

WATER FORUM

YEAR-TWO

WATER CONSERVATION REPORT

July 2003



Yea-Two Water Conservation Report
Prepared by the Water Forum

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YEAR-TWO WATER CONSERVATION REPORT PREPARED BY THE WATER FORUM

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 not a report card. 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 second calendar year of implementation following the signing of the *Water Forum Agreement*, January 1 through December 31, 2002.

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) was convened to review purveyors' progress toward BMP implementation, report to the Water Forum Successor Effort, and assist purveyors with implementation if needed. The WCNT consists of members from each caucus.

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 state and federal approvals to increase 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 much 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 second calendar year of implementation, January 1 through December 31, 2002. Purveyors submitted reports in March 2003 for review by Water Forum staff and the WCNT.

Elements of the Water Conservation Plans

- *Residential Meter Retrofit (BMP 4) and Conservation Pricing (BMP 11)* Water users need to know how much water they are using and receive accurate economic signals – which require measurement and conservation pricing – in order to encourage the use of water in the most efficient manner possible. The rate of residential meter retrofits varies for different classes of purveyors.
- *Non-Residential Meter Retrofit (BMP 4)* Purveyors will retrofit at least 85-95 percent of non-residential customers within ten years.
- *Residential Ultra-low Flush (ULF) Toilet Replacement Program (BMP 16)* Purveyors are encouraged, but not required, to establish residential toilet replacement programs.
- *Non-Residential Toilet Replacement Program (BMP 16)* Purveyors will provide incentives for replacement of non-residential toilets with ULF toilets.
- *Citizens Involvement Program* Water purveyors will establish citizens involvement programs such as citizen advisory committees to help design, implement and market water conservation programs.

Other BMPs

- *Interior, Exterior and Landscape Water Audits (BMP 1)* Assist residential and institutional customers with water-use reviews (audits) that can include installation of water saving devices, identification of water-use problems, recommendation of repairs, instruction in landscape principals and seasonal irrigation schedules.
- *Plumbing Retrofits (BMP 2)* Offer customers retrofit kits that include low flow showerheads, faucet aerators, toilet leak detection tablets and water conservation materials and information.
- *Public Information (BMP 7)* Provide customers with information about their water use, water efficient practices and water conservation campaigns, and provide public speakers.
- *School Education (BMP 8)* Offer tours of facilities, provide informational and education materials about water use and conservation to schools; work with schools to promote audits, reduce water bills, and develop innovative funding for equipment upgrades.
- *Commercial and Industrial Water Conservation (BMP 9)* Provide commercial and industrial customers with water audits, assistance and incentives in implementing recommendations, and follow-up with customers about implementation of recommendations.
- *Landscape Water Conservation for Single-family Homes (BMP 12)* Provide information on climate appropriate landscaping through community events and education campaigns; work cooperatively with landscape industry to provide information about irrigation and landscaping.
- *Water Waste Prohibitions (BMP 13)* Enact a water waste prohibition ordinance that includes measures and enforcement mechanisms.
- *Staff Water Conservation Coordinators (BMP 14)* Each water purveyor is to designate a staff person to be responsible for preparing, implementing and monitoring the supplier's Water Conservation Plan, and have on staff at least one trained certified water conservation practitioner.

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 & Repair
4	Non-Residential Meter Retrofit
4	Residential Meter Retrofit
5	Large Landscape Water Audits & 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 to Three used to prepare staff, budget and program design.

Each purveyor was 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 Two, Revised Year-Two targets and actual Year-Two interventions.

General Assessment of Year Two

Fifteen of the 16 water purveyors submitted completed Water Conservation Program Annual Reports. Overall, more agencies are implementing water conservation programs in Year Two when compared to Year One. Many agencies have achieved full implementation in several BMPs and more are expected to reach this level in Year Three as cooperative programs are implemented in the region.

As was the case in Year One, those agencies with existing water conservation programs, either through membership in the California Urban Water Conservation Council or as a requirement to receive federal water, did better at reaching their Year-Two goals. Purveyors without such mandatory or voluntary inducements have spent the first two years of this program creating their water conservation efforts.

Of the 15 water purveyors reporting, all are fully implementing Public Information and School Education programs and have a designated Water Conservation Staff person. Many reached their School Education and Public Information goals through membership in the Regional Water Authority Water Efficiency Program. All but one of the 15 reporting agencies are fully implementing Water Waste Prohibitions. This is an improvement over Year One. In addition, significant progress has been made on BMP 4, Non-residential meters, with 10 agencies completing their negotiated targets regarding installation.

Water Conservation Plan Implementation

Arden-Cordova Water Service

Arden-Cordova met targets for Public Information, School Education, Conservation Pricing, Water Waste Prohibition and Conservation Staff in 2002. Arden-Cordova has also completed its requirements for BMP 4, Non-Residential Meter Retrofits. Partial progress was made on BMP 3, Leak Detection. However, progress still needs to be made toward implementation of the remaining BMPs.

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 WD fully implemented nine of the BMPs during Year Two. Partial progress was made on BMPs 1, 5, 6 and 9, which is an improvement over Year One.

In Year Two Carmichael WD greatly exceeded its plumbing retrofits (BMP 2) goal, delivering 1,100 kits compared to its negotiated goal of 50. In addition, the agency provided retrofit material to 32 schools and businesses (BMP 9) and twice the hardware and information for residential landscape efficiency (BMP 12) as required. Carmichael WD continues to reach out to its customer base through a variety of means, including participating in the annual Carmichael Founders Day event.

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

California-American Water Company (formerly Citizens Utilities)

California-American Water Company has met or exceeded its targets for Plumbing Retrofits (BMP 2), Public Information (BMP 7), and School Education (BMP 8). The company also has designated water conservation staff (BMP 14). Non-residential customers are fully metered and use volumetric pricing (BMP 4). Water waste prohibition measures have been established in partial fulfillment of BMP 13. Progress still needs to be made toward implementation of the remaining BMPs.

Citrus Heights Water District

Citrus Heights WD has met or exceeded goals for 9 BMPs, including conducting over 100 single family home water audits. Partial progress was made on BMPs 3 and 12. CHWD has an active public information and school education program. Since 1993 the District has participated in a regional Water Awareness Month poster contest and annually makes presentations to local schoolchildren. The District also publishes a biannual newsletter that contains information on its programs and services. In addition, CHWD places ads for programs and services in local newspapers and hosts a web site that contains water conservation information. CHWD has also undertaken a program that will provide large landscape and residential water audits for District customers and participates in Regional Water Authority water conservation programs.

Citrus Heights WD is on track for full implementation of its Water Conservation Plan.

Del Paso Manor Water District

Del Paso Manor fully implemented BMPs 7, 8, 13 and 14 in 2002. Membership in the Regional Water Authority helped the district meet its goals for Public Information (7) and School Education (8). Partial progress was made on BMPs 3, 4 (Residential Meter Retrofits), 11 and 12. Progress still needs to be made toward implementation of the remaining BMPs.

Fair Oaks Water District

Fair Oaks Water District met or exceeded its targets for nine BMPs in 2002, including substantially exceeding targets for BMP 4, Non-Residential Meter Retrofits. Fair Oaks WD also continues to fully implement a Citizens Involvement Program. In addition to publishing a biannual newsletter, FOWD participates in a variety of community and school events in its efforts to reach out to its customers. The District provides toilet rebates, Water Wise house calls to evaluate both indoor and outdoor water use, and in 2002 supplied 600 welcome packets to new homeowners that included water use efficiency information. FOWD also participates in the Regional Water Authority's water use efficiency programs and is a member of the RWA Water Efficiency Program Advisory Committee.

Fair Oaks Water District is on target for a fully operational water conservation program in Year Four.

Florin County Water District

Despite several requests and offers of assistance, Florin County WD did not submit a Year Two Water Conservation Report as it failed to do so in 2001.

City of Folsom

Folsom has met or exceeded targets for six BMPs. The City performed more Single Family Water Audits than were required and met goals for School Education and Public Education along with Landscape Water Conservation for Single Family Homes. Most notably, the City has completed BMP 4, Non-Residential Meters.

Progress toward implementation of residential meters has been slowed by the passage of Measure P in November, which amended the City's charter to prohibit water meter retrofits from being paid for by the citizens and entitling unmetered single family residences existing prior to 1992 to a flat rate. The City has formed a Water Advisory Group. This group will review the City's options and develop recommendations regarding specific water supply issues. These recommendations eventually will be presented to the City Council for action.

City staff expends a significant amount of time reaching out to the community of Folsom including distributing materials during local events and communicating with the landscape industry. Staff also provides water conservation materials to new homeowners at the close of escrow.

The City of Folsom is on target for a fully operational water conservation program in Year Four.

Sacramento Suburban Water District (Northridge Service Area)

SSWD fully implemented seven BMPs in Year Two, including Leak Detection (BMP 3) and Conservation Pricing (BMP 11). Implementation of Public Outreach and School Education requirements were met through participation in the Regional Water Authority's programs. SSWD has completed implementation of Non-Residential Meters. Additionally, SSWD is meeting its targets for Residential Meter installation. Progress still needs to be made toward implementation of the remaining BMPs.

Orange Vale Water Company

Orange Vale Water Company met its targets for Year Two. The Company has completed Residential and Non-Residential Meter Retrofits (BMP 4). In addition, OVWC fulfilled its commitments to BMP 5, Large Landscape Audits, having completed four in 2002.

Orangevale Water Company is on-track for full implementation of its conservation program by Year Four.

Placer County Water Agency

Placer County Water Agency fully implemented BMP 3 (Leak Detection) last year. In addition, PCWA continues to be fully metered and use volumetric billing. In 2002, the Agency increased its staff by hiring a water efficiency specialist, which doubled the number of designated staff for conservation. PCWA reports this will help the agency in meeting its water audit targets for 2003, which were only partially met in 2002. PCWA began its plumbing retrofit and toilet rebate programs in October 2002. The Agency expects to meet its target numbers in 2003. PCWA also participated in Regional Water Authority conservation programs in 2002.

The Water Forum staff continues to work with PCWA and the environmental caucus toward completion of negotiations on a Raw Water BMP. This will complete PCWA's Purveyor Specific Agreement and the agency will then be on track for full implementation of its water conservation plan.

Rio Linda /Elverta Water District

Rio Linda/Elverta WD District completed 15 out of 18 required Single Family Water Audits (BMP 1) and 25 percent of the Plumbing Retrofits (BMP 2) that were targeted. Rio Linda/Elverta also took advantage of Regional Water Authority programs in 2002 to satisfy its Public Information and School Education requirements. The District is fully metered and using volumetric pricing and meets the requirements for Water Waste Prohibition (BMP 13). The District also performed one Large Landscape Audit (BMP 5) that was not required in 2002 but did not perform any Commercial Industrial Audits (BMP 9).

Rio Linda/Elverta Water District is on track for full implementation of its water conservation plan.

City of Roseville

The City of Roseville has met or exceeded its numerical goals for Year Two implementation on six BMPs. The City of Roseville's Water Conservation Division continued its partnership with Roseville Electric in 2002 by teaming with the electric utility to distribute 1,208 plumbing retrofit kits, a significant increase over the City's target number of 2002.

The City of Roseville met its negotiated target numbers for Single Family Water Audits in 2002 through onsite audits with a certified auditor, as is required by the Water Forum Agreement. However, in 2002 the City also implemented a unique audit program. In a joint effort with the electric utility, the City taught students to work with their parents to perform self-audits. Over 500 of these reports were made in 2002. Also, the City had over 2,000 self-audits completed through its web site in a program that was supported by the United State Bureau of Reclamation. The Water Forum Water Conservation Negotiation Team will track the effectiveness of these efforts.

Roseville is on track for full implementation of its conservation program by 2004.

City of Sacramento

The City of Sacramento's conservation staff attended numerous community events, home and garden shows, neighborhood meetings and school presentations in 2002 in addition to efforts of the Regional Water Authority Water Efficiency Program to implement Public Outreach and School Education BMPs. The City exceeded its target goals for Single Family Water Audits (BMP 1) and participated in Regional Water Authority programs. Partial progress was made on Plumbing Retrofits (BMP 2), Leak Detection (BMP 3) and Non-Residential Meter Retrofits (BMP 4).

In 2002 City staff began processing new plant spacing guidelines for new development in the north Natomas area to reduce not only water and water waste, but also solid waste and pesticide usage. These changes will go before the Planning Commission and City Council in 2003. New homeowners in the north Natomas area also began receiving a water conservation packet in 2002 from the developer upon purchase of their home. Progress still needs to be made on implementation of the remaining BMPs.

Sacramento County Water Agency

The Sacramento County Water Agency is also fully implementing Public Information and School Education programs through its own efforts and programs offered by the Regional Water Authority. Agency outreach programs include production of a bi-annual newsletter that is distributed to all customers and distribution of up to 4,000 new customer packets each year. Additionally, the County implemented BMPs 2, 5 and 9, although there were no negotiated targets for these programs in 2002. This work included distribution of over 800 plumbing retrofit kits and performing 5 water budgets and 13 large landscape audits. The County also has designated conservation staff. Progress still needs to be made toward implementation of the remaining BMPs.

San Juan Water District

San Juan met most Year Two goals. The District is either fully implementing or has completed work on 11 BMPs, including Non-Residential Meter Retrofits (BMP 4). San Juan Water District conservation staff participated in a variety of community events and school education programs in 2002. The district is also a member of the Regional Water Authority and takes part in programs offered by RWA. In 2002 San Juan performed 23 Large Landscape Audits (BMP 5) and is fully implementing BMP 12, Residential Landscape Conservation.

San Juan Water District is on track for full implementation of its conservation program by 2004.

Next Steps

Water Forum water purveyors have made significant progress over the last two years in implementation of water conservation programs; however, much remains to be done. At the end of the second year of the three-year ramp-up period it appears that a majority of the reporting agencies are on track to meet their Year-Four objectives. A significant number, about 40 percent, will have difficulty meeting their Year-Four objectives without considerable effort going toward an increase in programs. Six of the fifteen reporting agencies will need to step up their conservation program efforts in order to reach full implementation. Of the remaining nine agencies, all appear to be on track to reach full implementation of their negotiated plans by 2004. It is unclear whether or not the one agency that did not report (Florin County Water District) will achieve its goals as no data has been received on its programs.

The water conservation element of the Water Forum Agreement is one of seven linked elements that together will result in a safe and reliable water supply for the Sacramento region and protection of the resources of the lower American River. Signatories to the Water Forum agreed that all seven elements must move forward together. In recognition of this, Water Forum staff has committed to work with all agencies to help them meet their water conservation obligations. To that end, in 2003 and 2004 Water Forum staff will meet individually with management and conservation staff of each water purveyor to review their water conservation programs and assess how best they can achieve compliance by Year Four, or if this is not possible, how best to move toward compliance.

In addition, Water Forum staff will work with the Regional Water Authority staff to assist RWA in designing programs that will most help Water Forum signatories achieve their water conservation goals. Although the responsibility for compliance rests with each purveyor, and many are achieving goals with their own programs, some activities such as programs for landscape water use efficiency lend themselves to a regional program. Already in 2003 RWA programs will help Water Forum water purveyors achieve significant progress toward implementation of several BMPs that have been more challenging to appreciably implement in the first two years of the Agreement. These BMPs include Large Landscape Water Audits (BMP 5), Commercial and Industrial Water Conservation (BMP 6), Landscape Water Conservation (BMP 12) and Ultra-Low Flush Toilet Replacement (BMP 16). This progress will be reported in the Year-Three Water Conservation Report.