to have a full commercial and industrial water conservation program. Folsom also had difficulty implementing BMP 16 (Nonresidential Toilet Rebates) despite participation in the RWA/regional sanitation district program. However, taking advantage of the program, Folsom did distribute 14 residential toilet rebates in 2003.

City of Folsom staff spent considerable hours in 2003 working on regional projects promoting water use efficiency and has committed staff time to Regional Water Authority activities and committees. As part of its efforts to promote landscape water use efficiency, City staff served on the steering committee for the Ecolandscaping conference, an outreach event for landscape professionals, and continued to be active in the California Landscape Contractors Association. In addition, Folsom staff participated in the Landscape/Nursery Expo in Sacramento and multiple seminars for the Pesticide Applicators Professional Association and the California Urban Forestry Council. Folsom also co-sponsored a distribution system leak detection seminar for water purveyors along with the Regional Water Authority.

Orange Vale Water Company

Orange Vale Water Company once again met most of its water conservation goals for the year and remains on track for full implementation in 2004. The Company has identified its top 20 percent of water users in each customer type and performed 22 of 23 targeted single-family water audits (BMP 1). Orange Vale distributed 175 retrofit kits (BMP 2), which was over their targeted number of 100. In 2002 Orange Vale completed residential and non-residential meter retrofits in fulfillment of BMP 4. In 2003 the Company focused on educating customers regarding metered rates by reading meters and showing a comparison on customer bills between what customers currently pay and what they would pay if they were billed by quantity. Orange Vale will transition entirely to metered rate billing in January 2005. Requirements for BMP 5, Large Landscape Audits and Incentives were met by Orange Vale in 2003, including completion of two large landscape audits of irrigation customers with one acre or larger. Requirements for Commercial and Industrial Water Conservation, Public Outreach and School Education were met through Regional Water Authority programs.

Orange Vale Water Company, like most other purveyors, is behind in implementation of BMP 16, toilet replacement for non-residential customers but did distribute 83 rebates for residential customer toilet replacement in 2003 through its own toilet rebate program.

Placer County Water Agency

Placer County Water Agency is on track for full implementation of its water conservation plan. Although they did not meet targets for residential water audits in 2003, the Agency performed almost four times as many audits last year as it did in 2002. The effectiveness of this program is enhanced by the Agency's follow-up surveys, which are conducted to determine if audit recommendations are being implemented. PCWA estimates 20 percent of the past participants have been revisited or contacted. The Agency distributed 1,247 plumbing retrofit kits (BMP 2) and has a complete commercial/industrial conservation program in place, performing 41

commercial/industrial audits in 2003 (BMP 9). PCWA continues to fully implement its leak detection program (BMP 3).

Like other Water Forum purveyors, PCWA has experienced difficulty in fully implementing its commercial toilet rebate program. In 2003 the Agency distributed four rebates for non-residential customers. However, PCWA has successfully met its voluntary residential rebate program goals. In 2003 PCWA gave 158 rebates to residential customers through its own rebate program.

PCWA participates in Regional Water Authority programs such as the Rinse and Save Program, the Water Education Foundation WET Program, and is a member of the California Urban Water Conservation Council. Participation in these programs enhanced the agency's own efforts to fulfill obligations toward public outreach, school education and commercial/industrial audits. PCWA has also partnered with U C Davis Cooperative Extension and Master Gardeners to educate and inform Placer County homeowners of water efficient landscape and garden practices. Agency staff works directly with private sector landscape and gardening service companies. In addition, PCWA provides water efficiency articles to customers through a bi-monthly newsletter, maintains a water efficiency page on its web site, and produces periodic newspaper releases throughout the Agency's service area (BMPs 7 and 8).

PCWA is fully metered, as of 1968, with an ascending tier rate structure, in fulfillment of BMP 4, and has an active meter replacement program on meters installed prior to 1992. PCWA also has an on-going canal gunite program to reduce unaccounted-for water in their canal system.

Rio Linda / Elverta Community Water District

Like other water purveyors in the region, Rio Linda / Elverta Community Water District took advantage of Regional Water Authority programs in 2003, thereby benefiting from regional efforts in school education, public outreach and commercial/industrial conservation programs (BMPs 7, 8 and 9). Participation in RWA's Rinse and Save Program led to installation of four water efficient nozzles in businesses within the District's boundaries.

Rio Linda partners with SMUD in a high efficiency washing machine rebate program for their customers. Although not required under current Water Forum BMPs, the program is similar to others around the state. The Rio Linda program pays customers \$50 each to replace less efficient washing machines with those that qualify for the SMUD rebate. Qualifying machines are estimated to use 35 to 50 percent less water. The water district rebate is in addition to a SMUD rebate. In 2003 Rio Linda/Elverta Community Water District paid nine rebates to District customers who qualified for this program.

In addition to these programs, Rio Linda continues to be fully metered and use volumetric pricing in fulfillment of BMP 4 and has implemented a leak detection program (BMP 3).

Rio Linda did not meet goals for large landscape audits (BMP 5) or non-residential toilet rebates (BMP 16), although it has worked to provide the program elements necessary achieve customer participation in these projects.

City of Roseville

Roseville continued its LivingWise Program in 2003, which is a partnership between the city's water conservation division and Roseville Electric. Through this program students and their parents conducted 498 audits of water use in their homes. Program participants received plumbing retrofit kits for their participation. In addition to these efforts, the City of Roseville mails out self-audits to requesting customers and customers performed 220 self-audits using the City's web site. City of Roseville staff conducted 85 traditional single-family audits in 2003 and distributed an additional 613 plumbing retrofit kits to customers.

In May 2003, the City began working to transition 12,000 homes with meters to a consumption-based water bill by sending comparison bills showing the difference between the flat rate they were currently paying and a bill based on actual water usage. Those homes began receiving bills based on actual water usage in May 2004. As a contractor of Central Valley Project water, Roseville is also working within the Central Valley Project Improvement Act timeframe to retrofit homes that were built prior to 1992, when state law mandated meters on new homes.

Roseville also took advantage of Regional Water Authority programs in 2003, which enhanced city efforts in public outreach and school education. In addition, Roseville participated in RWA's Rinse and Save Program. Through this effort 69 Roseville customers received water efficient spray nozzles. In addition, City staff performed three complete commercial/industrial water audits to businesses in the Roseville Galleria.

Although Roseville was unable to complete any large landscape audits in 2003, a program is in place to fulfill the requirements of this BMP in 2004. In addition, most City-owned parks are ET controlled. Roseville has also experienced difficulty in getting non-residential customers to participate in a rebate program for toilet replacement. However, the City has met with some success in its voluntary residential program, giving out 147 rebates in 2003 through its own program.

Roseville continues to be on track for full implementation of its water conservation plan.

City of Sacramento

City of Sacramento water conservation staff achieved significant improvements toward implementation of its water conservation plan in 2003. This progress was made in the areas of plumbing retrofits, large landscape audit, leak detection and commercial/industrial conservation. In 2003 City staff distributed 3,400 retrofit kits to residents and mailed water conservation information and toilet leak test kits to all change of account customers and new residents. The City conducted 18 large landscape audits, an increase over 2002 when no large landscape audits had been reported. In addition, the City continues to spend \$30,000 annually on irrigation improvements in its parks and reach out to new residents with water efficient landscape information.

Sacramento also participated in Regional Water Authority programs in 2003, which enhanced the city's own efforts in the areas of public outreach and school education. Through the RWA Rinse and Save Program, Sacramento received credit for 147 commercial/industrial water audits,

during which 225 water efficient spray nozzles were installed at Sacramento restaurant and food service facilities.

Despite having the necessary program elements in place, the City continues to have difficulty achieving its targets for residential water audits. Staff made considerable efforts in 2003 to market this program to the community, including participation in home and garden shows, direct mail to customers, and outreach to neighborhood groups. Sacramento also participated in the partnership between RWA and the regional sanitation district to offer ultra low flush toilet rebates to customers. Like other water purveyor signatories, Sacramento experienced difficulty getting its non-residential customers to participate in the toilet rebate program. However, the City has met with some success in its voluntary residential toilet rebate program, distributing 103 rebates last year.

The City of Sacramento is on track for full implementation of its water conservation plan.

Sacramento County Water Agency

Sacramento County Water Agency made noteworthy progress in implementation of its water conservation plan in 2003 and is on track for full implementation. The agency completed over three times as many residential water audits as it did the previous year and continued to distribute more plumbing retrofit kits than are required under its plan. The County also completed 36 of 100 targeted non-residential meter retrofits, an improvement over 2002 during which no non-residential meter retrofits were reported. County water agency staff continued efforts to achieve improvements in the area of landscape water use efficiency in 2003. The Agency performed seven large landscape water audits, and participated in local home and garden shows and other community events and took advantage of RWA programs. The Agency continued to publish its "Water Spouts" newsletter in 2003, which offers water conservation information to customers, is fully implementing its water waste prohibitions and is educating customers regarding quantity-based water billing.

Sacramento County made progress toward implementation of BMP 9 in 2003, identifying the top 10 percent of commercial and industrial water users and offering them water use reviews. The Agency also began requiring water intensive commercial and industrial building permit applicants to conduct a water use efficiency review and submit findings in any required environmental documentation for the project. In addition the Agency began requiring efficient cooling systems, re-circulating pumps for fountains and ponds and water recycling systems for vehicle washing as a condition of service. Sacramento County participated in the RWA Rinse and Save Program in 2003, installing 12 water efficient spray nozzles in the County's service area.

Sacramento County was unable to meet its targets for non-residential toilet retrofit rebates in 2003; however the Agency did offer 28 residential rebates through the joint RWA/Sacramento Regional County Sanitation District program.

Sacramento Suburban Water District (Northridge Service Area)

Sacramento Suburban Water District fully implemented requirements for six BMPs in 2003 including plumbing retrofits, public outreach, school education, landscape water conservation for

single family homes, water waste prohibitions and staff. Membership in the Regional Water Authority helped the District meet some of its water conservation goals, including ten commercial/industrial water audits as part of the Rinse and Save Program.

Sacramento Suburban improved in the area of residential water audits in 2003, completing 22 audits compared to no audits in 2002. The District also made minimal progress toward implementation of BMP 5, large landscape water audits. SSWD shared the experience of other purveyors in finding BMP 16, non-residential toilet rebates, challenging to implement.

Negotiations on the purveyor specific agreement for SSWD's Arcade Service Area were completed in June 2003. In 2004 SSWD will be required to report on water conservation plan implementation for both of its service areas for the first time since district consolidation.

San Juan Water District

San Juan Water District continues to be on track for full implementation of its water conservation plan. SJWD is fully implementing all of the BMPs with the exception of 16. In the case of BMP 16 the District has a program in place but is unable to meet its targeted rebate numbers for the same reasons as other Water Forum water suppliers.

In 2003 SJWD performed 163 residential water audits and distributed 307 plumbing retrofit kits to customers. San Juan has been tracking the number of pre-1992 homes in the District's service that would require plumbing retrofits and reports that less than 300 homes of an initial 5,000 remain to retrofit. San Juan Water District conservation staff participated in a variety of community events and school education programs in 2003. The district is also a member of the Regional Water Authority and takes part in RWA programs.

Landscape water conservation remains a priority for SJWD, with 61 large landscape water audits completed in 2003. In addition the District has a water efficient landscape garden that is open to the public and District staff participate in a variety of events to distribute landscape water use efficiency information to customers.

San Juan Water District has completed meter retrofits of both its non-residential and residential customers and is on track for transitioning all flat-rate residential customers to a metered rate in 2005. Non-Residential customers are already paying a metered rate. All new residential construction has been required to pay a metered rate since June 1997 and the district has a number of residential customers who have volunteered to pay a metered rate. San Juan is reading all meters and showing a comparative metered rate on the bills of all flat rate customers. Beginning April 2005 all customers will receive bills based on actual water use.

Looking Forward

The end of the three-year ramp-up period to full implementation of water conservation plans shows that Water Forum water purveyors have made significant progress. In some cases, purveyors improved existing programs; however, in most cases purveyors went from having no

water conservation staff or programs to developing a program to reach out to customers with educational materials and services.

In 2002 the Water Forum reported that six of the 15 reporting agencies would need to step up their efforts in order to reach full implementation. As directed by the Water Forum Coordinating Committee, Water Forum staff met individually with the management and conservation staff of these agencies to review conservation programs and assess how best they could apply their water conservation plans. As a result, two of the six agencies are now on track to reach full implementation and each of the six agencies made significant improvements toward implementation. In addition, Water Forum staff worked closely with the Regional Water Authority to assist RWA in designing programs that will most help signatories achieve their water conservation goals. This work continues in 2004.

As is evident in this report, some BMPs are harder to implement than others. Water purveyors continue to work on more successful implementation of residential, large landscape and commercial/industrial water audits (BMPs 1, 5 and 9) in order to meet the targeted goals for these BMPs that they negotiated as part of their water conservation plans. Water purveyors are also trying to assess how better to implement BMP 16 so that they can meet their negotiated goals for distribution of non-residential toilet rebates. Some help in addressing these BMPs can be made collectively through Regional Water Authority programs.

Some purveyors negotiated lower target numbers for certain BMPs between 2001 and 2003. Full implementation in 2004 in some cases means that the targeted number of interventions associated with some BMPs will increase. For example, purveyors are asked to identify all irrigation and commercial/industrial/institutional accounts with landscapes of one acre and larger under BMP 5. This group is then targeted for audits to help customers achieve better efficiency. Purveyors must achieve an annual participation rate for audits from this group of 12 percent or more. During the ramp up period some purveyors opted to negotiate a lower target number to give their agencies time to develop and implement a large landscape program. Beginning in 2004 they will be expected to achieve the full 12 percent participation from this group.

In 2004 the Water Forum convened a regional landscape task in compliance with provisions in BMPs 6 and 12. The Water Forum Agreement calls for a task force composed of local governments, the business community, water purveyors, the building and green industries and environmental/public interest groups. The purpose of the task force is to review existing ordinances in the Sacramento area and their implementation, determine if any constraints diminish their effectiveness and to recommend and support corrective action, if necessary. The task force will report its findings to the Water Forum Successor Effort in late 2004.

Also in 2004 the Water Forum has undertaken an update of water conservation plans as called for in the Water Forum Agreement. This process requires involvement by the Water Conservation Negotiation Team and negotiations between water purveyors and other Water Forum interest groups. The goal of the update process is to ensure that an effective, high-quality water conservation program is adopted that meets the needs of all the Water Forum stakeholders along with the water conservation goals set forth in the Water Forum Agreement.