

Water Forum

Year 1

Water Conservation Report

June 2002



Year 1 Water Conservation Report

Prepared by the Water Forum

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YEAR 1 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*. The stakeholders agreed to a series of actions 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 goals 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 first full calendar year of implementation following the signing of the *Water Forum Agreement* (April 2000), January 1 through October 30, 2001. The purveyors were asked to submit reports in November so that potential problems with implementation could be identified and support provided early in Year 2.

Water Conservation Element of the Water Forum Agreement

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 *Water Forum Agreement*. 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, which were adapted from the California Urban Water Conservation Council (CUWCC). 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. These plans are reviewed and progress assessed annually. (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.

The California Urban Water Conservation Council was created to increase efficient water use statewide through partnerships among urban water agencies, public interest organizations, and private entities. The Council’s goal is to integrate urban water conservation BMPs into the planning and management of California’s water resources. The *Water Forum Agreement*’s BMPs were adapted from the CUWCC’s Statewide Memorandum of Understanding Regarding Urban Water Conservation Best Management Practices (1994).

Basic 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.

Water Forum Best Management Practices	
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 (CI) 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

Other BMPs

Interior, Exterior and Landscape Water Audits: Assist residential and institutional customers with water-use reviews (audits) that can include installation of water saving device, identification of water-use problems, recommendation of repairs, instruction in landscape principals and seasonal irrigation schedules.

Plumbing Retrofits: Offer customers retrofit kits that include low flow showerheads, faucet aerators, toilet leak detection tablets and water conservation materials and information.

Public Information: Provide customers with information about their water use, water efficient practices and water conservation campaigns, and provide public speakers.

School Education: 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: 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: 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: Enact a water waste prohibition ordinance that includes measures and enforcement mechanisms.

Staff Water Conservation Coordinators: 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.

First Year of Implementation

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, each purveyor's progress toward BMP implementation will be 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 first Water Conservation Annual Report covers the first calendar year of implementation after the signing of the *Agreement* (April 2000) through October 30, 2001. For the first year of implementation, the purveyors were asked to submit reports in November so that potential problems with implementation could be identified and support provided early in Year 2.

Basic Approach to Year 1 Reporting

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 the number of customers) to be completed annually. Agencies agreed to be implementing the full number of interventions by Year 4 (2004) with Years 1 to 3 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 Years 1 and 2, actual Year 1 interventions, and revised Year 2 targets.

The WCNT agreed that agencies could complete any incomplete Year 1 BMP interventions by adding them to their Year 2 goals. Many agencies took advantage of this option.

The Year 1 effort for each BMP was rated as follows:

1. Full – completed all or almost all of the program elements.
2. Partial – some of the elements were completed.
3. Minimal – almost none or none of the elements were completed.

General Assessment

Fifteen of the 16 water purveyors submitted completed Water Conservation Program Annual Reports. Implementation levels varied from thorough to spotty and can be traced to many factors. In general, 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 far better at reaching their Year 1 goals. Purveyors without such mandatory or voluntary inducements may be creating water conservation programs from “scratch” and so spent more resources on staffing and “ramp up.”

BMP Implementation Summary Number of Purveyors at Each Level of Implementation				
BMP	Done	Full	Partial	Minimal
1 - Water Audits	0	7	2	6
2 - Retrofits		8	2	5
3 - Leak Detection		5	8	2
4 - Non-residential meters	5	4	2	4
4 - Residential meters	3	5	2	5
5 - Landscape Audits	0	2	5	8
6 - Landscape CII	0	2	0	13
7 - Public Information		14	1	0
8 - School Education		11	1	3
9 - CII Audits	0	1	1	13
11- Pricing	2	5	4	4
12 - Residential Landscape	0	0	9	6
13 - Water Waste		14	1	0
14 - Conservation staff		14	0	1
16 -Toilet Replacement	0	0	2	13
Community Involvement	0	2	2	11

Of the 15 water purveyors reporting, all but one are fully implementing water waste prohibition and public information programs, and have a water conservation staff person. Other than these three BMPs, it is impossible to make generalizations about implementation of water conservation plans. Each district has implemented BMPs in various combinations, and each BMP has been implemented at various levels.

Although “numeric” goals and targets are referred to throughout this report, the story cannot be told in numbers alone. Several districts without functional water conservation programs invested their resources in laying the groundwork, effort not reflected in numeric targets.

Many purveyors achieved their School Education and Public Information goals through membership in the Sacramento Area Water Works Association (SAWWA) Water Conservation Committee programs. SAWWA has been active in these areas for several years.

Several purveyors made little progress towards implementing a Citizens Involvement Program. The WCNT has made this a priority for 2002.

CVP Users

Several Water Forum signatories are, or will be, users of federal Central Valley Project water supplies. They are subject to the water conservation provisions of the Central Valley Project Improvement Act (CVPIA). CVPIA conservation requirements and related costs are independent of the *Water Forum Agreement*.

These users are:

- Citrus Heights Water District
- City of Folsom
- City of Roseville
- County of Sacramento
- Fair Oaks Water District
- Orange Vale Water District
- Placer County Water Agency
- San Juan Water District

Water Conservation Plan Implementation

Arden-Cordova Water Service

Arden-Cordova has made minimal progress towards implementation of most BMPs. Targets for School Education, Conservation Pricing and Water Waste Prohibition were met. Partial progress was made on BMP 3 – Distribution System Water Audits, Leak Detection and Repair Program – and Citizens Involvement Program. Year 1 shortfalls have been incorporated into Year 2 goals.

Arden-Cordova Water Service is a private water company (owned by Southern California Water Company). Its water supply comes from groundwater wells; several wells have been lost to contamination in the last year and others are in peril. While this situation has probably deflected attention away from Arden-Cordova's water conservation program, management recognizes the importance of fulfilling its Water Forum Agreement and is committed to "catching up" in 2002.

To help ensure full implementation of the Water Conservation Plan, the WCNT will request a mid-year evaluation of progress to-date.

Carmichael Water District

Carmichael WD has met or exceeded its targets for nine of the BMPs during Year 1 and has completed implementation of BMP 4, Non-Residential Meter Retrofits. Partial progress on BMP 12 was achieved through participation in SAWWA. Targets for Year 2 remain the same. Although only minimal progress was made on BMP 5, the critical first step has been achieved – all irrigation and CII accounts with landscapes of one acre or larger have been identified.

Carmichael WD has stated it is not planning to create a Citizen's Involvement Program, but is interested in participating in a regional advisory program. This would be a change to the negotiated plan.

Citizens Utilities

Citizens Utilities has met or exceeded its targets for BMPs 1, 2, 7, 8 and 14. Non-residential customers are fully metered and use volumetric pricing. Water waste prohibition measures have been established in partial fulfillment of BMP 13. Only minimal progress has been made on the other BMPs. Short-falls in Year 1 have been added to Year 2 goals.

Citizens Utilities has used public workshops in the past to elicit customer feedback and involvement. It intends to continue to use customer involvement to help shape its conservation programs.

Citrus Heights Water District

Citrus Heights WD has met or exceeded goals for 10 BMPs, including meter retrofits and volumetric pricing. Partial progress was made on BMPs 3, 12 and 16. Citrus Heights WD is placing special focus on reaching non-residential customers with high-use non-ultra low-flush toilets with information about the ULF toilet replacement program. The district has conducted customer workshops as partial fulfillment of the Citizens Involvement Program. It expects to hold additional workshops to aid in planning and marketing the residential meter retrofit program.

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

Del Paso Manor Water District

Del Paso Manor made only minimal progress in eight of the BMPs; no numeric targets were met. Partial progress was made on BMPs 3, 4 (residential meter retrofits) and 5. Del Paso Manor is a small water purveyor relying totally on groundwater, and so its meter retrofit program is totally voluntary at this time. The district's goals for Public Information, School Education, Water Waste Prohibition and Water Conservation Coordinator were met. Year 1 shortfalls have been added to goals for Year 2.

The WCNT will request a mid-year evaluation. Implementation of 5-A-1 early in 2002 is recommended.

Fair Oaks Water District

Fair Oaks Water District met or exceeded its targets for eight BMPs, including meter retrofits and a Citizens Involvement Program. Targets for BMPs 1 and 2 were substantially exceeded. Only minimal progress was made on BMPs 6, 9 and 16. Year 1 shortfalls have been added to goals for Year 2. Fair Oaks WD is on target for a fully operational water conservation program in Year 4.

Fair Oaks WD is the only entity to fully implement a Citizens Involvement Program. In order to increase customer involvement, the district has a committee of district representatives which consists of (but is not limited to) a member of the Fair Oaks Community Advisory Council, the Fair Oaks Chamber of Commerce, an unmetered resident who has volunteered for a meter, an unmetered resident who has not yet volunteered for a meter, and a metered resident.

BMPs by Level of Implementation				
BMP	Done	Full	Partial	Minimal
13-Water Waste		14	1	0
7-Public Information		14	1	0
14-Conservation staff		14	0	1
8-School Education		11	1	3
4-Non-residential meters	5	4	2	4
11-Pricing	2	5	4	4
2-Retrofits		8	2	5
4-Residential meters	3	5	2	5
3-Leak Detection		5	8	2
1-Water Audits	0	7	2	6
12-Residential Landscape	0	0	9	6
5-Landscape Audits	0	2	5	8
6-Landscape CII	0	2	0	13
9-CII Audits	0	1	1	13
16-Toilet Replacement	0	0	2	13
Community Involvement	0	2	2	11

Florin County Water District

Despite several requests and offers of assistance, Florin County WD did not submit a Year 1 Water Conservation Report.

City of Folsom

Folsom has met or exceed targets for several BMPs, including interior and exterior water audits and large landscape water audits, and partially met several others, including the residential meter retrofit program.

The city's progress may have been hampered by citizen unrest over the meter retrofit program. A local petition was circulated in December 2001 for a City Charter amendment 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. Folsom remains committed to implementing the Water Conservation Plan as negotiated with the Water Forum, whether or not this amendment is approved by voters (it is on the November 2002 ballot).

The City of Folsom has enhanced implementation of BMP 1 in several ways. Video training tapes on interior and exterior "do-it-yourself" water audits, plumbing repairs, toilet replacement and water efficient landscaping in Spanish and English were purchased by the city and can be checked out from the City library. In addition to surveying past program recipients to determine if audit recommendations were implemented, Folsom sends follow-up questionnaires to survey recipients.

Although not yet implemented, the city has a plan for implementing citizen involvement. Folsom is on track for full implementation of its water conservation program.

Northridge Water District

Northridge WD met or exceeded several of its numerical goals for Year 1, including the residential meter retrofit program, and has completed its nonresidential meter retrofit program. No progress was made on BMP 5. Northridge plans to use existing citizen's groups to implement a public involvement program. The district is investigating opportunities for community-based organizations to implement the ULF toilet replacement program.

Northridge is on track for full implementation of its Water Conservation Plan. The WCNT recommends implementing BMP 5-A-1 in 2002.

Orange Vale Water Company

Orange Vale Water Company met or substantially exceeded targets for several BMPs, including non-residential and residential meter retrofits, while making minimal or no progress on several others, including a Citizens Involvement Program. Partial progress was made on ULF toilet replacement program. The district's intent seems to be to strategically focus effort and resources to meet its commitments for implementing its WFA water conservation plan by Year 4.

Implementation of BMP 5.A.1 is recommended early in early 2002. The WCNT will request a mid-year evaluation of district plans to implement Citizens Involvement Program.

Placer County Water Agency

PCWA has met targets or completed work on several BMPs. PCWA is fully metered and using volumetric billing. Only minimal progress was made on landscape-related BMPs and ULF toilet replacement programs. The Citizens Involvement Program was not implemented. PCWA has not completed negotiations on BMP 5.

The Water Forum staff is working with PCWA to complete negotiations on BMP 5. PCWA will then be on track for full implementation of its water conservation plan.

Rio Linda/Elverta Community Water District

Rio Linda/Elverta CWD is fully metered, both residential and non-residential, and using volumetric pricing (BMPs 4 and 11). In addition, the district has met its goals for BMPs 2, 7, 8, 13 and 14. While only partial progress was made on BMP5, the critical first steps are complete: all commercial, industrial and irrigation accounts over 1 acre have been input into a data base, and a trained landscape water auditors are on staff.

In addition to its water conservation commitments through the Water Forum Agreement, Rio Linda/Elverta CWD has a high-efficiency clothes washer rebate program in partnership with the Sacramento Municipal Utility District (SMUD). Rio Linda/Elverta adds \$50 to the SMUD rebate (from \$75 to \$125), and SMUD provides 5,000 bill inserts to the district each year. Most of the program administration is handled by SMUD. The water district includes additional water conservation information with the rebate check.

Year 1 shortfalls have been added to Year 2 commitments to help ensure full program implementation by Year 4. Rio Linda Elverta CWD is on track for full implementation of its water conservation program.

City of Roseville

The City of Roseville has met or exceeded its numerical goals for Year 1 implementation on eight BMPs. A Citizens Involvement Program has been implemented and several workshops have been held. Roseville is one of several purveyors who have enhanced BMP 1 implementation by surveying past program participants to see if audit recommendations were implemented. Partial progress has been made on the nonresidential meter retrofit program and volumetric pricing.

The City of Roseville's Water Conservation Division has formed a partnership with Roseville Electric to spread the water conservation message. Articles on efficient water use are regularly published in the electric utility's customer newsletter. The city also publishes a variety of customer brochures on its water conservation programs and water use efficiency tips.

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

City of Sacramento

The City of Sacramento made little progress on its numeric goals in the first year of implementation. A new water conservation coordinator was hired in 2001 and aggressive plans have been made for BMP implementation in 2002. The city is active in SAWWA and has an

effective public information and water waste prevention program in place. The city has effectively used citizen involvement committees in the past and has a detailed plan in place to implement a rejuvenated citizens advisory committee in Year 2 of implementation.

The WCNT will meet with the city water conservation coordinator mid-year to discuss progress towards goals.

County of Sacramento

The County exceeded its goals for interior and exterior water audits and past program participants were surveyed to determine if audit recommendations were implemented. Public information and school education programs are being fully implemented. No progress was made on BMPs 2,16 or the Citizens Involvement Program. The County added Year 1 shortfalls, which were low, to Year 2 goals, which will put the county on track for full implementation in Year 4.

San Juan Water District

San Juan has met or exceeded most Year 1 goals. All customers are metered and conservation pricing is being implemented. In implementing BMP 1, San Juan WD offers follow-up surveys to past program participants. San Juan had an extensive Citizens Involvement Program during the initial phases of meter installation. This program will be reconvened as the District moves toward full-metered billing.

It is recommended that Year 2 targets be increased to include Year 1 shortfalls where necessary.

Next Steps

Most agencies are on track for full implementation. Purveyors acknowledge that starting a water conservation program was a bigger job than anticipated by many of them, and more effort and resources went into the start-up than expected.

The Water Conservation Negotiation Team will meet mid-year with the water conservation coordinator of agencies that had a slower start-up in Year 1 to help ensure that they meet Year 2 goals and are on track for full implementation by Year 4 of Water Forum Agreement implementation.

The annual reporting process will also be evaluated mid-year. Purveyors will be notified of any modifications to the process.

Sacramento Regional County Sanitation District is interested in developing partnerships on low-flow toilet replacement programs. The WCNT will investigate this opportunity.

RWA Program Water Efficiency Program

Most of the water purveyors are members of the Regional Water Authority (RWA), the successor to the Sacramento Metropolitan Water Authority. Its mission is to “help members protect the reliability, availability and quality of water resources.” In January 2002 RWA unveiled its new water use efficiency program, which is intended to help members fulfill their

Water Forum Agreement commitments to water conservation. RWA has a full-time staff member devoted to this effort. This is expected to benefit purveyors with less experience in water conservation programs. RWA is also submitting grant proposals for water conservation efforts on a regional basis.