

# 2014 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

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This report documents conservation efforts undertaken by California American Water's Monterey County District and the Monterey Peninsula Water Management District (MPWMD) during 2014 pursuant to the Partial Settlement Agreement between the Division of Ratepayer Advocates, the Utility Reform Network, and California American Water Company on Revenue Requirement as to the Conservation Budget for the Monterey District under the California Public Utilities Commission (CPUC) decision D.12-06-016 (June 7, 2012).

California American Water, in collaboration with MPWMD, has prepared this report to provide a record of the Monterey County District water conservation programs and activities implemented in 2014, as well as projected efforts for 2015. Reports for previous years are available by contacting either California American Water or the MPWMD.

For answers to questions regarding this report, please contact the following representatives from the compiling agencies:

Joe DiMaggio, Water Conservation Supervisor  
California American Water, Monterey County District  
[Joe.DiMaggio@amwater.com](mailto:Joe.DiMaggio@amwater.com)  
831-646-3228

Stephanie Locke, Water Demand Manager  
Monterey Peninsula Water Management District  
[S.Locke@mpwmd.net](mailto:S.Locke@mpwmd.net)  
831-658-5630

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## Conservation is a Culture

The Monterey Peninsula has long been a leader in efforts to conserve and use water efficiently, having developed and implemented successful conservation programs for over 30 years. Conservation is viewed as a means to maximize existing water supplies, whether they are limited by regulation or drought. Limited local water supplies and the community's vulnerability to droughts have spurred local water conservation efforts since the mid-1980s. The efficient use of water is also a component in determining the necessary size for planned water supply projects to meet current and future water needs.

The Monterey Peninsula Water Resource System (MPWRS) is California American Water's main source of supply for the Monterey Peninsula. The two primary water resources available to the Monterey area are the Carmel River and groundwater in the coastal subareas of the Seaside Groundwater Basin.

The Carmel River System is subject to State Water Resources Control Board (SWRCB) Order 95-10 and Water Rights Order No. 2009-0060 (Cease and Desist Order or CDO). The CDO, which was issued October 20, 2009, limits California American Water's diversions from Carmel River sources to 9,945 acre-feet ("AF") in Water Year 2016 (beginning October 1, 2015), minus any water recovered by the Aquifer Storage and Recovery ("ASR") Project or produced by the Sand City Desalination Project. California American Water's base amount of diversions from the Carmel River under the Cease and Desist Order will be reduced over the next two years to a low of 3,376 AF in Water Year 2018 beginning October 1, 2017. The nearly final dramatic reduction will result in a "cliff" when production levels are reduced from 9,703 AF in Water Year 2016 to 4,813 AF in Water Year 2017. California American Water and MPWMD are working with others and the SWRCB to extend this deadline to allow planned water projects to move to fruition without devastating the local economy.

The Seaside Groundwater Basin was adjudicated in 2006. The adjudication established specific production allocations. California American Water's current production allocation from the Seaside Groundwater Basin is limited to 2,299 AF. Under the adjudication, this allocation is reduced over time and will be 1,474 AF in Water Year 2021. These reductions will eliminate the existing overdraft and reduce the potential for seawater intrusion in the Seaside Groundwater Basin. The reductions apply to the entire Seaside Groundwater Basin, including the Laguna Seca subarea, which supplies California American Water's Bishop, Hidden Hills, and Ryan Ranch systems.

Based on the best information available at this time, the community will be able to achieve the specified reductions for both water supply sources through Water Year 2015 without a need for water rationing. Further decreases are scheduled for Water Year 2016, before the "cliff" in 2017. Both the CDO and the Seaside Adjudication Decision support and justify the costs of the conservation program.

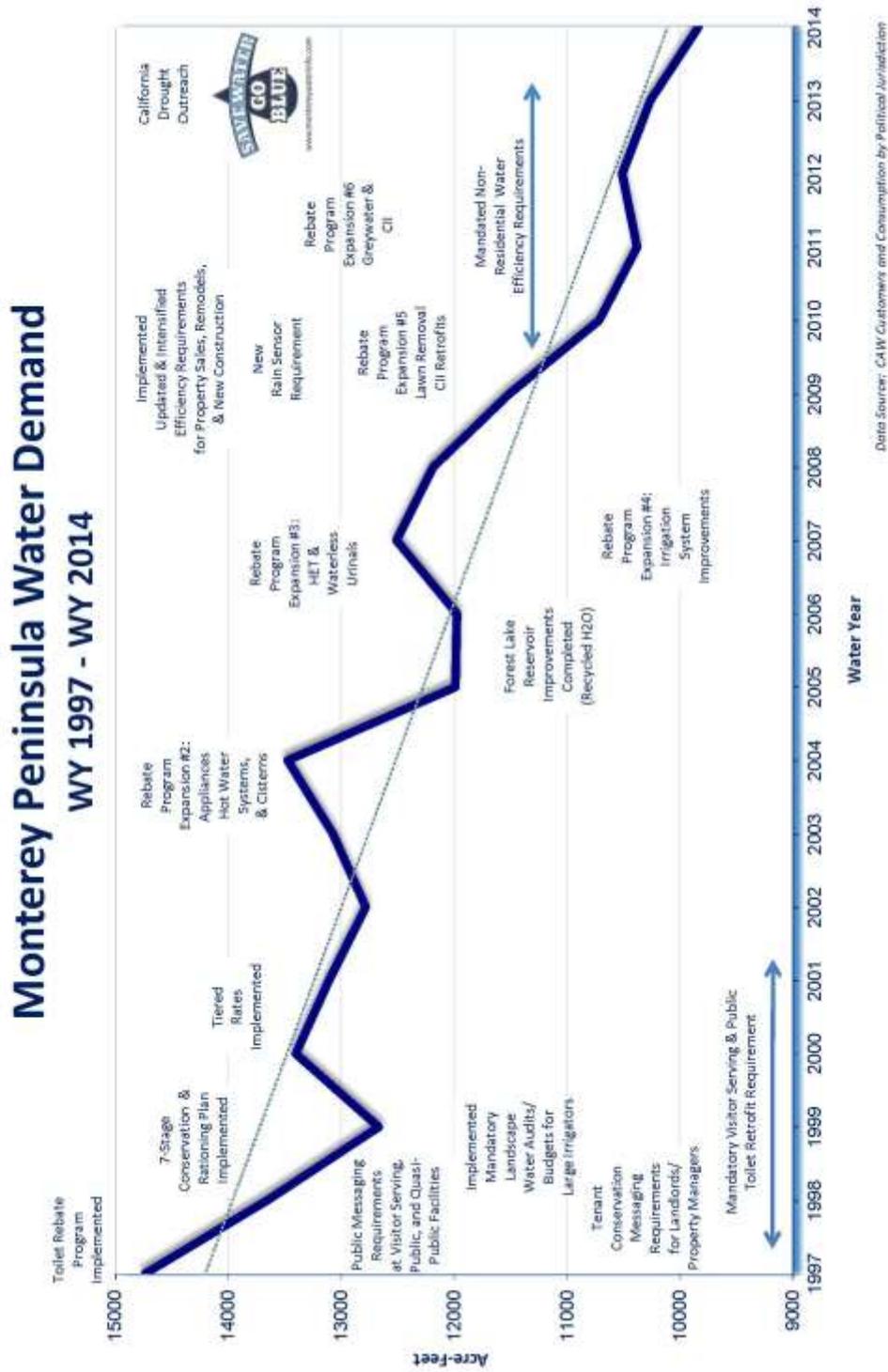
Projected timelines and constraints identified for the components of a Monterey Peninsula Water Supply Project (A.12-04-019), currently under consideration by the CPUC, indicate that a water supply project (or projects) that will fully legalize the Monterey Peninsula's water supply will not be completed and operational before the CDO cliff occurs. Continued conservation will provide some relief from the required production curtailment and may prevent the community from being subject to fines or other enforcement actions. Conservation may even preclude mandatory rationing. California American Water and MPWMD are committed to continuing their successful partnership in the coming years.

#### 2014 Drought State of Emergency

With California facing one of the most severe droughts on record, Governor Brown declared a drought State of Emergency in January 2014. In July, the SWRCB adopted a new conservation regulation that was focused on reducing outdoor urban water use. The regulation mandated minimum actions to conserve water supplies into 2015, including a variety of water waste restrictions. The MPWMD already enforces all of the elements of the State's regulation, but increased its efforts in coordination with California American Water.

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Table 1. CAW Consumption and Implementation of Conservation Programs, 1997-2014



## Summary of Reporting Requirements

The following are the mandatory Monterey County District reporting requirements. Additional information has been provided in this report to document other conservation efforts undertaken by California American Water and MPWMD during 2014. The report breaks out (1) conservation activities California American Water undertakes on its own, (2) conservation activities MPWMD undertakes from its own budget, (3) programs MPWMD undertakes that are funded through the California American Water conservation surcharge. The report includes:

- 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.).
  - A 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 spreadsheets that includes estimated water savings for each customer receiving an audit, a rebate or a retrofit for years 2013 & 2014. *This information is confidential and is therefore provided under separate cover.*
  - Estimated water savings for each device offered through California American Water and MPWMD's conservation programs funded through the California American Water's conservation surcharge. *This information is confidential and is therefore provided under separate cover.*
  - An Evaluation of the effectiveness of the Outreach Program.
  - An annual analysis of the weather-adjusted consumption in the Monterey County District
  - Rain Sensor Shut Off Device and Soil Moisture Sensor Pilot Study Project
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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

GRC – General Rate Case

HECW – High Efficiency Clothes Washer

HET – High Efficiency Toilet (1.28 GPF)

IAHWS – Instant-Access Hot Water System

MCBC – Monterey County Business Council

RSOD – Rain Sensor Shut Off Device

SMS – Soil Moisture Sensor

UHET – Ultra High Efficiency Toilet (0.8 GPF)

ULFT – Ultra Low Flush Toilet (1.6 GPF)

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

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# California American Water, Monterey County District – 2014 Programs Funded by the Conservation Surcharge

## Summary of California American Water Programs

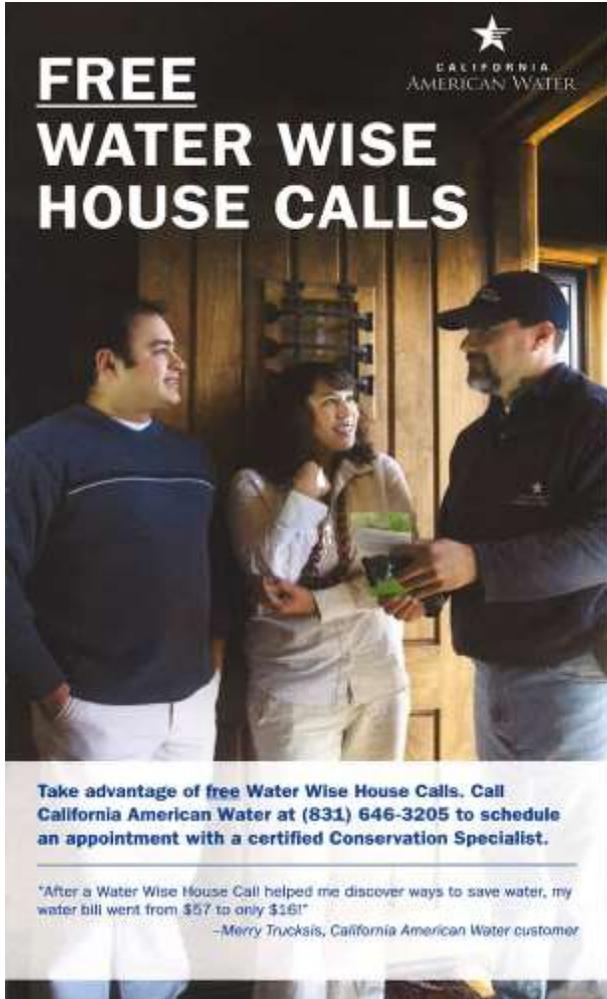
The programs funded by the conservation surcharge during 2014 are summarized in [Table 2](#) and described following the table.

Table 2. California American Water 2014 Programs Funded by Conservation Surcharge

Program	Cost	Need For Program	Nature of Activity	Measurable Goal	Result of Achievements	Estimated Savings (AF)
Residential Audits (Formerly BMP 1)	None (funded by Labor budget)	Meet former BMP 1 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%  204 audits completed	2014  Estimated Savings  8.2 AF  (Actual Savings for 2013 based on usage records: 10.90 AF)
Residential Plumbing Retrofit (Formerly BMP 2)	\$60,696	Meet BMP 2 requirement (75% saturation)	Distribution of water saving devices at events, walk-ins, mailer responses	Number of Devices Distributed	4,527 Showerheads, 3,545 Kitchen Aerators, 7,570 Bath Aerators	28.57 AF
Large Landscape Audits and Water Budgets (Formerly BMP 5)		Required by MPWMD Regulation XV. Meet CUWCC BMP objective of 90% dedicated irrigation meters assigned water budgets	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.	24 Large Residential; Audits & 5 Dedicated Irrigation Audits	See MPWMD Conservation Activities Section	14 Large Residential & 4 Large Dedication Irrigation Audits

Rebates (Formerly BMPs 6, 9, 14)	\$1,259,251	Meet CUWCC former BMPs 6,9,14 objectives and MPWMD Ordinances.	Provide incentives to customers for upgrading to high efficiency/water saving fixtures and appliances	2,362 SF rebates; 156 MF rebates; 358 CII rebates.	4,363 SF rebates; 113 MF rebates; 430 CII rebates.	75.88 AF
Public Outreach and Education (Formerly BMP 7)	\$144,676	Meet CUWCC former BMP 7 and meet demand goals under Rule 95-10.	Promote quantifiable BMP programs, educate customers and communicate current water issues and efforts needed on the Monterey Peninsula.	Support BMP programs, attend 3+ events, and reduce spring water usage.	Multimedia conservation campaign with community involvement	Not quantifiable
CII Audits	\$72,519	CII Audits by WaterWise Consulting	Water use survey includes: audit of water fixtures, water & behavior use patterns, report includes findings, recommended actions, and payback periods for retrofits and/or replacement of fixtures	Goal is 35 CII Audits	Completed 34 CII Audits	8.929 AF Estimate Savings  Total 55 Audits for 2013 Based on usage <b>records:</b> 26 customers saved 17.16 AF)
Rain Sensor Installation Program	\$6,587	Meet former BMPs 3 & 5 of CUWCC MOU, customer requests	CAW (through contractor) installs free rain sensors for qualified customers	Goal is 50 Rain Sensors	Completed installation of 48 Rain Sensors	2012: 6 AF based on usage records  2014: 39 Rain Sensors installed (savings to be analyzed in future report)

## Residential Audits (Water Wise House Calls)



**FREE  
WATER WISE  
HOUSE CALLS**

CALIFORNIA  
AMERICAN WATER

Take advantage of free Water Wise House Calls. Call California American Water at (831) 646-3205 to schedule an appointment with a certified Conservation Specialist.

*"After a Water Wise House Call helped me discover ways to save water, my water bill went from \$57 to only \$16!"*  
—Merry Trucksis, California American Water customer

California American Water has been providing free Water Wise House Calls to its customers since 2008 and utilizes in house trained audit staff at no cost to the Conservation Budget. The program is available to residents of single and multi-family properties and to owners and managers of apartments and condominiums, offering free residential audits to identify ways by which the customer can save water indoors and out.

California American Water's conservation staff completed 521 Water Wise House Calls in 2014, compared to 205 house calls in 2013. In addition, conservation staff completed 102 mini audits to aid in the investigation of high use water bills. Total customer contact was 623 conservation visits.

California American Water promoted the Water Wise House Call program specifically through bill inserts, rebate brochures, offering the service to customers who visited the office to make payments and by targeting customers who had received high water bills due to CAW's accelerated five-tiered rate design.

California American Water identified common inefficiencies and water waste in some of the Monterey residences. The most common such occurrences were:

- Toilet and faucet leaks
- Irrigation controllers set to run too long resulting in water waste
- Misaligned and broken sprinkler heads

California American Water's conservation staff assisted customers by showing them how to read their water meters and convert cubic feet to gallons so that customers can better identify their daily usage and also



compare the meter readings to the billing units identified on their water bills. In addition, conservation staff also assisted customers by properly adjusting their irrigation controllers to meet the plant water needs and to irrigate in compliance with MPWMD's two day a week watering schedule.

**California American Water offers free Water Wise House Calls.** A certified Conservation Specialist will visit your home, check for leaks, and identify ways you can save water both indoors and out. Our experts will teach you how to read your meter and help you develop an irrigation schedule based on your landscaping. We would like to help you save water and money by offering you a **free** Water Wise House Call. In addition to helping lower your water bill, you will also be helping to preserve our most precious resource: water.

**A WATER WISE HOUSE CALL PROVIDES:**

- ◆ **Leak Detection:** We will help you identify leaks inside and out. Leaks are not only big water wasters, they can also be very costly.
- ◆ **Read Your Water Meter:** We will show you how to read your water meter to find possible leaks. By monitoring your meter regularly, you can catch and fix leaks more efficiently.
- ◆ **Free Plumbing Retrofit Materials:** We will check your showerhead and faucet flow rates as well as toilet flush volumes. Free low-flow showerheads and faucet aerators for the bathroom(s) and kitchen will be provided where needed.
- ◆ **Schedules and Tips:** We will help you create appropriate landscape irrigation schedules and show you water saving tips. Resources on planting native and drought tolerant plants will also be provided.

**WHO'S ELIGIBLE?**

**All residents in the California American Water Monterey District are eligible for a free Water Wise House Call. Residents of single-family homes, condominiums, town houses, apartments, and mobile homes are all welcome to participate.**

**MAKE WISE WATER USE PART OF YOUR DAILY ROUTINE**

**Inside**

- ◆ Run dishwashers and clothes washers only when they are full. If you have a water-saver cycle, use it.
- ◆ Check for leaks in your toilet. Place a few drops of food coloring in the tank. If, after 10 minutes, color appears in the bowl, you have a leak.
- ◆ Turn off the tap while brushing your teeth or washing dishes in the sink.

**Outside**

- ◆ Make the most of your water by watering in the early morning. As much as 30 percent of water can be lost to evaporation by watering during midday.
- ◆ Use drip irrigation to water plants.
- ◆ Plant appropriately for your local climate. Check with local nurseries for non-invasive, drought-tolerant plants.



California American's Water Wise House Call program showed a 12-month water savings of 10.90 acre feet of water for participating customers in 2013 (year 2013 was used to provide a complete year of post-retrofit consumption). There were 206 audits and of those, 163 accounts showed water savings in the 12 months after the audit.

The audit reports also included recommendations on utilizing the rebate program for the replacement of specific appliances at customers' homes.

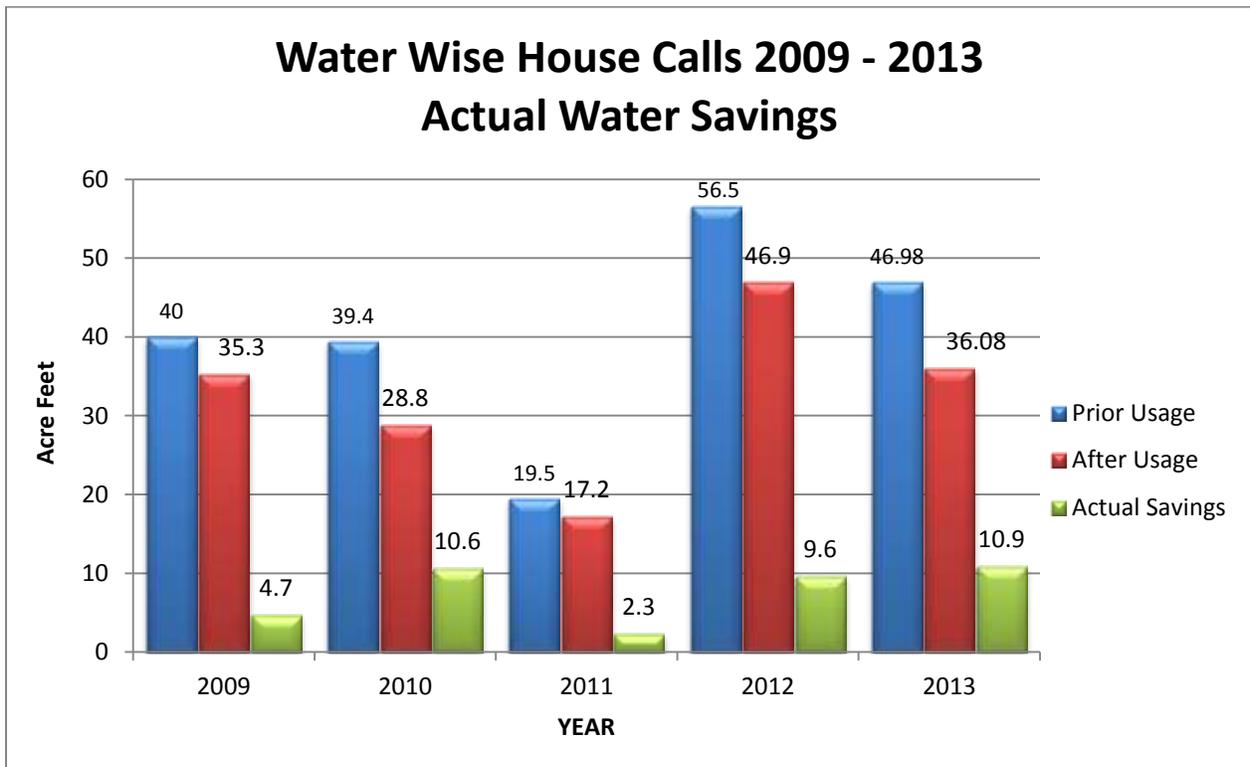
The Water Wise House Call program was monitored by inclusion of an evaluation survey form along with a pre-stamped envelope in the customer report package. Eighty eight surveys were returned. The customer evaluation surveys received from the Water Wise House Call service showed high customer appreciation. Comments included on the evaluation form acknowledged that the staff was courteous, helpful and knowledgeable:

- “Harriet was wonderful to work with and gave us a new appreciation for Cal Am.”
- “Melissa was very knowledgeable and helpful and we have implemented all of her recommendations.”
- “Love the shower timer and the hose sprayer. Thank you Kelly.”
- “Harriet was delightful, she gave me a better understanding of our usage and how we can use less.”
- “Kelly was very helpful and explained the tier pricing.”
- “I generally do not take my time to send an evaluation back, but Ray left a very good impression.”
- “Ray is the best!”
- “I was thrilled with the analysis and very impressed with Kelly’s professionalism and support.”

The Water Wise House Call program has been very successful in conserving water. Providing customers with an irrigation schedule, low flow devices, and recommendations for retrofits has been instrumental in saving 38.1 acre feet over a 5 year period, 2009 through 2013. The savings are based on actual usage records, collected 12 months prior to the audit and 12 months after the audit. [Table 3](#) summarizes these findings.

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Table 3. 2009 through 2013 Water Wise House Calls Program



#### 2009 - 2013 Residential Water Wise House Calls

Year	Prior Usage	After Usage	Actual Savings	Usage Reduction %	Number of Audits	Number Residents Using Less Water	Number Residents Using More Water	Residents Using Less Water %	Residents Using More Water %
2009	40	35.3	-4.7	11.8%	92	60	32	65.2%	34.8%
2010	39.4	28.8	-10.6	26.9%	118	83	35	70.3%	29.7%
2011	19.5	17.2	-2.3	11.8%	75	35	40	46.7%	53.3%
2012	56.5	46.9	-9.6	17.0%	169	116	53	68.6%	31.4%
2013	46.98	36.08	-10.9	23.2%	206	163	43	79.1%	20.9%

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## Leak Detection

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California American Water's conservation staff utilizes data logging technology to assist in evaluating difficult to diagnose high water bills by downloading up to 180 days of usage, hour by hour, from the company's radio read meters. By evaluating hourly usage patterns, usage data reports have aided in identifying the date range in which high usage occurred, and resulted in the identification of issues including improperly programmed irrigation controllers, leaks in the irrigation system, toilet leaks, service line leaks, and hoses left running.

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## Water Wise House Calls Pilot Program Utilizing iPad Technology

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California American Water's Monterey Division conservation staff in October of 2014 piloted a new Water Use Efficiency Evaluation program for its Residential Water Wise House Call Program utilizing tablet technology developed by Droplet Technologies.

The new program allowed us to increase our efficiency in how we conduct our on-site audits and also generate conservation reports to the customers. Working together with Droplet Technologies development staff, we were able to field test the new program and make suggestions to enhance the program to fully meet our specific needs. These suggestions were well received and many were implemented by the Droplet staff, helping to increase functionality and enhance the overall program value.



California American Water's auditor conducting a Water Wise House Call

Prior to the change, conservation staff would record customer information in an excel template and then print the worksheets to be used in the field. Once the on-site evaluation was completed, the conservation specialist would return to the office and enter all recorded data in a spreadsheet template, provide recommendations for fixture replacement and outdoor water savings, suggest a watering schedule, and then print and mail the report to the customer. This process was very time and labor intensive.

This evaluation application increases efficiency, saves time and energy, and improves customer communication. With the use of iPads by the field staff, field data such as fixture flow rates, irrigation controller settings, photographs and details of identified issues is inputted during the audit. A water use/leak calculator is included in the program to aid the Conservation Specialist in obtaining needed information quickly and accurately. Data is analyzed and presented in an individualized, detailed and attractive report which helps to engage the customer with suggestions to improve water efficiency, thereby saving water and money.

Due to the success of utilizing this new technology, the program has now been rolled out statewide, and is providing a valuable tool in our effort to serve our customers' water usage and conservation needs.

This new program includes many new features which allow us to spend more time educating the customer and conducting more residential water wise house calls. Some of the highlights of this new technology include:

- Data is uploaded via wireless connection to a secured back-end database. Evaluation data is stored in a normalized data set that is used for reports, usage analysis and comparisons for future evaluations.
- Indoor components include washing machines, dishwashers, faucets, showers and toilets all with pre-configured and easy to select flow rates. Items can be marked as inefficient and customer will be prompted to upgrade and given applicable rebate information as well as general highlight information

- Outdoor components include meters, irrigation controllers, landscape details, and current controller schedule documentation
- Creates custom controller schedules based on premise ET, plant type, soil, and microclimate
- Shows customers potential savings in gallons per year for all recommended indoor and outdoor upgrades and repairs
- Provides customer with a detailed list of issues and upgrades that can be provided to potential contractors for bid purposes
- Automatically promotes programs, rebates or specific messages to customers based on actual site issues and recommendations
- Application is pre-populated with many standard issues and solutions including default highlight pages to educate the customer on recommendations and the benefits of compliance
- Quickly delivers detailed, accurate and easy to understand information to the customer while their interest is still high

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## Residential & Commercial Plumbing Retrofit

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California American Water has been offering various free water savings devices for its residential and commercial customers including showerheads and kitchen faucet aerators with a flow rate of 1.5 gallons per minute, bathroom faucet aerators with a flow rate of 0.5 gallons per minute, leak detection tablets/kits and outdoor water saving tools such as soil moisture meters and hose nozzles that automatically shut off when not in use.

In 2014, California American Water tracked the distribution of the various water savings devices to identify the total number of each device distributed. 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)
  - Residential Water Wise House Calls
  - Commercial audits
  - Upon customer request
-

- Special giveaway offer 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. The total number of each type of water saving device distributed in 2014 to California American Water's residential customers in Monterey are listed in Table 4. Water saving device distribution by MPWMD is discussed in the MPWMD section of this report.

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

Water Saving Device	# of units/ activities	\$ per unit, activity, etc.	Total \$ spent	Estimated water savings per unit per year	Unit lifespan (yrs)	Estimated Annual measure savings (AFY)	Estimated Lifetime measure savings (AF)
Showerheads	4,527	\$3.50	\$15,884	0.0062	5	28.06	140.30
Bathroom Faucet Aerators	7,570	\$0.40	\$3,028	0.0017	5	12.87	64.35
Kitchen Faucet Aerators	3,545	\$2.05	\$7,267	0.0017	5	6.03	30.15
Leak Detection tablets	2,800	\$0.06	\$168	Varies	5	2.46	12.30
Leak Detection Kits	4,170	\$0.99	\$4,128	Varies	5	2.46	12.30
High Efficiency Pre Rinse Spray Valve	9	\$26.00	\$234	0.392	5	3.52	17.64
Shower Timers	3,321	\$1.05	\$3,487	unknown	5	unknown	unknown
Dish Squeegees	3,849	1.99	\$7,659	unknown	5	unknown	unknown
Hose Shut Off Nozzles	4,328	\$2.55	\$11,036	Varies	3	Varies	Varies
Moisture Meters	4,172	\$1.88	\$7,834	unknown	5	unknown	unknown
<b>Total</b>	<b>38,291</b>	<b>\$2.02</b>	<b>\$60,696</b>	<b>-</b>	<b>5</b>	<b>52.94</b>	<b>264.74<sup>1</sup></b>

<sup>1</sup> Total water savings only include 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.

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## Large Landscape Audits and Water Budgets

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Landscape water audits and budgets are required by MPWMD's Regulation XV, Rule 172.

Each year, California American Water identifies new customers who require landscape water audits and budgets. Customers who require landscape water audits and budgets include large residential customers whose water usage averages 320 units (23,936 gallons) per month, dedicated irrigation meters, irrigation of areas greater than three acres, and irrigated open space. These select customers are required to adhere to their budgets during Stage 2 (and higher) Water Conservation under Rule 14.1.1.

California American Water reviewed its records based on water year October 1, 2012 through September 30, 2013, to identify customers who met the criteria to receive a landscape audit and budget and who have not had an audit in the past. There were 23 customers who exceeded the threshold of 320 units (23,936 gallons) or more on an average monthly basis, one customer who also exceeded 320 units or more with lot sizes of three acres or greater and 5 high water use customers with dedicated irrigation meters. There were a total of 29 required landscape audits to be completed by September 30, 2014. California American Water provided the MPWMD the list of customers who needed the required audit completed by the MPWMD on December 29, 2013.

In 2014, California American Water sent a total of 45 notification and reminder letters to customers who required landscape audits. CAW staff coordinated efforts with MPWMD by contacting the landscape irrigation auditors and providing customer water usage data. CAW staff also input the reported landscape budgets for residential and dedicated irrigation metered customers in preparation for Stage 2.

The landscape water audits and landscape water budgets are done through third party contractors administered by the MPWMD. California American Water staff coordinates audits once they are retained through the MPWMD.

Details of the large landscape audit program are described in MPWMD's Conservation Activities section.

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## Landscape Grant Program – Water Use Analysis

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California American Water's successful landscape grant program, implemented in 2011, continued in 2014 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 a focus on replacing turf on city properties and schools with low water use plants, and/or 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 the summer of 2014, California American Water received three proposals from the City of Monterey and one proposal from the City of Pacific Grove, one from the Monterey Peninsula Unified School District and one from the Carmel Unified School District. After reviewing the proposals from each of the applicants, California American Water selected project sites which had the greatest potential water savings including high visibility.

California American Water awarded the City of Monterey \$50,000 for the city's project to assist in the removal of approximately 20,000 square feet of turf at its Laguna Grande Park on Virgin Avenue in Monterey in partnership with the city's Neighborhood Improvement Program and the Monterey Regional Park District who provided further funding. The total estimated cost of the project was \$265,000 with actual water savings of 500,000 gallons per year.

Laguna Grande Park was built in 1981 and features barbecue picnic areas, volleyball courts, play equipment, walking and bike paths and a large turf area where the new soccer field will be located. The funding for the new artificial turf is to provide children and residents with an athletic field for organized sports. This park serves not only the residents of the City of Monterey but shares boundaries and a bridge with a water way to the City of Seaside's portion of the park. The City of Seaside has a large yearly event in their section of the park called "Jazz in the Park," which draws several thousand people to the shared recreation area.

In addition, California American Water awarded \$30,000 to the City of Pacific Grove to remove 10,200 square feet of turf and replace it with native drought tolerant landscaping at its Lovers Point Park - an area with high visibility and with potential water savings of 225,000 gallons a year. The project began in September of 2014 and was completed in December 2014.

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## City of Monterey – Landscape Grant Program

Before (Natural Turf)



After (Artificial Turf)



## City of Pacific Grove – Landscape Grant Program

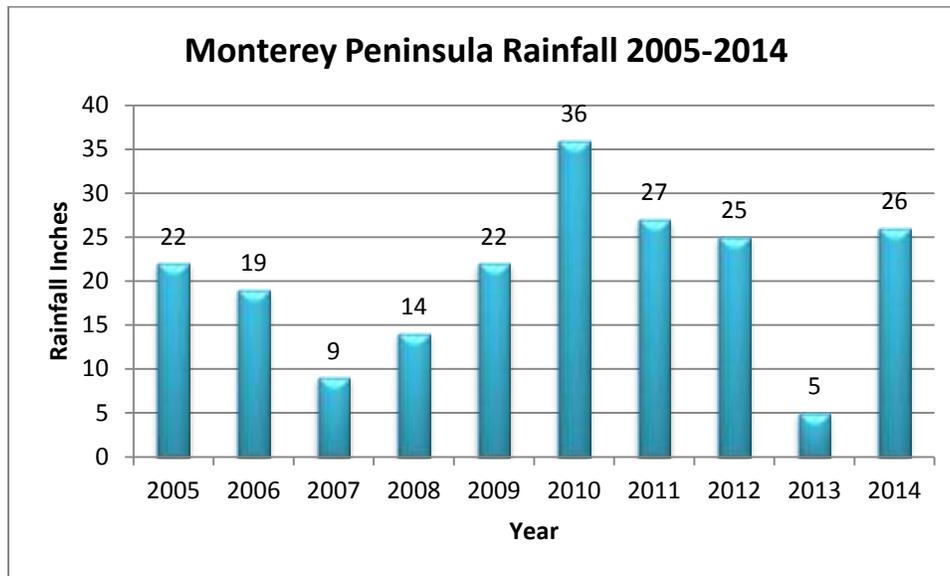
Before (Natural Turf)



After (Drought Tolerant Plants)



Table 5. Monterey Peninsula Rainfall – 2005 – 2014 Los Padres Dam Weather Station



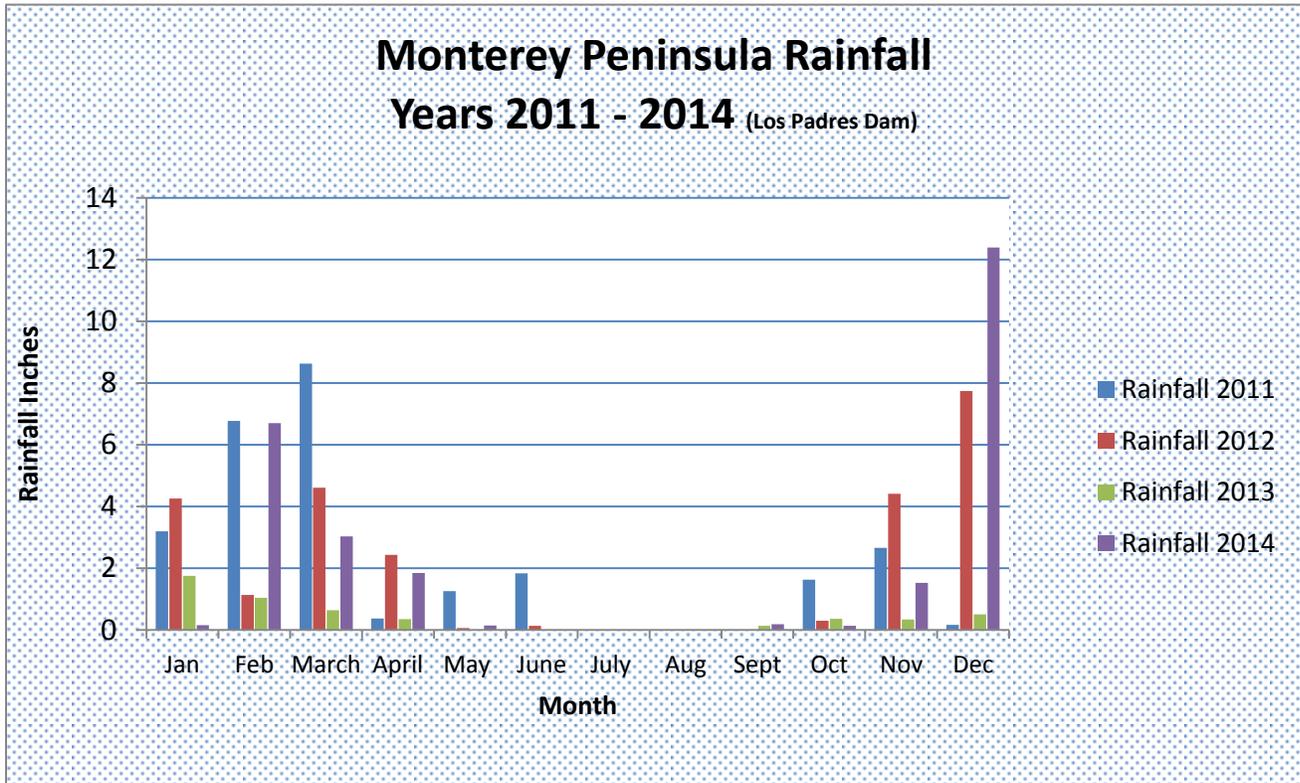
### Rain Sensor & Soil Moisture Sensor Installation Program

California American Water continued its Rain Sensor Installation Program through its contractor EchoTech and has installed 355 rain sensors since the program began in 2011 for residential and non-residential customers. In addition, soil moisture sensors were offered to select customers in 2014 who have landscapes which would benefit from this add-on to the Sensor Program.

The rain sensor has a shut off device which automatically signals the irrigation controller to curtail irrigation when it rains, and allows watering to resume when needed. The rain sensor can be programmed to halt irrigation for up to 72 hours after a rainfall event. The soil moisture sensor can be used throughout the year to assist customers in monitoring their usage and to refrain from overwatering their landscapes.

A pilot study program completed by California American Water's landscape consultant Bob Costa in 2013 comparing the benefits of a rain sensor over soil moisture sensors resulted in the soil sensor providing greater water savings. Bob Costa continues to recommend the installation of the rain shut off device and pointed out the significant challenge that soil moisture sensors may pose to the inexperienced water manager or homeowner. Therefore, California American Water ensures that training is provided to each customer who requests the installation of soil moisture sensors. In 2014, there were a total of 29 soil moisture sensors and 10 rain sensors installed.

Table 6. Monterey Peninsula Monthly Rainfall 2011 – 2014 (Los Padres Dam Weather Station)



Monthly Rain Fall for Years 2011 through 2014 (Los Padres Dam)													
Year	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals
<b>Rainfall 2011</b>	3.2	6.77	8.63	0.37	1.26	1.84	0	0	0	1.63	2.66	0.17	26.53
<b>Rainfall 2012</b>	4.26	1.14	4.61	2.43	0.06	0.14	0	0	0	0.3	4.41	7.74	25.09
<b>Rainfall 2013</b>	1.75	1.04	0.64	0.35	0	0	0	0	0.14	0.36	0.34	0.51	5.13
<b>Rainfall 2014</b>	0.16	6.7	3.03	1.85	0.15	0	0	0	0.19	0.13	1.53	12.4	26.13

## Commercial, Industrial, Institutional (CII) Audits

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California American Water continued its commercial audit program established in 2009 along with its contract with WaterWise Consulting to conduct commercial, institutional, and industrial audits during 2014. Water Wise Consulting completed 32 audits with an estimated potential savings of 60.99 acre feet following the implementation of the audit recommendations. Since the program began in 2009, over 200 commercial customers have been reached with great potential water savings as the result.

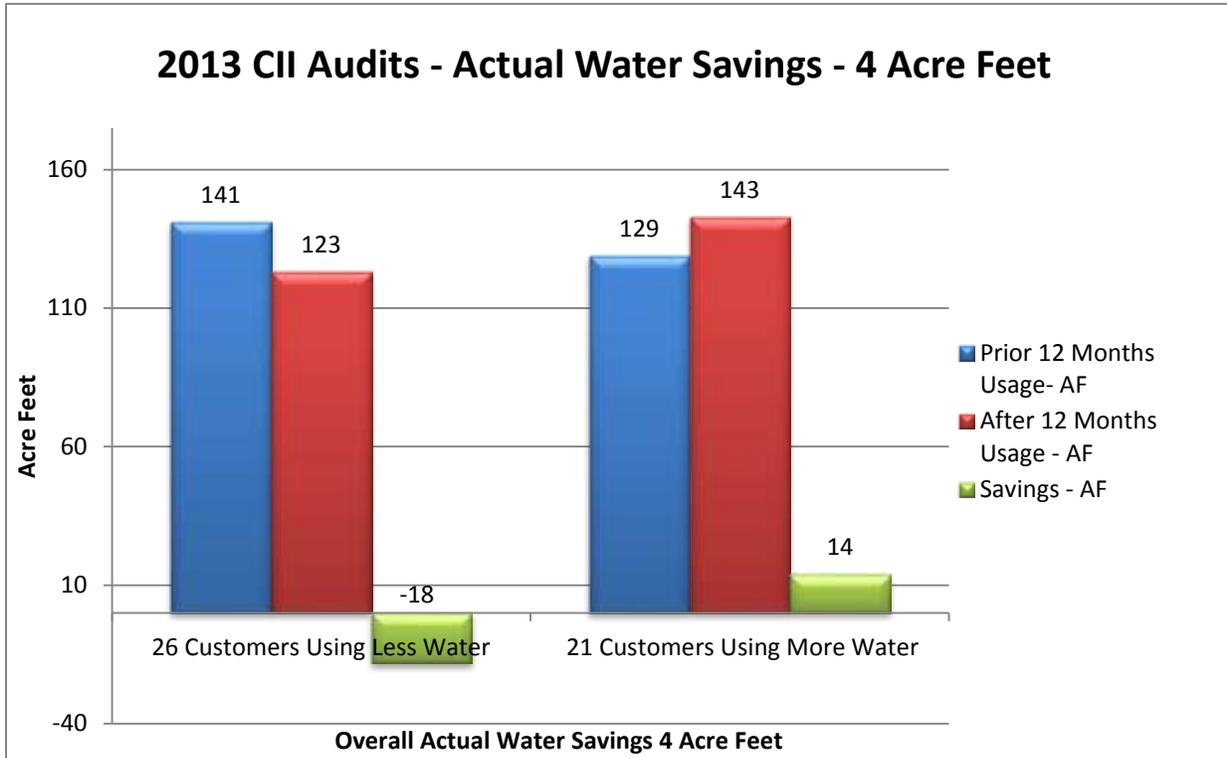
California American Water's conservation staff followed up with the customers on site and in person to review the audit reports and provide free devices, such as faucet aerators and pre-rinse spray valves. Customers were also requested to sign a statement confirming their receipt of the report and their consent for MPWMD to receive a report copy.

Customers were given audit reports that focused on applicable water-saving devices, and estimated water and cost savings together with 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.

The actual water savings for the audits shown here reflect year 2013 audit activity in order to show a full 12 months of post audit water usage as required. Comparing pre-audit and post-audit usage, there were a total of four acre feet of water savings, however, 26 of the 47 audits showed a savings of 18 acre feet, whereas 21 customers increased their usage by 14 acre feet during 2013. Many of these customers have water meters that serve not only indoor plumbing fixtures but also for outside irrigation. Due to the continued drought, there was an increase in summer outdoor usage which is most likely the reason there was an increase in consumption for some of these 21 customers. Another possible reason for an increase in usage could be the result of an increase in business activity for some of these customers since the economy has improved.

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Table 7. Commercial, Industrial, & Institutional Audits – Water Savings



	26 Customers Using Less Water (AF)	21 Customers Using More Water (AF)
<b>Prior 12 Months Usage - AF</b>	141	129
<b>After 12 Months Usage - AF</b>	123	143
<b>Savings- AF</b>	-18	14
<b>Number of Audits</b>	26	21
<b>Increase or Decrease In Usage</b>	-13%	11%

## School Education and Outreach

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In 2014, 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 Awareness Committee (WAC);
- Outreach to students at community events offering free educational materials;
- Outreach to students in-class and at afterschool activities to offer education conservation.



### Zun Zun School Performances

California American Water, through the WAC, offered school presentations by the Zun Zun performance group. In 2014, Zun Zun provided fourteen 45-minute performances within California American Water's service territory. The performances reached a total of 2,715 students and covered topics such as the water cycle, watershed, indoor conservation and conservation tips, including information about fixing leaks.

Table 8. School Education Program – Zun Zun Performances

Date	School	Performances	Number of Students	City
2-14-14	San Carlos	2	373	Monterey
2-26-14	All Saints	2	250	Carmel
9-29-14	Del Rey Woods	2	452	Monterey
9-30-14	Highland Elementary	2	398	Seaside
10-23-14	Bay View Academy	2	342	Monterey
12-9-14	FootHill	2	400	Monterey
12-12-14	Ord Terrace	2	500	Seaside

## Water Awareness Committee Activities

California American Water coordinated with the WAC to offer school education opportunities and outreach. Activities included class presentations, as well as interactive school assemblies. Both California American Water and the MPWMD are founding members of WAC.

In addition to school education programs, WAC sponsored a Water Awareness Day Celebration at the Monterey County Fair in September. The event was held on Saturday, September 2, 2014. This family-friendly event featured booths including: California American Water, MPWMD and Marina Coast Water District.



## **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. (This information is provided under separate cover.) As expected, overall consumption is highest during the summer months and lower during the winter months. Consumption also rises as rainfall decreases: From 2005 through 2014, consumption was highest when rainfall was lowest (2013) and conversely, consumption was lowest when rainfall was highest (2010).

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## **Residential Five-Tiered Rate Design**

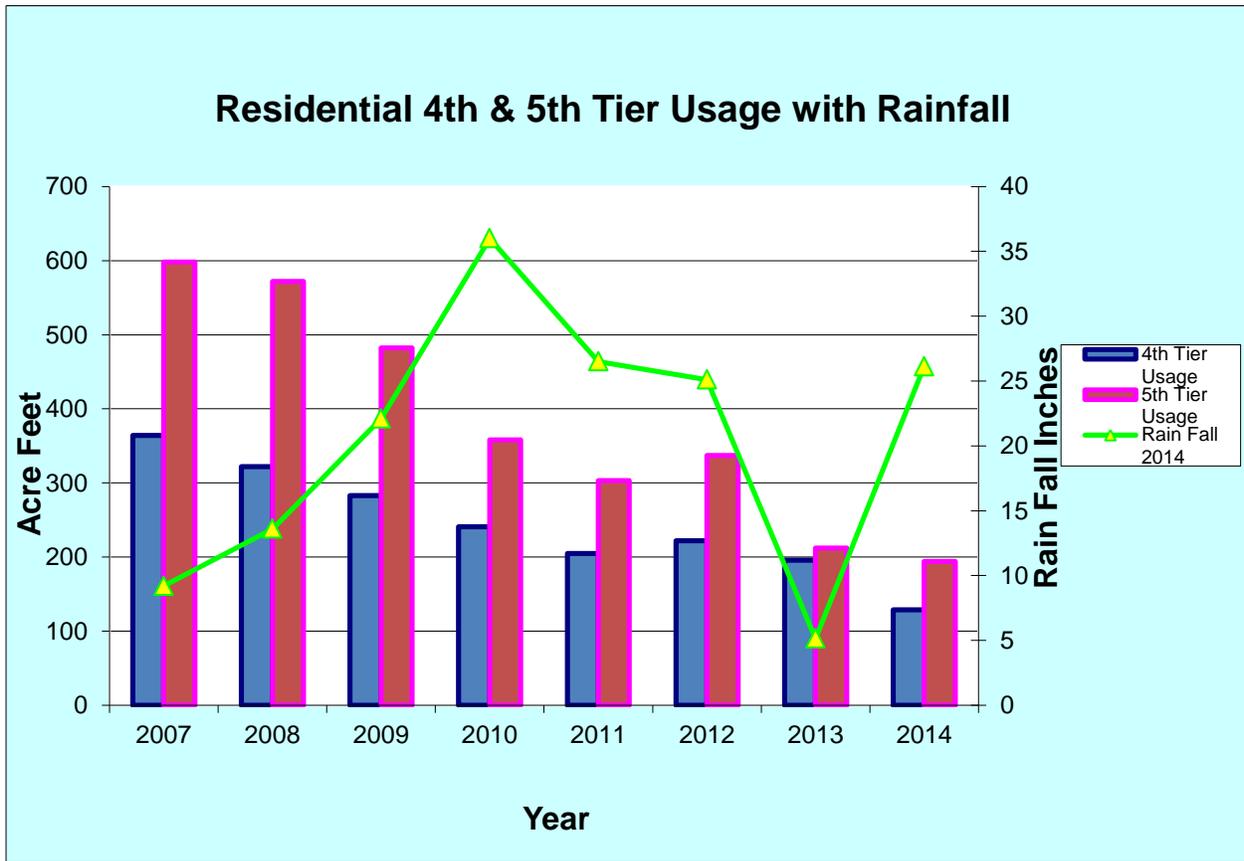
California American Water's five-tiered residential allotment rate structure has also been instrumental in reducing overall outdoor water usage in addition to the aggressive conservation programs administered by CAW and the MPWMD. Each residential customer is allotted 15 units per tier or 1,122 gallons per person per month. Current tiered rates are: \$0.5872, \$1.1272, \$2.8417, \$5.6831, and \$7.5967. Normally, the base allotment is enough to cover indoor usage and limited outdoor usage, which is billed at the first, second, and third tiers. The majority of outdoor usage for large residential water users is billed at the 4<sup>th</sup> and 5<sup>th</sup> tier.

There has been a significant reduction in fifth tier usage, dropping from 598 acre feet in 2007 to 194 acre feet in 2014, a percentage reduction of 68%. In order to monitor the effectiveness of CAW and the MPWMD, since 2009, California American Water tracks actual usage of customers who receive residential and commercial audits, rebates, rain sensors, or participate in other conservation programs. Customer usage records indicate a significant savings as explained in this report.

Rainfall during the winter and summer months also affects outdoor usage. Comparing rainfall records from 2005 to 2014; 4<sup>th</sup> and 5<sup>th</sup> tier usage normally decreased during years of high rain fall and increased during years of low rain fall.

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Table 9. Residential 4<sup>th</sup> and 5<sup>th</sup> Tier Usage & 2014 Rainfall – Years 2005 to 2014



Residential 4th & 5th Usage with Rainfall

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
4th Tier Usage	334	332	364	322	283	241	205	222	196	129
5th Tier Usage	460	513	598	572	482	358	303	337	212	194
Rain Fall 2014	21.6	19.2	9.2	13.6	22.1	36	26.5	25.1	5.13	26.13

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## Public Outreach

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All 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. The company continued its proactive outreach campaign to help keep water consumption within production limits on the Seaside Basin and Carmel River.

We began the year with our "Turn off your Sprinklers" bill insert campaign, reminding customers to stop irrigation during the rainy season. This was followed by our "Fix-a-Leak Week" campaign through print and radio to encourage customers to examine their properties for leaks in preparation for the irrigation season. California American Water continued its multimedia campaign to promote water efficient behaviors and eliminate water waste through numerous social media postings and several YouTube videos. In 2014, the following conservation outreach activities were conducted:

### Public Radio Announcements

California American Water sponsors the Monterey Peninsula's local public radio station and is featured on regular radio spots. This year the company made a major push for conservation by offering specific water saving tips for residents, which included information on rebates and recommended outdoor watering schedules. The company also ran its "Turn off your Sprinklers" campaign through a multi-week- sponsorship aired on KAZU FM, the local NPR radio station. Themes included: promotion of general conservation tips and the company's Savings are in Season campaign. KAZU FM has a strong listenership within California American Water's Monterey Peninsula service territory. Informal customer feedback to the announcements has been overwhelmingly positive. Advertisement was also conducted in the Carmel Pine Cone, The Monterey Herald, and various other radio stations some of which included Spanish speaking audiences.

Annual conservation outreach radio underwriting expense: \$1,451

### Television Advertising

California American Water was unable to conduct any television advertisement regarding conservation.

Television advertising cost: \$0

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### Print Advertising Campaign

California American Water, leveraging its discount, long-term print advertising contracts with local newspapers, managed to put out a robust print campaign of multiple and repeated messages of various conservation themes. The company also sponsored its “Turn off your Sprinklers” campaign, a print advertisement series encouraging customers to adjust irrigation in preparation for the rainy season. This year the company made a major push for its “Fix-a-Leak Week” campaign, which encourages customers to check their properties for leaks in preparation for the irrigation season. In addition, California American Water also supported “Water Awareness Month,” that featured targeted mailers and other advertisements, promoting responsible water use. Colored inserts were run in the Carmel Pine Cone and Monterey County Weekly. In addition, advertisements were purchased in both publications to run through the rest of 2014 in the Pine Cone and intermittently with the Herald. Each of these publications boasts a circulation of 30,000 to 35,000 on the Monterey Peninsula--which roughly equates to the number of California American Water residential service connections within the MPWMD boundaries. Ad themes centered on rebates and basic residential water conservation and drought messages.

Print advertising campaign cost: \$12,185

### Website: Monterey Water Facts

California American Water and MPWMD continued supporting the shared website for the Monterey area, which was established in 2009. 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 addition, California American Water and the MPWMD continued to support their 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

California American Water in partnership with MPWMD continued its Monterey Water Conservation Facebook page to keep local contacts informed about conservation efforts. The page provides timely conservation tips and news about upcoming events and local water issues.

### Mailers/Bill Inserts

Throughout the year, the company included inserts on various subjects including water quality information, payment arrangements, rates and its low-income program. In 2013, California

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American Water customers received an individual mailing entitled "Mandatory Drought Restrictions," which discusses the various mandatory water-use restrictions and reduction targets and how residents can do their part to help meet them. Total Mailer cost: \$179,199

## Running on Empty

California is facing one of the most severe droughts in recorded history due to three consecutive dry years with minimal precipitation. Our state runs on water for its livelihood, but our supplies are low. During this time of severe drought, we must be extra diligent about saving water to conserve what remains.

Here are some simple ways to save water indoors:

- **Find leaks and fix them.** Check your water meter and examine faucet gaskets and pipe fittings. Place a drop of food coloring in your toilet tank. If any color shows up in the bowl after 15 minutes, you have a leak.
- **Wash only full loads** in your dishwasher and washing machine.
- **Take five-minute** or shorter showers.
- **Turn the water off** when brushing teeth or shaving.
- **Install water-efficient** washing machines, dishwashers and toilets.
- **Install low-flow showerheads and faucet aerators** in the kitchen and bathroom.
- **Keep a container of drinking water** in the refrigerator instead of running the tap.
- **Wash fruits and vegetables** in a basin instead of running water from the tap.
- **Collect the water** you use from washing fruits and vegetables and use it for your plants.

**California American Water cares for the environment.** We are dedicated to promoting biodiversity and environmental stewardship in partnership with local residents, schools, community organizations and government agencies. From beach cleanups to preservation of watersheds, we are dedicated to protecting and sustaining our environment, now and well into the future. We can care for our environment together by conserving water – one drop at a time.

**We're Here to Help**  
California American Water is here to help our customers conserve even more water in our drought state. Visit the Learning Center on our website at [www.californiaamwater.com](http://www.californiaamwater.com) for conservation tips, help with leak detection and information about our Voluntary Water Conservation Plan. Stop by our office located at **511 Forest Lodge Road, Suite 100, Pacific Grove, CA 93950** for **free conservation devices and leak detection kits** that will help you save water and money every day. For more information, call our **local conservation department at (831) 646-3205**.

Example of "Drought Restrictions" customer mailer sent in May

## Social Media

California American Water continued its social media support of conservation outreach by complimenting and echoing the same messaging produced in its print, radio and mailer campaigns. This includes routine updates to both the company's own Facebook page and the one it shares with MPWMD, which focuses on conservation.

California American Water also maintains a Twitter account, which it uses to inform its followers of various news items, including conservation tips and rebate offerings.

In 2014, California American Water started a Pinterest page, which features photos and descriptions of the various appliances and water saving devices eligible for rebates.

### Earned Media Campaign

California American Water also worked with local media to promote participation in events as well as national programs such as the Environmental Protection Agency's Fix a Leak Week, National Drinking Water Week and National Water Awareness Month, during which California American Water authored Opinion Editorials on water conservation for the Monterey County Herald. 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 MPWMD 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 2014, California American Water and MPWMD participated in the following events: Pacific Grove Good Old Days, Earth 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. 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. (This information is provided under separate cover.) As expected, overall consumption is highest during the summer months and lower during the winter months. Consumption also rises as rainfall decreases: From 2005 through 2014, consumption was highest when rainfall was lowest (2013) and conversely, consumption was lowest when rainfall was highest (2010).

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## California American Water, Monterey County District – 2015 Program Goals

The 2015 California American Water programs funded by the Conservation Surcharge are summarized in the following table and described in detail in the narrative that follows.

Table 10. California American Water Monterey County District: Summary of 2015 Program Goals

Program	Budget	Implementation Plan	Timeline
Residential Audits (Former BMP 1)	Labor Budget	Complete 200 SF and 10 MF audits	Offer audits throughout 2015
Residential Plumbing Retrofit (Former BMP 2)	\$8,200	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)	\$8,000	Install 40 Residential or Non Residential Rain sensors and/or Soil Moisture Sensors	Jan through Dec 2015
Large Landscape Upgrade Grant Program (BMP 5)	\$25,000 2015 - 2017	Provide grants for expenses for equipment, materials, and/or installation to upgrade to conservation friendly landscapes	Jan through Dec 2015
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 2015
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 2015

Zun Zun Performances and WAC Activities (Former BMP 8)	\$5,000	Market to schools in Summer of 2015 with events in the fall.	Performances in 2015 WAC ongoing.
CII Audits (Former BMP 9)	\$60,000	Offer CII Audits to 30 customers – greatest potential need & to comply with the new BMP Compliance Rate Structure	Ongoing 2015
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 2015

## Residential Water Wise House Calls

California American Water will continue to provide Residential Water Wise House calls to its customers in 2015. With the continued state drought and Governor Brown's Executive Order B-29-15, it is expected that the number of customer requests for this service will increase especially during the summer months when usage is highest as customers irrigate their landscapes. Additional efforts to promote customer participation will include offering water wise house calls for customers with high water bills and promoting the program at events and through California American Water ads. California American Water's conservation staff set a target goal of 200 single family audits and 10 multi-residential audits to be completed in 2014 and actually surpassed its goal and completed 621 house calls in 2014. The expectation is to complete 300 Residential Water Wise House Calls in 2015.



Leaking toilets is one of the major causes that results in high bills. California American Water in 2015 will introduce to its Residential Water Wise House Call customers, the Leak Alertor detects faulty flappers and other toilet leaks. The Leak Alertor attaches to the toilet tank and alerts the resident by means of a visible and audible alert system when a leak is detected by the device. Some of the features are:

- Installs in seconds without tools
- Works on all flapper based toilets
- Visual & audible alert system
- Automatic reset after leak repair
- Replaceable battery that lasts up to two years

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## Residential Plumbing Retrofit

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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 devices are distributed. The focus will be on the hospitality industry such as hotels and 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, 1.5 GPM kitchen faucet aerators, and 0.5 GPM bathroom aerators. In addition, California American Water will promote 1.5 GPM showerheads 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 CUWWC.

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## Large Landscape Upgrade Grant Program

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California American Water will continue its successful Large Landscape Grant Program developed and implemented in the fall of 2010 for large landscape customers including cities, schools and parks. In 2014, a total of \$80,000 was awarded to two key cities with a combined potential annual savings of 750,000 million gallons or 2.3 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. Sites are specifically chosen for high visibility and visitor traffic in order to maximize educational value and promote similar retrofits at customer sites.

In 2015, California American Water's objective is to fund one landscape grant project at a cost of \$25,000 to one of the 3 school districts in the company's service area. The proposed sites will be selected based on projected potential water savings, cost to retrofit, educational value of site, project participation and engagement from the program partner and other criteria.

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 annually to monitor the success of the program.

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## Rain Sensor Installation Program

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California American Water will continue the 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 and will also start the installation of soil moisture

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sensors through its contract EcoTech. The focus will continue to be the customers who have the greatest potential need to reduce their water usage especially during the winter season.

We will continue to focus on customers who are billed in the 4<sup>th</sup> and 5<sup>th</sup> tier of California American Water's five tier residential rate structure during the three consecutive winter months of December, January and February. In addition, we will continue to focus on capturing water savings from customers who are unsure of when to begin and to cease irrigating or turn off their controllers either during the months of March, April, October and/or November.

The estimated cost is \$150 per customer, which includes \$40/hour labor for 2.5 hours plus the cost of each rain sensor estimated at \$50.

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## CII Audits

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California American Water will continue in 2015 to provide commercial, institutional and industrial audits, and plans to complete up to 30 CII audits in 2015 utilizing experienced contracted consultants.

The focus will continue to be auditing customers who have the greatest need and potential to achieve significant water savings. California American Water will continue to meet with each customer who receives a CII audit and also offer rebates and any programs that may assist in reducing overall water usage.

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## Monterey Peninsula Water Management District – 2014 Programs Funded by the Conservation Surcharge

The 2014 MPWMD programs funded by the Conservation Surcharge are summarized in the following table and described in detail in the narrative that follows.

Table 11. Monterey Peninsula Water Management District: Summary of 2014 Programs

Program	Program Costs	Need For Program	Nature of Activity	Measurable Goal	Results	Estimate Savings
Water Conservation Representative	\$90,502.49 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	N/A	Provide education and hands-on learning. Focus is on reducing outdoor and CII water use.	Laundry to Landscape Workshops and CII efficiency requirements	Attendance by at least ten persons per event	Exceeded expectations	Not quantifiable
Water Wise Gardening for Monterey County	\$5,000	MPWMD has licensed product for web use, rather than reprinting CDs.	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	4,207 unique hits on software in 2014	Not quantifiable

Program	Program Costs	Need For Program	Nature of Activity	Measurable Goal	Results	Estimate Savings
Water Audits & Budgets	\$31,660	Required by MPWMD Regulation VX	Outdoor irrigation that meets certain specifications is required to obtain a landscape water audit and budget and to adhere to the budget during Stages 2-4.	Water use stays within budgeted amount	20 audits were conducted in 2014	
Linen/Towel Reuse Program	\$6,595	Supports hotel room notification of linen and towel reuse program.	Customers encouraged to reuse towels and linens. Drinking water is to be provided only upon request.	Reduction in laundry, and water and energy consumption	Ongoing program	Up to 101 AFA @ 60% occupancy
CIMIS Station Maintenance	\$1,368	CIMIS data is used by weather-based irrigation controllers to schedule irrigation times.	MPWMD sponsors three CIMIS stations in Zone 2/3 and Zone 3. MPWMD maintains the stations.	Reduced outdoor water use during low ETo	Data is available on CIMIS website	Not quantifiable

Conservation Devices	\$80,200	Provide conservation devices to customers to reduce consumption	Provided showerheads, shower-savers, faucet aerators, hose nozzles, and other items	Reduce wasted water	See Conservation Devices Section	> 32 AFA
Conservation Printed Material	\$0	The printed material program acquires updates and distributes water conservation materials to the public via local retailers, organizations, and other means of notification.	Printed and distributed post cards to CII users promoting water efficiency requirements	Support BMP programs, provide at 3+ events, and reduce water usage.	MPWMD distributed conservation materials, including the new postcard at community events and meetings	Not quantifiable
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	127 instances of Water Waste were compliant within reasonable time	Not quantifiable

## 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), the 2007 General Rate Case (D.09-05-029), and the 2010 GRC (D.12-06-016). The position is primarily responsible for water waste enforcement, including responding to reports of water waste and completing 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.

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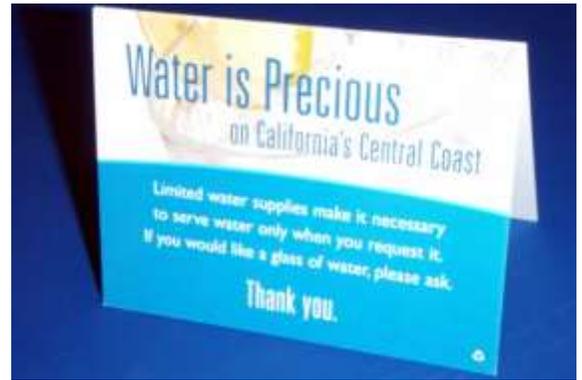
## Linen/Towel Reuse Program

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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 2013, MPWMD distributed the following:

- Towel Cards – 1,100 pieces
- Water Service on Request Cards (see photo on right) – 2,400 pieces
- Linen Reuse Pillow Cards – 2,700 pieces
- Conservation Message Mirror Clings – 8,200 pieces



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## The California Irrigation Management Information System (CIMIS)

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During 2014, 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 maintain locations for CIMIS stations in ETo Zones 2 and 3. The locations provide full coverage ETo data for the Monterey Peninsula. MPWMD staff maintains the stations by cleaning the devices periodically.

## Water Conservation Seminars/Workshops

MPWMD has focused its training agenda on helping provide the tools necessary for gardeners, landscapers, builders, homeowners, plumbers and others to maximize water efficiencies. During 2014, 11 workshops were held. Five classes were on the topic of Greywater Laundry to Landscape Systems and educated a total of 121 people. Greywater installation kits containing a three-way diverter valve, PVC connections, irrigation tubing, and other components were provided to participants that committed to installing a system in their homes the weekend following the class.

MPWMD also hosted four rainwater harvesting classroom-style workshops and three demonstration cistern installations. Demonstration sites include MPWMD's offices, Earthbound Farms, and the Carmel Valley Community Youth Center. There were 166 participants in the rainwater harvesting workshops. Materials for each demo installation cost approx. \$1,500. The instructor fee for all classes was \$3,300.



Rainwater Harvesting workshops included samples of various types of cisterns



MPWMD staff installs a solid pad at the base of the Monterey cistern demonstration site

## Water Wise Gardening for Monterey County

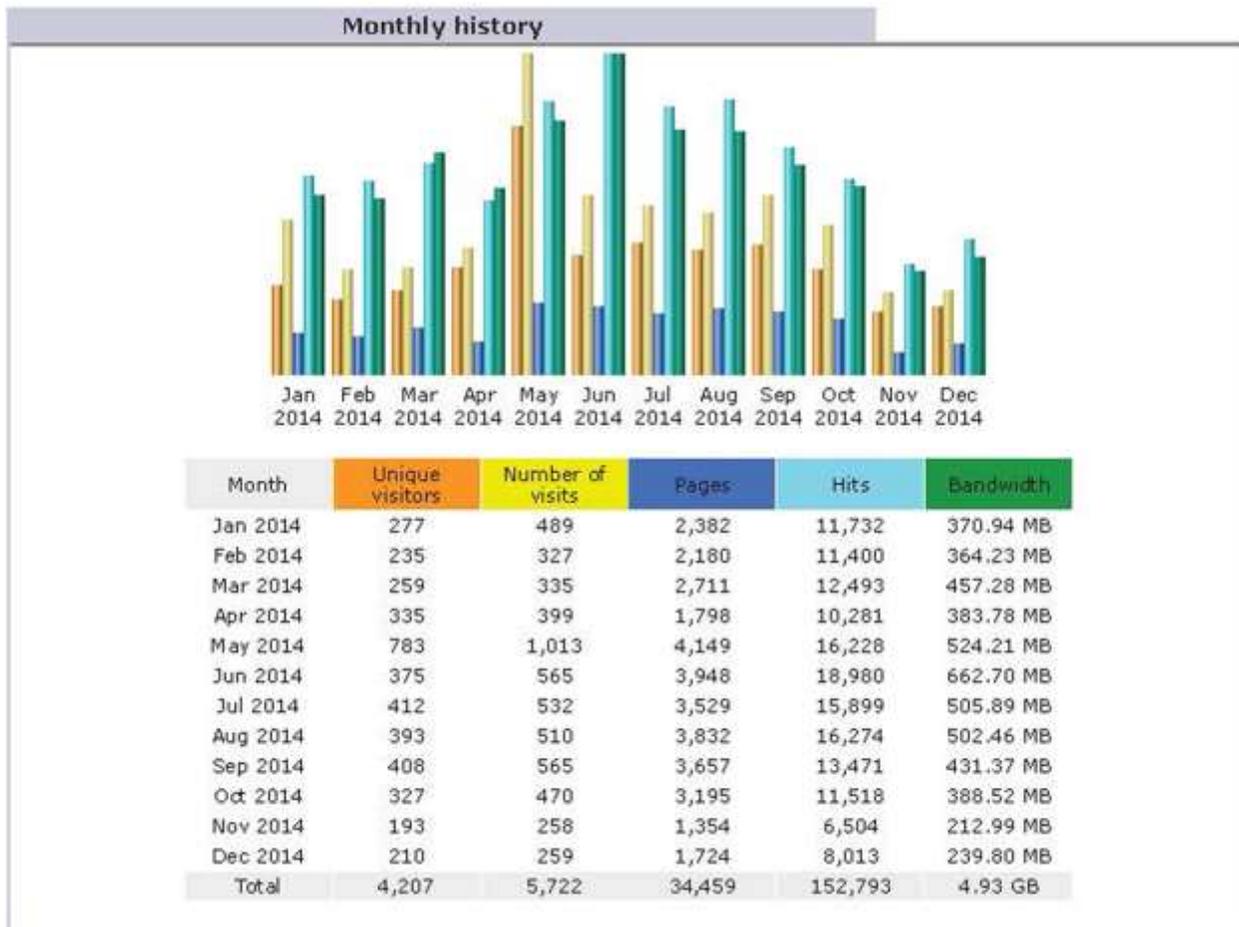
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Water Wise Gardening for Monterey County is a highly desirable landscape planning software that was designed specifically for Monterey County. The GardenSoft software was developed with sponsorships from California American Water and MPWMD through the WAC. 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.

The software is available as a web application for an annual subscription of \$5,000 for unlimited access and that can be reached via links from the California American Water/MPWMD conservation website ([www.montereywaterinfo.org](http://www.montereywaterinfo.org)) and from the WAC website (<http://www.monterey.watersavingplants.com/monterey.php>). During 2014, the web application had 4,207 unique hits on the websites. A breakdown of site hits by month is shown on Table 12.

Table 12. Water Wise Gardening for Monterey County, Website Hits by Month, 2014



## Water Audits/Budgets

The Landscape Water Audits and Landscape Water Budgets program involves an on-site analysis of existing plant types and locations, soil types, existing irrigation and watering practices and equipment. The auditor 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 (and higher stages), 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.

In 2014, WaterWise Consulting completed 20 landscape audits/budgets. The total cost of these audits was \$31,660. The average audit cost was \$1,583.00. Each report has suggestions

regarding retrofits or changes in controller settings to save water. For all 20 properties, if all the suggestions were implemented there would be 872,023 gallons of water saved each year. The average water savings per property is 48,445 gallons per year. The total cost of the water is \$52,508, or \$2,917 per property on average. The most common irrigation recommendations are replacing the irrigation controllers with weather based controllers, retrofitting spray heads with rotary nozzles, and fixing general problems with the irrigation system.

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## Linen/Towel Reuse Program

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During 2013, MPWMD distributed the following:

- Towel Cards – 1,100 pieces
- Water Service on Request Cards (see photo on right) – 2,400 pieces
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- Conservation Message Mirror Clings – 8,200 pieces



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## Conservation Devices and Materials

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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 2014, 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, including presentations
  - MPWMD Front Desk (walk-in customers)
  - On-site inspections
  - Upon customer request
-

- 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 the conservation budget and by MPWMD.

Table 13 provides information for each type of water saving device (and estimated water savings when available) was distributed by MPWMD during 2013.

Table 13. MPWMD Conservation Device Distribution

<b>MPWMD Conservation Device Distribution for 2014</b>			
	Savings	Number	Savings
Showerheads	0.0062	2186	13.47
Hand held showerheads	0.0062	812	5.00
Pistol grip nozzles		1300	
Moisture meters		760	
Faucet aerators 0.5	0.0017	2950	5.02
Faucet aerators 1.5	0.0017	1045	1.78
PRSV	0.3921	10	3.92
Kitchen squeegees		2340	
Hose timers		50	
Shower timer		1095	
Rain gauge		100	
Leak detector tablets	0.0007	1125	0.79
Rain sensor		3	0.00
Water Wise CD		18	0.00
DT plant list (printed)			
Ladybug	0.0068	356	2.42
Restaurant signs		2400	
Hotel towel		1100	
Linen signage		2700	
Mirror clings		8200	
Tote bags		249	
Toilet flappers		480	
Shower on-off valve		800	
Coloring books		94	
<b>Total Estimated Measurable Savings in AFA</b>			<b>32.39</b>

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## School Retrofit Program

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The MPWMD Board approved \$75,000 for a water conservation and sustainability demonstration project at Ord Terrace Elementary School in Seaside. The master plan included the design and implementation of an educational water conservation model to teach the students and community about water conservation, ground water quality, and preventing storm water pollution.

Before the project, Ord Terrace had 71,308 square-feet of irrigated sports field. With the size of the field and significant

irrigation inefficiencies, more than 2,233,816 gallons of water per year were applied as irrigation. The project reduced the field size to 54,740 square feet, a 23% reduction, and replaced the irrigation system, reducing water use to 1,714,802 gallons -- a 46% reduction. A weather-based controller with a direct control link for off-site staff was installed. The upper campus had 19,045 square feet of turf, of which 15,580 square-feet were non-functional and used consumed 591,220 gallons of water per year.

As part of the project, turf was replaced with active and passive rain water collection, cisterns, bioswales, rain gardens, outdoor classrooms, and native arboretums. Two cisterns were installed with a total storage capacity of 4,000 gallons. At the upper campus alone, there will be an estimated 89% savings in water use per year. Total project cost \$74,474. Completion of the project is anticipated in 2015 and the site will be used as a demonstration site for other campuses to learn about sustainability.

Hydro-Point WeatherTrak ET Pro 3 controllers were installed at six Monterey Peninsula Unified School District sites in 2014: Bay View, Foothill, Cabrillo, Seaside Children's Center, Monte Vista and Del Monte Schools installed controllers to improve irrigation efficiency. This installation completed a project to upgrade irrigation systems at all twelve California American Water service area schools in MPUUSD. Total cost for this project was \$59,444.15.

Carmel Unified School District received funding for turf removal at the high school's football field. The MPWMD supplemented the huge cost of removing turf and replacing it with synthetic turf in the amount of \$1/square-foot. The football field renovation is expected to save approximately 5.5 acre-feet AFA (66 AF over the life of the project) at a cost of \$1,545/AF.

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## Lawn Rebate Program

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The Lawn Removal Rebate Program has been very effective since its redesign. The application process is straightforward and easy for applicants to understand. Very few applications are denied compared to before the program redesign because ineligible applicants weed themselves out. Because photos of the lawn and two years of water records are necessary to apply people with dead lawns or previously removed lawns no longer seek the rebate. The program could be better advertised possibly by targeted mailings. Many people find out about the program from a landscaper after hiring them to remove the lawn. Synthetic turf installers all encourage their clients to apply for the rebate. In summary, the program often reaches people who already planned to remove their lawn rather than helping people pay for the cost that might otherwise not remove it.

2013 – Nineteen properties removed some or all of their lawn in 2013. A total of 31,008 square-feet of lawn was removed.

2014 – 43 properties removed 58,781 square feet of lawn in 2014. The average removal was 1,277 square feet per site. Lawn removal ranged from 380 to 4,200 square-feet.

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# Monterey Peninsula Water Management District – 2014 Programs Funded by MPWMD

The following projects and activities were funded during 2014 by MPWMD.

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## Mandatory Water Efficiency Requirements

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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 2,140 inspections of properties in 2014, 1,149 of which were inspected for change of title compliance. During 2014, 1,437 properties transferred ownership in the MPWMD.

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 660 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.

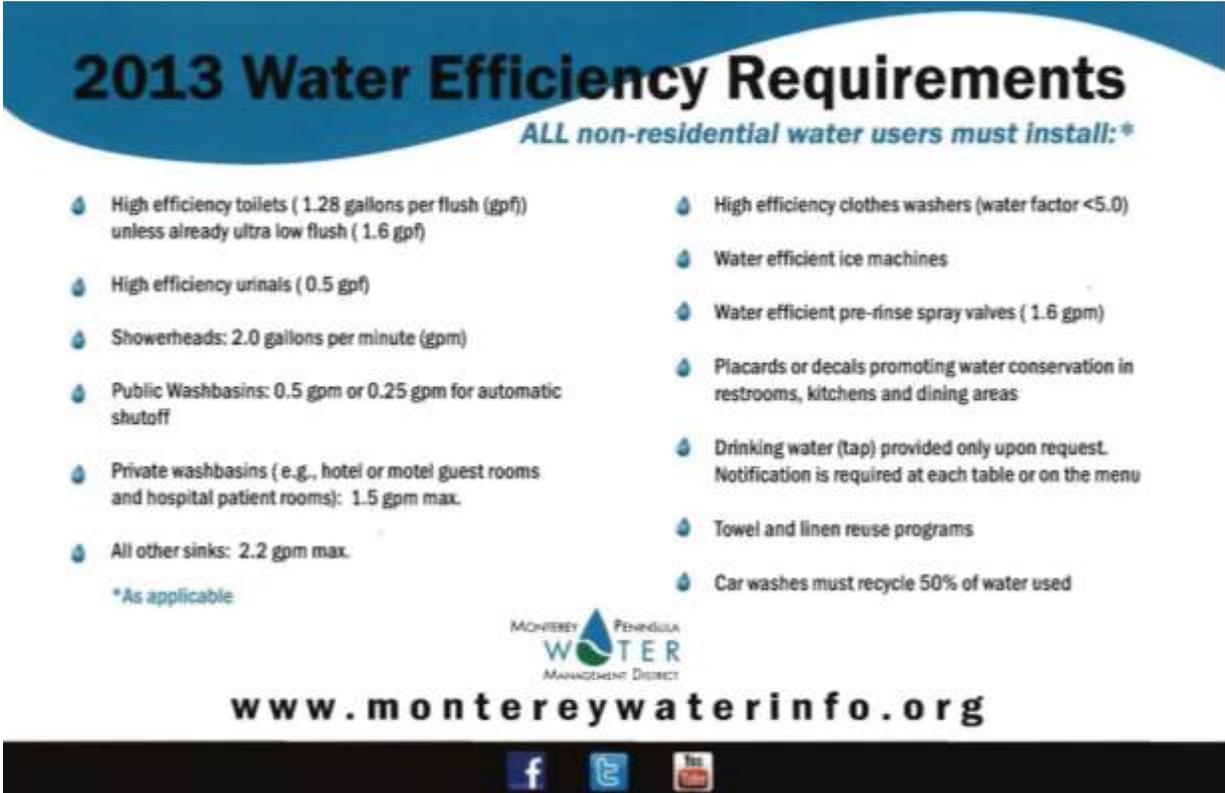
Water savings associated with the MPWMD's retrofit requirements that were verified by inspection in 2014 were estimated to add 9.53 AFA to annual conservation savings.

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 688 Water Permits issued in 2014, all properties 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.

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## Non-Residential Water Efficiency Requirements

In 2009, MPWMD adopted strict retrofit requirements for existing non-residential water users. The requirements included mandatory retrofitting of toilets, showerheads and faucet aerators, as well as other required actions. By the end of 2013, all non-residential customers were required to install High Efficiency Toilets (if the toilet was not already 1.6 gallons per flush), High Efficiency Urinals and other aggressive retrofits. A summary of the requirements are shown below on a postcard delivered to all non-residential customers and property owners:



**2013 Water Efficiency Requirements**  
*ALL non-residential water users must install:\**

- High efficiency toilets ( 1.28 gallons per flush (gpf) unless already ultra low flush ( 1.6 gpf)
- High efficiency urinals ( 0.5 gpf)
- Showerheads: 2.0 gallons per minute (gpm)
- Public Washbasins: 0.5 gpm or 0.25 gpm for automatic shutoff
- Private washbasins ( e.g., hotel or motel guest rooms and hospital patient rooms): 1.5 gpm max.
- All other sinks: 2.2 gpm max.
- High efficiency clothes washers (water factor <5.0)
- Water efficient ice machines
- Water efficient pre-rinse spray valves ( 1.6 gpm)
- Placards or decals promoting water conservation in restrooms, kitchens and dining areas
- Drinking water (tap) provided only upon request. Notification is required at each table or on the menu
- Towel and linen reuse programs
- Car washes must recycle 50% of water used

\*As applicable

MONTEREY PENINSULA  
**WATER**  
MANAGEMENT DISTRICT

[www.montereywaterinfo.org](http://www.montereywaterinfo.org)

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## Conservation Program Staffing

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The Water Demand Division of the MPWMD employs a staff of five (including one position fully funded by the conservation surcharge). MPWMD budgeted approximately \$450,000 in regular full-time labor costs for the conservation staff in 2014. 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 2014, MPWMD continued employment of a temporary full-time employee at an additional cost of \$40,000 to assist with data migration from paper to electronic format. 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.

## Water Conservation Website

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The water conservation partnership website, [www.montereywaterinfo.org](http://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 2014, MPWMD staff regularly provided time to update and maintain the information on the joint website.

## Rebate Program

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The Monterey Peninsula's Rebate Program continued through 2014, with a last-minute request to the CPUC in December 2014 for additional funding to keep the program operational until the next year began. MPWMD worked with California American Water to implement an effective advertising campaign, including funding its own SAVE WATER GO BLUE conservation campaign that included rebate outreach via print, television, and radio ads.

During 2014, 2,905 applications were received, of which 2,377 were approved. This is in keeping with the approval level of rebates from previous years. Between one-quarter to one-third of the applications are denied because of MPWMD permit or conservation requirements for

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the device(s) or because the device does not meet the standards for a rebate. During 2014, \$1,259,251 was refunded for purchase and installation of the many items covered by the Rebate Program.

Table 14. 2014 Rebate Program Summary

Calendar 2014	Rebate Paid	Number of devices	Estimated AF	Gallons Saved
High Efficiency Toilet (HET)	79423.65	451	18.828	6,135,236
Ultra Low Flush to HET	74064.38	760	7.600	2,476,468
Ultra HET	341158.04	1921	19.210	6,259,598
High Efficiency Dishwasher	37936.00	303	1.645	536,094
High Efficiency Clothes Washer	564508.72	1079	23.302	7,593,131
Instant-Access Hot Water System	6063.10	31	0.000	0
On Demand Systems	800.00	12	0.000	0
Zero Use Urinals	1905.00	11	0.220	71,687
High Efficiency Urinals	4301.49	13	0.195	63,541
Pint Urinals	4921.36	20	0.400	130,340
Cisterns	78580.50	56	0.000	0
Smart Controllers	601.66	6	0.000	0
Rotating Sprinkler Nozzles	800.00	200	0.000	0
Moisture Sensors	0.00	0	0.000	0
Lawn Removal & Replacement	61886.80	44	5.214	1,699,063
Graywater	2300.00	3	0.000	0
Ice Machines	0.00	0	0.000	0
<b>Total</b>	<b>1,259,250.70</b>	<b>4910</b>	<b>76.615</b>	<b>24,965,158</b>

## Monterey Bay-Friendly Landscaping

Monterey Bay-Friendly Landscaping & Gardening programs are a collaborative effort between Ecology Action, MPWMD, CA Landscape Contractors Association (Central Coast Chapter), Ecological Landscaping Association, Monterey Bay Master Gardeners, Surfrider Foundation, Resource Conservation Districts, and more than 20 public agencies representing water utilities, solid waste and recycling, stormwater management. The primary goal of Monterey Bay-Friendly Programs is to encourage behavior changes that lessen the impact of conventional landscape practices on the local environment by providing home gardeners, landscape professionals, and

local governments with the necessary skills and resources to create beautiful, healthy, and sustainable gardens, and landscapes.



MPWMD staff is certified to identify and rate Monterey Bay-Friendly Landscapes. Monterey Bay-Friendly Rated Landscapes is a rating system that recognizes excellence in sustainable landscape design, construction and maintenance practices in the Monterey Bay Area. This voluntary, third-party verified rating system applies to new construction or renovations of civic, commercial, institutional, single-family residential and multifamily property landscapes. It provides property owners and landscape professionals with a regionally consistent framework for creating healthy, environmentally sound landscapes. Property owners and landscape industry professionals that design and maintain a landscape to Monterey Bay Friendly standards are provided public recognition, educational signage and incentives.

## Best Management Practices (BMPs)

By approving MPWMD Resolution 2012-12, the Board of Directors adopted three highly respected resources for information on water efficiency Best Management Practices or BMPs. BMP's include mandated retrofits of the District, as well as water efficiency retrofits and devices that go beyond the District's requirements. Adoption of these specific informational resources<sup>2</sup> allows the Non-Residential sector to have a consistent source of information that can be used to budget for and implement proven retrofit technology and programs to save water and money.

A Best Management Practice (BMP) is a conservation measure or device that results in proven, cost-effective water savings. BMPs normally result in significant water savings and are generally accepted among water efficiency experts. Examples include High Efficiency Toilets (HET) and High Efficiency Urinals (HEU). Industries such as food service, laundromats, medical and health care systems, and hotels and motels have BMPs specific to their end uses of water. In

<sup>2</sup> East Bay Municipal Utilities District's WaterSmart Guidebook (<http://www.ebmud.com/sites/default/files/pdfs/WaterSmart-Guidebook.pdf>), Alliance for Water Efficiency's Resource Library (<http://www.allianceforwaterefficiency.org/resource-library/default.aspx>) and CUWCC's Resource Center Product Information (<http://cuwcc.org/docDetail.aspx?id=230>)

many cases, BMP implementation requires an initial expenditure with a reasonable return on investment.

The Rebate Program offers significant financial support to achieve BMPs. In addition, MPWMD and California American Water can assist with auditing businesses to identify potential retrofits and to document completed BMPs. Both the District and California American Water have other programs that can provide assistance to achieve BMP compliance for large irrigated areas and for local schools.

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## Save Water Go Blue!

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**SAVE WATER GO BLUE!** was an outreach campaign sponsored by the MPWMD with its own funds. In August 2014, the Board of Directors dedicated \$65,000 of its drought reserve to fund the program in response to the State Water Board's conservation regulations implemented in August 2014. The campaign included radio, television and print ads, free public workshops, "Drive Thru Drought Days" conservation equipment distributions, rebate program outreach, and other activities.

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## Other Conservation/Water Efficiency Activities

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MPWMD provided input to various agencies as to development of state-wide drought regulations in 2014. MPWMD participated by assisting the Governor's Drought Task Force, participated in the Association of California Water Agencies Drought Action Group, and served on the Monterey County Drought Task Force. MPWMD presented to the local Drought Task Force on the local conservation actions, as well as its SAVE WATER GO BLUE conservation outreach campaign.

MPWMD staff presented to Association of California Water Agencies Region 5 membership on "Working Together in Dry Times." Other conservation-related presentations were made to hospitality industry and business coalition representatives, local service organizations, Monterey County Association of Realtors and individual realtor offices, homeowner's associations, local jurisdictions, and other groups.

MPWMD collaborated with the Monterey Peninsula Airport District to utilize a well water standpipe for dust control and compaction for runway extension project. This project was related to another project to analyze the potential to re-plumb the toilets at the local fairgrounds to utilize an on-site well. The MPWMD is providing grant funding to facilitate small water projects such as these.

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## Monterey Peninsula Water Management District – 2015 Program Goals

In 2015, MPWMD will continue to 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) and non-residential 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 enforcing water efficiency requirements in the CII sectors, and educating these customers about other potential and cost-effective retrofits.

Table 15 depicts MPWMD’s planned programs for 2015.

Table 15. 2015 MPWMD Conservation Programs

Program	Funding	Budget	Implementation Plan	Timeline
Pressure Reducer Pilot Program	CAW	\$35,000	Offer installation of pressure reducing valves at high pressure single family homes that have water efficient appliances to determine water savings	Fall 2015
In-Line Meter Pilot Program	CAW	\$35,000	Purchase in-line meters and allow them to be “checked out” for CII monitoring of water using equipment	Fall 2015
Rebate Program	CAW	N/A	Rebate program for cost-effective retrofits. MPWMD provides administration—Rebate fund by California American Water	Ongoing
Water efficiency training and education	CAW and MPWMD	\$20,000	Sponsor workshops, trainers, speakers and other community and industry-specific events	Through Dec 2014
CII water efficiency requirement verification	MPWMD		Site inspect CII sites to verify compliance with water efficiency requirements	Ongoing
Sponsor and/or participate in	MPWMD	\$5,000	Provide sponsorship and staff outreach at local water efficiency-	Annually

Program	Funding	Budget	Implementation Plan	Timeline
community water efficiency events			related events and conferences	
Linen and Towel Program	CAW	\$5,000	Continue supporting program with existing inventory and outreach	As needed
Water Wise Gardening for Monterey County (Garden Soft)	CAW	\$5,000	Annual license for web-based software	Annually
Conservation devices	CAW and MPWMD	\$50,000	Purchase water conservation and efficiency devices to provide to customers free or at reduced charge	As needed
CIMIS stations	CAW	\$2,400	Maintain three 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 October 2015
Enforcement of MPWMD regulations	MPWMD	N/A	Implementation and enforcement of MPWMD policies and regulations	Ongoing

## Pressure Reducer Pilot Program

This program will provide a rebate for installation and labor of pressure regulator valves in the main water line at up to 50 residential sites. The impetus for this program was a report on 100 home inspections in the Monterey area that identified that 75 percent had water pressure levels that exceeded 60 pounds per square inch (“psi”). Of those, 17 actually exceeded 100 psi! Low water use plumbing fixtures are designed to achieve specific flow rates at a set water pressure, usually 60-80 psi. Higher water pressure results in higher than designed flow rates and in leaks and other problems. Participant’s water use would be tracked to measure the reduction in water use achieved by installation of a pressure regulator valve. A similar successful program is in place Austin, Texas. A budget of \$35,000 was approved for the three-year period.

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## **In-Line Metering Pilot Program**

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This program involves water use on the CII customer's side of the meter. It will provide in-line meters at no cost for application on water lines serving high use appliances or other uses. For example, an in-line meter could be installed on the water service to a cooling tower. By metering the use, the customer is able to identify inefficiencies or leaks in the system and is able to determine appropriate retrofits to significantly reduce water use. A similar concept applies to commercial kitchen appliances (i.e., wok stoves, dishwashers, steam ovens, etc.), medical equipment (i.e., sterilizers) and to high use facilities such as laundromats, commercial laundry rooms, health clubs, etc. The pilot program would involve the installation of approximately 50 in-line meters per year, and would include tracking of water use before and after retrofits. Depending on the circumstances (e.g., if outdoor water use has not been stopped), in-line metering would also prove useful in identifying irrigation system leaks and inefficiencies. The budget for this project is \$35,000.

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## **Rebate Program**

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MPWMD will continue to promote and administer the Rebate Program.

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## **Water Efficiency Training and Education**

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MPWMD will work with California American Water and other interested agencies to sponsor training and workshops that benefit 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. Finally, a specialist in CII water efficiency will be brought in to educate hospitality and other large commercial users about potential retrofits and cost/benefits associated with those projects.

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## **CII Water Efficiency Requirement Verification**

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MPWMD will dedicate inspection efforts to verify installation of mandated water efficiency equipment in non-residential properties.

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## **Sponsor and/or Participate in Community Water Efficiency Events**

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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.

In addition to outreach events, MPWMD water efficiency staff will be making presentations to area business groups to promote water efficiency practices during the drought. These presentations will take place throughout 2015. Along with speaking, MPWMD will be providing mailing information to owners/tenants of non-residential properties through direct mail pieces.

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## **Linen and Towel Program**

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MPWMD will continue to support distribution of mirror clings and other visitor-serving commercial signage that promotes water conservation during 2015. MPWMD will also be working with the Monterey County Hospitality Association and Chambers of Commerce during 2014 to educate the industry about mandatory efficiency requirements and drought-related practices to reduce water use. In addition, MPWMD will provide information about rebate opportunities 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.

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## **Water Wise Gardening for Monterey County (GardenSoft)**

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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.

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## **Conservation Devices and Publications**

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During 2015, MPWMD will coordinate with California American Water to acquire and distribute devices and publications to help customers reduce water consumption. Brochures will be updated and reprinted. In addition, MPWMD staff will be preparing a comprehensive brochure to inform the public about the conservation and water efficiency requirements of the MPWMD.

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## **CIMIS Stations**

MPWMD will continue to maintain three CIMIS stations on the Monterey Peninsula during 2015. 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.

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## **Revise Non-Residential Rationing Plan**

MPWMD is in the process of revising the conservation and rationing plan. The new plan, which is being coordinated with California American Water, will be presented to the MPWMD Board of Directors for action in late 2015.

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## **Enforcement of MPWMD Regulations**

MPWMD will continue its inspection and enforcement procedures to achieve compliance with its water efficiency rules and will help the public achieve compliance with the various rules. MPWMD will also be focusing on documenting compliance with commercial BMPs, including enforcement of requirements that will eliminate Division 4 customers under the current BMP rates. Inspectors will continue enforcement of water waste rules.

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