



2011 Monterey Peninsula Water Conservation Program Annual Report

Prepared by California American Water, Monterey County District

in Partnership with

the Monterey Peninsula Water Management District



Executive Summary

This report documents conservation efforts taken by California American Water's Monterey District (CAW) and the Monterey Peninsula Water Management District (MPWMD) during 2011 pursuant to the Settlement Agreement between the Division of Ratepayer Advocates (DRA), California American Water and the MPWMD, as to the Conservation Budget for the Monterey District under the California Public Utilities Commission (CPUC) decision D.09-05-029 (May 2009).

CAW, in collaboration with MPWMD, has prepared this report to provide a record of the Monterey service area water conservation programs and activities implemented in 2011, as well as projected efforts for 2012.¹ Previous years' reports are available by contacting either California American Water or the Monterey Peninsula Water Management District.

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¹ Paragraph 4(k) of the Settlement Agreement

Summary of Reporting Requirements

The following points list the mandatory reporting requirements for approval of the conservation surcharge. Additional information has been provided in this report to document other conservation efforts undertaken by California American Water and MPWMD during 2011. The report must break out (1) conservation activities California American Water undertakes on its own, (2) conservation activities MPWMD undertakes from its own budget, (3) programs MPWMD undertakes under the conservation surcharge. The report must include:

- A brief explanation of the need for each activity, the nature of the activity, measurable goals, and the results and achievements for each program (including information such as number of units distributed or installed, estimated water—and energy if quantifiable – savings in water and dollars, etc.).
 - Summary of the conservation plan for the following year with timelines, implementation plans, whether to be implemented by California American Water or MPWMD and budgeted amounts for each type of activity.
 - Electronic spreadsheet that includes estimated water savings for each customer receiving an audit, a rebate or a retrofit for years 2010 & 2011 (Attachments 1-4).
 - Estimated water savings for each device offered through California American Water and MPWMD's conservation programs funded through the conservation surcharge. California American Water and MPWMD will establish consistent water saving estimates for years 2010 & 2011 (Attachments 1-4).
 - MPWMD is required to provide a report to DRA in the next General Rate Case (GRC) detailing the amount of water saved through the Rebate Program that was reinvested through the Water Credit Program. *This requirement was resolved in 2010 by adoption of an ordinance eliminating the ability to obtain both a Rebate and a Water Credit.*
 - Evaluation of the effectiveness of the Outreach Program.
 - California American Water will conduct an annual analysis of the weather-adjusted consumption in the Monterey District and provide this information in the annual report ([Attachment 5](#)).
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Abbreviations Used Throughout the Report

The following abbreviations are found throughout this report.

CAW -- California American Water

MPWMD- Monterey Peninsula Water Management District

AFA – Acre-feet annually

BMP – Best Management Practice

CHECW – Commercial High Efficiency Clothes Washer

CIMIS – California Irrigation Management Information System

CLIA – Certified Landscape Irrigation Auditor

CPUC – California Public Utilities Commission

CUWCC – California Urban Water Conservation Council

DRA – Division of Ratepayer Advocates

Eto – Evapotranspiration

GPF – Gallons per flush

GPM – Gallons per minute

HECW -- High Efficiency Clothes Washer

HET – High Efficiency Toilet (1.28 gpf)

IAHWS – Instant-Access Hot Water System

MCBC – Monterey County Business Council

UHET – Ultra High Efficiency Toilet (0.8 GPF)

ULFT – Ultra Low Flush Toilet (1.6 GPM)

WBIC – Weather based (or “Smart”) irrigation system controller

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California American Water, Monterey County District - 2011 Programs Funded with the Conservation Surcharge

Summary of California American Water Programs

The programs funded by the conservation surcharge during 2011 are summarized in **Table 1** and described following the table.

Table 1: California American Water 2011 Programs Funded by Conservation Surcharge

Program	Program Costs	Need For Program	Nature of Activity	Measurable Goal	Result of Achievements	Estimated Savings (AF)
Residential Audits (Former BMP 1)	None (funded by Labor budget)	Meet former BMP 1 requirement of CUWCC MOU, customer requests.	Customers given assessment of indoor & outdoor water usage, individualized water budget, recommended irrigation schedule, water saving devices.	Marketing objective - 5% response with audit requests 676 single-family and 68 multi-family audits	Marketing Ads 40% 116 audits completed	2011 Estimated Savings 4.2 AF (Actual Savings for 2010 based on usage records 10.6 AF)
Residential Plumbing Retrofit (Former BMP 2)	\$29,769	Meet BMP 2 requirement (75% saturation)	Distribution of water saving devices at events, walk-ins, mailer responses.	Number of Devices Distributed	2,200 Showerheads, 1,300 Kitchen Aerators, 3,366 Bath Aerators	19.24 AF

<p>Large Landscape Audits and Water Budgets (Former BMP 5)</p>	<p>No funding for 2011 --Audits funded by MPWMD</p>	<p>Required by MPWMD Regulation XV. Meet CUWCC BMP objective of 90% dedicated irrigation meters assigned water budgets.</p>	<p>CAW staff provides water usage history and other customer data to consultant completing audits and water budgets. Contact customers about audit by calls and/or letters.</p>	<p>CAW staff to complete 50 low use irrigation audits</p>	<p>CAW staff completed 106 low use dedicated irrigation meter audits and budgets</p>	<p>2.93 AF (Actual Savings for 2010 based on usage records 115 AF)</p>
<p>Rebates (Former BMPs 6, 9, 14)</p>	<p>\$614,956</p>	<p>Meet CUWCC former BMPs 6,9,14 objectives and MPWMD Ordinances.</p>	<p>Provide incentives to customers for upgrading to high efficiency/water saving fixtures and appliances</p>	<p>2,199 SF rebates; 821 MF rebates; 205 CII rebates.</p>	<p>1,185 SF rebates 2,543 MF rebates 1,287 CII rebates</p>	<p>25.01 AF</p>
<p>Public Outreach and Education (Former BMP 7)</p>	<p>\$329,136</p>	<p>Meet CUWCC former BMP 7 and meet demand goals under Rule 95-10.</p>	<p>Promote quantifiable BMP (programs), educate customers on water use efficiency and communicate current water issues and efforts needed on the Monterey Peninsula.</p>	<p>Support BMP programs, attend 3+ events, and reduce spring water usage.</p>	<p>Multimedia conservation campaign with community involvement</p>	<p>Not quantifiable</p>

CII Commercial Industrial & Institutional Audits	\$171,253	CII Audits by WaterWise Consulting	Water use survey includes: audit of water fixtures, water & behavior use patterns, report includes findings, recommendations, and payback periods for retrofit or replacement of fixtures.	Goal 35 CII Audits	Completed 53 CII Audits	43 AF Actual Savings for 2010 based on usage records = 7 Acre Feet)
Rain Sensor Installation Program	\$29,769	Meet former BMP 3 & 5 requirements of CUWCC MOU, customer requests	CAW through contractor installs free rain sensors for qualified customers	Goal is 50 Rain Sensors	Completed installation of 96 Rain Sensors	Estimate: 6 AF
Free Water Usage	None (funded by Labor budget)	Required by Settlement Agreement	Review and limit free water usage by free water customers	Identify and address all free water customers	5 audits completed	Estimate: 6 AF (2010 Actual Savings 3 AF)

Residential Audits (Water Wise House Calls)

California American Water continued its Residential Audit Program (also known as the Water Wise House Call program) utilizing in house trained audit staff at no cost to the conservation budget. Under the program, customers were offered the free service of having a California American Water Conservation Specialist visit their single- or multi-family homes to assess indoor and outdoor water usage for ways to save water and money.

CAW promoted its Water Wise House Call program through newspaper and radio ads, by offering the service to customers who visited the office to make payments, and by targeting customers who had high water bills (and possible water leaks).

After the audit, some customers were referred to the call center to provide documentation of leak repairs to receive an adjustment on their bill.



For each residential audit, the portfolio of services offered included an indoor audit, outdoor audit, individualized annual irrigation schedule, installation or provision of water saving devices, final audit report, as well as additional services outlined below. California American Water is proud to say that it provided customers with a specific appointment time instead of a one to four hour window as common among other water purveyors and utilities.

The indoor audits consisted of inspecting all water using fixtures and appliances for leaks, and measuring showerhead and faucet flow rates.

The outdoor audits, done with the customer, included a water meter reading demonstration, a calculation of current and efficient water use, and instructions on how to identify irrigation system leaks. The customer's irrigation system was evaluated for leaks and other inefficiencies. California American Water conservation staff often finds irrigation leaks, such as broken heads, over spraying and clogged heads, when conducting a Water Wise House Call. Additionally, many of the customers were over watering.

Upon request, California American Water conservation staff would assist customers by adjusting their irrigation controllers to meet the water needs of the plants and to comply with the area's two day per week watering schedule. Watering schedules took into consideration the local weather conditions, type of irrigation system, and vegetation at the home. Conservation staff provided the customer with individualized watering schedules that assisted the reduction of water usage.

A Water Wise House Call usually took between one and four hours to complete, depending on the number of indoor water fixtures and extent of outdoor landscaping. Larger properties and those consisting of multi-residential customers generally required two conservation specialists. Analysis of the collected field data and generation of the final report usually averaged between one to two hours. The total average time to complete the audit and the report was approximately four to five hours.

Roughly one-third of the audits were generated from California American Water's outreach program, specifically through customer letters, bill inserts, newspaper ads, rebate brochure. The audit reports also included recommendations on utilizing the rebate program for the replacement of specific appliances at customers' homes.

Each customer was sent a detailed personalized report with the following information and items:

- Assessment of indoor and outdoor water usage.
- Projected water savings if the customer upgrades fixtures and appliances.
- An individualized landscape water budget along with visual charts identifying potential savings and comparing actual usage versus water budget.
- Landscape evaluation worksheet with a check list of recommendations and system improvements to improve watering efficiency.
- Recommended site specific monthly irrigation schedule based on customer's landscape water requirements.
- Customer evaluation form of the free service.
- Rebate application forms and information about available rebates.
- Educational material and any additional water savings devices and tools applicable to help the customer save water at their home.

The Water Wise House Call program was monitored by including an evaluation form along with a pre-stamped envelope in its customer report package. The survey form included questions regarding the service and asked the customer to rank on a scale of one to five the most and least useful components of the package. Customers who did not return the survey were called by the Conservation Intern, who then asked the questions from the survey. Forty-nine surveys were completed and customers gave very positive feedback on the service.

The customer evaluation surveys received from the Water Wise House Call service showed high customer appreciation. Comments included on the evaluation form acknowledged that the staff was courteous, helpful and knowledgeable:

- "Very thorough and very efficient"
- "Ray was very courteous, patient and knowledgeable"
- "Pattie Walton was excellent in every way"

- “Pattie was helpful, thorough, and very polite. It was very assuring to have her confirm that I have no leaks inside outside.”
- “The auditor was very knowledgeable and answered my questions in detail.”
- “The reading material was valuable reference material.”
- “Thank you for the wonderful audit.”

California American Water, as required by the Conservation Settlement, tracked audit results and efforts in an Excel data base. The data base contains estimated savings from equipment provided, 12 months of prior usage and 12 months of usage after a customer received an audit or a rebate, including labor hours to complete an audit, recommendations and the number and type of water consumption fixtures provided ([attachment 1](#)).

There were no direct conservation costs for the Water Wise House Call program for the audits that were completed by internal Conservation staff.

California American’s Water Wise House Call program showed a 12-month water savings of 10.6 acre feet of water for participating customers in 2010. There were 118 audits and of those, 83 accounts showed water savings in the 12 months after the audit.

Residential Plumbing Retrofit

California American Water provided residential customers with various free water savings devices including showerheads, faucet aerators for the bathroom and kitchen, leak detection tablets/kits and outdoor water saving tools, such as hose nozzles that automatically shut off when not in use. In 2011, California American Water tracked the distribution of the various water savings devices to identify the total number of each device distributed and where or how they were distributed to customers. For all conservation related events, customers who received water conserving devices were required to provide service addresses. This process helped to ensure that California American Water customers – as the ones who had paid into the program – were the ones who benefitted from the program.

The various devices were distributed to California American Water customers in a variety of means including but not limited to:

- Community events (at Company booth/display)
 - California American Water Front Desk (walk-in customers)
 - On-site Audits
 - Upon customer request
 - Special giveaway offer (through the Front Desk staff) advertised in the residential customer’s monthly water bills.
-

In addition to the standard devices listed under the CUWCC’s former BMP 2 requirements, California American Water also offered a variety of outdoor devices. In 2011, the total number of each type of water saving device distributed to California American Water residential customers in Monterey are listed in the following table.

Table 2. Monterey County District: BMP 3 & 4 Residential Plumbing Retrofit- Detail

Name of measure, as listed in Decision or Settlement	# of units / activities	\$ per unit, activity, etc.	Total \$ spent	Estimated water savings per unit per year	Unit lifespan	Estimated Annual measure savings (AFA)	Estimated Lifetime measure savings (AF)
Showerheads	2,200	\$3.50	\$7,700	-	5	13.64	68.20
Bathroom Faucet Aerators	2,058	\$0.40	\$383.20	-	5	3.50	17.5
Leak Detection tablets	3,000	\$0.06	\$180	-	5	2.1	10.5
Shower Timers	950	\$1.65	\$1,567.50	unknown	5	unknown	unknown
Moisture Meters	1,046	\$2.50	\$2,615	unknown	5	unknown	unknown
Total	9,254	\$2.02	\$12,445.70	-	5	19.24	96.2 ²

MPWMD also provided water saving devices to customers on the Monterey Peninsula as described in the MPWMD section of this report.

Large Landscape Audits and Water Budgets

California American Water and the Monterey Peninsula Water Management District diligently worked together to continue to complete the landscape water audits and budgets as required by MPWMD’s Regulation XV, Rule 172.

Each new water year, beginning in October, California American Water identifies new customers who require landscape water audits and budgets. These are customers whose water usage averages at least 320 units (measured in 10 cubic feet) per month, have a separate irrigation meter, or whose properties are 3 acres or

² Total water savings only includes savings for showerheads (0.0062 AFA/device), faucet aerators (0.0017 AFA/device), toilet flappers (0.0047 AFA/device) and leak detection tablets (0.0007 AFA/device). Water savings assumptions shown are based on CUWCC BMP Water Savings Worksheets for each device.

greater. These select customers are required to adhere to their budgets during Stage 2 Water Conservation under Rule 14.1.1. The audit involves an on-site-analysis of existing plant types and locations, soil types, existing irrigation, and watering practices and equipment. The CLIA then determines a watering budget based on those factors and efficient water use and makes recommendations for improvement to the irrigation system.

In 2011, California American Water reviewed its records to identify customers who have met the criteria to receive a landscape audit and budget that have not had an audit in the past. There were 20 customers that exceeded the threshold of 320 units or more on an average monthly basis, 9 customers who also exceeded 320 units or more with lot sizes of three acres or greater and 15 high water use customers with dedicated irrigation meters. The list of dedicated irrigation meters also included 105 low usage customers that required water budgets.

Since MPWMD's budget for contracted landscape audits was exhausted in 2010, California American Water staff completed and created landscape budgets for 105 low use customers. The remaining audits will be completed pending approval by the California Public Utilities Commission as part of the 2012-2014 General Rate Case.

California American Water staff entered the reported landscape budgets for the dedicated irrigation metered customers into a spreadsheet to monitor the usage and to be prepared in the event that higher stages of the conservation plan require customers to stay within their budgets or face fines from the MPWMD.

Landscape Grant Program

In 2011, California American Water implemented its new Landscape Grant Program to reduce the water demand of municipal properties by changing landscaping and upgrading irrigation systems. California American Water marketed the large landscape grant program with an eye for replacement of turf on city property with low water use plans, and/or for the installation of water saving irrigation technology. The grant award was intended to provide funding for a demonstration project with high visibility, water savings, exemplary landscaping, and/or use of water saving-irrigation technology. In late September 2010, letters outlining the program were sent to the cities of Monterey, Pacific Grove, Seaside, Sand City, Carmel-by-the-Sea, and Del Rey Oaks. The same letter was sent to the Presidio of Monterey in mid-December after the Presidio asked to be included.

In March and April of 2011, Conservation staff met with representatives from each of the municipalities and visited the application sites. Landscaping, irrigation, and meters were inspected to identify the existing system and confirm the service connection. In April, the municipalities were requested to submit final proposals for final approval or denial before alterations were made.

In the summer of 2011, California American Water received proposals from the cities of Monterey, Seaside, Pacific Grove, Carmel and the Presidio of Monterey. The City of Del Rey Oaks and the City of Sand City were contacted after no response was received. The two cities informed us that their landscapes were either irrigated by well water or their landscapes were already drought tolerant with newer sprinkler systems.

After reviewing several proposals from each of the applicants, California American Water selected project sites that had the greatest potential water savings with high visibility in the City of Monterey, the City of Pacific Grove and the City of Seaside.

The City of Carmel's project proposal was for grant funding to assist in refurbishing a holding tank that was used at one time for irrigation storage. The project could not be completed in 2011.

The Presidio of Monterey initially turned in their proposal to remove turf and then informed us they would not be able to get consensus and a design bid executed for the landscaping. This meant that they could not complete the entire project by the dead line date of December 31, 2011.

The City of Pacific Grove's proposal was to replace turf in its Lovers Point Park with drought tolerant plants and to take advantage of new water savings technology by replacing old style controllers with weather based irrigation controllers and rain sensors in some of its parks. The City of Pacific Grove was awarded a grant of \$25,000, but due to city delays, the projects did not get started and therefore, the \$25,000 grant was rescinded and added to the City of Monterey's and the City of Seaside's project funding.

Interpretive signs were placed at each site to raise awareness of the landscape grant program and the potential to save water outdoors. The signs encourage residents and businesses to contact California American Water and the Monterey Peninsula Water Management District to learn more about the available incentive programs and conservation resources. The joint California American Water/MPWMD website www.montereywaterinfo.org was also placed on the signs.



[City of Monterey Grant](#)

The City of Monterey was awarded a grant of \$50,000 for two of the three proposals that were submitted to California American Water. These two projects are located in high visibility areas to demonstrate to the public the potential water savings. The first project was to remove 8,000 square feet of turf along the City's Del Monte Frontage area, 8,500 square feet of high water use vegetation with drought tolerant plants, and the replacement of high use sprinklers with low use drip. The potential water savings for both projects annually amounts to 325,851 gallons or one acre foot per year.

Before and after photos of the City of Monterey's Landscape Grant projects are shown on the following page.



Landscape Grant Program

These photos show the City of Monterey's Landscape Grant Projects. To the left are the "before" photos, and to the right are the "after" photos.

The top two areas are of the Del Monte Avenue Frontage project. The bottom two areas are at Shoreline Park.

City of Seaside Grant

The City of Seaside was awarded \$60,000 to remove 29,000 square feet of turf from the City’s Cutino Park with a potential water savings of 955,251 gallons or 3 acre feet. Cutino Park is approximately 5.62 acres in size and is utilized by local Pony baseball/softball leagues, Seaside Police Athletics League, Seaside Raiders Youth Football League and the Seaside Recreation Department throughout the year.

The California American Water grant underwrote a state of the art irrigation controller, a new irrigation water main and water saving sprinklers for the sports turf. Parks staff also planted drought tolerant natives and installed a new drip system, replaced the turf on the first and third base foul lines with a cinder mix, and laid new paths of decomposed granite.

The photos below show before project (left) and after project (right).



Rain Sensor Installation Program

California American Water developed and implemented its new Rain Sensor Installation Program in 2011. The program provides direct installation of rain sensors for residential, commercial and public authority customers. The rain sensor is a device that automatically signals an irrigation controller to stop watering when it rains, and allows watering to resume when needed. The advantages to a California American Water customer of having a rain sensor installed on their controller are the following:

- Saves money on customer water bills by automatically shutting of the irrigation system when it rains
- Prevents overwatering which can lead to diseases that damage turf and plants
- Prolongs the life of a customer's irrigation system because the system runs only when necessary
- Saves money on fertilizer – Overwatered turf and plants wash away nutrients into the drainage system which means the customer needs to add more fertilizer

The estimated cost is \$150 per customer, which includes labor costs for installation and cost of the rain sensor. The funds were originally approved in the Conservation Settlement for the WBIC pilot study, but were, with DRA approval, used to install Rain Sensors due to the higher anticipated water savings for such devices in the Monterey area.

California American Water began the program in October of 2011 offering free rain sensors to high water use customers who are required to have landscape water audits and budgets by MPWMD Regulation XV, Rule 172. Four hundred letters were sent to such customers requiring landscape water budgets whose water usage averages at least 320 units per month, who have a separate dedicated irrigation meter, or whose properties are greater than 3 acres. California America Water contracted with EcoTech, a branch of WaterWise Consulting Inc. that currently conducts commercial, institutional, and industrial (CII) audits for the company and landscape audits for MPWMD, for the installation of these rain sensors. EcoTech installed a total of 100 rain sensors during the months of November and December of 2011. These customers include:

- The Pebble Beach Company - 40 rain sensors were installed for high use areas
- Del Mesa Carmel - 28 rain sensors for a 289 home retirement community
- Ryan Ranch Business Center – 12 rain sensors
- Residential homes and business – 20 rain sensors

The program also benefits the numerous customers who have secondary homes in the City of Carmel and also Pebble Beach where the landscapers are not on site to turn off the system.

California American Water, as required by the Conservation Settlement, tracks the installation of the rain sensors and efforts in an Excel data base. The data base will contain estimated savings from the equipment provided, 12 months of prior usage and 12 months of usage after the rain sensor was installed. Since the program had just recently started no complete 12 months after installation data is available yet. ([Attachment 2](#))

Commercial, Industrial, Institutional (CII) Audits

California American Water in 2011 continued its contract with WaterWise Consulting, Inc to conduct commercial, institutional, and industrial audits. Water Wise produced 53 audits with an estimated potential savings of 43.02 acre feet following the implementation of the audit recommendations.

California American Water continued to select potential candidates with the greatest needs for water savings. CII audits were also offered and required for non residential customers that do not currently have a MPWMD commercial factor which is used to establish an annual allotment and also used as a basis for billing.

To also ensure CII audits were offered to customers with the greatest need, California American Water, as part of its process of selecting potential candidates, researched the Monterey Peninsula Water Management District's data base for any previous conservation retrofit requirements.

Customers were given audit reports that focused on applicable water-saving devices and also estimated water and cost savings and expected payback periods for such upgrades. The payback period calculations included the rebate incentives available to CII customers through the California American Water and MPWMD Rebate Program. California American Water's conservation staff followed up with the customers on site and in person to review the audit reports and to provide free devices, such as faucet aerators and pre-rinse spray valves. Customers were also requested to sign a statement that they had been provided with the report and that they agree to California American Water providing a copy of the audit report to MPWMD.

Customers that did not have a business type were sent a letter requiring a complete CII water audit. Once the audit was completed, the customer was assigned an annual allotment based on a five year historical usage and potential water savings from the recommendations on the report.

Currently, most non-residential customers have allotments based on 52 business types, which are assigned a measurement type and a corresponding allotment factor. The factors are derived from a study that was prepared for the Monterey Peninsula Water Management District in 1992. Samples were obtained for each category pertaining to type of business, hours, square footage, employees and other details, which might distinguish the particular business from others. For example, an auto repair shop is one business type and the measurement type associated with an auto repair shop business type is the square footage of the shop. These factors are then used as a basis for billing our customers. An annual allotment is established using the various business types and is then divided into monthly allotments based on historical usage. Non-residential customers have a three-tiered rate structure where 100% of the allotment is billed at tier one, the next 15% of usage above the allotment is billed at tier two and any excess usage above is billed at tier three.

The customers that do not currently have a commercial factor are:

- Coffee Houses such as Starbucks
 - Industrial Laundromats (We have 2 in Monterey)
 - Car Washes (Drive through and Self Serve)
 - Pet Stores with Animal Grooming
-

- Wholesale Grocers
- Horse Stables
- Water Treatment/Filtration
- Ice Cream and Yogurt Establishments
- Funeral Homes
- Aquariums
- Boat Cleaning
- Seafood Processing

Conservation Intern

In December of 2009, California American Water hired a conservation intern to assist with a variety of tasks relating to conservation programs. The conservation intern's duties have been to:

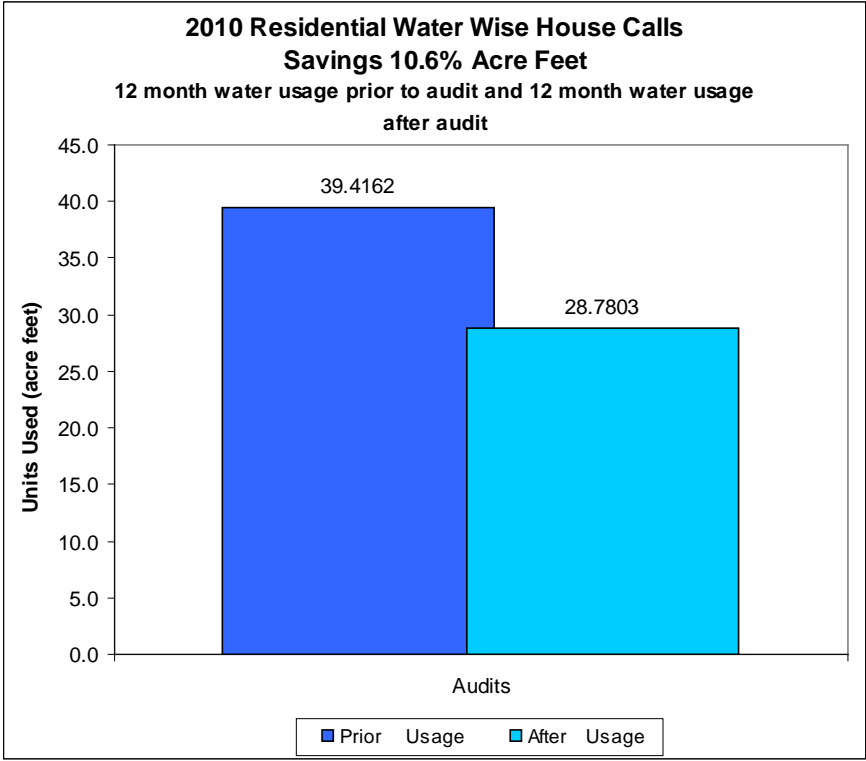
- Develop and run the Landscape Grant Program
- Develop the Rain Sensor Installation Program
- Review audit reports for accuracy and meet with non-residential customers, along with the Conservation Supervisor, in order to review the reports with the customers
- Maintain data and information for annual BMP (conservation) reporting
- Enter customer information and generate reports and program analysis
- Assist customers with their questions regarding conservation programs and allotments
- Call customers to inquire about the helpfulness of their Water Wise House Calls
- Assist with miscellaneous administrative tasks

Effectiveness of the Audit Programs

In order to measure the effectiveness of the auditing programs, California American Water collected 12 months of usage after the customers participated in an audit program. Customers selected for this analysis had a complete twelve months of consumption history prior to and after the audit. The charts below measure the effectiveness of the audit programs for year 2010. The following tables describe the actual water savings for the Water Wise House Call Program ([Table 3](#)), Mandatory Landscape Audits ([Table 4](#)), and CII audits ([Table 5](#)).

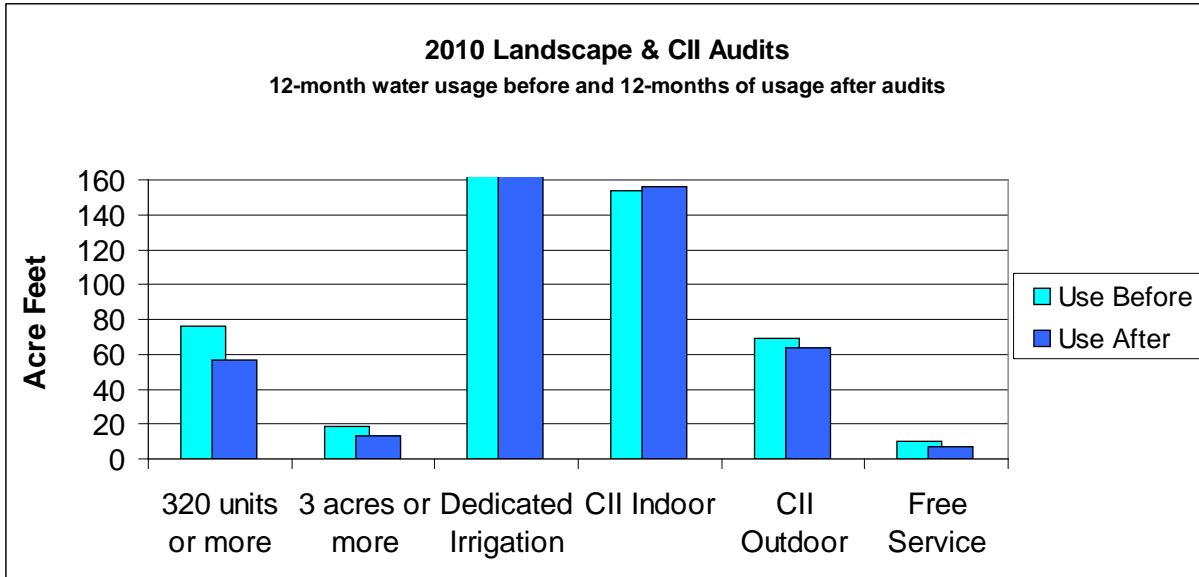
The data used for the analysis of the Rebate Program was for customers who received only one rebate in 2010 and also had a complete 12 month history prior to and after the rebate was issued. This was to avoid inflating the actual water saved since many customers received more than one rebate.

Table 3 - Actual Savings, 2010 Water Wise House Call Program



	Prior Usage	After Usage	Actual Savings	% Reduction	# of Audits	# of Lower Usage	% Saving
Audits	39.4162	28.7803	10.6359	-26.98%	118	83	70%

Table 4 - Actual Savings, Mandatory Landscape Audits (MPWMD Rule 172)



Audit Category	Usage 12 Months prior to Audit	Usage 12 Months After Audit	Water Savings AF	% Difference
Dedicated Irrigation	469	382	87	19%
Residential 320 Units or Greater	76	57	19	25%
Residential 3 Acres or Greater	19	13	6	32%
Free Service	10	7	3	30%
TOTAL	574	459	115	21%

Table 5 - Actual Savings, Commercial/Institutional/Industrial (CII) Audits

Audit Category	Usage 12 Months prior to Audit	Usage 12 Months After Audit	Water Savings AF	% Difference
CII Indoor	154	156	2	-1%
CII Indoor and Outdoor	69	64	5	7%
TOTAL	223	220	7	19%

Table 6 - Actual Savings, Usage and Number of Customers using More or Less Water

	320 units or more	3 acres or more	Dedicated Irrigation	CII Indoor	CII Outdoor	Free Service	Total
% Reduction	25%	32%	19%	-1%	7%	30%	14%
# of Audits	65	17	141	28	12	5	263
# Using less	54	15	121	12	7	3	209
Less water used	20.22	6.28	91.80	8.65	7.99	2.95	134.94
# Using more	11	2	18	15	5	2	51
More water used	1.47	0.80	4.96	10.70	3.20	0.49	21.128

- CII Audits completed in the period of 2010 have all seen a reduction in water usage at the respective sites. CII Indoor audits, as well as audits for CII outdoor showed a savings of 7 acre feet over a period of 12 months.
- The required landscape audits per MPWMD's Rule 172 indicate actual water savings of 115 acre feet.

- The water savings are a great indicator that the certified professional auditors hired by the MPWMD, who meet on site with the customer’s landscaper, are communicating best management practices for landscape efficiency.
- Another factor that may have played a role in water savings was a rate change. In February 2010 there was a water rate increase affecting all accounts.
- In February of 2010, California American Water increased the rate of water for the 4th and 5th tier of its five tiered residential rate structure, and increased the rates for customers with dedicated irrigation meters. This factor may have played a role in further water savings during the months following the rate change.

Effectiveness of the Rebate Program

To measure the effectiveness of the Rebate Program, California American Water collected 12 months of usage after the customer participated in the rebate program. Customers selected for this analysis had a complete twelve months of consumption history prior to and after the rebate, and only a single rebate in 2010. The charts below measure the effectiveness of the rebate program for year 2010.

Table 7 - Actual Savings, Rebates for Clothes Washers, HET, Dishwashers and Zero Water Urinals

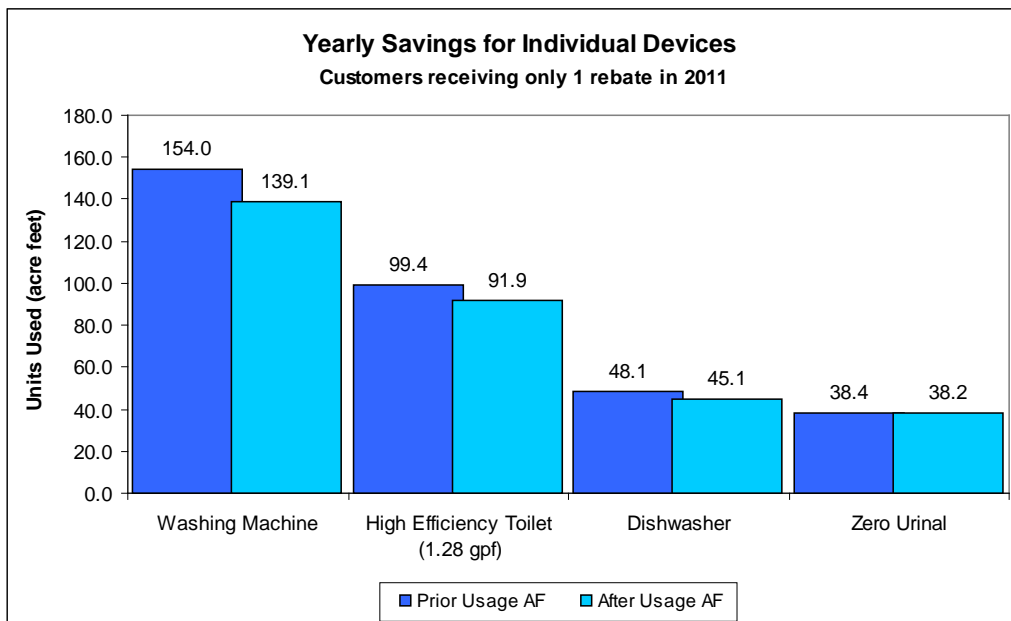


Table 8 - Actual Savings, Rebates for On Demand Hot Water, Rotating Sprinkler Nozzles and Rain Sensors

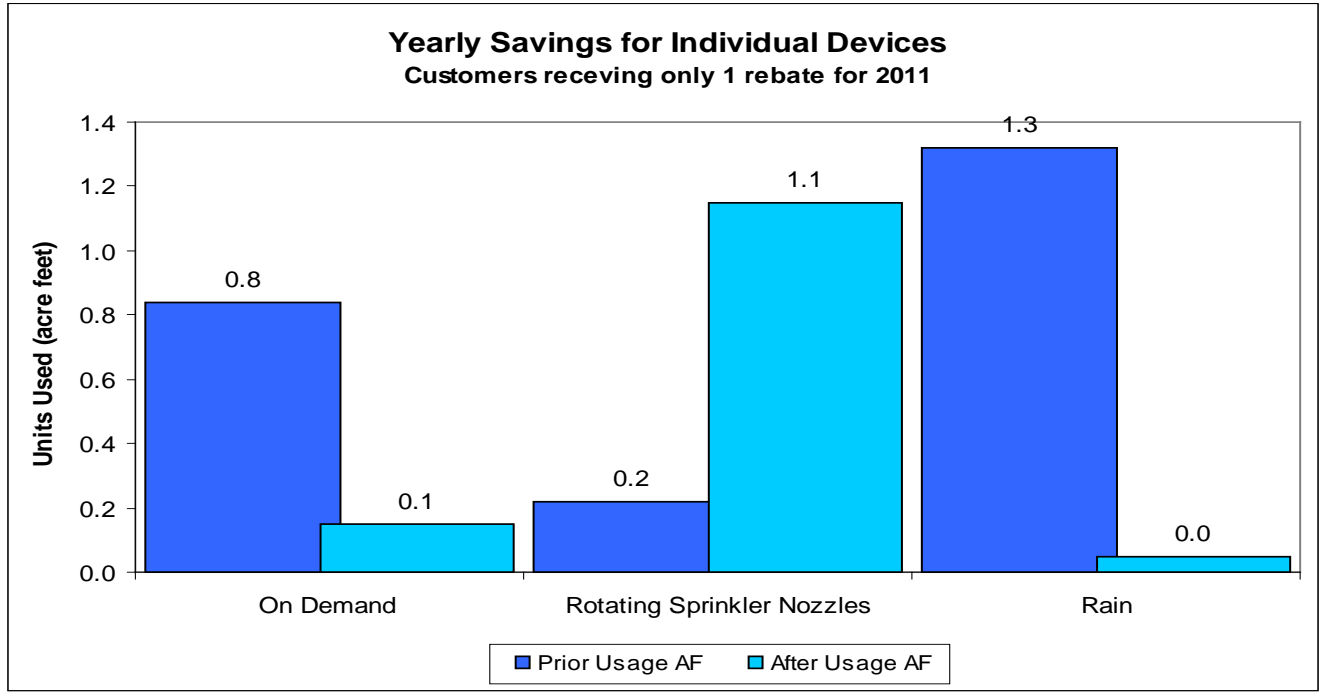


Table 9 - Actual Savings, Rebates for Lawn Removal, Smart Irrigation Controllers, IAHWS, ULFT

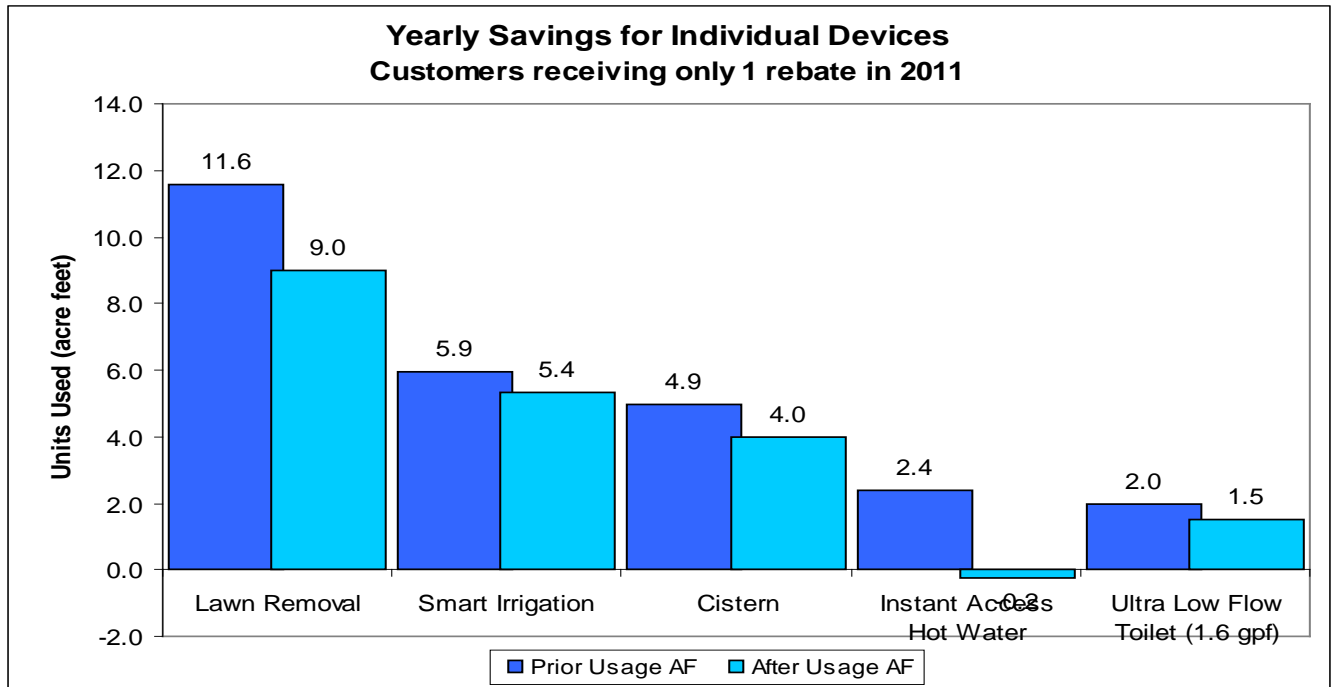
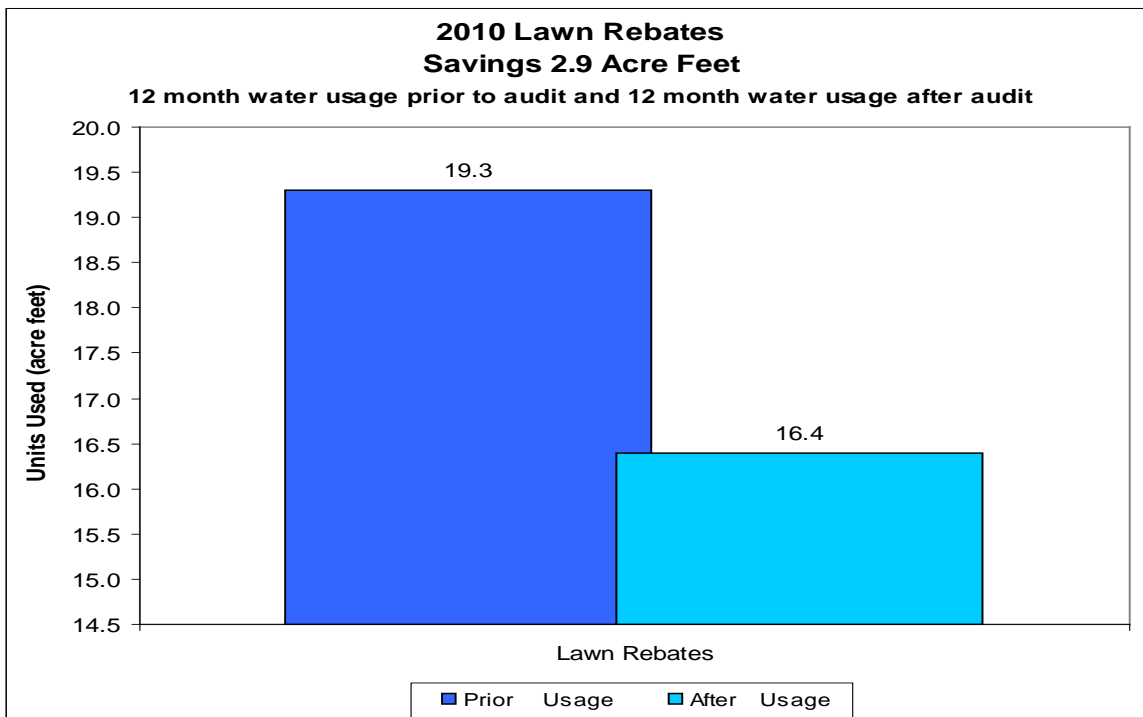


Table 10 - 2011 Rebate Recipients Actual Savings

Rebate Type	Prior Usage AF	After Usage AF	Usage Difference	% Reduction	# of Rebates	# of Lower Usage	# of Higher Usage	Total Rebate Amount
Washing Machine	154.0	139.1	-14.8	-9.63%	565	396	169	\$141,600
High Efficiency Toilet (1.28 gpf)	99.4	91.9	-7.5	-7.57%	343	235	108	\$116,357
Dishwasher	48.1	45.1	-3.0	-6.22%	223	125	98	\$27,875
Zero Urinal	38.4	38.2	-0.2	-0.40%	1	374	-373	\$3,300
Lawn Removal	11.6	9.0	-2.6	-22.29%	36	21	15	\$56,089
Smart Irrigation	5.9	5.4	-0.6	-9.82%	12	6	6	\$2,000
Cistern	4.9	4.0	-1.0	-19.46%	25	20	5	\$10,983
Instant Access Hot Water	2.4	-0.2	-2.6	-110.02%	14	7	7	\$2,692
Ultra Low Flow Toilet (1.6 gpf)	2.0	1.5	-0.5	-23.52%	10	9	1	\$1,600
On Demand	0.8	0.1	-0.7	-82.15%	4	1	3	\$400
Rotating Sprinkler Nozzles	0.2	1.1	0.9	429.45%	2	1	1	\$80
Rain Sensor	1.3	0.0	-1.3	-96.49%	5	4	1	\$250
Totals	369.1	335.3625	-33.7	-9.14%	1240	1199	41	\$363,226

California American Water evaluated the lawn rebate program by selecting 63 customers that had received 81 rebates and had a full 12 months of usage prior and a full twelve months of usage after the rebate was issued. Nineteen customers received each 2 rebates, one for the removal of turf, and another for the installation of synthetic turf. The turf removal rebate program administered by the MPWMD saved 2.9 acre feet of water in 2010. For the 63 customers who received the 81 rebates, 36 customers saved 2.9 acre feet of water and 32 used an additional 1.2 acre feet of water.

Table 11 - Actual Savings, Lawn Removal Rebate Program



Usage in Acre Feet	Prior Usage	After Usage	Actual Savings af	% Reduction	# of Customers	# of Lower Usage	# of Higher Usage	Total Rebate Amount
Lawn Rebates	19.3	16.4	-2.9	-15.03%	63	36	32	\$146,695

The rebate program is funded out of California American Water’s-Monterey District surcharge, but administered through MPWMD.

The CPUC approved \$924,925 for rebates in the 2009-2011 Conservation Budget. By January 2011, MPWMD had processed close to \$900,000 in rebates from the GRC. MPWMD notified California American Water of the need to file an Advice Letter with the CPUC to secure additional funding in the amount of \$250,000 for water conservation rebates in the Monterey County District. The Settlement Agreement for the Conservation

Program Budget (Section 5-C) allowed California American Water to “file an advice letter to increase the budget by the rate of overspending, or \$250,000, whichever is smaller.” California American Water filed the Advice Letter in January 2011 and additional funding of \$250,000 was approved in February 2011. This funding was expended by mid-May 2011 and the program was suspended.

Free Water Customers

Section 8 of the settlement provides that California American Water will review the deeds and/or contracts of the “free water” customers and will take reasonable and necessary action to limit the customers’ usage to the amount of water that is legally available under the deeds/contracts, and will also determine whether it can negotiate termination of free service and if so, at what cost.

California American Water has performed a review of deeds and/or contracts for customers receiving “free water” in exchange for rights-of-way and/or transfer of riparian water rights to the Carmel River. In 2010, all “free water” customers were mailed a letter along with a survey to be completed to comply with the Monterey Peninsula Water Management District’s Regulation XV as well as California Public Utilities Commission Rule 14.1.1. Each customer was required to complete the survey and return it in the postage paid envelope that was provided. The regulation requires that residential customers report the number of residents in the home, the lot size and the number of large animals. Commercial customers are required to report the business type along with a measurement unit to assign an allotment. Survey information is required in the event rationing occurs.

California American Water currently has 14 customers who receive free water. In 2010, five customers were identified that required landscape irrigation audits per MPWMD Regulation XV, Rule 172. These are customers whose usage averaged 320 units or more per month or who have a lot size of 3 acres or greater, or who have a dedicated irrigation meter. Landscape irrigation audits with assigned monthly budgets were completed at 4 private residences. A non residential customer also completed a commercial audit. Twelve months of usage after the audits indicate an overall savings of 3 acre feet in 2010.

Free water service customers will soon be receiving a statement each month detailing the amount of water they use on their properties so they can monitor their usage. Customers who were required to complete a landscape audit and water budget per MPWMD Regulation XV were mailed the landscape irrigation audit reports and have an opportunity to review the report and recommendations. In the event California American Water should move to higher stages of conservation, the free service water customer will be required to adhere to the budget or face fines from the MPMWD.

Boys and Girls Club Retrofit Project

California American Water, in partnership with local contractors, plumbers and appliance manufacturers, had completed a full water conservation retrofit for the Boys and Girls Clubs of Monterey County facility in Seaside. The company donated more than \$20,000 in water-saving devices and services to the non profit, including replacement of the club’s toilets with state-of-the-art 1.0 gallon per flush models, and installation of waterless urinals, low-flow sink aerators and a weather based irrigation controller that will reduce the club’s outdoor water use.

The improvements were provided to the club at a significant savings due to the generosity of the conservation partners who worked with California American Water. Niagara Conservation donated all the toilets and A&R Plumbing and RB Construction additionally donated time, labor and equipment to reduce the project cost.

California American Water estimates the Boys and Girls Club of Monterey County will save more than 250,000 gallons of water per year as a result of the retrofit, which equates to thousands of dollars on their water bill.

Boys and Girls Clubs of Monterey County President/CEO Donna Ferarro said "These renovations not only help to educate our youth about the value of water and the need to conserve it here on the Peninsula, but they also reduce our water bill, making more of our donors money available for services to local families."

School Education and Outreach

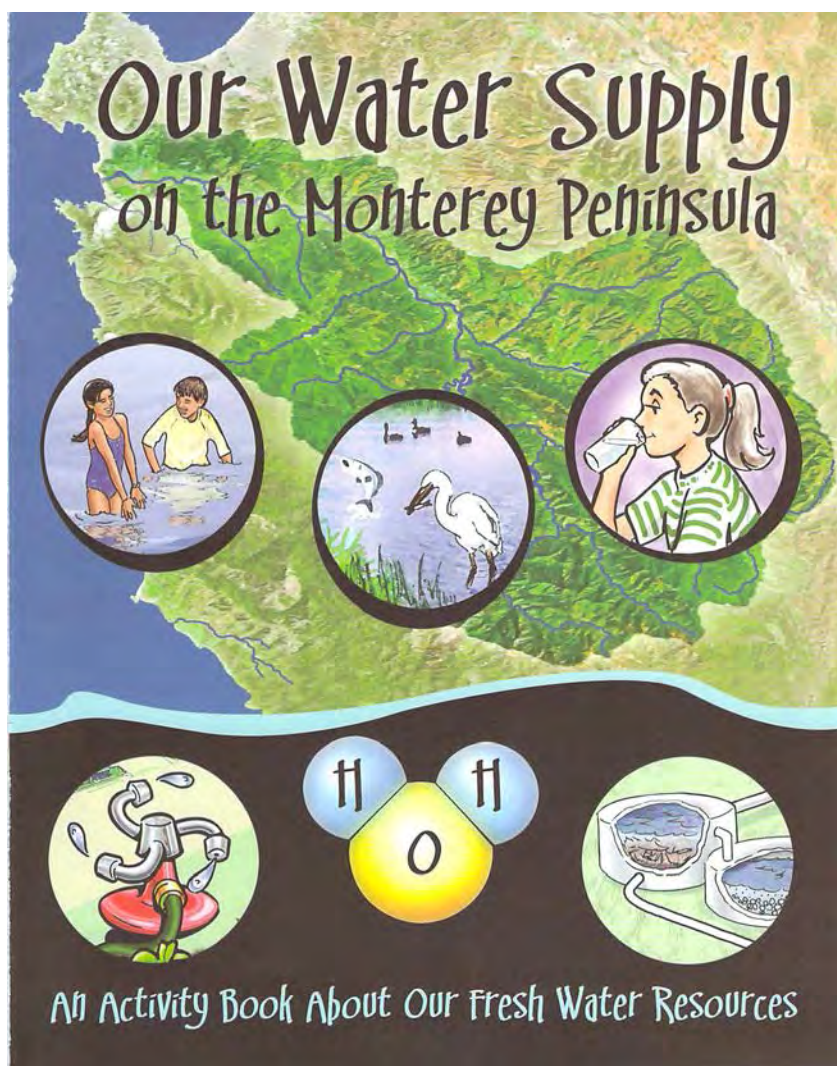
In 2011, California American Water continued reaching its key objectives for ongoing school education and outreach in water conservation.

The key goals included:

- Ongoing relationship building with the Water Advisory Committee (WAC);
- Outreach to students at community events offering free educational materials;
- Outreach to students in-class and at afterschool activities to offer education on conservation.

In School Education

California American Water gave an in-class presentation to 5th graders at Forest Grove Elementary School in Pacific Grove. This was a presentation on how our water system works, where our water on the Monterey Peninsula comes from and how the kids can work to help conserve water. In addition to our in-class presentation, California American Water and the Monterey Peninsula Water Management District developed an illustrated children's activity book aimed at 5th grade



students within the agencies' boundaries, which, utilizing fun and educational exercises and text, will address important water resource concepts, such as the water cycle, the Carmel River watershed – including its geography and habitat, the history of the Monterey Peninsula's water supply, how much water most people use each day and how to save water, where our water comes from – how it is treated and delivered, and responsible management and protection of our watershed and water supply. This was distributed to all 5th graders in the Pacific Grove Unified School District, as well as Seaside Middle School.

In-Class Presentations

California American Water's experienced conservation staff will continue to be offering free educational in-class presentations to junior high and high schools in the Monterey service area. The presentations will focus on areas of water conservation in the home and at school, as well as information on careers in water conservation and related fields. MPWMD staff also provides occasional classroom training.

In 2011, California American Water collaborated with MPWMD and a long-time Carmel Valley resident to compile a water workbook specific to the Monterey Peninsula. The soft cover book was printed and distributed to fifth grade classrooms.

Zun Zun Performances



California American Water and the Monterey Peninsula Water Management District, through the Monterey County Water Awareness Committee, offered school assembly presentations by the Zun Zun performance group. In 2011, Zun Zun provided one 45 minute performance within California American Water's service territory. The performance reached a total of 1,960 students and covered topics such as the water cycle, watershed, indoor conservation and conservation tips, including fixing

leaks. In 2011, San Carlos School was visited by the Zun Zun Group. Commitments were given by other schools during the fall of 2011, and then cancelled due to various reasons.

Water Awareness Committee (WAC) Activities

California American Water and the Monterey Peninsula Water Management District coordinated with the local Water Awareness Committee (WAC) to offer school education opportunities and outreach. Activities included class presentations as well as interactive school assemblies on water conservation. Both California American

Water and the MPWMD have been members of WAC since 1988 and are major contributors to many of the WAC school outreach and general education programs.

In addition to school education programs, WAC sponsored a Water Awareness Day Celebration at Del Monte Shopping Center on May 14, 2011. The event, co-sponsored by California American Water and MPWMD (sponsorship not funded with conservation dollars), was held on Saturday, May 14, 2011 from 11 am to 4 pm. This FREE, family friendly event featured 18 booths including: California American Water and MPWMD, Marina Coast Water District, KWAV, Irrrometer, Gachina Landscape and more. The Banana Slug Band, sponsored by California American Water kicked off the event at the "Fountain of Learning," singing themed tunes with messages about the importance of water conservation and general environmental awareness.

Throughout the day the attendees also enjoyed the talents of Shinsho Mugen Daiko, the CSUMB Dance Team and the Bornia Boys. The First 5 of Monterey County Children's Area included the MY Museum Wheelie Mobile and a Succulent Planting Station. In addition, Clarence the Clown strolled throughout the venue and Smiley Orca Face Painting "drew" in people of all ages. Attendees were encouraged to participate in the Water Treasure Hunt, thanks to the grand prize sponsorship by California Water Service Company and McShane's Nursery for second prize.



Public Outreach

California American Water and the Monterey Peninsula Water Management District's public outreach and educational efforts are managed by California American Water's local external affairs and conservation departments in cooperation with MPWMD's conservation department. California American Water utilizes professional marketing and design services to develop professional and effective educational brochures, direct mailers, print media advertisements, and other marketing items. In 2011, California American Water continued its aggressive outreach campaign to help keep water consumption within production limits on the Seaside Basin and Carmel River. "Turn Over a New Leaf," "Be Water Wise" and "Let the Weather Do Your Watering" were the principal outreach messages. A multi-media campaign was continued to promote water efficient behaviors and eliminate water waste. In 2011, the following conservation outreach activities, described below, were conducted:

Public Radio Announcements

California American Water sponsors the Monterey Peninsula's local public radio station and is featured on regular radio spots year-round. The radio messages aired daily and allowed for communication of a short conservation tip, event and program promotion. In 2011, approximately 1,032 announcements aired. In addition, forty 60-second radio ads were aired on local Spanish radio stations. Themes included: promotion of Water Wise House Calls, certification classes for landscape auditors, reminders to report leaks and turn off irrigation systems during the rainy season, and information on the environmental impacts of water waste. KAZU FM has a strong listener-ship within California American Water's Monterey Peninsula service territory. Informal customer feedback to the announcements has been overwhelmingly positive.

Annual KAZU underwriting expense: \$23,750

Spanish radio advertising: \$1,609

Television Advertising

California American Water produced and ran two series of television ads. The first series ran during the "Turn Over a New Leaf" spring outreach campaign. The ads featured water wise gardening tips and techniques. Air dates were between April 18, 2011 and May 29, 2011. The second series featured the theme "Let the Weather Do Your Watering" provided a message about turning off sprinklers during the rainy months and aired between November 18, 2011 and December 25, 2011. Stations were: CNN-TV, FXNC-TV, ESPN-TV, DISC-TV, ESP2-TV, FOOD-TV, GOLF-TV, HIST-TV, HLN-TV, and USA-TV.

Television advertising cost: \$70,987

Print Advertising Campaign

In previous years, California American Water has concentrated outreach efforts in the form of specific, themed, seasonal campaigns. In 2011, however, at the direction of the CPUC, California American Water and the Monterey Peninsula Water Management District aimed for a less intense, but extended, consistent and long-term campaign spread over many months to ensure the majority of the outreach budget was not expended in

any one quarter. Long-term print advertising contracts were negotiated with local newspapers at substantial discounts to allow for multiple and repeated messaging of various conservation themes.

After approval of the settlement outreach budget, four-color, ¾ page ads were run weekly in the Carmel Pine Cone and Monterey County Weekly and bi-weekly in the Monterey County Herald, for a total of 68 ads. Each publication boasts a circulation of 30,000 to 35,000 on the Monterey Peninsula – which roughly equates to the number of California American Water’s residential service connections within the Monterey Peninsula Water Management District’s boundaries. Ad themes included water wise plant choices, available rebates, the Water Wise House Call program and reminders to shut-off sprinklers during the rainy season.

Print advertising campaign cost: \$87,500



One panel of the fall 2011 ad "Let the Weather Do Your Watering"

[Website: Monterey Water Facts](#)

In 2011, California American Water and the Monterey Peninsula Water Management District continued to update a conservation website for the Monterey area. The site serves as a one-stop, user-friendly resource for local water users to access information on rebate programs, home water audits, regulated restrictions on the area’s water supply and tips for saving water indoors and out. The website has information for commercial and residential users and provides in-depth information on water wise landscaping. The web address is publicized through direct mail and print advertising efforts and periodically listed on California American Water customers’ bills. The site additionally contains links to the Alliance for Water Efficiency, Water Sense and the American Council for a Water Efficient Economy. In efforts to expand our outreach, California American Water

and the Monterey Peninsula Water Management District launched joint Facebook and Twitter pages. These pages are updated bi-weekly with quick tips about conservation and other important news happening in water on the Monterey Peninsula.

[Monterey Water Conservation Facebook Page](#)

On November 18, 2011, California American Water and MPWMD launched the Monterey Water Conservation Facebook page to keep local contacts informed about conservation efforts. The page provides timely tips and

[Bill Inserts](#)

California American Water has the ability to include bill inserts and small brochures with customer bills. Throughout the year, the company includes inserts on various subjects including water quality information, payment arrangements, rates and its low-income program. In 2011, customers of California American Water received a conservation bill insert advising them to schedule a Water Wise House Call and providing information about wise water use.

Bill Insert cost: \$2,100

[Social Media Videos](#)

California American Water produced eleven social media short videos addressing topics such as saving water in the kitchen, the bathroom and outside, and finding and fixing leaks. The videos will be available on California American Water's websites and social media pages in 2012.

Cost: \$11,931

[Earned Media Campaign](#)

California American Water also worked with local media to promote participation in events as well as national programs such the Environmental Protection Agency's Fix a Leak Week and National Water Awareness Month, during which California American Water authored Opinion Editorials on water conservation for the Monterey County Herald. Also during Fix a Leak Week, several local cities signed proclamations encouraging citizens to check for leaks and repair them. In all four press releases were distributed to local media including the Monterey County Herald, Carmel Pine Cone, Monterey County Weekly, KAZU FM, KSBW TV, KION TV, KCBA TV, KSMS TV.

[Community and Outreach Events](#)

Each year, California American Water and the Monterey Peninsula Water Management District participate in various community fairs and events, staffing a conservation booth where California American Water customers can interact with water conservation experts, take advantage of free water saving devices and obtain information about indoor and outdoor water saving appliances and techniques. In 2011, California American Water participated in the following events: Pacific Grove Good Old Days, Earth Day, Native Plant Society's Cutting Day, and through membership in the Water Awareness Committee of Monterey County, the Monterey County Fair.

Costs associated with attending such events included sponsorship fees and booth costs, marketing of event, materials and giveaways for customers visiting the booth, and booth displays pieces.

Rebate Program Outreach

Rebate Program participation expanded dramatically in October 2009 when California American Water began its rebate outreach campaign. In examining statistics reported by the MPWMD, the average number of applications per month before the campaign began was 99. After a direct-mail Rebate Program brochure was sent in the Fall of 2009, the number of applications processed by the district rose to 200 in the month of October 2009, with a high volume of applications received in November (224) and December (145) 2009. During 2009, MPWMD received 1,545 Rebate Program applications. Participation in the program nearly doubled in 2010, with 2,743 applications received.

Ongoing outreach during 2010 resulted in continual increases in participation levels. By January 2011, approximately ten applications were being received each day, and the District was approving between \$60,000 and \$80,000 in Rebates every month. At the end of 2010, the funds approved by the CPUC in the 2009-2011 GRC were essentially expended. Fortunately, the parties had agreed to supplemental funding in the event that the program was overly successful, and California American Water was able to file an Advice Letter and receive an additional \$250,000 for the Rebate Account. MPWMD participation in providing requested data and documents to DRA was instrumental in gaining this approval quickly

The majority of applicants learn about the Rebate Program through California American Water's advertising. Over 90 percent of applicants become aware of the program as a result of California American Water's and the District's outreach programs – either because of newspaper advertising, through direct-mail rebate brochures that are sent to all California American Water customers each year or through staff contacts at local outreach events. Local vendors and PG&E provide the remaining referrals.

Rebate Approval Rate

Rebate applications are approved when specific qualifications are met that are outlined in Rule 141. During 2009 and 2010, approximately 75% of the applications received were approved. This percentage has been consistent through the two year period. Rebates were denied primarily for the following reasons: Lack of receipts; ineligibility due to retrofit requirement; ineligibility to due unapproved appliance; and purchase outside of eligible dates.

Weather-Adjusted Consumption in the Monterey County District

California American Water staff produced an analysis of weather-adjusted consumption in the Monterey County District by calculating the acre feet consumed per rainfall inch (Attachment 3). As is expected, overall consumption is highest during the summer months and lower during the winter months. Consumption also rises as rainfall decreases: from 2005 through 2011, consumption was highest when rainfall was lowest (2007) and conversely, consumption was lowest when rainfall was highest (2010).

California American Water, Monterey County District - 2012 Program Goals

Table 12 provides a summary of California American Water’s conservation plans for 2012. The programs are then described and are based on the settlement agreement between California American Water, MPWMD, and the Division of Ratepayer Advocates.

Table 12. California American Water Monterey County District: Summary of 2012 Program Goals

Program	Budget	Implementation Plan	Timeline
Residential Audits (Former BMP 1)	Labor Budget	Complete 200 SF and 10 MF audits	Offer audits throughout 2012.
Residential Plumbing Retrofit (Former BMP 2)	\$7,500	Continue providing devices to residential and non residential customers, walk-in, and events.	Residential Water Wise House Calls and efforts throughout the year at events, walk-ins, etc.
Rain Sensor Installation Program (BMP 5)	\$33,333	Install 125 Residential or Non Residential Rain sensors	June through Dec 2012
Large Landscape Upgrade Grant Program (BMP 5)	\$16,500	Provide grants for expenses for equipment, materials, and/or installation to upgrade to conservation friendly landscapes	Late Summer-Fall of 2012
Public Outreach and Marketing Campaign (Former BMP 7)	\$123,333	Continue to support public awareness and participation in the organizations’ joint-conservation programs	Ongoing throughout 2012
Outreach and Education Seminars & Programs (Former BMP 7)	\$10,000	Continue to partner with Water Awareness Committee, continue to offer Landscape Irrigation Workshops, create conservation booklet, offer in-class presentations	Ongoing throughout 2012
Zun Zun Performances and WAC Activities (Former BMP 8)	\$8,200	Market schools in Summer of 2011 with events in the fall.	Performances in 2012 WAC ongoing.
CII Audits (Former BMP 9)	\$75,000	Offer CII Audits to 35 customers – greatest potential need & audits to establish annual allotments	Ongoing 2012

Conservation Intern(s) (Former BMP 12)	\$30,000	Conservation Intern continues to assist with regulatory reporting requirements, planning, creation and implementation of conservation programs, processing of audits, and assist customers.	Ongoing 2012
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Residential Audits

California American Water in 2012 will continue to provide Water Wise House calls to its customers. Even though customer response was low in the past year, it is expected the number of customer requests for this service will increase due the new rate structure and the increase in rates, especially during the summer months when usage is the highest. Additional efforts to promote customer participation will include sending letters to customers who are billed at the 4th and 5th tier during the winter and summer months, door hangers for customers who have high bills identified through our billing system and flyers distributed to property managers who manage large multi-residential units. California American Water’s conservation staff set a target goal of 200 single family audits and 10 multi-residential audits to be completed in 2012

Residential Plumbing Retrofit

California American Water will continue to provide low flow conservation devices and conservation kits to residential customers in the Monterey service area, and also require customers to sign up to receive devices at events, front desk, etc. so the company can log the information and identify how most of the devices are distributed. The focus will be on the hospitality industry such as hotels, motels to convert hundreds of bathroom aerators from 1.5 GPM aerators to 0.5 GPM aerators. California American Water will also look for upgraded low flow devices and new technologies that provide greater water savings. Current devices include 1.5 GPM showerheads, 1.0 GPM kitchen faucet aerators, and 0.5 GPM bathroom aerators. In addition, California American Water will promote the 1.5 GPM showerhead for customers who have retrofitted in past years with the 2.5 GPM. The company will continue to track the devices specifically given to single and multi-family residents as required for the BMP report to the CUWCC.

Large Landscape Upgrade Grant Program

California American Water will continue its successful Large Landscape Grant Program developed and implemented in the fall of 2010 for large landscape customers that are cities, schools and parks. In 2011, a total of \$125,000 was awarded to two key cities with a combined potential annual savings of 1.3 million gallons or 4 AFA.

The funding is to offer assistance to upgrade current landscape and irrigation systems to increase water efficiency, and to help cover the expenses for equipment, materials, and/or installation.

In 2012, California American Water’s objective is to fund 1 to 3 landscape grant projects in the fall at a total program cost of \$75,000. The proposed sites will be selected based on projected water savings.

Each year, the sites will be reviewed identifying their actual usage compared to their expected usage and the actual water savings will be calculated. This information will be reported to the CPUC and the CUWCC annually to monitor the success of the program. We expect work at all sites to be completed by year end 2012.

Rain Sensor Installation Program

California American Water will continue its new rain sensor installation program that began in November of 2011 which provides free direct installation of rain sensors to residential, commercial and public authority customers. The focus will continue to be the customers who have the greatest potential to reduce their water usage especially during the winter season. According to our records, there are 413 customers who were billed in the 4th and 5th tier of California American Water's five tier residential rate structure during the months of December 2011, January and February of 2012 with usage of 25 acre feet. It is apparent, that these customers are not shutting off their controller systems during the winter season and thus are wasting water. These select customers will be sent a special letter indicating that many customers tend to forget to turn off their controllers during the winter season and the benefits of having a rain sensor installed at their property.

The estimated cost is \$150 per customer.

CII Audits

California American Water in 2012 will continue to provide commercial, institutional and industrial audits, and plans to complete up to 40 CII audits in 2012 utilizing experienced contracted consultants.

The focus will continue to be auditing customers who have the greatest needs and the potential to achieve the greatest water savings. In addition, California American Water will seek to provide CII audits to customers that do not currently have a commercial factor as a basis to establishing an allotment for billing.

Monterey Peninsula Water Management District - 2011 Programs Funded with the Conservation Surcharge

The programs funded by the Conservation Surcharge during 2011 are summarized in the following table and described in detail in the narrative that follows.

Table 13. Monterey Peninsula Water Management District: Summary of Programs

Program	Program Costs	Need For Program	Nature of Activity	Measurable Goal	Results	Estimate Savings
Water Conservation Representative	\$76,145 at actual cost	One staff position with focus on water waste enforcement and water efficiency and conservation.	Water waste enforcement and follow-up, public outreach events, property inspections, audits, etc.	Immediate response to water waste and 100% compliance within 1-30 days	All water waste violations were verified compliant within timeline	Not quantifiable
Water Conservation Seminars	\$4,471	Provide education and opportunity for hands-on learning. Focus is on reducing outdoor and CII water use.	Seminars and workshops focused on outdoor water use reductions including irrigation system maintenance and graywater use	At least 10 attendees at each workshop	3 public workshops, including two on Laundry-to-Landscape graywater irrigation, were conducted with up to 20 participants	Not quantifiable. Laundry to landscape savings vary depending on type of equipment and extent of irrigated areas
Water Wise Gardening for Monterey County (Gardensoft CD Reprints)	\$5,000	Program became available as web application in 2009 and MPWMD has licensed product for web use, rather than reprinting CD Roms	Monterey area-specific interactive gardening software designed to assist customers with water efficient plant choices for landscaping.	Provide notice of software availability at all events, on websites, social media, and through televised Board meetings	3,386 unique hits on software in 2011	Not quantifiable

Super Saver Recognition Program	None	Acknowledge extraordinary conservation efforts to encourage others to follow	Featured water efficient customer on Conservation Website.	Recognize one customer every 3 months	1 Super Saver was acknowledged	Not quantifiable
Water Audits & Budgets	\$2,800	Funds required Large Landscape irrigation audits and budgets to achieve compliance with Regulation XV.	Landscape water audits & preparation of a Landscape Water Budget by a CLIA. Budget compliance is required in Stages 2-4 of 14.1.1.	Large Residential Water Users completed. Dedicated irrigation meters >9 unit/mo. completed.	1 landscape audit was completed in 2011. Program suspended pending future funding	See CAW section on audit savings
Linen/Towel Reuse Program	N/A	Supports hotel room notification of linen and towel reuse program.	Cards give customers opportunity to reuse towels and linens, to request water at a restaurant and provide reminders to conserve in public restrooms	Reduction in laundry, and water and energy consumption	Ongoing program	Up to 101 AFA @ 60% occupancy
CIMIS Station Maintenance	\$836.22	CIMIS data is used by weather-based irrigation controllers to schedule irrigation times.	MPWMD sponsors two CIMIS stations in Zone 2/3 and Zone 3. A third came online at the end of 2011	Reduced outdoor water use during low evapotranspiration	Data is available on CIMIS website	Not quantifiable
Conservation Devices	\$53,186	Provide conservation devices to customers to reduce consumption	Purchased showerheads, shower valves (Ladybugs), soil moisture sensors, hose nozzles, etc.	Reduce wasted hot water in shower; reduce use of running hose for irrigation	See Conservation Devices Section	24.31 AF
Conservation Printed Material	N/A	The printed material program acquires updates and distributes water conservation materials to the	Distributed pertinent print material promoting water conservation. Prepared draft Rebate Program	Support BMP programs, provide at 3+ events, and reduce water usage.	MPWMD distributed conservation materials, including the new	Not quantifiable

		public via local retailers, organizations, and other means of notification.	brochure with CAW.		Rainwater brochure at community events and meetings	
Water Waste Prohibitions	N/A	Eliminate water running to waste and other forms of water waste.	Notification to property occupant and follow up to ensure corrections as needed.	Achieve compliance within reasonable time period	30 instances of Water Waste were compliant within reasonable time	Not quantifiable

Water Auditor Training

Certified Landscape Irrigation Auditor (CLIA) training was postponed in 2011, as District staff revised its approach to CLIA training programs. The training, which consists of two related classes, will be revamped in 2012 as a “scholarship” program, whereby attendees who work or live in the California American Water service area are reimbursed for a portion of the cost of the class after completion. This change in philosophy is the result of waning interest/dedication when a class is offered with “no strings attached (i.e. at no charge).” There remains a local need for CLIA, both for compliance with MPWMD Regulation XV and for compliance with the State’s Model Water Efficiency Landscape Ordinance and local ordinances. Additional advertising will also improve class attendance.

CLIA training makes sense from the perspective that locally trained CLIA work in the community and provide the benefits of their training to their clients. This in turn results in higher local water use efficiency and less waste. Instruction on landscape design and maintenance received by participants of the CLIA training is beneficial to the water company and the customer.

Water Conservation Representative

The Conservation Representative position was included in MPWMD’s budget request with the full support of California American Water and is an ongoing position. Funding for the position was included in the MPWMD portion of the conservation surcharge in the 2005 General Rate Case (D.06-11-050) and again in the 2007 General Rate Case (D.09-05-029). The position is primarily responsible for water waste enforcement, including responding to reports of water waste and providing enforcement and site investigations. The position also conducts conservation inspections and community outreach, provides information and educates the public on the need for water conservation and water demand management; assists other agencies and the general public in understanding MPWMD requirements and rules; performs inspections on properties to ensure compliance with water efficiency standards, rules and regulations; organizes and oversees water efficiency training and seminars; and assists in research, analysis, and reporting on water demand management and conservation programs.

Water Conservation Seminars/Workshops

MPWMD has focused its training agenda to help provide the tools necessary for gardeners, landscapers, builders, homeowners, plumbers and others to maximize water efficiencies. During 2011, MPWMD used Conservation Surcharge funds to facilitate an Advanced Green Gardener training course, irrigation efficiency workshops by Pacific Water Management, a Laundry to Landscape (graywater) workshop, and a Lorman Seminar on Pervious Pavers.

Water Wise Gardening for Monterey County

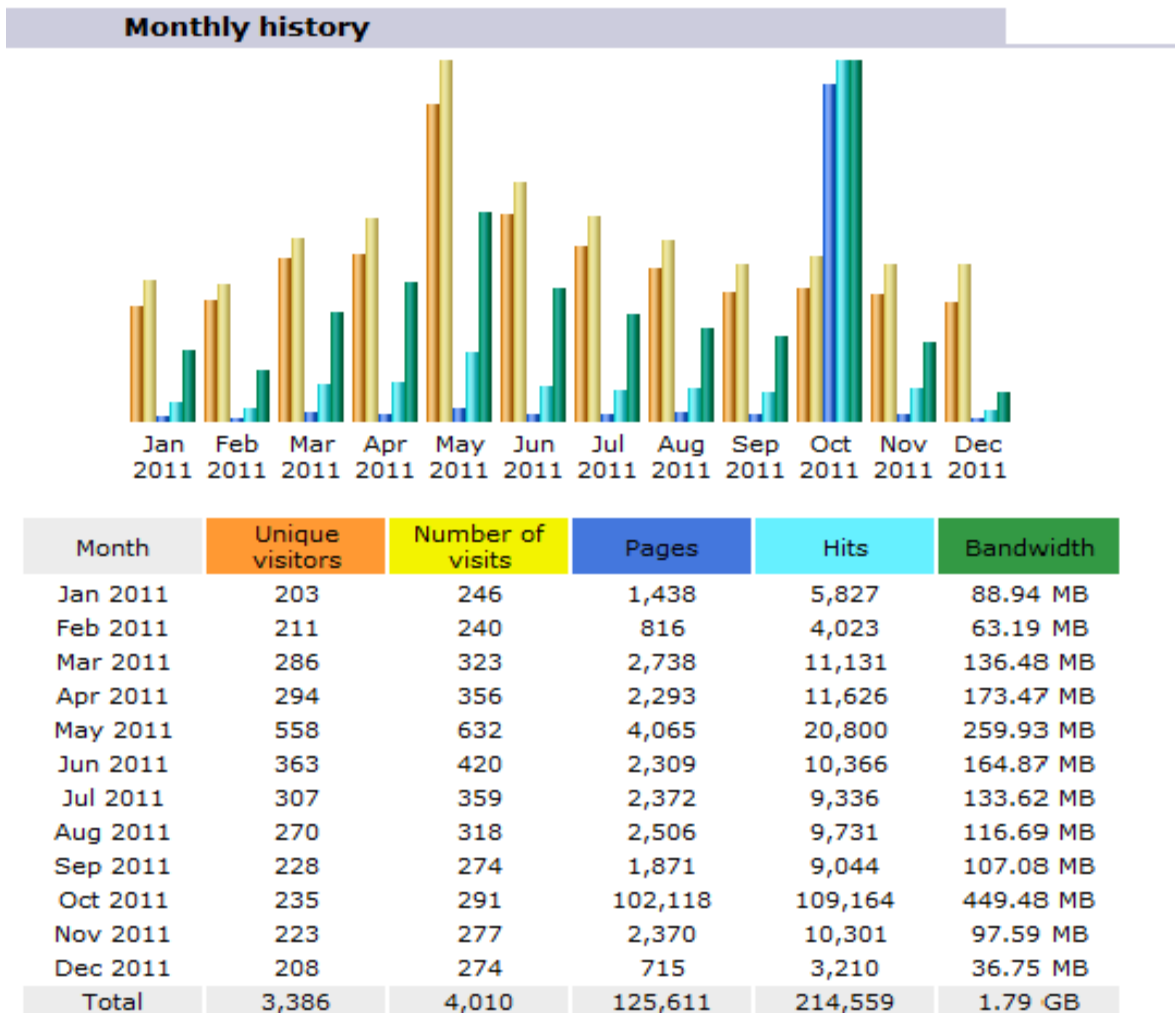


Water Wise Gardening for Monterey County is a highly desirable landscape planning software that was designed specifically for Monterey County. The GardenSoft software was developed with sponsorships from California American Water and MPWMD through the Water Awareness Committee of Monterey County. It provides photos of various types of local gardens examples, including front and back yards, hillsides, raised planters, shrub and perennial borders, walkways, parking strips, patio areas, theme gardens, native gardens, decks, fences, gates, surfaces,

benches, trellises, low-maintenance gardens, and Mediterranean style gardens. There are hot-links embedded within the garden images of plants which link to photography, plant or material identification, and related information. Users are able to search for plants relevant to specific Monterey County areas by botanical name or common name, by look or color, by general variety, and much more. A brief questionnaire leads the user to the appropriate plants to solve their gardening wants or needs. A series of information pages are provided that list watering tips on a month-by-month basis and general lawn and planting area instructions for each month of the year.

In 2008, GardenSoft made its software available as a web application with an annual subscription of \$5,250 for unlimited access and that can be reached via links from the California American Water/MPWMD conservation website (www.montereywaterinfo.org) and from the Water Awareness Committee website (<http://www.monterey.watersavingplants.com/monterey.php>). Detailed information about the effectiveness of this web application is shown in the following Table 14.

Table 14 -- Water Wise Gardening for Monterey County
Web Statistics, Calendar Year 2011



Super Saver Recognition

This program was intended to provide public recognition of people and businesses that have done extraordinary measures to conserve water. Although envisioned as a program that offered a reward for extraordinary water saving techniques, the program was not fully implemented due to higher priority programs. Recognition for unique water saving efforts is given on both the joint conservation website and on the CAW/MPWMD Facebook page.

Water Audits/Budgets

The budget for Landscape Water Audits and Landscape Water Budgets required by MPWMD Rule No. 172 was expended prior to 2011. When funding is available, Landscape Water Audits and Landscape Water Budgets are offered at no charge to all water users of California American Water that have dedicated landscape meters, large irrigated areas over three acres, and large residential water users that average more than 320 units³ or 23,936 gallons of water per month of use.

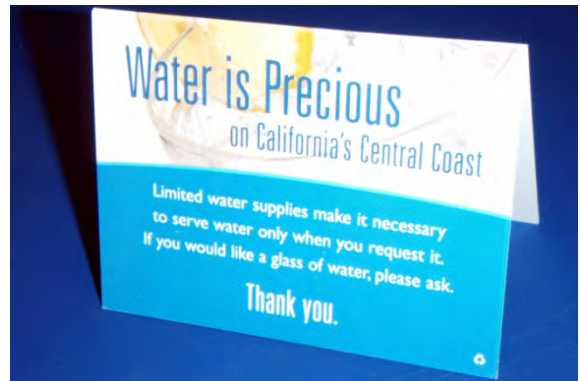
The audit involves an on-site analysis of existing plant types and locations, soil types, existing irrigation and watering practices and equipment. The CLIA then determines a watering budget based on those factors and efficient water use. Stage 2 Water Conservation (and higher stages) implements enforcement of Landscape Water Budgets to maintain regulatory compliance. During Stage 2, all water users required to have a Landscape Water Budget must manage outdoor irrigation within their budget. Use in excess of the Landscape Water Budget is considered Water Waste and is subject to Water Waste fees and enforcement. Every October (i.e., beginning of a new Water Year), California American Water reviews their customer consumption database to determine which customers are subject to the audit/budget requirement.

Linen/Towel Reuse Program

The linen/towel reuse program provides cards giving guests the option of reusing or obtaining new linens and towels in hotel rooms, for restaurant “drinking water served only on request” tent cards, and for conservation message mirror clings. These programs are mandatory within the MPWMD.

During 2011, MPWMD distributed the following:

- Towel Cards – 1,850 pieces (pc.).
- Water Service on Request Cards (see photo on right) – 85 pc.
- Linen Reuse Pillow Cards – 1,800 pc.
- Conservation Message Mirror Clings – 490 pc.



The California Irrigation Management Information System (CIMIS)



During 2011, MPWMD staff continued its coordination with the California Department of Water Resources staff and local golf course operators, including Laguna Seca Golf Ranch and the City of Pacific Grove to secure locations for CIMIS stations in ETo Zones 2 and 3. The new locations will provide full coverage ETo data for the Monterey Peninsula. By the end of 2011, MPWMD had one station on the border of Zone 3 in Carmel Valley that provides data for mid-Peninsula water users and one station on the inland portion of Zone 3 that most closely simulates

³ California American Water Monterey uses a 75 gallon “unit” measurement

properties in the warmer areas of the MPWMD. A coastal location in Zone 2 became operational in late December 2011.

School Retrofit Program

MPWMD's School Retrofit Program is designed to grant money to educational facilities on the Monterey Peninsula to achieve cost-effective water-saving retrofits that might otherwise not occur due to budget constraints or conflicting funding priorities. The first step was to audit the indoor and outdoor water uses of each school. The audit report includes cost/benefit analysis and cost/water savings that can be anticipated by completing retrofits. Funding may be used for replacement of older toilets with High Efficiency Toilets, replacement of water using urinals with zero water consumption urinals, low-flow and self-closing faucets and showers, low-flow pre-rinse spray valves, high efficiency dishwashers, Smart irrigation system controllers, cistern installations, turf replacement when feasible, etc. This program has potential for significant water savings, as many of the facilities are more than 40 years old and generally have older and inefficient water fixtures.

During 2011, WaterWise Consulting, Inc., MPWMD's audit contractor, completed audits at all schools served by California American Water within MPWMD. MPWMD funded retrofits for irrigation system upgrades and weather-based irrigation system controllers in the Monterey Peninsula Unified School District (MPUSD) at a cost of \$48,734, and provided funding (\$12,300) to upgrade restroom facilities at San Carlos School in Monterey. Water savings will be reviewed in December 2012, one year after completion of the retrofits.

Cash for Grass

The MPWMD implemented its "Cash for Grass" program started as a component of the Rebate Program on January 1, 2010, with an initial budget of \$45,000, which was expended before July 1, 2010. In May 2010, staff requested authorization from the Board and California American Water to roll the program into the general Rebate Program. The initial success of the lawn removal program warranted continuing it as a rebate. The program was completely revised in 2011 and is discussed under the heading "Rebate Program Amendments" in the MPWMD-funded section of this report.

Conservation Devices and Materials

MPWMD provided customers with various free water savings devices including 1.5 gpm showerheads and 0.5 gpm faucet aerators for the bathroom, 1.5 gpm aerators for the kitchen, leak detection tablets/kits and outdoor water saving tools. In 2011, MPWMD tracked the distribution of the various water savings devices to identify the total number of devices distributed and where or how they were distributed to customers. For all conservation related events, customers who received water conserving devices were verified as California American Water customers.

The various devices are distributed at a number of events, including but not limited to:

- Community events
 - MPWMD Front Desk (walk-in customers)
-

- On-site inspections
- Upon customer request
- During community presentations
- During water waste enforcement visits

In addition to the standard devices listed under the CUWCC's BMP 2 requirements, MPWMD also offered a variety of devices to help improve water use efficiency. Items included in this list were funded by both California American Water reimbursement and by MPWMD. [Table 15](#) provides information for each type of water saving device (and estimated water savings when available) was distributed by MPWMD during 2011.

Table 15 - Water Saving Devices Distributed by MPWMD in 2011

Water Saving Device	# of units	\$ per unit,	Cost	Estimated water savings per unit per year in AF	Unit lifespan	Estimated Annual measure savings (AFY)	Estimated Lifetime measure savings (AF)
Showerheads	2,684	\$3.55	\$9,528	0.0062	5	16.64	83.20
Lavatory Faucet Aerators	490	\$0.50	\$245	0.0017	5	0.833	4.17
Kitchen Faucet Aerators	180	2.35	\$423	0.0017	5	0.306	1.53
Leak Detection tablets	160	\$0.06	\$10	Varies	1 x	Varies	Varies
Shower Timers	5	\$1.50	\$8	Varies	5	Varies	Varies
Ladybug Hot Water Valve	5	\$15	\$75	0.0068	10	0.034	0.17
Rain Sensor	23	\$21	\$483	Varies	5	Varies	Varies
Moisture Meters	1,046	\$2.50	\$2,615	unknown	5	unknown	unknown
Hose Timer	8	8.44	\$68	unknown	5	unknown	unknown
High Efficiency Pre-Rinse Spray Valve	19	\$26	\$494	0.392	5	7.45	37.25
Hose Shut Off Nozzle	496	\$4.37	\$2,168	Varies	3	Varies	Varies
Total			\$16,117			25.26	

Monterey Peninsula Water Management District - 2011 Programs Funded by MPWMD

The following projects and activities were funded during 2011 by MPWMD.

Mandatory Water Efficiency Requirements

A primary MPWMD responsibility is enforcement of its conservation and efficiency requirements for new construction, remodels/additions, change of ownership/use, expansion of use, visitor serving facilities, existing non-residential uses and water waste. MPWMD sends one to two inspectors into the field daily to conduct site inspections. Non-compliance is followed up with enforcement procedures until compliance is achieved.

MPWMD conducted 1,977 inspections of properties in 2011, 1,132 of which were inspected for change of title compliance. During 2011, 1,226 properties transferred ownership in the MPWMD. One hundred twenty-four of the 1,132 properties inspected for transfer of title were not previously in the MPWMD's database. Due to recently enacted changes in showerhead flow rates and a requirement for rain sensors on automatic irrigation systems, MPWMD increased the number of verification inspections in 2011.

Water Permit inspections were also conducted to verify that required retrofits were completed, although most Water Permits issued at this time do not result in significant water savings and are usually the result of offsets (credits) whereby the applicant has installed highly water efficient fixtures to offset new water fixtures. MPWMD staff conducted 845 inspections to verify either compliance with Water Permit conditions or to pre-inspect a property to document existing conditions prior to issuing a Water Permit. Water savings associated with the MPWMD's retrofit requirements that were verified by inspection in 2011 were estimated to add 13.67 AFA to annual conservation savings. Interestingly, approximately 75 percent of the toilets seen in 2011 were High Efficiency Toilets, resulting in higher water savings that would have been achieved with ULF toilets.

Water Permits have numerous water efficiency requirements attached as conditions of approval. MPWMD enforces these restrictions through recordation of deed restrictions that specify the requirements. Of the 633 Water Permits issued in 2011, 235 (37%) had a requirement for a deed restriction prior to issuance of the final permit. A portion of those properties had deed restrictions from a previous Water Permit that had to be updated. MPWMD's deed restrictions on the property title alert new owners to the MPWMD's regulations, making it easier to remove contingencies. Although deed restrictions do not guarantee that a property will exist continually in a state of compliance with the Water Permit, a deed restriction increases the probability that current and future property owners will be informed of the permit conditions.

Conservation Program Staffing

The Water Demand Division of the MPWMD employs a staff of five (including one position fully funded by the conservation surcharge). MPWMD budgeted approximately \$393,000 in regular full-time labor costs for 2011. Additional costs are associated with overhead costs (including staff time from other divisions of the MPWMD,

including the General Manager's office and Support Services), transportation/vehicle expenses, office supplies, training and travel.

MPWMD funds the administration costs of the Rebate Program, including one Conservation Technician who determines rebate qualifications have been met and arranges for verification inspections and deed restrictions as needed (included in staff costs, above), an accountant who processes and issues the rebate checks, and an office specialist who opens mail, and who prepares the checks for mailing and delivers them to the postal service. During 2011, MPWMD continued employment of a temporary full-time employee at an additional cost of \$17,000 (for three months in 2011) to assist with processing applications and data entry resulting from the overwhelming success of the Rebate Program. The MPWMD's direct involvement in the administration of the program ensures that program savings are tracked and are not double-counted in another MPWMD program or in any program administered by California American Water.

Non-Residential Water Use Factor Study

California American Water and MPWMD agreed to "review and revise, as needed, commercial water use factors used in relation to Regulation XV" and Rule 14.1.1 as part of the settlement agreement on Phase I issues in A.07-12-010. The project (CII Water Use Factor Update) involved a study to verify the accuracy of the water use factors used to establish allotments.

The MPWMD contracted with A&N Technical Services to review the MPWMD's Non-Residential Water Use Factors (NRWUF), which were last reviewed in 1992. The factors are used by the MPWMD to estimate the water use capacity of a project, which is used to calculate the appropriate connection charge payment and the amount of water that must be available in a jurisdiction's allocation to permit a project. The factors are also used by California American Water to determine base rates for its tiered rate structure. The factors are based on regional averages by type of use (e.g., the water use for a full service restaurant is determined by the average water use per seat of full service restaurants on the Monterey Peninsula, and the water use of a retail business is determined by the average water use per square-foot of local retail businesses). The goal was to update the NRWUF using current MPWMD Water Permit data and California American Water customer consumption data.

The conclusion and recommendations of the study were that the use of the MPWMD's NRWUF for rationing and ratemaking is not appropriate. The major reasons for this recommendation are cited below:

- Only 11 business type categories had a sample size that was greater than or equal to a sample size of 30 customer accounts. The regression models suggested that a small negative trend, reflecting ongoing efficiency improvements, was detectable in many business type categories. This result was anticipated considering that twenty years have passed since the last review and water saving technology has dramatically improved.
 - The number of measurement units was missing for almost 38 percent of the active non-residential accounts. A&N found that approximately 38 percent of the non-residential customers (1,744 out of 4,613 unique active non-residential accounts) were missing documentation to verify the allotment of water assigned to each account. The missing data was collected via mail-in surveys during the implementation phase of the original tiered rate structure in the late 1990's. When California American
-

Water changed billing systems around that time, the survey information was lost. According to California American Water, this situation was rectified by the end of 2011.

- The reliability of existing measurement units is unknown. The surveys were completed by the customer and may or may not accurately reflect the nature of the businesses.
- The use of a single measure to standardize use constitutes an extremely crude form of a water budget. This estimated water budget can be expected to be an inaccurate definition of efficient water use for most customers. The combination of inaccurate water budget and steep rate tiers magnifies the economic impact of erroneous definitions of water budgets. Customers will rightfully perceive the situation as illogical, unfair, and economically unjust.

Another area of concern identified by the consultant related to a lack of common fields in the MPWMD and California American Water's databases. Specifically, neither system has common identifiers such as the Assessor's Parcel Number or APN used by the MPWMD or the water customer's account number or premise number that is assigned by California American Water. The use of property addresses is problematic due to multiple users located at a single address. A&N recommended that this data incompatibility be addressed to improve future coordination and water conservation planning between MPWMD and California American Water.

The MPWMD Board of Directors considered the report at its October 17, 2011, meeting and took no action other than to receive the report.

Water Conservation Website

The water conservation partnership website, www.montereywaterinfo.org is hosted on MPWMD's server, with full editing capabilities by both California American Water and MPWMD staff. As a quality control measure, there are a limited number of employees authorized to make changes to the website. The website is designed to provide factual information with a focus on the Monterey Peninsula's water conservation and efficiency programs. During 2011, MPWMD staff regularly provided time to update and maintain the information on the joint website.

Rebate Program Amendments

The year 2011 was a busy year for the Monterey Peninsula's highly successful Rebate Program. In November and December 2010, MPWMD notified California American Water that the rebate funding was going to be depleted and that California American Water would need to file an advice letter for an additional \$250,000 in Rebate Program funding approved in the General Rate Case. By January 7, 2011, the total available rebate fund of \$924,925 had been refunded to California American Water customers and the program was put on hold. California American Water filed an advice letter for an additional \$250,000 on January 14, 2011. In the interim, MPWMD continued accepting, but not processing rebate applications pursuant to Rule 141.

Taking advantage of a suspension in the Rebate Program, the Board suspended receipt of lawn removal rebate applications while new guidelines were developed to improve the effectiveness of the program. Resolution 2011-04 (adopted February 24, 2011) reinstated the former lawn removal rebate and approved guidelines that

would be implemented by ordinance (Ordinance No. 148). Resolution 2011-07 (adopted March 21, 2011) again suspended the lawn removal rebate until funding in the next rate case is approved. By this time (March 2011) funding for rebates in the California American Water system was nearly expended, and the Board desired to continue funding the smaller rebates (of which lawn removal was not one).

In April 2011, the MPWMD's Water Demand Committee (the MPWMD's committee responsible for oversight of water efficiency programs) reviewed the Rebate Program's history, funding, outreach, approval and participation rates and staffing requirements⁴. As an outcome of this review, an ordinance was adopted to codify the law rebate guidelines in Rule 141. Ordinance No 148 (amending MPWMD Rule 141) also strengthened the conditions of approval, including clarifying that sites must comply with applicable MPWMD rules before rebates are issued and disqualifying "qualifying devices" that are mandated by local, State or Federal water conservation programs.

Additional amendments to the Rebate Program were considered and adopted in September 2011. Ordinance No. 149 (amending MPWMD Rule 141), effective January 1, 2012, included:

- Increasing the High Efficiency Clothes Washer Rebate from \$250 to \$500: HECWs can presently be purchased for upwards of \$500. Water savings associated with HECW is approximately 8,000 gallons per year (0.02408 AF).
- Increasing Commercial High Efficiency Clothes Washer (CHECW) rebates from \$450 to \$1,000, as these machines cost more than \$5,000 to replace and include coin-operated washers used in commercial laundromats and in apartment complex common laundry rooms. They are designed for heavier use and are considerably more expensive than the residential models. CHECW save approximately 38,000 gallons per year (0.117 AF). Sites are limited to no more than 20 CHECW rebates, with a provision that an applicant may request a formal variance to the limit from the Board.
- Lawn removal rebates were reduced from \$1.25 per square-foot to \$1.00 per square-foot and the maximum area of lawn removal that qualifies for a rebate was reduced from 5,000 square-feet to 2,500 square-feet to extend the funding.
- The Rebates for synthetic turf and rain sensors were eliminated. Rain sensor rebates were discontinued following settlement discussions between MPWMD, California American Water and the California Public Utilities Commission's Division of Ratepayer Advocates (DRA) regarding the 2012-2014 General Rate Case. A requirement that Rain Sensors be installed on all automatic irrigation systems prior to change of ownership, change of use or expansion of use was added to MPWMD's rules, effective January 1, 2010. Rain Sensors are also available at the MPWMD at no charge for property owners who voluntarily install them. Finally, in late 2011, California American Water implemented a rain sensor installation program for high water use properties.

Rebate eligibility requirements within the MPWMD are particularly stringent, which is largely why the MPWMD insists on administering the program. Properties subject to retrofit requirements for Water Permits, change of ownership or use, or other MPWMD mandates are not eligible for rebates. MPWMD has the unique ability to

⁴ A copy of the April 5, 2011 report to the Water Demand Committee can be found at <http://www.mpwmd.dst.ca.us/asd/board/committees/waterdemandcommittee/2011/20110405/02/item2.htm>

track this information utilizing its extensive database and inspection process to verify rebate eligibility and to track water savings. Discussion on participation rates and water savings associated with the Rebate Program can be found in the California American Water section of this report.

Rebate Program Applications

MPWMD purchased 2,000 Rebate Program applications in 2011 at a cost of just over \$400. The documents are 2-part NCR (no carbon required) legal-sized forms.

Promotion of Alternate Water Supplies

As water availability on the Monterey Peninsula dwindles, the use of alternative water sources has become an area of extreme interest. The MPWMD has supported the use of rainwater harvesting for decades, but has recently become involved in a roundtable of interested parties to promote the local use of rainwater, graywater and stormwater. This group is coordinated by the Monterey County Business Council (MCBC), and includes representatives from MPWMD, California American Water, Monterey County Health Department, Monterey and Seaside's Building Officials, Ecology Action of Santa Cruz, MCBC, local landscaping professionals and others.

During 2011, this group developed and released a rainwater harvesting brochure and completed development of standards for graywater irrigation in coordination with the Monterey County Department of Environmental Health. The guidelines can be found on the County's website at:

http://www.mtyhd.org/index.php?option=com_content&view=article&id=608%3Agraywater-system-permits&catid=180%3Agraywater-system-permits&Itemid=670&lang=en.

Water Banking Program for Rationing

MPWMD Ordinance No. 147 (adopted February 24, 2011) reinstated Water Banking in Stages 5-7 Water Rationing. Suspension of Water Banking was included in the Settlement Agreement adopted by the California Public Utilities Commission (CPUC) in the decision on the Conservation Filing (A.07-12-010). Water Banking was suspended by MPWMD Ordinance No. 137 (December 8, 2008) to allow California American Water time to upgrade its billing system to calculate and manage Water Banking. Water Banking allows a water User to carry-over the unused portion of a Water Ration during Water Rationing. MPWMD Ordinance No. 137 suspended Water Banking until it could be implemented by either MPWMD or California American Water. At the time Water Banking was suspended, neither the District nor Cal-Am had the ability to implement the process within their data systems. California American Water's billing system can now implement banking.

Monterey Peninsula Water Management District - 2012 Program Goals

In 2012, MPWMD will focus its efforts to develop and implement regulations and strategies to reduce non-residential and outdoor consumption. The current efforts of MPWMD and California American Water have been quite successful in reducing upper tier (i.e., Tier 4 and Tier 5) water use. Outdoor water use continues to receive recognition as the most likely place to achieve significant water savings on the Monterey Peninsula. MPWMD will also begin focusing efforts on educating the CII sectors about efficiency measures beyond toilet retrofits, including communication of the MPWMD's requirement for installation of water efficient pre-rinse spray valves and HET.

Table 16 depicts MPWMD's planned programs for 2012.

Table 16 -Summary of MPWMD 2012 Program Goals

Program	Funding	Budget	Implementation Plan	Timeline
Landscape Water Audits	CAW	475,000	Contract with CLIA to conduct landscape water audits and prepare landscape water budgets pursuant to MPWMD Rule 172	July 2012-June 2013
CLIA training	CAW	\$5,000	Fall CLIA training in conjunction with another outdoor efficiency workshop	November 2012
School Retrofit Program	CAW	\$100,000	Initiate cost-effective retrofits in Monterey Unified School District schools	July 2012
Rebate Program	CAW	\$800,000	Reinstate rebate program for cost-effective retrofits. MPWMD to provide administration	June 2012
Water efficiency training and education	MPWMD	\$25,000	Sponsor Green Gardener, Laundry to Landscape and other outdoor water efficiency workshops in collaboration with California American Water	Through Dec 2012
Alternate Water Source (Graywater, Rainwater, Stormwater) Demonstration	CAW	\$20,000	Sponsor movable display to educate public on alternative water source use.	December 2012

Project				
Super Saver Recognition	MPWMD	\$1,000	Recognize at least ten unique and extraordinary water conservation efforts via the websites (MPWMD and Joint website) and through social media and press releases	Through December 2012
Sponsor and/or participate in community water efficiency events	MPWMD	\$ 2,500	Provide sponsorship and staff outreach at local water efficiency-related events and conferences	Through Jun 2013
Linen and Towel Program	MPWMD	\$0	Continue supporting program with existing inventory and outreach	As needed
Water Wise Gardening for Monterey County (Garden Soft)	CAW	\$5,250	Annual license for web-based software	Annually
Conservation devices and publications	CAW	\$50,000	Purchase water conservation and efficiency devices and materials to provide to customers free or at reduced charge	As needed
CIMIS stations	CAW	\$2,400	Maintain 3 CIMIS stations on the Monterey Peninsula	Ongoing
Revise Non-Residential Rationing Plan	MWPMD	N/A	Work with stakeholders and others to prepare new water rationing plan	By November 2012
Establish Monterey Peninsula Best Management Practices (BMPs)	MPWMD	N/A	Working with local businesses and California American Water, establish non-residential and industry-specific BMPs for use with rates and rationing	By September 2012
Enforcement of MPWMD regulations	MPWMD	N/A	Implementation and enforcement of MPWMD conservation and efficiency and demand management policies and regulations	Ongoing

Landscape Water Audits

MPWMD will contract to complete required landscape water audits and to have a CLIA develop landscape water budgets for properties required to have audits pursuant to MPWMD Rule 172. This requirement has been pending funding for over a year. Properties requiring audits/budgets are identified annually by California American Water through a review of consumption records at the conclusion of the Water Year (i.e. September 30). Adherence to a water budget is required in Stages 2-4 of MPWMD Regulation XV and California American Water Rule 14.1.1. During 2012, MPWMD will expand the program to include public parks that are currently not required to have budgets because a restroom or other use is on the meter. The new rule will apply to public irrigated open spaces.

CLIA Training

MPWMD will sponsor the annual CLIA training during the fall of 2012. Outreach for the program will include information about the State Model Water Efficient Landscape Ordinance. As mentioned previously in this report, the training will be offered with a scholarship for completion of the course.

School Retrofit Program

The School Retrofit Program is designed to grant money to educational facilities on the Monterey Peninsula to achieve cost-effective water-saving retrofits that might otherwise not occur due to budget constraints or conflicting funding priorities. In anticipation of additional funding in the 2012-2014 General Rate Case, MPWMD had all schools audited in late 2011. The results of the audits will be used to identify the most cost-effective retrofits for funding in 2012. Schools that are planning and implementing student participation gardens will be contacted regarding the potential for rainwater harvesting as a source of water for the gardens.

Rebate Program

MPWMD will reinstate the Rebate Program with an anticipated start date of June 1, 2012. The delay in implementation is due to the delay in a decision on the budget from the CPUC. MPWMD anticipates significant demand for rebates once the program is operational.

Water Efficiency Training and Education

As a member of the Green Gardener Technical Advisory Committee, MPWMD will work with California American Water and other interested agencies to sponsor training that benefits California American Water's customers. The goal of any training conducted on the Monterey Peninsula is to attract local professionals and gardeners who do business on the Peninsula. In addition, other workshops and courses will be targeted to the homeowner or business owner to help them with water efficiencies on their own properties.

Alternative Water Source Demonstration Project

MPWMD will provide assistance with the development of one or more alternative water source demonstration projects, including a moveable display that demonstrates rainwater, graywater and stormwater reuse that can be used at outreach events. The MCBC roundtable group plans to implement several pilot programs in the next year to demonstrate the use of graywater/rainwater for toilet flushing. MPWMD and California American Water will be part of this effort. MPWMD will continue to work with the Monterey County Department of Environmental Health to facilitate the use of alternative water sources in both commercial and residential settings.

Super Saver Recognition

This program recognizes people and businesses that have done something extraordinary or taken extraordinary measures to conserve water in their home or business. During 2012, MPWMD will collaborate with California American Water to solicit and identify individuals, groups, businesses and other entities who have undertaken unique and/or significant conservation efforts. These people will be recognized through public acknowledgment in print and web media.

Sponsor and/or Participate in Community Water Efficiency Events

MPWMD frequently participates in community events, most of which are summarized under California American Water's Outreach section of this report. MPWMD will provide staff to educate the public about its programs and will offer free water saving devices. A key reason for both MPWMD and California American Water's participation in these events is that each has expertise in their area and can respond to different questions from the public. For example, questions about rates are referred to California American Water staff and questions about regulations are referred to MPWMD staff.

Linen and Towel Program

MPWMD will continue to support distribution of mirror clings and other visitor-serving commercial signage that promotes water conservation during 2012. MPWMD will also be working with the Monterey County Hospitality Association and Chambers of Commerce during 2012 to educate the industry about the Linen and Towel Programs and about the MPWMD requirement to implement these programs. In addition, MPWMD will provide information about rebate opportunities and approaching retrofit mandates via industry newsletters and email blasts, through District newsletters and speaking engagements, and through the local media. MPWMD will support the efforts to achieve BMPs for the various businesses and industries on the Peninsula.

Water Wise Gardening for Monterey County (GardenSoft)

MPWMD will renew the web license annually during this rate cycle and will promote the availability of the software through social media, televised board meetings and other outreach opportunities.

Conservation Devices and Publications

During 2012, MPWMD will coordinate with California American Water to acquire and distribute devices and publications to help customers reduce water consumption. During 2011, a rebate program brochure was designed that will be printed and distributed in 2012. In addition, MPWMD staff will be preparing a comprehensive brochure to inform the public about the conservation and water efficiency requirements of the MPWMD.

CIMIS Stations

MPWMD will continue to maintain three CIMIS stations on the Monterey Peninsula during 2012. MPWMD staff performs periodic maintenance at the station to clean the equipment for optimal performance. Costs associated with the CIMIS stations are only for cellular lines to transmit data to the Department of Water Resources.

Revise Non-Residential Rationing Plan

MPWMD, with assistance from California American Water, will facilitate a review and revision of the Non-Residential water rationing plan with local stakeholders. The current plan relies on allotments that will likely be discontinued in the rate structure to be implemented in 2013. A discussion of problems associated with the use of allotments based on MPWMD factors can be found in the Non-Residential Water Use Factor Study section under "Programs Funded by MPWMD."

Eventually, the revised plan will be presented to the MPWMD Board of Directors for action.

Establish Monterey Peninsula Best Management Practices (BMPs)

MPWMD has a number of BMPs in its existing rules and regulations. Additional BMPs can be found on the California Urban Water Conservation Council website. During 2012, MPWMD will compile BMPs specific to the Monterey Peninsula: The first list will be a list of somewhat basic BMPs, and the second list will be more comprehensive and industry-specific. The BMPs may potentially be used for rate setting and for water rationing variances. MPWMD will be collaborating with California American Water and other stakeholders to complete this task.

Enforcement of MPWMD Regulations

MPWMD will continue its inspection and enforcement procedures to achieve compliance with its water efficiency rules and to help the public achieve compliance with the various rules. Also planned for 2012 is a revision to the water waste enforcement process to make it more effective and efficient.
