

appendix D

***Water Conservation Best Management Practices
and Implementation Methods***

APPENDIX D

WATER FORUM BEST MANAGEMENT PRACTICES (BMP) IMPLEMENTATION CRITERIA

The Best Management Practices (BMP) Implementation Criteria on the following pages were adopted on July 28, 1997 by the negotiators participating in the Water Forum BMP Criteria Negotiations. They were adapted from the Statewide Memorandum of Understanding (MOU) Regarding Urban Water Conservation Best Management Practices and have been customized for use by the Water Forum.

The signatories to this Agreement agree that the BMPs be implemented consistent with the Water Forum Negotiated BMP Implementation Criteria, or Functional Equivalent, as described below.

The following language, adopted on July 28, 1997 by the negotiators participating in the BMP Criteria Negotiations, applied to the development of the Water Conservation Plans that will be a part of the Water Forum Agreement.

- A. Purveyors may choose to implement BMPs using the negotiated criteria described on the following pages.
- B. Purveyors also had the option of customizing ways to implement BMPs that will be at least as effective as the negotiated criteria. The Demand/Conservation Team reviewed each of the proposed customized implementation method(s) to determine if the BMP were be at least as effective as the negotiated criteria.
- C. Alternately, a functional equivalency determination could have been made based on an integrated review of the entire package of a purveyor's proposed schedule and budget for implementing the BMPs. The Demand/Conservation Team determined if the purveyor's proposal would provide functional equivalency to the full implementation of BMPs using the negotiated criteria.

BMP 1: INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND INSTITUTIONAL CUSTOMERS

BMP Implementation Criteria

The on-going program will include, at a minimum:

A. Within three years of agreement signing, signatories will have:

1. Trained water auditors on staff or available through cooperative agreements with other purveyors.
2. Prepared and made available, as needed, multi-lingual interior and exterior water audit materials for customers
3. Prepared and made available to customers seasonal climate-appropriate irrigation information.
4. Investigated opportunities for community based organizations (CBOs) to receive the training and financial incentives necessary for them to implement this BMP for their constituents.

B. Signatories will annually:

1. Identify the top 20% of water-users, not previously audited, in each customer type and offer them water-use reviews (audits)
 - a. (Metered accounts) annually determine the top 20% of water users in each customer type based on water use, and when appropriate, lot size and/or landscape area
 - b. (Unmetered accounts) annually determine the top 20% of water users in each customer type based on lot size and/or landscape area or other water-use indicators
2. Offer, through bill inserts or other means, water-use reviews to all customers
3. Survey past program participants to determine if audit recommendations were implemented

C. The water-use review program will:

1. Provide audits conducted by trained auditors
2. Provide audits that may include device installation by purveyor or customer (showerheads, faucet aerators, etc.), identification of water-use problems, recommend repairs, instruction in landscape principles (hydrozones, ET, etc.), irrigation timer use and, when appropriate, meter reading.
3. Provide program participants with seasonal irrigation schedules by hydrozone and/or station

4. Provide incentives, such as the following, to achieve 12% annual participation of the targeted 20% of customers:
 - a. Billing adjustments or bill rebates targeted to plumbing system repair or improvement;
 - b. Incentive programs to encourage plumbing system repair or improvement

D. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 2: PLUMBING RETROFIT OF EXISTING RESIDENTIAL ACCOUNTS

BMP Implementation Criteria

A. The on-going program will include, at a minimum:

1. Offer to all customers, through bill inserts or other means, retrofit kits which include, but are not limited to, high quality low-flow showerheads, faucet aerators and toilet leak detection tablets
2. Offer toilet leak test kits to all change of account customers who visit the purveyor office
3. Work with the local “Welcome Wagon” or equivalent organization to provide water conservation materials to new residents.
4. Work with local hardware/home stores to offer free water conservation information and toilet leak test kits at the check-out counters
5. Investigate partnership programs with local energy utilities to provide water conservation audits, materials and devices

B. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 3: DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

BMP Implementation Criteria

The on-going program will include the following minimum programs (as recommended in AWWA “Manual of Water Supply Practices, Water Audits and Leak Detection”):

A. Unmetered signatories will complete and be maintaining:

1. An annually updated ‘system map’ of type, size and age of pipes; pressures; leak history; and historic data
2. Installation of devices (such as pressure recorders) or use of other methods designed to identify area with greater than 10% losses.
3. An ongoing meter calibration and replacement program for all production and distribution meters.
4. An ongoing leak detection & repair program (as defined in the manual) focused on high probability leak areas identified by the system map.
5. A complete system-wide leak detection program, repeated no less often than every ten years; unless there are special circumstances, such as age of system or planned main replacement.

B. Metered signatories will complete and be maintaining:

1. An annual system water audit, determining the difference between production and sales.
2. An annually updated ‘system map’ of: type, size and age of pipes; pressures; record of leaks; etc.; with historic data
3. An ongoing meter calibration and replacement program.
4. An ongoing leak detection and repair program focused on high probability leak areas identified by the system map.
5. A complete system wide leak detection program, repeated: when the system water audit determines losses to be greater than 10%; when the losses are less than 10% if the program is determined to be cost-effective.

C. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 4: NON-RESIDENTIAL METER RETROFIT

BMP description (customized by the Water Forum):

Purveyors will retrofit at least 85-90% of non-residential customers within ten years. Complete non-residential retrofit is not a requirement. This is in recognition of the fact that there could be some smaller non-residential customers whose service locations could be very difficult and expensive to retrofit.

BMP Implementation Criteria

A. The on-going program will include, at a minimum:

1. Identify all non-residential unmetered customers
2. Provisionally identify any non-residential unmetered customers which may be very difficult and expensive to retrofit
3. Adopt a plan to meter at least 10% of unmetered non-residential accounts yearly so that within ten years of becoming a signatory 85-90% of non-residential customers are metered
4. Begin installation of meters at non-residential unmetered customer locations, with consideration of separate landscape meters

B. Within 60 days of meter installation, signatories will provide newly metered non-residential customers with:

1. Information on how to read their meter and a consumption-based water bill information on purveyor-provided water conservation programs and services

C. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

For the purposes of this BMP, “non-residential” is defined as all accounts except single family and duplex residential dwellings.

BMP 4: RESIDENTIAL METER RETROFIT

BMP description (customized by the Water Forum):

See Water Conservation Element, Section Three, V., pages 81-82, for a description of this customized BMP.

BMP 5: LARGE LANDSCAPE WATER AUDITS AND INCENTIVES FOR COMMERCIAL, INDUSTRIAL, INSTITUTIONAL (CII), AND IRRIGATION ACCOUNTS

BMP Implementation Criteria

The on-going program will include, at a minimum:

A. Within three years of agreement signing, signatories will:

1. Identify all Irrigation accounts and CII accounts with landscapes of one acre and larger and record that information in the customer database
2. Have certified and/or trained landscape water auditors on staff or available through cooperative agreements
3. Prepare and distribute multi-lingual (as appropriate) irrigation system materials, seasonal climate-appropriate information on irrigation scheduling and offer training for customers and landscape workers
4. Develop seasonal climate-appropriate information to determine irrigation schedules, for the three basic hydrozones identified in the DWR Landscape Water Management Handbook, and provided that information to the customers with one acre or larger landscapes
5. Begin installation of climate appropriate water efficient landscaping at landscaped purveyor facilities, phased in over the five years following agreement signing.

B. Signatories will annually:

1. Directly contact all Irrigation accounts and CII accounts with one acre and larger landscapes, not previously audited, and offer them landscape water-use reviews (audits)
2. Offer, through bill inserts or other means, landscape water-use reviews to all customers
3. Survey past program participants to determine if audit recommendations were implemented
4. Offer program participants with separate irrigation meters information showing the relationship between actual consumption and their ET-based water demand

C. The landscape water-use review program will:

1. Provide audits conducted by certified landscape water auditors
2. Provide audits that consist of a system review, to identify necessary irrigation system repairs, and, once repairs have been completed, a water-use review including measurement of landscaped area
3. Provide program participants with seasonal irrigation schedules by hydrozone and/or station

4. Provide program participants with regular reminders to adjust irrigation timer settings
5. Provide incentives, such as the following, to achieve at least 12% annual participation of targeted customers:
 - a. Billing adjustments or bill rebates targeted to irrigation system repair or improvement
 - b. Grants, etc. to encourage landscape design and irrigation system improvements
 - c. ET (evapotranspiration) based tiered rate structure

D. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 6: LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL AND MULTI-FAMILY DEVELOPMENTS

BMP Implementation Criteria

Cities and counties have either already adopted their own landscape water conservation ordinance for new and existing commercial, industrial, institutional, governmental, and multi-family customers, or are covered by the State landscape water conservation ordinance, pursuant to the “Water Conservation in Landscaping Act” (California Code of Regulations, Chapter 2.7, Title 23.).

A. Cities and counties, will:

1. Enact and implement a landscape water efficiency ordinance pursuant to the “Water Conservation in Landscaping Act” (California Code of Regulations, Chapter 2.7), that is at least as effective as the Model Water Efficient Landscape Ordinance described in Chapter 2.7, Sections 490 through 495.

B. Cities and counties, in cooperation with purveyors within their jurisdiction, will:

1. Establish a landscape task force with other local governments, water purveyors, the building and green industries and environmental / public interest groups to review the existing ordinance to determine if it is at least as effective as the Model Water Efficient Landscape Ordinance, and to monitor, and revise, when applicable, the ordinance.
2. Review, in cooperation with the landscape task force, the implementation of the ordinance, including the landscape plan review and final inspection/certification process, to ensure its effectiveness.
3. Determine, in cooperation with the landscape task force, if program effectiveness is diminished by city/county staff time constraints, budget or lack of landscape knowledge/expertise, and, if so, recommend and support corrective action - for example, the use of consultants.

C. Signatories will publicly support the county or city’s actions to enact and/or revise and then fully implement a landscape water efficiency ordinance.

D. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 7: PUBLIC INFORMATION

BMP Implementation Criteria

Within three years of agreement signing, a signatory's on-going program will include, at a minimum, one of the three choices listed below:

A. A combination of a purveyor specific program in conjunction with full participation by the purveyor in the Sacramento Area Water Works Association (SAWWA) Conservation Committee's Public Outreach Program or other equivalent regional program. At this time full financial participation in this program is based upon an annual per connection contribution by purveyors to the SAWWA Conservation Committee for the combined Public Information and School Education program. This program includes programs such as: school outreach, media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach.

Elements implemented directly by the purveyor include, at a minimum:

1. Using utility bill inserts or messages on payment notices;
2. Providing information on residential metered customers' bills showing use in gallons per day for the last billing period compared to the same period the year before;

OR

B. A combination of a purveyor specific program in conjunction with limited participation by the purveyor in the Sacramento Area Water Works Association (SAWWA) Conservation Committee's Public Outreach Program or other equivalent regional program. At this time limited participation in this program is based upon an annual contribution by a purveyor to the SAWWA Conservation Committee for the combined Public Information and School Education program. This program includes programs such as: school outreach, media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach.

The purveyor agrees to spend the difference between the annual per connection SAWWA contribution and the flat annual contribution to SAWWA on an enhanced within-service-area implementation of elements 3-6 listed below and elements 3-4 listed in BMP 8, School Education.

1. Using utility bill inserts or messages on payment notices;
2. Providing information on residential metered customers' bills showing use in gallons per day for the last billing period compared to the same period the year before;
3. Providing public speakers to community groups and the media;
4. Using paid and public service advertising for a water conservation campaign;

5. Providing public information to promote other water efficient practices; and
6. Coordinating with other governmental agencies, industry groups and public interest groups.

OR

C. An entirely purveyor specific Public Information program, funded at a level equivalent to one-half the full SAWWA per-connection contribution. The program will include activities such as: media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach. The program will also include, as a minimum:

1. Using utility bill inserts or messages on payment notices;
2. Providing information on metered customers' bills showing use in gallons per day for the last billing period compared to the same period the year before;
3. Providing public speakers to community groups and the media;
4. Using paid and public service advertising for a water conservation campaign;
5. Providing public information to promote other water efficient practices; and
6. Coordinating with other governmental agencies, industry groups and public interest groups.

BMP 8: SCHOOL EDUCATION

BMP Implementation Criteria

Within three years of agreement signing, a signatory's program will include, at a minimum, one of the three choices listed below:

A. A combination of a purveyor specific program in conjunction with full participation by the purveyor in the Sacramento Area Water Works Association (SAWWA) Conservation Committee's Public Outreach Program or other equivalent regional program. At this time full financial participation in this program is based upon an annual per connection contribution by purveyors to the SAWWA Conservation Committee for the combined Public Information and School Education program. This program includes programs such as: school outreach, media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach.

Elements implemented directly by the purveyor include, at a minimum:

1. Offering tours of purveyor facilities to elementary schools in the purveyor's service area;
2. Working with schools served by the purveyor to promote school audits, reduced water bills, and innovative funding for equipment upgrades;

OR

B. A combination of a purveyor specific program in conjunction with limited participation by the purveyor in the Sacramento Area Water Works Association (SAWWA) Conservation Committee's Public Outreach Program or other equivalent regional program. At this time limited participation in this program is based upon an annual contribution by a purveyor to the SAWWA Conservation Committee for the combined Public Information and School Education program. This program includes programs such as: school outreach, media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach.

The purveyor agrees to spend the difference between the annual per connection SAWWA contribution and the flat annual contribution to SAWWA on an enhanced within-service-area implementation of elements 3-4 listed below and elements 3-6 listed in BMP 7, Public Information.

1. Offering tours of purveyor facilities to elementary schools in the purveyor's service area;
2. Working with schools served by the purveyor to promote school audits, reduced water bills, and innovative funding for equipment upgrades;

3. Working with the school districts in the water purveyor's service area to provide educational materials promoting efficient water use to one or more grade levels on an annual basis; and
4. Working with school districts in the water purveyor's service area to offer instructional materials and assistance to all teachers of the targeted grade level in order to promote efficient water use. This program is considered successful if a high percent of the teachers of the targeted grade level(s) participate in the training and use the materials in the classroom.

OR

C. An entirely purveyor-specific School Education program, funded at a level equivalent to one-half the full SAWWA per-connection contribution. The program will include activities such as: school outreach, advertising campaigns, educational materials for schools, participation at school events and fairs, a Web site, and parent/teacher outreach. The program will also include, as a minimum:

1. Offering tours of purveyor facilities to elementary schools in the purveyor's service area;
2. Working with schools served by the purveyor to promote school audits, reduced water bills, and innovative funding for equipment upgrades;
3. Working with the school districts in the water purveyor's service area to provide educational materials promoting efficient water use to one or more grade levels on an annual basis; and
4. Working with school districts in the water purveyor's service area to offer instructional materials and assistance to all teachers of the targeted grade level in order to promote efficient water use. This program is considered successful if a high percent of the teachers of the targeted grade level(s) participate in the training and use the materials in the classroom.

BMP 9: COMMERCIAL AND INDUSTRIAL (CI) WATER CONSERVATION

BMP Implementation Criteria

A. Within three years of agreement signing, signatories will have:

1. Trained commercial/industrial water auditors on staff or available through cooperative agreements
2. The DWR Commercial / Industrial (CI) water-use materials available for CI customers
3. Established, if possible, cooperative CI audit programs with other utilities
4. A list of available CI water-use consultants

B. Signatories or their representatives will annually:

1. Identify the top 10% of commercial water users and top 10% of industrial water users, not previously audited, and directly contact them or the appropriate customer's representative and offer them water-use reviews (audits). Provide these customers with data on their current water-related costs (supply, waste water, energy, on-site treatment, etc.)
 - a. (For metered customers) annually determine the top 10% of commercial customers and of industrial customers based on water use, and when appropriate, special water-use factors (high water use, high wastewater flows, poor quality wastewater, high-energy use, etc.)
 - b. (For unmetered customers) annually determine the top 10% of commercial customers and of industrial customers based on special water-use factors such as wastewater flows, poor quality wastewater, and high-energy use. etc.
2. Offer, through bill inserts or other means, CI water-use reviews to all CI customers
3. Survey past program participants to determine if audit recommendations were implemented

C. The signatory's, or cooperative, water-use review program will:

1. Provide audits conducted by trained commercial/industrial water auditors
2. Provide incentives, such as the following, to achieve at least 20% annual participation of the targeted 10% of existing customers:
 - a. Billing adjustments or bill rebates targeted to water-use system repair or improvement
 - b. Grants, etc. to partially fund climate-appropriate water-efficient landscaping water-use systems repair or improvement

3. Contact past program participants for a follow-up audit at least every fifth year

D. Counties and cities will establish policies requiring water intensive commercial and industrial building permit applicants (new, modified or change-of-water-use) to conduct a water-use efficiency review and submit the findings in any required environmental documentation for the commercial or industrial project.

E. Purveyors will:

1. Promote the use of efficient water-use technologies by commercial and industrial customers by offering incentives related to the benefits gained by the water and sewer service providers.
2. Coordinate with the city or county during the permitting of new, modified or change-of-water-use CI projects within the purveyor's service area to ensure that the submitted findings are reviewed by the purveyor to identify incentive program opportunities.
3. Consider separate landscape water meter(s) when the combined service would require a 1½" or larger meter.
4. Require efficient cooling systems, recirculating pumps for fountains and ponds, and water recycling systems for vehicle washing as a condition of service.

F. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 11: CONSERVATION PRICING FOR METERED ACCOUNTS

BMP description (customized by the Water Forum):

As soon as practical, purveyors signatory to the Water Forum Agreement will begin reading all meters and including the usage on the customer's bills. This includes meters required in new construction since 1992 and meters retrofit onto existing connections. The schedule for each purveyor to implement this provision will be negotiated as part of its Water Conservation Plan. It is recognized that circumstances vary purveyor by purveyor, however as a general guideline for the Water Conservation Plan negotiations, a time period of three years from signing of the Water Forum Agreement to implement this provision has been discussed.

As soon as practical, purveyors will base customer charges on the quantity of water used. The schedule for each purveyor to implement this provision will be negotiated as part of its Water Conservation Plan. It is recognized that circumstances vary, purveyor by purveyor, however as a general guideline for the Water Conservation Plan negotiations, a time period of six years from signing of the Water Forum Agreement to implement this provision has been discussed.

BMP Implementation Criteria

A. Within three years of agreement signing, signatories will:

1. Identify all metered customers by account type (single family, multi-residential, commercial, industrial, institutional, landscape irrigation, reclaimed, wholesale)
2. Establish quantity-based rates for each account type
3. Begin educating all customers about the quantity-based rate structure
4. Provide metered customers with monthly or bi-monthly information which shows current flat-rate charges, actual water use in gallons, and what charges would have been if based on actual use.

B. Signatories will, within six years of agreement signing, bill all metered customers utilizing rates designed to recover the cost of providing service as well as on quantity of water used.

C. If the signatory provides water service and sewer service (collection and/or treatment), within three years of agreement signing, signatories are encouraged to:

1. Identify all metered customers which are also provided sewer service by the signatory
2. Establish quantity-based sewer rates for each customer type
3. Begin educating all customers about the quantity-based sewer rate structure
4. Provide metered customers with sewer bills which show current charges, actual water use, and future charges based on actual use.

D. Signatories are encouraged to implement quantity-based sewer charges no later than the implementation of quantity-based water charges.

BMP 12: LANDSCAPE WATER CONSERVATION FOR NEW/EXISTING SINGLE FAMILY HOMES

BMP Implementation Criteria

A. Signatories will implement a program which includes, at a minimum:

1. Information on climate-appropriate landscape design, plants and efficient irrigation equipment/management provided to change-of-customer accounts and, in cooperation with the Building Industry Association of Superior California, to new customers. The availability of this information will be publicized to all existing Single Family Homes in the purveyor's service area on an annual basis.
2. Landscape audit/water-use survey program actively marketed to all new homes and change-of-customer accounts.
 - a. Unmetered service areas will actively market landscape audits/surveys to each existing Single Family Home at least every fifth year.
 - b. Metered service areas will actively market landscape audits/surveys to the top 20% of existing Single Family customer water-users.
3. Annual pre-irrigation season notification to Single Family Homes served by the purveyor of purveyor-provided landscape assistance (audits/surveys, materials, special offers, etc.).

B. A signatory's on-going program, in cooperation with the California Landscape Contractors Association, Sacramento Area Water Works Association, other purveyors, etc., will include:

1. Participation in the development/maintenance of a local demonstration garden within five years following agreement signing (does not have to be located within a purveyor's service area but should be convenient to the purveyor's customers).
2. Annual participation at local and regional landscape fairs and garden shows.
3. Annual cooperative education and marketing campaigns with local nurseries.
4. Annual irrigation season landscape media campaign.
5. Annual post-irrigation season notification, to all customers, of the importance of timer resets/sprinkler shut-offs.

C. Counties and cities, in cooperation with purveyors within their jurisdiction, will:

1. Establish a landscape task force with other local governments, water purveyors, the building and green industries and environmental / public interest groups to review the existing ordinance to determine if it is at least as effective as the Model Water Efficient Landscape Ordinance as pertains to single family homes, and to monitor, and revise, when applicable, the ordinance.
2. Review, in cooperation with the landscape task force, the implementation of the ordinance, including builder compliance, landscape plan review, and final inspection/certification process, to ensure its effectiveness.

3. Determine, in cooperation with the landscape task force, if program effectiveness is diminished by city/county staff time constraints, budget or lack of landscape knowledge/expertise, and, if so, recommend and support corrective action - for example, the use of consultants.

D. Signatories will publicly support the county or city's actions to enact and/or revise and fully implement a landscape water efficiency ordinance.

E. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 13: WATER WASTE PROHIBITION

BMP Implementation Criteria

Within three years of agreement signing, signatories will enact a water waste prohibition ordinance which includes measures and enforcement mechanisms.

A. The water waste prohibition measures will include, at a minimum:

1. Irrigation water shall not be allowed to run off to adjoining property or to a roadside ditch or gutter
2. Leaking pipes, fixtures, or sprinklers shall be repaired promptly.
3. Open hoses not permitted - automatic shut-off nozzles are required.
4. Swimming pools, ponds and fountains shall be equipped with recirculating pumps. Pool draining and refilling only for health, maintenance or structural reasons - requires agency approval.

B. Other suggested measures, such as the following, may be permanent, seasonal or related to water shortage:

1. Restricting irrigation hours or days
2. Use of a hose to clean sidewalks, driveways, patios, streets and commercial parking lots is not permitted, except for health and safety.
3. Restaurants serving water only on request
4. Restricting the use of potable water for compaction, dust control or other construction purposes when non-potable water is available.
5. Limiting the flushing of sewers or fire hydrants, except for health and safety (may be permanent, seasonal or related to water shortage).

C. The waste prohibitions will include as enforcement mechanisms a graduated series of responses to water wasting customers. Enforcement typically includes: personal notification and an offer of a water-use review / repair service, monetary fees, service termination and, in some unmetered service areas, and mandatory water meter installation / reading.

D. Within three years of agreement signing all purveyors will:

1. Notify all customers at least annually of the waste prohibitions (by newspaper, public notice, mailings, utility billings or a combination of such) prior to the irrigation season.
2. Have staff respond to reports of water waste in a timely manner.
3. Will have water waste patrols at least during water shortages.
4. Will cooperate with the city or county in their program enforcement efforts.

E. Within three years of agreement signing unmetered purveyors will:

1. Have water waste patrols (including some pre-dawn and post-sunset) during the irrigation season.

BMP 14: WATER CONSERVATION COORDINATOR

BMP Implementation Criteria

The Water Conservation Plan shall contain the name of the purveyor's water conservation coordinator, who will be responsible for preparing, implementing and monitoring the Plan.

Within three years of agreement signing, at least one staff member at a purveyor will be an AWWA Certified Water Conservation Practitioner (Level II) or pass equivalent training.

BMP 16: ULTRA-LOW FLUSH TOILET REPLACEMENT PROGRAM FOR NON-RESIDENTIAL CUSTOMERS

BMP Implementation Criteria

A. Within three years of agreement signing, signatories will:

1. Identify all non-residential customers, estimate the approximate number of non-ULF toilets at each account, and rank them by high, medium or low use (e.g., restaurant toilets are high use, warehouse toilets are low use)
2. If possible, established a cooperative district / sanitation district ULF rebate program

B. Signatories will annually:

1. Offer, through direct mail or other direct communication, ULF rebates to all non-residential accounts which do not yet have ULF toilets, with special focus on those with the highest number of high-use non ULF-toilets.

C. The retrofit program will:

1. Offer the necessary incentive (which may include rebates, no interest loans, vouchers, billing surcharges/rebates, etc.) to insure that at least 10% of non-residential non-ULF toilets are replaced with ULF toilets each year, with a final installation target of 90% of all non-residential toilets being ULFs within ten years
2. Consider larger rebates for the more expensive high-use flushometer-type ULF installations
3. Investigate opportunities for community based organizations (CBOs) to receive the training and financial incentives necessary for them to implement this BMP for their constituents.
4. Consider monitoring the change in water use at metered-accounts which install ULF toilets

D. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 16: ULTRA-LOW FLUSH TOILET REPLACEMENT PROGRAM FOR RESIDENTIAL CUSTOMERS

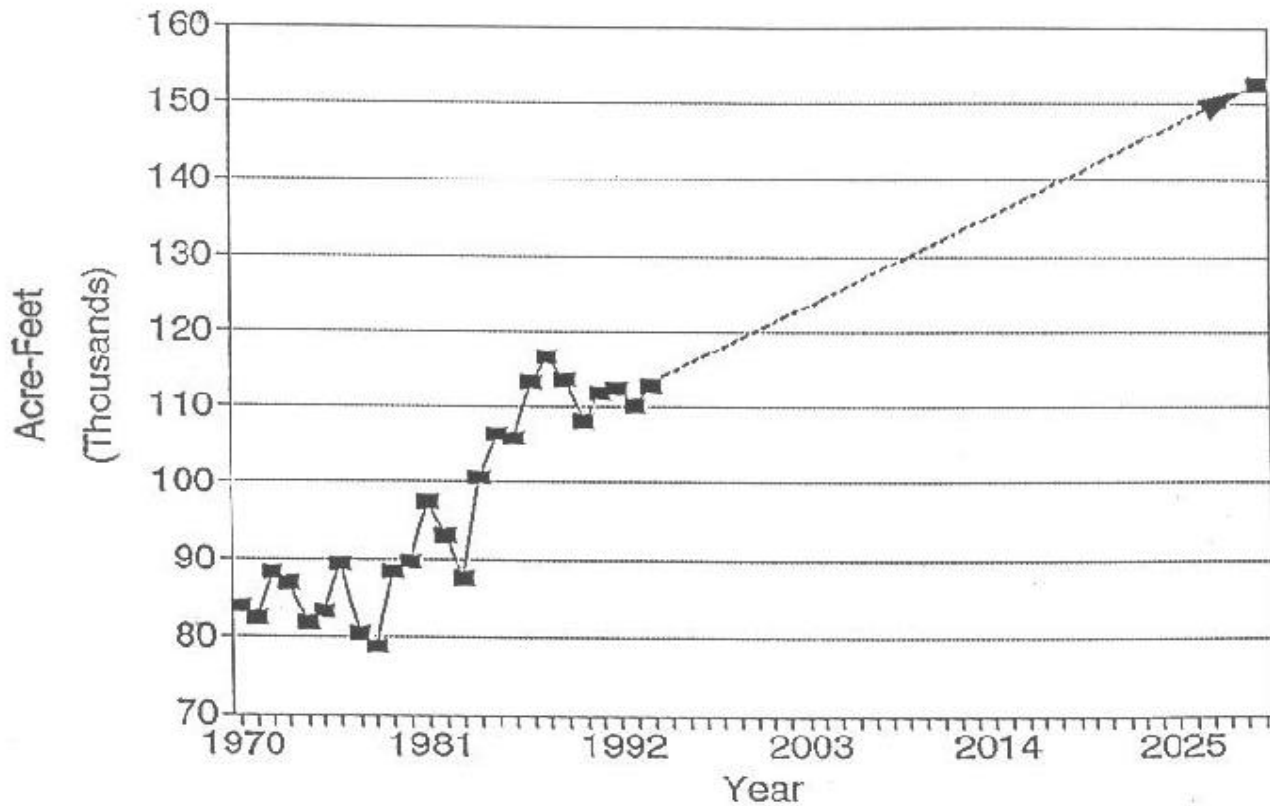
BMP Implementation Criteria

Under the Water Forum Agreement this is a voluntary program. However, it is recommended that purveyors make an effort to replace high water-using residential toilets with ULF toilets, using incentives. This could include any or all of the following program elements: rebates, distribution of toilets at no cost to the customer using programs such as CBOs, co-payment programs in which the customers pay a reduced rate for the toilets, and direct installations.

Water Conservation Plan - Sample Format

This sample format has been provided to assist Water Purveyors develop their Water Conservation Plans in accordance with Section 7.d of the Water Conservation Element.

PAST AND PROJECTED WATER USE 1970 - 1994 & 2030



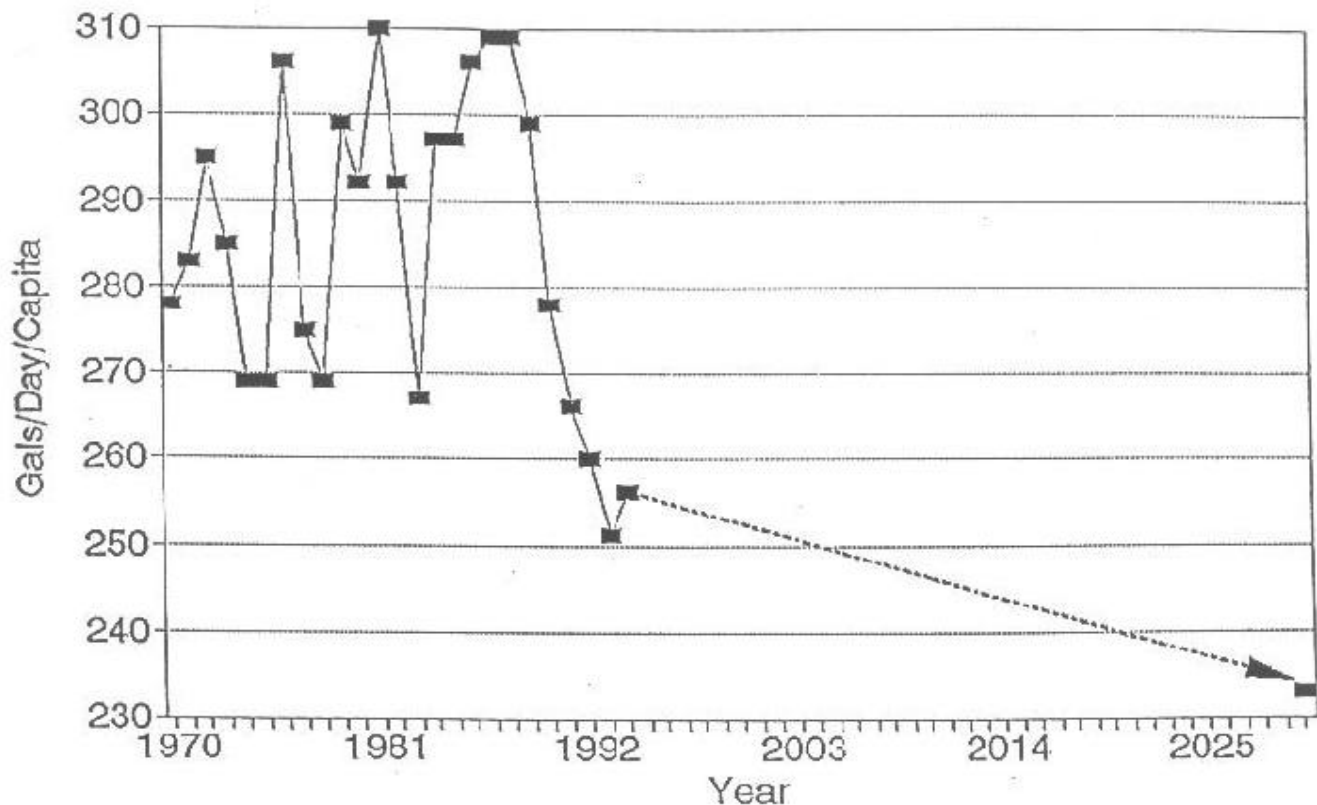
EXAMPLE OF GRAPH

(For illustrative purposes only)

Water Conservation Plan - Sample Format

This sample format has been provided to assist Water Purveyors develop their Water Conservation Plans in accordance with Section 7.e of the Water Conservation Element.

Past and Projected per Capita Water Use 1970 - 1994 & 2030



EXAMPLE OF GRAPH

(For illustrative purposes only)