



2012 Monterey Peninsula Water Conservation Program Annual Report

Prepared by California American Water, Monterey County District
in Partnership with
the Monterey Peninsula Water Management District



EXECUTIVE SUMMARY

This report documents conservation efforts taken by California American Water's Monterey County District and the Monterey Peninsula Water Management District (MPWMD) during 2012 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 2012, as well as projected efforts for 2013. Previous year reports are available by contacting either California American Water or the MPWMD.

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Conservation Helps the Community

Conservation is viewed as a means to stretch existing water supplies to reduce stress to the environment and increase community protection from drought. Limited 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 water supply projects to meet current and future water needs. 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.

The Monterey Peninsula Water Resource System (MPWRS) is California American Water's primary 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 Basins.

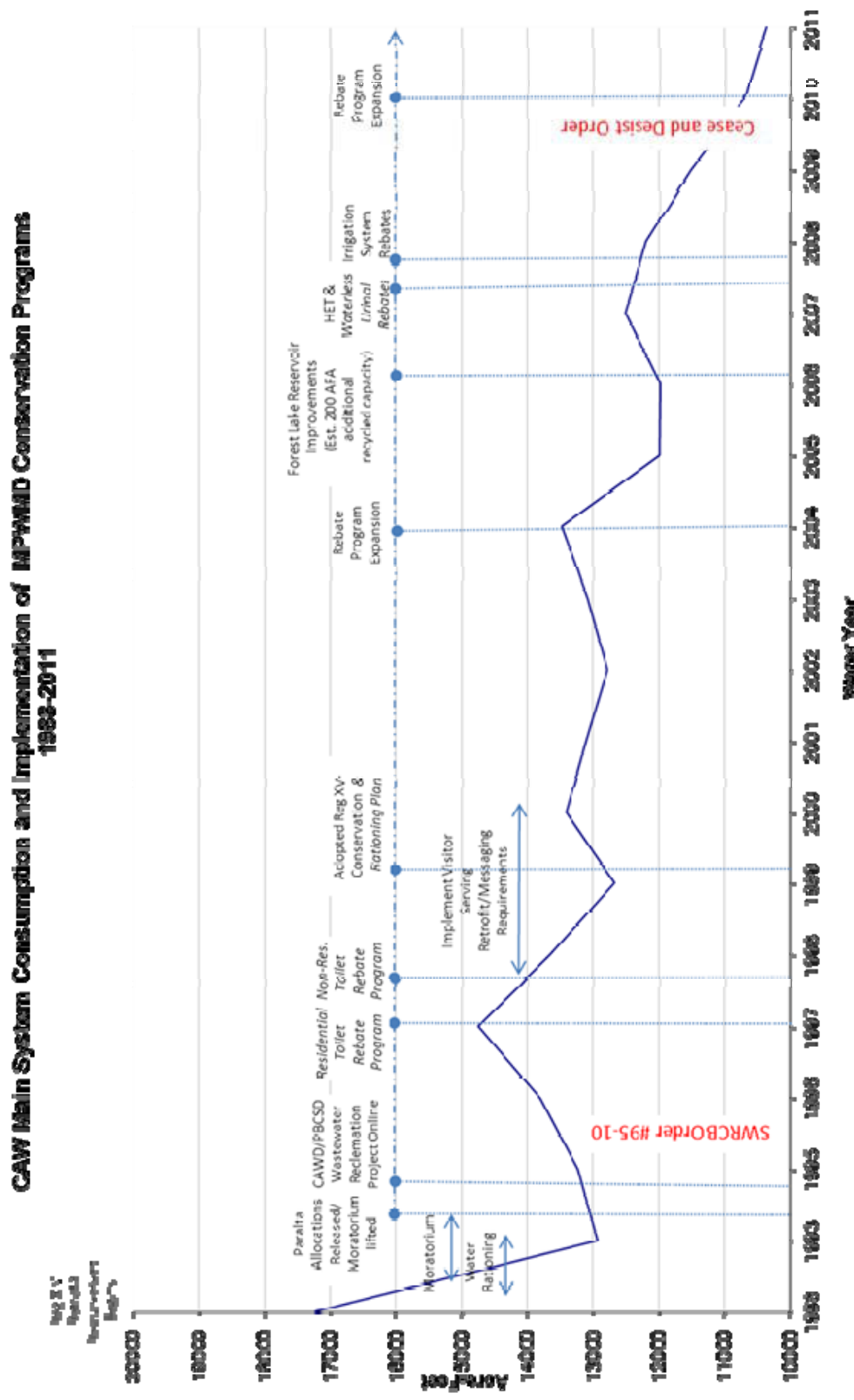
The Carmel River System is subject to State Water Resources Control Board (SWRCB) Order 95-10 and Water Rights Order No. 2009-0060 (Cease and Desist Order or CDO). The CDO, which was issued October 20, 2009, limits California American Water's diversions from Carmel River sources to 9,945 acre-feet ("AF") 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 several 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.

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 2,816 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 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 2014 without a need for water rationing. Further decreases are scheduled for Water Years 2015 and 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 fully legalize the Monterey Peninsula's water supply may 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.

Table 1. CAW Consumption and Implementation of Conservation Programs, 1988-2011



Source: CAW Customers and Consumption by Fiscal Jurisdiction

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 2012. 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 2011 & 2012. *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. California American Water and MPWMD are to establish consistent water saving estimates for years 2011 & 2012. *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
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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

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 – 2012 Programs Funded by the California American Water Conservation Surcharge

Summary of California American Water Programs

Programs funded by the conservation surcharge during 2012 are summarized in the following table.

Table 2. California American Water 2012 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% 187 audits completed	2012 Estimated Savings 6.77 AF (Actual Savings for 2011 based on usage records: 2.3 AF)
Residential Plumbing Retrofit (Formerly BMP 2)	\$19,983	Meet BMP 2 requirement (75% saturation)	Distribution of water saving devices at events, walk-ins, mailer responses	Number of Devices Distributed	3,400 Showerheads, 1,100 Kitchen Aerators, 3,400 Bath Aerators	19.24 AF

Program	Cost	Need For Program	Nature of Activity	Measurable Goal	Result of Achievements	Estimated Savings (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.	\$475,000 worth of audits contracted by MPWMD consultant between 2012 - 2014	CAW staff completed 106 low use dedicated irrigation meter audits and budgets	2.93 AF (Actual Savings for 2010 based on usage records: 115 AF)
Rebates (Formerly BMPs 6, 9, 14)	\$27,435	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	2,199 SF rebates; 821 MF rebates; 205 CII rebates.	75 SF rebates 1 MF rebates 20 CII rebates	2.59 AF
Public Outreach and Education (Formerly BMP 7)	\$62,147	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 Commercial Industrial & Institutional Audits	\$26,783	CII Audits by WaterWise Consulting	Water use survey includes: fixtures audit, water use & behavior patterns. Report includes findings, recommended actions, and payback periods for retrofits	Goal is 35 CII Audits	Completed 16 CII Audits	60 AF Estimate Savings Actual Savings: 26 customers saved 13 AF

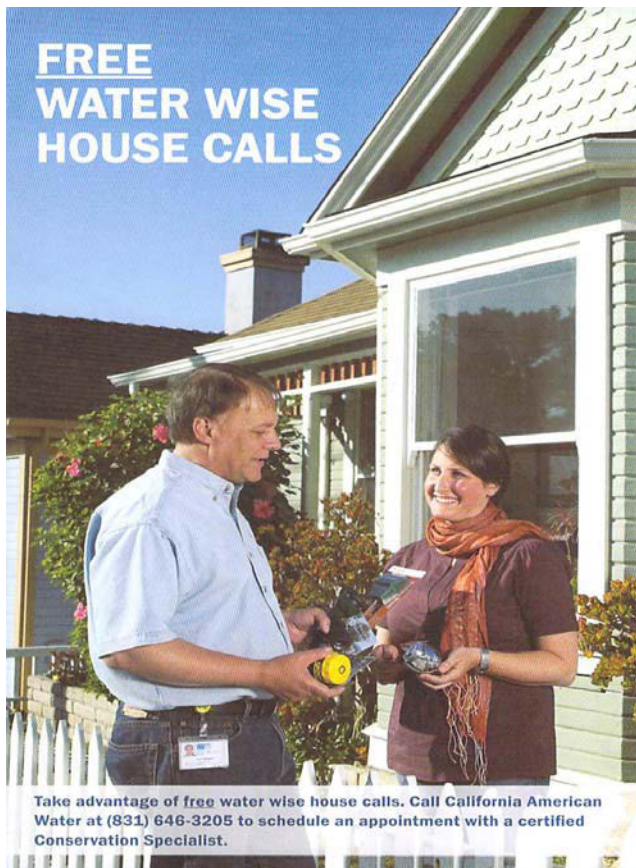
Program	Cost	Need For Program	Nature of Activity	Measurable Goal	Result of Achievements	Estimated Savings (AF)
Rain Sensor Installation Program	\$7,649	Meet former BMPs 3 & 5 of CUWCC MOU, customer requests	CAW (through contractor) installs free rain sensors for qualified customers	Goal is 50 Rain Sensors	Completed installation of 95 Rain Sensors	2011: 774,000 gallons or 2.37 AF 2012: 95 Rain Sensors installed (savings to be analyzed in future report)
Free Water Usage	None (funded by Labor budget)	Required	Review and limit water usage by free water customers	Identify and address all free water customers	5 audits completed	6 est. savings 2010 actual: 3 AF

Residential Audits (Water Wise House Calls)

California American Water continued its Water Wise House Call Program (residential audits) in 2012 and experienced an upsurge in demand for Water Wise House Calls due to a large increase in the residential tiered rates

Table 3. Monterey Main System Residential Tiered Rates

Residential Tiered Rates	Rate Effective 1/1/2012 (Per 10 Cubic Feet)	Rate Effective 2012 (Per 10 Cubic Feet)	Rate Increase (Per 10 Cubic Feet)
Tier 1	\$0.2826	\$0.3118	10.33%
Tier 2	\$0.4510	\$0.8121	80.07%
Tier 3	\$0.9019	\$1.6243	80.10%
Tier 4	\$1.8030	\$3.2485	80.17%
Tier 5	\$3.1567	\$4.3667	38.33%



California American Water's conservation staff 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. During the Water Wise House Calls (audits), 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 completed 187 Water Wise House Calls in 2012, compared to 118 house calls in 2011.

California American's Water Wise House Call program showed a 12-month water savings of 2.3 acre feet of water for participating customers in 2011 (year 2011 was used to provide a complete

year of post-retrofit consumption). There were 75 audits and of those, 35 accounts showed water savings in the 12 months after the audit.

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

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.



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

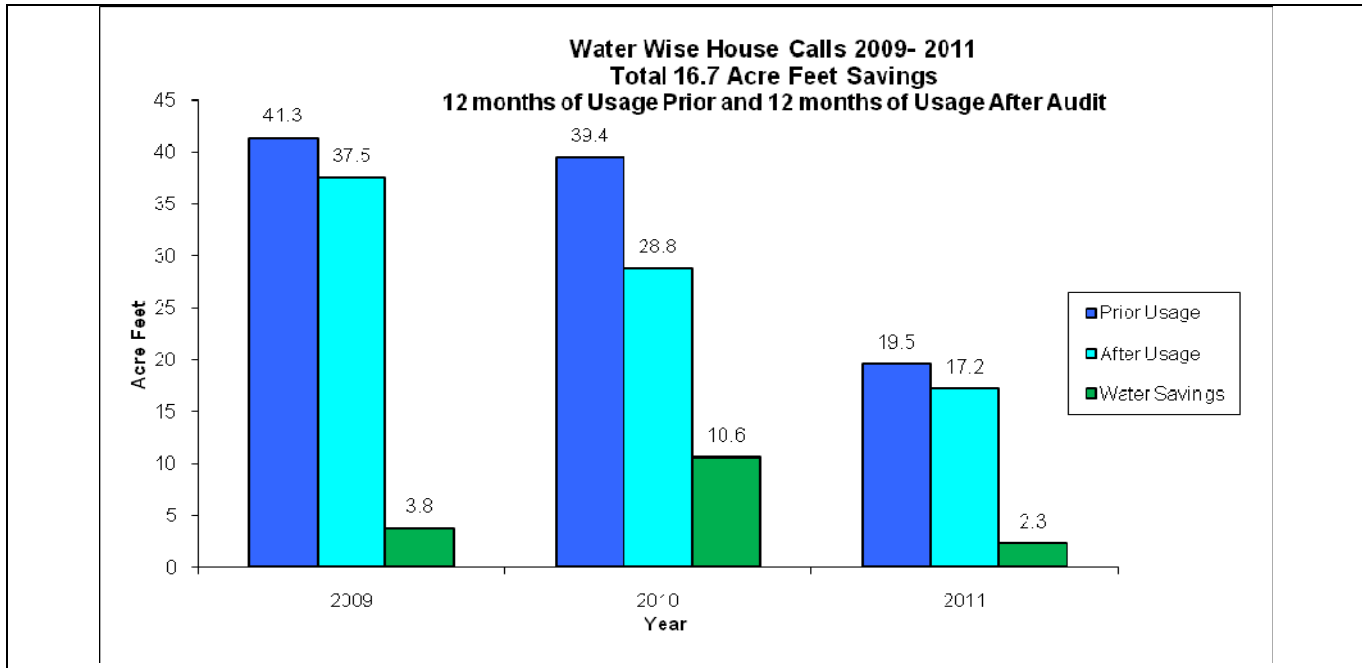
The Water Wise House Call program was monitored by including an evaluation form along with a pre-stamped envelope in the customer report package. Forty-nine surveys were submitted. The customer evaluation surveys received from the Water Wise House Call service showed high customer appreciation. Comments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

- "Everyone should be required to participate in this program, it is very useful."
- "Pattie was very courteous, outstanding and professional."
- "I have told my friends of the many advantages of this helpful and free service."
- "Ray was completely helpful, informative, polite, and I truly appreciated his call and information."
- "Ray was very thorough and efficient."
- "Veronica – The professional expertise of the auditor was critical in our comprehension of our water usage concerns."
- "Thank you for the wonderful audit."

There were no costs for the Water Waste House Call program in 2012, other than labor and related overhead expenses. The audits were completed by internal Conservation staff.

The Water 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 16.7 acre feet over a 3 year period, 2009 through 2011. The savings are based on actual usage records, collected 12 months prior to the audit and 12 months after the audit. Table 4 summarizes these findings.

Table 4. 2009 through 2011 Water Wise House Calls Program



Year	Prior Usage	After Usage	Actual Savings	% Reduction	Number of Audits	# of Lower Usage	% Using Less Water	# of Higher Usage
2009	40.0	35.3	-4.7	13%	92	60.0	65.2%	32.0
2010	39.4	28.8	-10.6	37%	118	83.0	70.3%	35.0
2011	19.5	17.2	-2.3	13%	75	35.0	46.7%	40.0

Residential Plumbing Retrofit

California American Water provided residential customers with various free water savings devices including showerheads, faucet aerators for the bathroom and kitchen, leak detection tablets/kits and outdoor water saving tools, such as hose nozzles that automatically shut off when not in use.

In 2012, California American Water tracked the distribution of the various water savings devices to identify the total number of each device distributed and where or how they were distributed to customers. For all conservation related events, customers who received water conserving devices were required to provide service addresses. This process helped to ensure that California American Water customers are the ones who benefit from the program.

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

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

In addition to the standard devices listed under the CUWCC's former BMP 2 requirements, California American Water also offered a variety of outdoor devices. The total number of each type of water saving device distributed in 2012 to California American Water's residential customers in Monterey are listed in [Table 5](#). Water saving device distribution by MPWMD is discussed in the MPWMD section of this report.

Table 5. Monterey County District: BMP 3 & 4 Residential Plumbing Retrofit- Detail

Name of measure, as listed in Decision or Settlement	# of units/ activities	\$ per unit, activity, etc.	Total \$ spent	Estimated water savings per unit per year	Unit lifespan (yrs)	Estimated Annual measure savings (AFA)	Estimated Lifetime measure savings (AF)
Showerheads	3,844	\$3.50	\$13,454	-	5	23.67	118.35
Bathroom Faucet Aerators	3,400	\$0.40	\$1,360	-	5	2.31	13.55
Leak Detection Tablets	2,500	\$0.06	\$150	-	5	1.75	8.75
Shower Timers	775	\$1.65	\$1,279	unknown	5	unknown	unknown
Moisture Meters	1,378	\$2.50	\$3,445	unknown	5	unknown	unknown
Total	11,897	\$2.02	\$19,688	-	5	27.73	140.65 ¹

¹ 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.

Large Landscape Audits and Water Budgets

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

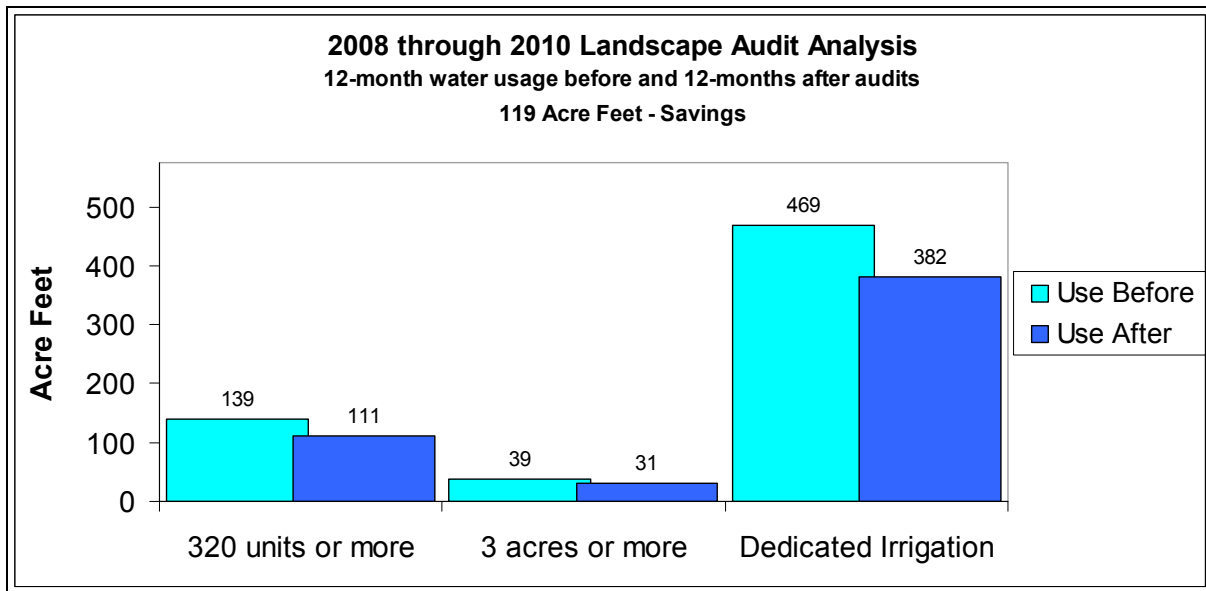
In October of 2012, California American Water reviewed its records to identify customers who met the criteria to receive a landscape audit and budget and who have not had an audit in the past. There were 31 customers that exceeded the threshold of 320 units (23,936 gallons) or more on an average monthly basis, 11 customers who also exceeded 320 units or more with lot sizes of three acres or greater and 20 high water use customers with dedicated irrigation meters.

The contracts for the landscape water audits and landscape water budgets are administered by the MPWMD. California American Water staff coordinates audits directly with the contractors with MPWMD staff managing the contracts. Over a three year period, 410 large landscape audits have been completed.

Since MPWMD's budget for contracted landscape audits was exhausted in 2010, California American Water staff completed landscape budgets for 105 low use customers in 2011. The remaining audits are scheduled to be completed during the summer of 2013.

Landscape audits are very important and a vital part of the conservation program. Landscape audits completed in the period between 2008 and 2010 have seen a reduction in water usage at the respective sites. [Table 6](#) describes the actual water savings for this program. Consumption was reviewed for twelve months prior to and following each audit. Based on this data, 119 acre feet were saved for audits completed during the 3 year period.

Table 6. Landscape Audits & Water Budgets – Actual Water Savings



	320 units or more	3 acres or more	Dedicated Irrigation	Total
Use Before	139	39	469	598
Use After	111	31	382	479
Savings	-28	-8	-87	-119
% Reduction	20%	21%	19%	15%
	320 units or more	3 acres or more	Dedicated Irrigation	Total
# of Audits	129	31	141	301
# Using less	92	27	121	240
Less water used	32.67	8.80	91.80	133
# Using more	24	4	18	46
More water used	5.16	1.24	4.96	11

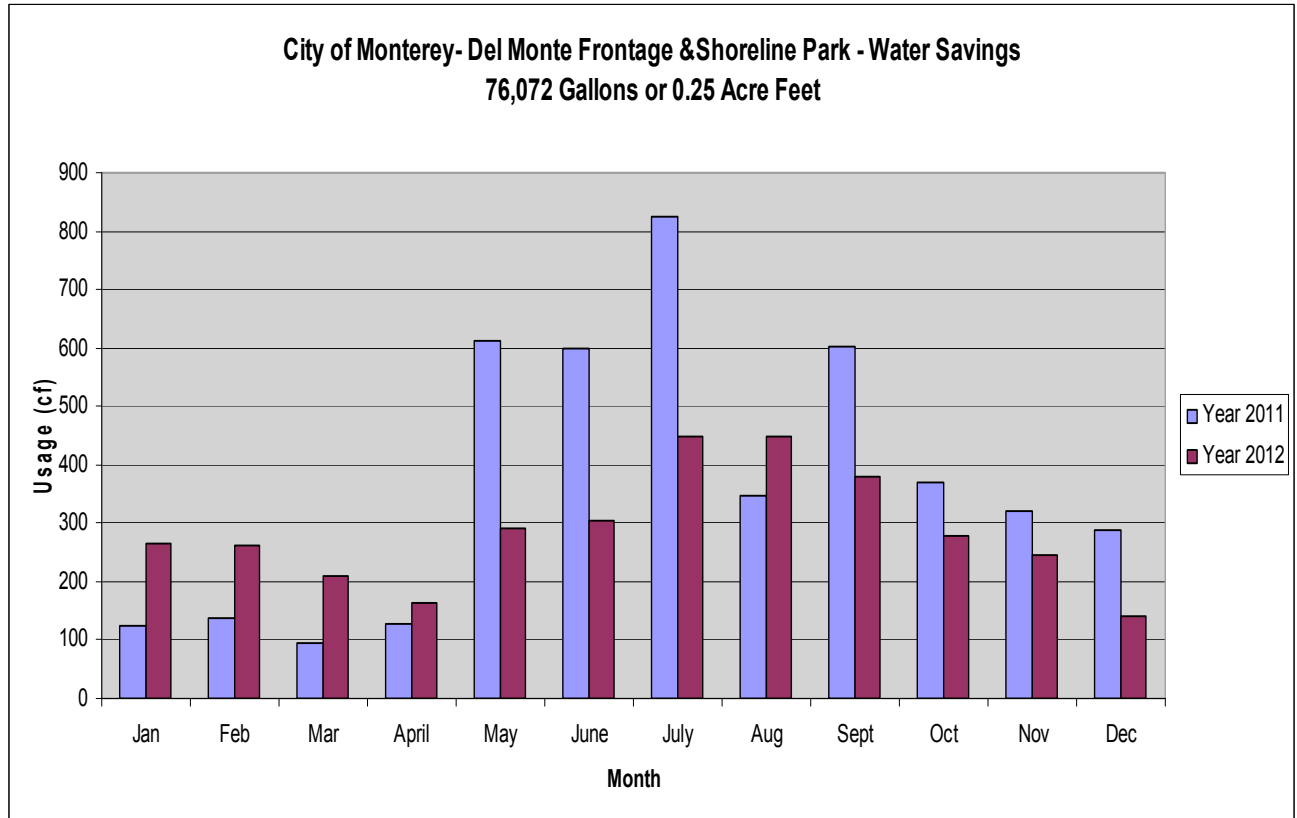
Landscape Grant Program – Water Use Analysis

In 2011, California American Water implemented its new Landscape Grant Program to reduce the water demand of municipal properties by changing landscaping and upgrading irrigation systems. California American Water marketed the large landscape grant program with a focus on replacing turf on city properties with low water use plans, 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.

City of Monterey Grant

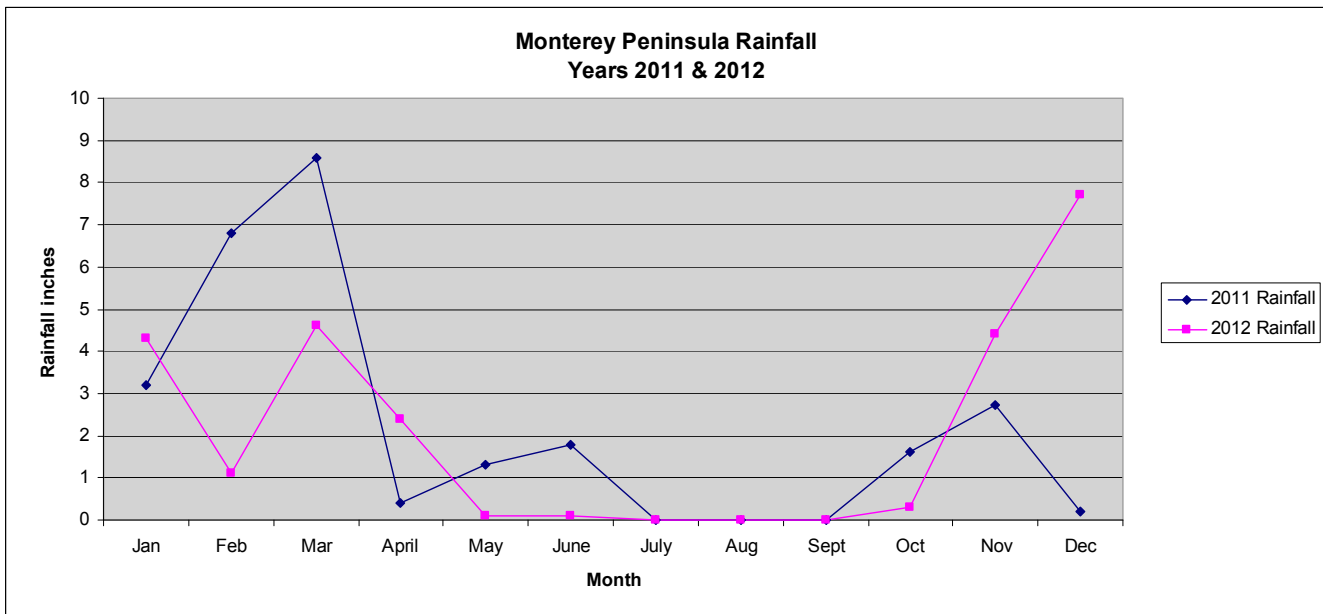
The City of Monterey was awarded a grant of \$50,000 for two of the three proposals that were submitted to California American Water. These two projects are located in high visibility areas to demonstrate to the public the potential water savings. The first project was to remove 8,000 square feet of turf along the City's Del Monte Frontage area, and the second project was to remove 8,500 square feet of high water use vegetation with drought tolerant plants, and the replacement of high use sprinklers with low use drip. The total water savings based on actual water usage (2012 vs. 2011) amounted to 76,072 gallons or 0.25 acre feet. This takes into consideration that the Monterey Peninsula received 50% less rainfall during the months of January, February and March of 2012, and experienced warmer temperatures. This required additional irrigation during the first six months for establishment of root growth. Higher water savings are expected in 2013.

Table 7. City of Monterey Landscape Grant – Actual Water Savings 2012



Year	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals
2011	123	138	96	128	612	600	826	348	601	371	322	287	4452
2012	266	261	209	162	292	305	448	449	379	277	245	142	3435
Difference	143	123	113	34	-320	-295	-378	101	-222	-94	-77	-145	-1017

Table 8. 2011 & 2012 Monterey Peninsula Rainfall – Los Padres Dam Weather Station?



	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Year	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2011	3.2	6.8	8.6	0.4	1.3	1.8	0	0	0	1.6	2.74	0.2
2012	4.3	1.1	4.6	2.4	0.1	0.1	0	0	0	0.3	4.4	7.7
Difference	1.1	-5.7	-4	2	-1.2	-1.7	0	0	0	-1.3	1.66	7.5



Landscape Grant Program

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

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

City of Seaside Grant

In 2011, the City of Seaside was awarded \$60,000 to remove 29,000 square feet of turf from the City's Cutino Park, with an estimated water savings of 955,251 gallons or 3 acre feet. Cutino Park is approximately 5.62 acres and is utilized by local Pony baseball/softball leagues, Seaside Police Athletics League, Seaside Raiders Youth Football League and the Seaside Recreation Department throughout the year.

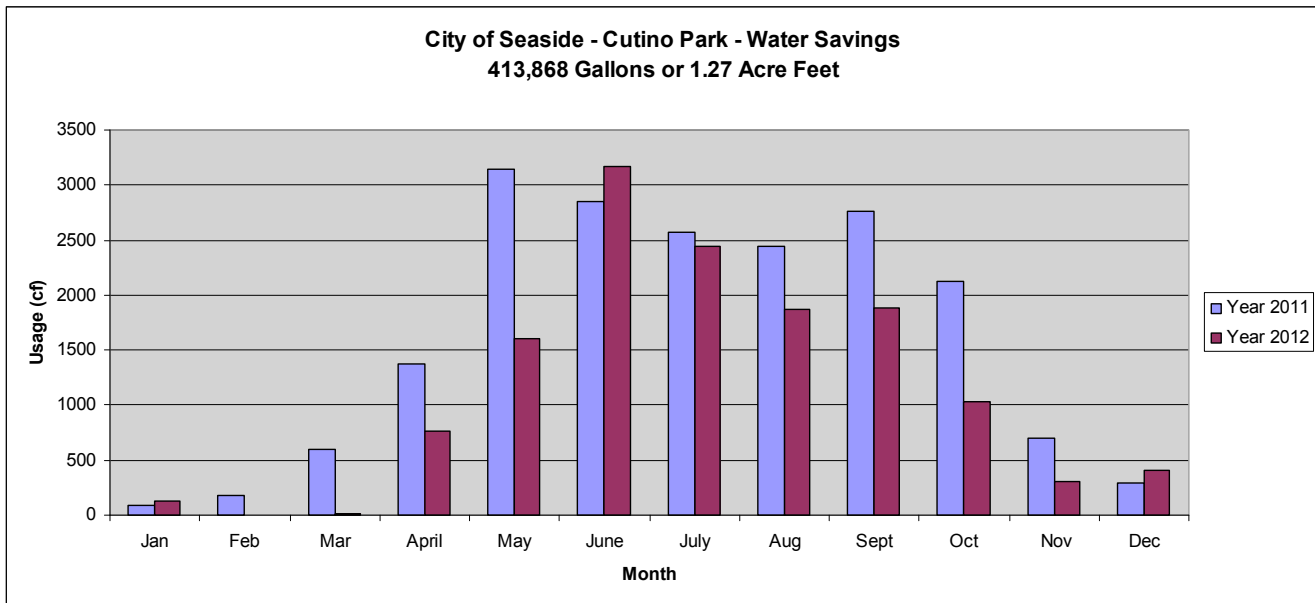
The California American Water grant underwrote a state of the art irrigation controller, a new irrigation water main and water saving sprinklers for the sports turf. Parks staff also planted drought tolerant natives and installed a new drip system, replaced the turf on the first and third base foul lines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

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



Water savings based on actual water usage (2011 vs. 2012) amounted to 413,868 gallons, or 1.27 acre feet. Water savings during the first year were not as high as anticipated due to lack of rainfall in 2012, especially during the wet months. This required irrigation of the new drought tolerant landscaping to establish root growth contributed to a reduction in the estimated water savings. Also, the City of Seaside’s high tech irrigation controller was not completely installed until the end of 2012. This caused delays in the weather station and software upgrades to the Rain Master system. The system is now completed and operational and higher water savings are expected in 2013.

Table 9. Actual Savings of City Seaside – Cutino Park



Year	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals
2011 Water Usage CF	91	176	598	1370	3150	2857	2566	2449	2767	2131	705	289	19149
2012 Water Usage CF	121	0	9	768	1603	3173	2444	1874	1890	1025	306	403	13616
Difference	30	-176	-589	-602	-1547	316	-122	-575	-877	-1106	-399	114	-5533

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



Rain Sensor Installation Program

California America Water contracted with EcoTech Services, Inc. (EcoTech Services), to continue the Rain Sensor Installation Program that was implemented in 2011. EcoTech Serices installs rain sensors for high use customers.

2012 Rain Sensor Efforts and Water Savings Analysis

EcoTech Services installed 123 rain sensors for California American Water customers in 2012. Letters were sent to customers that had landscape water budgets that averaged at least 320 units per month, or who had a separate dedicated irrigation meter, or properties with more than greater than three irrigated acres. California American Water also targeted 337 residential customers who were billed for excessive usage in the 5th residential tier for three consecutive wet months. (The majority of California American Water customers are normally billed in the first and second tier, especially during the winter.) Excessive usage during the rainy season is a good indicator that the customer's irrigation controllers are not turned off. Residential customers who did not respond to the first letter were sent reminder letters. Sixty of the 95 rain sensors installed in 2012 were for customers with excessive usage during the winter. Conservation staff also called customers who did not respond to the letters in order to promote the program.

EcoTech Services also installed a total of 100 rain sensors during the months of November and December 2011.

California American Water analyzed the effectiveness of the rain sensors installed in November and December 2011 by tracking 12 months of usage before and after the rain sensor was installed. Customers selected for this analysis had to have a complete twelve months of consumption history.

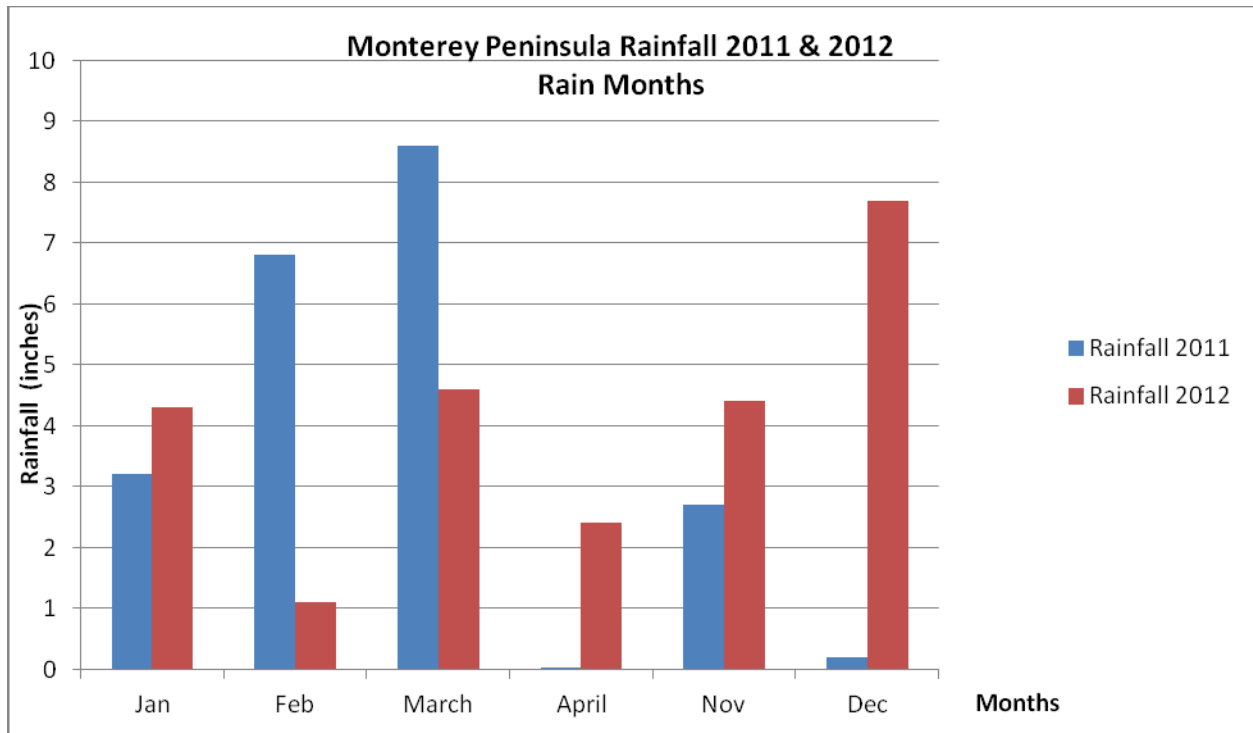
Customers examined for rain sensor savings include:

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

To effectively determine the success of the rain sensor program, it was necessary to review rainfall and weather conditions, along with customer usage records. In the past two years, the Monterey Peninsula has had several dry winter months (January, February, March, April, November and December). Given these circumstances, the results indicated an impressive savings of 2.37 acre feet, primarily realized during the months of November and December 2012 during unusually heavy rains. These results are a good indication that the rain sensors are effective and functioning properly.

The following tables ([Table 10](#) through [Table 13](#)) describe the actual water savings for the Rain Sensor Program for sensors installed in November and December of 2011.

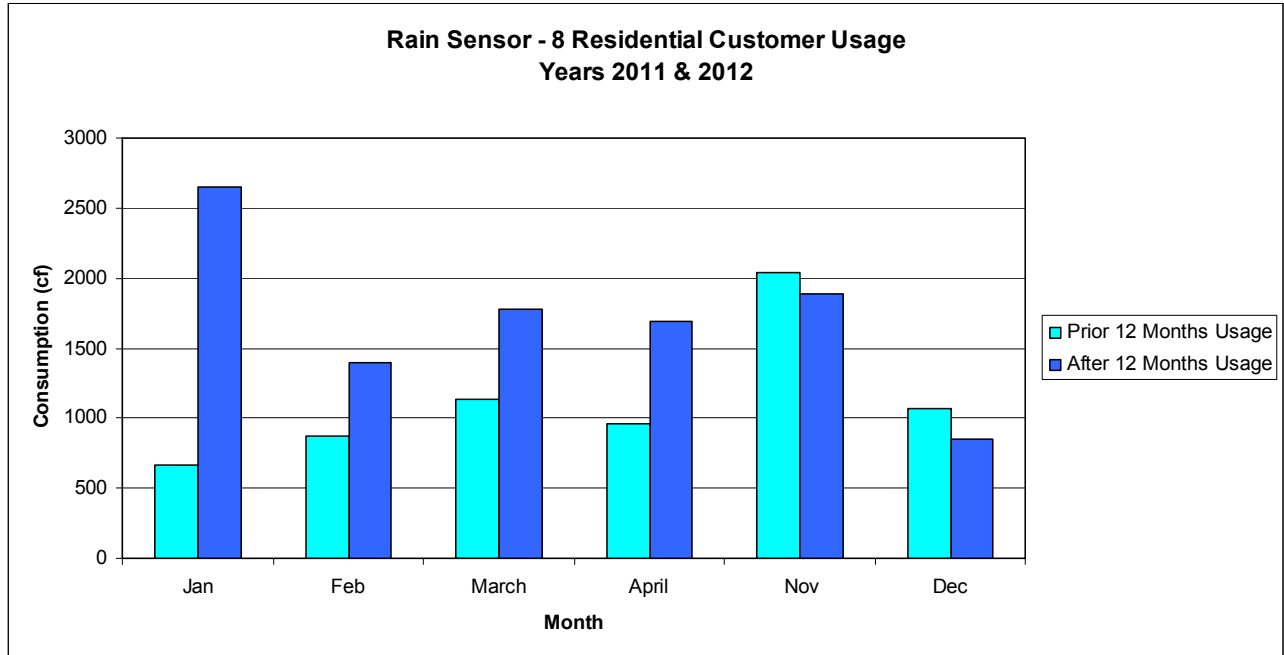
Table 10. Monterey Peninsula Rainfall 2011 & 2012 – (Los Padres Dam Weather Station)



Monterey Rainfall 2011 & 2012 - (Los Padres Dam)

Year	Jan	Feb	March	April	Nov	Dec
Rainfall 2011	3.2	6.8	8.6	0.04	2.7	0.2
Rainfall 2012	4.3	1.1	4.6	2.4	4.4	7.7
Rainfall Difference	1.1	-5.7	-4	2.36	1.7	7.5

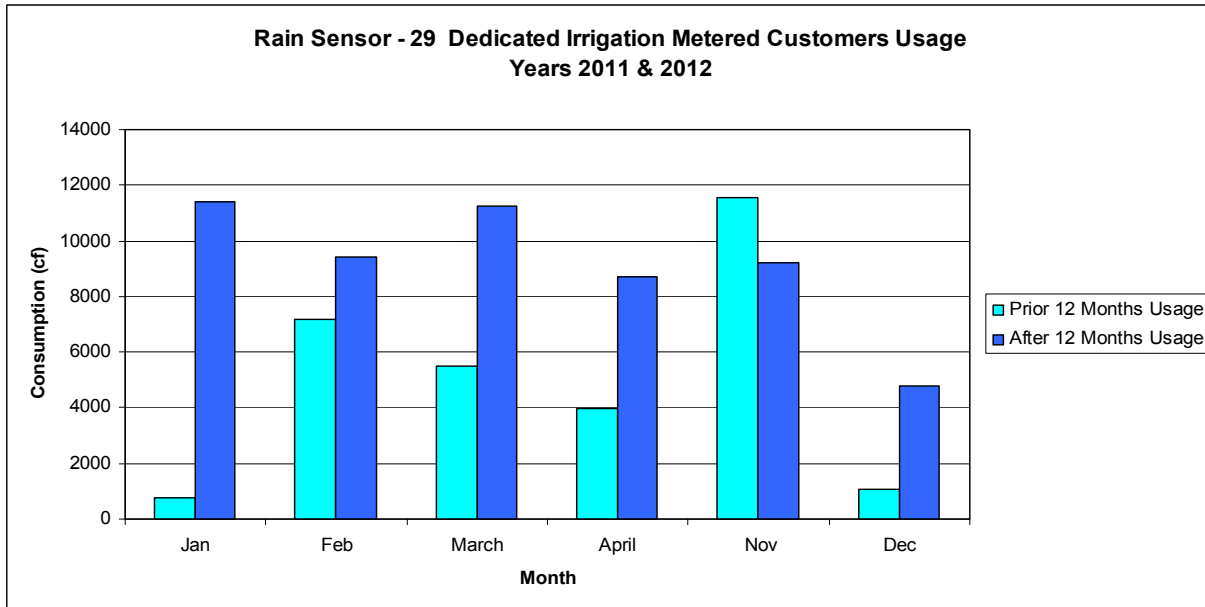
Table 11. Residential – Rain Sensor Water Savings



Rain Sensor - 8 Residential Customers

Year	Jan	Feb	March	April	Nov	Dec
Prior 12 Months Usage	665	875	1,137	963	2,035	1,074
After 12 Months Usage	2,655	1,397	1,773	1,693	1,888	854
Usage Difference	1,989	522	637	730	-147	-220

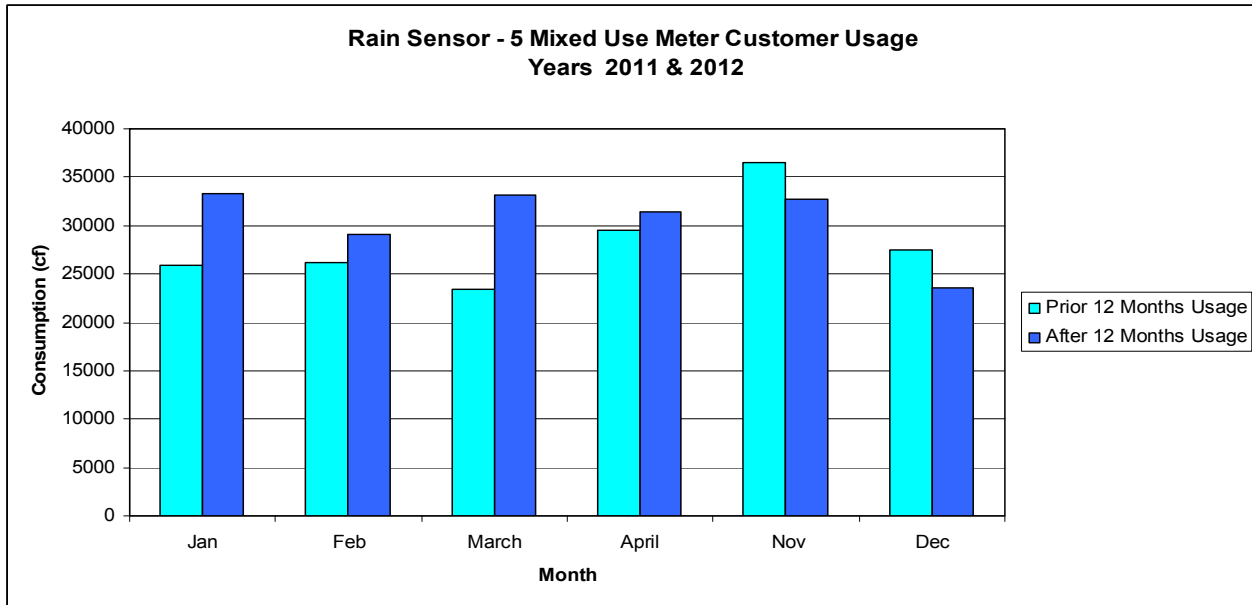
Table 12. Dedicated Irrigation Metered Customers – Rain Sensor Water Savings



Rain Sensor – 29 Dedicated Irrigation Metered Customers

Year	Jan	Feb	March	April	Nov	Dec
Prior 12 Months Usage	745	7,167	5,483	3,989	11,561	1,074
After 12 Months Usage	11,410	9,436	11,271	8,683	9,201	4,811
Usage Difference	10,666	2,269	5,788	4,694	-2,360	3,736

Table 13. Mixed Use Meter Customers – Rain Sensor Water Savings



Rain Sensor - 5 Mixed Use Meter Customers

Year	Jan	Feb	March	April	Nov	Dec
Prior 12 Months Usage	25,885	26,169	23,399	29,525	36,478	27,499
After 12 Months Usage	33,284	29,041	33,215	31,460	32,773	23,583
Usage Difference	7,399	2,872	9,816	1,935	-3,705	-3,916

Commercial, Industrial, Institutional (CII) Audits

California American Water continued its contract with Water Wise Consulting to conduct commercial, institutional, and industrial audits during 2012. Water Wise Consulting completed 15 audits with an estimated potential savings of 60.99 acre feet following the implementation of the audit recommendations.

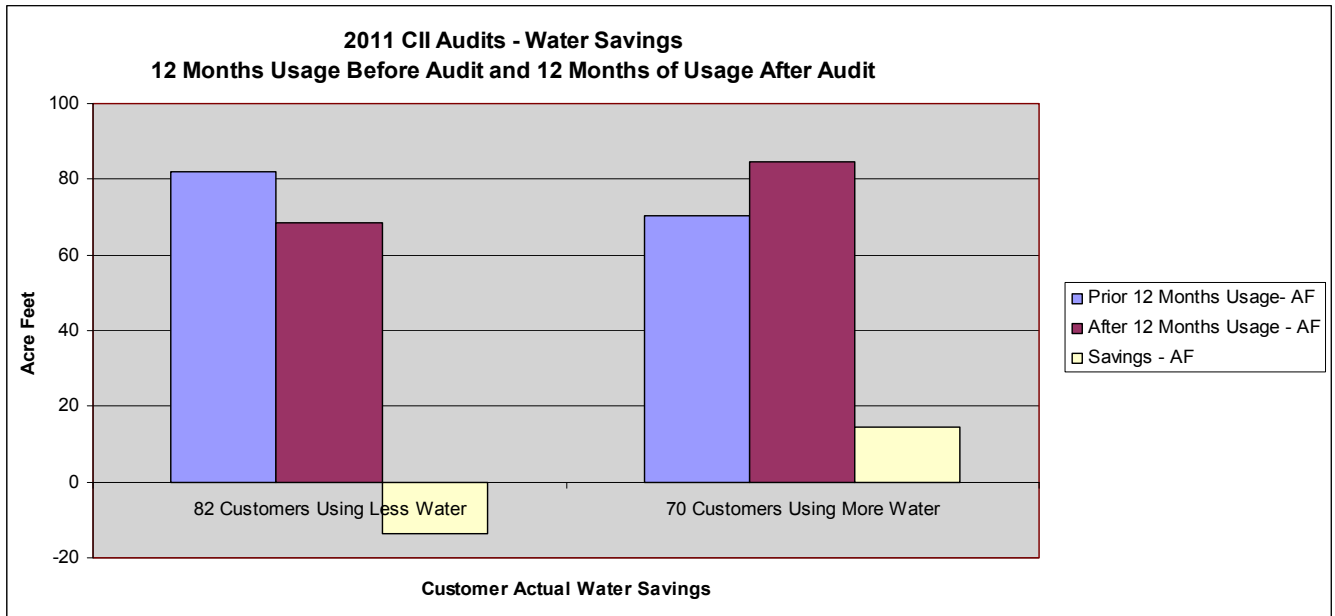
California American Water continued to select potential candidates with the greatest needs for water savings. CII audits were also offered and required for non residential customers that do not currently have a MPWMD commercial factor, which is used to establish an annual allotment and as basis for billing.

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

Customers were given audit reports that focused on applicable water-saving devices, and that 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. 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.

The actual water savings for the audits shown here reflect year 2011 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 was an actual increase in usage of one acre feet, however, 26 of the 53 audits \showed a savings of 13 acre feet, whereas 27 customers increased their usage by 14 acre feet during 2012. The slight increase in usage could be the result of an increase in business activity for some of these customers since the economy has improved.

Table 14. Commercial, Industrial & Institutional Audits – Water Savings



	Customers Using Less Water	Customers Using More Water
Prior 12 Months Usage - AF	82	70
After 12 Months Usage - AF	68	85
Savings- AF	-13	14
Number of Audits	26	27
Increase or Decrease In Usage	-16%	21%

Free Water Customers

In the settlement reached in A.07-12-010, California American Water agreed to review the deeds and/or contracts of the “free water” customers and take reasonable and necessary action to limit the customers’ usage to the amount of water that is legally available under the deeds/contracts, and determine whether it can negotiate termination of free service and if so, at what cost.

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

In 2012, California American Water started sending monthly statements to the 14 customers who receive free water so they have an opportunity to monitor their usage and also be informed of what the dollar amount would be if they were not a free service customer. In the event California American Water should move to higher stages of conservation, the free service water customer will be required to adhere to the budget or face fines from the MPWMD.

School Education and Outreach

In 2012, 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.
-

In School Education – Zun Zun Performances



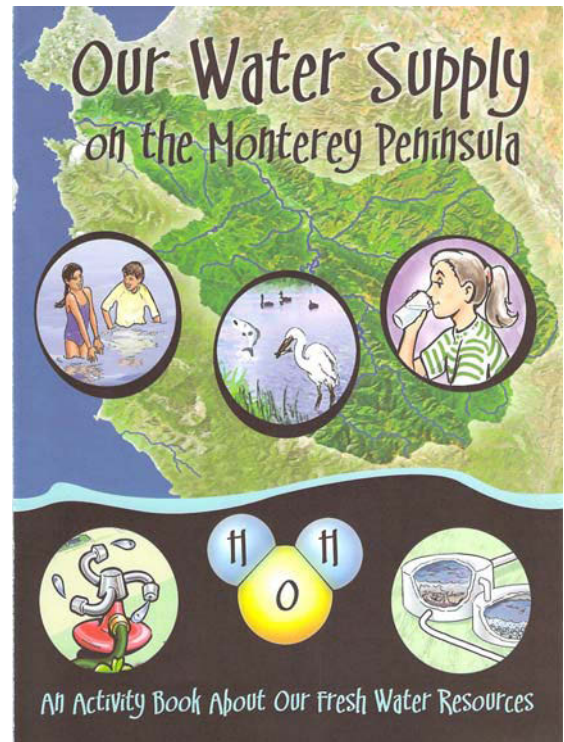
California American Water, through the Monterey County Water Awareness Committee, offered school assembly presentations by the Zun Zun performance group. In 2012, Zun Zun provided three 45 minute performances within California American Water's service territory at San Carlos School and La Mesa Village School. The performances reached a total of 645 students and covered topics such as the water cycle, watershed, indoor conservation and conservation tips, including fixing leaks.

Water Awareness Committee (WAC) Activities

California American Water and MPWMD coordinated with the local Water Awareness Committee (WAC) to offer school education opportunities and outreach. Activities included class presentations, as well as the interactive school assemblies. Both California American Water and the MPWMD were 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, Sept. 1, 2012. This family-friendly event featured booths including: California American Water, MPWMD and Marina Coast Water District.

In addition, the Water Awareness Committee co-sponsored a Water Conservation Seminar on March 27, 2012, with the Spreckels Water Company. The event was held to draw attention to improvements made by the Spreckels Water Company and help use water efficiently. Spreckels customers and water savers from neighboring communities were invited. WAC also ran weekly ads in local newspapers offering conservation tips which included tips on irrigation.



Public Outreach

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. Due to timing features of California American Water's last GRC filing, the 2012 Monterey conservation outreach budget did not receive funding approval until late in the year from the CPUC. Despite this, the company continued its proactive outreach campaign to help keep water consumption within production limits on the Seaside Basin and Carmel River.

With only a few months remaining in the year after funding approval, the company capitalized on its "Savings are in Season" campaign as its principal outreach message. This campaign featured the joint rebate program highlighting the numerous eligible appliances as potential holiday gifts. California American Water continued its multimedia campaign to promote water efficient behaviors and eliminate water waste with numerous social media postings and several YouTube videos. In 2012, 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. Due to the scheduling mechanics of the California American Water's general rate case, the CPUC did not approve the Monterey Conservation outreach budget until late in the year. As a result, there was a significant reduction in the total radio announcements for this year.

In 2012, the company ran a 4-week winter sponsorship with approximately 33 announcements 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.

Annual KAZU underwriting expense: \$3,864

Television Advertising

As a result of late funding in 2012, California American Water was unable to conduct any television advertisement regarding conservation.

Television advertising cost: \$0

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. This was done despite challenges with funding resulting from delays in approval of the GRC. Two, four-color inserts were run in the Carmel Pine Cone and Monterey County Weekly. In addition, bi-weekly advertisements were purchased in both publications to run through the rest of 2012. Each publication boasts a circulation of 30,000 to 35,000 on the Monterey Peninsula--

which roughly equates to the number of California American Water residential service connections within the MPWMD boundaries. Ad themes centered on rebates and basic residential water conservation.

Print advertising campaign cost: \$13,625

[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](#)

California American Water was not able to begin its conservation mailing campaign until the last quarter of 2012. Throughout the year, the company included inserts on various subjects including water quality information, payment arrangements, rates and its low-income program. In 2012, California American Water customers received an individual mailing entitled "Savings are in Season," which featured the latest conservation rebate offerings through the joint California American Water/MPWMD rebate program. Framed as a holiday gift list, recipients could peruse the various rebates in the mailing which included dishwasher, toilet and clothes washer rebates. Also included were rebates for rain sensors, irrigation controllers and efficient sprinkler nozzles.

Mailer cost: \$29,395



Example of our “Savings are in Season” customer mailing sent in December.

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 2012, 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 2012, California American Water and MPWMD participated in the following events: Pacific Grove Good Old Days, Earth Day, Native City of Monterey's Cutting Day, and through membership in the Water Awareness Committee of Monterey County, the Monterey County Fair.

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

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 2012, consumption was highest when rainfall was lowest (2007) and conversely, consumption was lowest when rainfall was highest (2010).

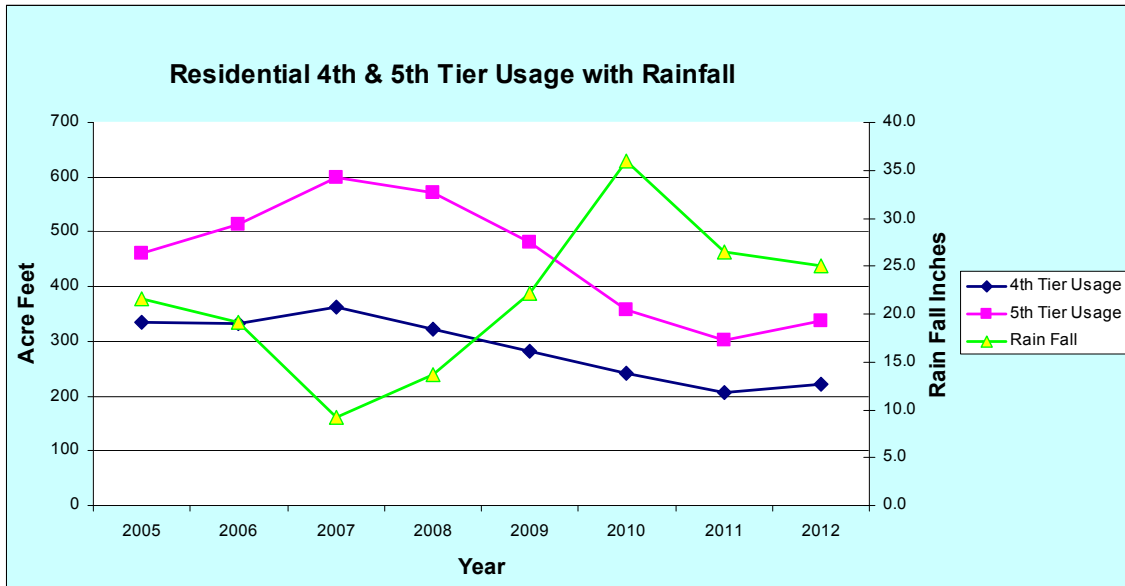
Residential – Five Tiered Rate Design

California American Water's five-tiered residential allotment rate structure has also been instrumental in reducing outdoor water usage. Each residential customer is allotted 15 units per tier or 1,122 gallons per person per month. Current tiered rates are: \$0.3167, \$0.8220, \$1.6641, \$3.2881, and \$4.3667. 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 4th and 5th tiers.

The aggressive conservation programs of California American Water and the MPWMD, along with the residential five tiered rate design, have been instrumental in reducing overall water usage and particular in reducing usage in the 4th and 5th tiers. Fifth tier usage has dropped from 598 acre feet in 2007, to 337 acre feet in 2012, a percentage reduction of 44%. In addition, California American Water has been tracking actual usage of customers who receive audits, rebates, rain sensors, and who participate in other conservation programs since 2009. 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 2012, 4th and 5th tier usage normally reduced during years of high rain fall and increased during years of low rain fall.

Table 15. Residential 4th and 5th Tier Usage & Rainfall – Years 2005 to 2012



Residential 4th & 5th Usage with Rainfall

Year	2005	2006	2007	2008	2009	2010	2011	2012
4th Tier Usage	334	332	364	322	283	241	205	222
5th Tier Usage	460	513	598	572	482	358	303	337
Rain Fall	21.6	19.2	9.2	13.6	22.1	36.0	26.5	25.1

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California American Water, Monterey County District – 2013 Program Goals

California American Water has provided a summary of its conservation activities for 2013 as [Table 16](#).

Table 16. California American Water Monterey County District: Summary of 2013 Program Goals

Program	Former BMP	Budget	Implementation Plan	Timeline
Residential Audits	1	Labor Budget	Complete 200 SF and 10 MF audits	Offer audits throughout 2012
Residential Plumbing Retrofit	2	\$8,200	Continue providing devices to residential and non residential customers, walk-in, and events.	Ongoing
Rain Sensor Installation Program	5	\$33,333	Install 125 Residential or Non Residential Rain sensors	Jan through Dec 2013
Large Landscape Upgrade Grant Program	5	\$75,000 (3-yr)	Provide grants for expenses for equipment, materials, and/or installation to upgrade to conservation friendly landscapes	Summer-Fall of 2013
Public Outreach and Marketing Campaign	7	\$123,333	Continue to support public awareness and participation in the organizations' joint-conservation programs	Ongoing
Educational Outreach: Seminars & Programs	7	\$10,000	Continue to partner with WAC, continue to offer landscape irrigation workshops, create conservation booklet	Ongoing
School Education & Outreach	8	\$8,200	Market Zun Zun to schools during Summer of 2013 (WAC), offer in-class presentations	Spring/Fall 2013

Program	Former BMP	Budget	Implementation Plan	Timeline
CII Audits	9	\$75,000	Offer CII Audits to 35 customers – greatest potential need & audits to establish annual allotments	Ongoing 2013
Conservation Intern(s)	12	\$30,000	Conservation Intern continues to assist with regulatory reporting requirements, planning, creation and implementation of conservation programs, processing of audits, and assist customers.	Ongoing 2012

Residential Audits

In 2013 California American Water will continue to offer Water Wise House calls. It is expected that the number of customer requests for this service will increase due to rate increases, especially during the summer months when usage is highest. Additional efforts to promote customer participation will include sending letters to customers who are billed at the 4th and 5th tier during the winter and summer months, door hangers for customers who have high bills identified through our billing system and flyers will be distributed to property managers who manage large multi-residential units. California American Water's conservation staff has set a target goal of 200 single family audits and ten multi-residential audits to be completed in 2013.

Residential Plumbing Retrofit

California American Water will continue to provide low flow conservation devices and conservation kits to residential customers in the Monterey service area. Participants are required to sign form to receive devices at events, the front desk, etc. Collection of this information helps to identify how the devices are distributed. During the next year, the focus will be on the hospitality industry (i.e., hotels, motels, restaurants, etc.) to convert hundreds of bathroom faucet aerators from 1.5 GPM to 0.5 GPM. California American Water will also consider providing other low flow devices and new technologies that provide greater water savings. Current devices include: 1.5 GPM showerheads, 1.0 GPM kitchen faucet aerators, and 0.5 GPM bathroom aerators. California American Water also promotes 1.5 GPM showerheads for customers who have retrofitted in past with the 2.5 GPM showerheads. The company will continue to track the devices specifically given to single and multi-family residents as required for the BMP report to the CUWCC.

Large Landscape Upgrade Grant Program

California American Water will continue its successful Large Landscape Grant Program developed and implemented in the fall of 2010 for cities, schools and parks. In 2011, \$125,000 was awarded to two cities that had with a combined potential annual savings of 1.3 million gallons or 4 AFA. The funding provides financial assistance for improvements to landscaping and irrigation systems and covers the cost of equipment, materials, and/or installation.

In 2013, California American Water's objective is to fund one to three landscape grant projects in the fall for up to \$75,000. The proposed sites will be selected based on projected water savings, cost to retrofit, educational value of the site, project proponent participation, and other criteria.

Each year after retrofit, the sites will be reviewed to identify their actual usage compared to their anticipated usage to determine water savings. This information will be reported to the CPUC annually as a measure of the success of the program.

Rain Sensor Installation Program

California American Water will continue its rain sensor installation program that began in November 2011. The program involves free installation of rain sensors for residential, commercial and public authority customers. Priority customers are those who have the greatest potential need to reduce their water usage, especially during the winter season. During 2013, the focus will continue to be on reducing use in the 4th and 5th billing tiers during the wet winter months of December, January and February.

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

CII Audits

California American Water will continue to provide commercial, institutional and industrial audits. California American Water plans to complete up to 40 CII audits in 2013 utilizing experienced contracted consultants.

Customers who have the greatest need and potential to achieve significant water savings will have priority. In addition, California American Water will provide CII audits to customers that do not currently have a commercial factor, which is used as basis to establish an allotment for billing.

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Monterey Peninsula Water Management District – 2012 Programs Funded by the California American Water Conservation Surcharge

The GRC decision D.12-06-016 authorizing the re-establishment of California American Water’s Monterey Conservation Surcharge was not issued until early June 2012, and, as a consequence, California American Water did not begin collection of the surcharge until the September billing. At that time, MPWMD consulted with California American Water and determined that it was in the best interests of the ratepayers to delay funding new programs until the rebate program was restarted. Therefore, although programs funded through the GRC continued, most occurred using previously purchased inventory or focused on non-mechanical means for achieving water savings. The 2012 programs funded by the Conservation Surcharge are summarized in the following table and described in detail in the narrative that follows.

Table 17. Monterey Peninsula Water Management District: Summary of 2012 Programs

Program	Program Costs	Need For Program	Nature of Activity	Measurable Goal	Results	Estimate Savings
Water Conservation Representative	\$76,130 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.	American Rainwater Catchment Systems Association training	Attendance by at least ten persons per event	Achieved	Not quantifiable

Program	Program Costs	Need For Program	Nature of Activity	Measurable Goal	Results	Estimate Savings
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	2,600 unique hits on software in 2012	Not quantifiable
Water Audits & Budgets	\$0	This program was temporarily halted pending funding from D.12-06-016.	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	Program will be restarted in 2013.	
Linen/Towel Reuse Program	N/A	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

Program	Program Costs	Need For Program	Nature of Activity	Measurable Goal	Results	Estimate Savings
CIMIS Station Maintenance	\$1,406	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.	Reduced outdoor water use during low ETo	Data is available on CIMIS website	Not quantifiable
Conservation Devices	\$0 (no new equipment was purchased in 2012)	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	40.22 AF
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 a brochure that provides information on rainwater harvesting and use of graywater.	Support BMP programs, provide at 3+ events, and reduce water usage.	MPWMD distributed conservation materials, including the new brochure 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	43 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 providing enforcement and site investigations. The position also conducts conservation inspections and community outreach, provides information and educates the public on the need for water conservation and water demand management; assists other agencies and the general public in understanding MPWMD requirements and rules; performs inspections on properties to ensure compliance with water efficiency standards, rules and regulations; organizes and oversees water efficiency training and seminars; and assists in research, analysis, and reporting on water demand management and conservation programs.

Water Conservation Seminars/Workshops

MPWMD has focused its training agenda to help provide the tools necessary for gardeners, landscapers, builders, homeowners, plumbers and others to maximize water efficiencies. During 2012, MPWMD hosted the American Rainwater Catchment Systems Association (ARCSA) for the second time in three years. ARCSA conducted its Level 200 course on system design, and the class was attended by 12 participants. The three day workshop assists designers and construction workers in installing safe, effective and efficient rainwater collection systems that meet the goals and needs of the client. Instruction is mostly in the field, with minimal classroom time.

The course outline includes:

Design and site plans, bids and contracts

Calculating size, friction and volume needed to achieve goals

Constructing an effective above ground systems as a team - from the gutter through the tank and pump for the desired usage

System components including downspouts, wet and dry systems, air-gap, back flow prevention, first flush, calming inlet, adding make-up water, connections and pumps

Systems constructed for outdoor and indoor non-potable uses



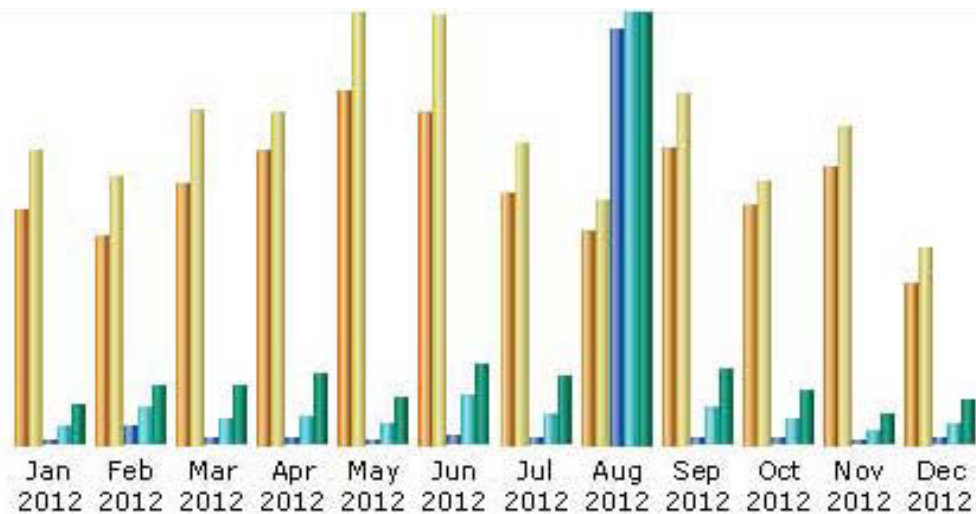
Water Wise Gardening for Monterey County

Water Wise Gardening for Monterey County is a highly desirable landscape planning software that was designed specifically for Monterey County. The GardenSoft software was developed with

sponsorships from California American Water and MPWMD through the Water Awareness Committee of Monterey County. It provides photos of various types of local gardens examples, including front and back yards, hillsides, raised planters, shrub and perennial borders, walkways, parking strips, patio areas, theme gardens, native gardens, decks, fences, gates, surfaces, benches, trellises, low-maintenance gardens, and Mediterranean style gardens. There are hot-links embedded within the garden images of plants which link to photography, plant or material identification, and related information. Users are able to search for plants relevant to specific Monterey County areas by botanical name or common name, by look or color, by general variety, and much more. A brief questionnaire leads the user to the appropriate plants to solve their gardening wants or needs. A series of information pages are provided that list watering tips on a month-by-month basis and general lawn and planting area instructions for each month of the year.

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) and from the Water Awareness Committee website (<http://www.monterey.watersavingplants.com/monterey.php>). During 2012, the web application had 2,600 unique hits on the websites. A breakdown of site hits by month is shown on Table 18.

Table 18. Water Wise Gardening for Monterey County, Website Hits by Month, 2012



Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2012	196	247	984	4,344	58.87 MB
Feb 2012	173	224	4,475	9,022	85.84 MB
Mar 2012	219	280	1,561	6,321	84.49 MB
Apr 2012	246	279	1,584	6,864	104.36 MB
May 2012	297	362	914	4,901	69.81 MB
Jun 2012	278	360	2,182	11,597	117.07 MB
Jul 2012	210	253	1,326	7,143	98.86 MB
Aug 2012	177	205	100,844	104,341	632.49 MB
Sep 2012	248	295	1,636	8,934	109.37 MB
Oct 2012	201	221	1,236	6,018	77.86 MB
Nov 2012	233	267	794	3,101	44.07 MB
Dec 2012	133	164	1,186	5,000	65.51 MB
Total	2,611	3,157	118,722	177,586	1.51 GB

Water Audits/Budgets

The Landscape Water Audits and Landscape Water Budgets program was unfunded during 2012. When funding is available, Landscape Water Audits and Landscape Water Budgets are offered at no charge to all water users of California American Water that have dedicated landscape meters, large

irrigated areas over three acres, and large residential water users that average more than 320 units² or 23,936 gallons of water per month of use.

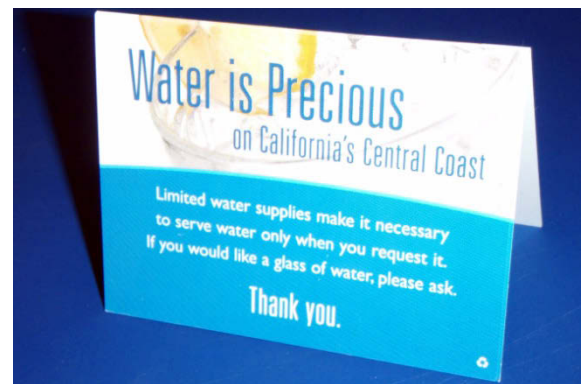
The audit involves an on-site analysis of existing plant types and locations, soil types, existing irrigation and watering practices and equipment. The CLIA then determines a watering budget based on those factors and efficient water use. Stage 2 Water Conservation (and higher stages) implements enforcement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

Linen/Towel Reuse Program

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

During 2012, MPWMD distributed the following:

- Towel Cards – 1,500 pieces (pc.).
- Water Service on Request Cards (see photo on right) – 1,250 pc.
- Linen Reuse Pillow Cards – 700 pc.
- Conservation Message Mirror Clings – 8,000 pc.



The California Irrigation Management Information System (CIMIS)



During 2012, 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. This year, bird deterrent was purchased and installed to prevent birds from roosting on and soiling the station.

² California American Water Monterey uses a 75 gallon “unit” measurement

Conservation Devices and Materials

MPWMD provided customers with various free water savings devices including 1.5 GPM showerheads and 0.5 GPM faucet aerators for the bathroom, 1.5 GPM aerators for the kitchen, leak detection tablets/kits and outdoor water saving tools. In 2012, MPWMD tracked the distribution of the various water savings devices to identify the total number of devices distributed and where or how they were distributed to customers. For all conservation related events, customers who received water conserving devices were verified as California American Water customers.

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

- Community events
- MPWMD Front Desk (walk-in customers)
- On-site inspections
- Upon customer request
- During community presentations
- During water waste enforcement visits

In addition to the standard devices listed under the CUWCC's BMP 2 requirements, MPWMD also distributed a variety of devices to help improve water use efficiency ([Table 19](#)). Items included in this list were funded by both California American Water reimbursement and by MPWMD. Of particular interest this year was the participation of the Pebble Beach Company, which installed 1.26 gallons-per-minute pre-rinse spray valves in all of its food service facilities. The feedback was positive and water records will be reviewed after one year to evaluate program success.

Table 19. Water Saving Devices Distributed by MPWMD in 2012

Water Saving Device	# of units	\$ per unit	Total cost	Estimated water savings per unit per year in AF	Unit lifespan (yrs)	Estimated Annual measure savings (AFY)	Estimated Lifetime measure savings (AF)
Showerheads	2957	\$3.55	\$10,497	0.0062	5	18.21	91.05
Lavatory Faucet Aerators	816	\$0.50	\$408	0.0017	5	1.39	6.94
Kitchen Faucet Aerators	220	\$2.35	\$517	0.0017	5	0.374	1.87
Leak Detection Tablets	220	\$0.06	\$13	Varies	1 x	Varies	Varies
Shower Timers	270	\$1.50	\$405	Varies	5	Varies	Varies

Water Saving Device	# of units	\$ per unit	Total cost	Estimated water savings per unit per year in AF	Unit lifespan (yrs)	Estimated Annual measure savings (AFY)	Estimated Lifetime measure savings (AF)
Ladybug Hot Water Valve	90	\$15	\$1,350	0.0068	10	9.18	91.80
Rain Sensor	25	\$21	\$525	Varies	5	Varies	Varies
Moister Meters	540	\$2.50	\$1,350	unknown	5	unknown	unknown
Hose Timer	6	\$8.44	\$51	unknown	5	unknown	unknown
High Efficiency Pre-Rinse Spray Valve	50	\$26	\$1,300	0.392	5	509.6	2,548
Hose Shut Off Nozzle	720	\$4.37	\$2,168	Varies	3	Varies	Varies
Total			\$16,117			25.26	2,740

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Monterey Peninsula Water Management District - 2012 Programs Funded by MPWMD

The following projects and activities were funded during 2012 by MPWMD.

Mandatory Water Efficiency Requirements

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

MPWMD conducted 1,969 inspections of properties in 2012, 1,210 of which were inspected for change of title compliance. During 2012, 1,381 properties transferred ownership in the MPWMD. Due to recently enacted changes in showerhead flow rates and a requirement for rain sensors on automatic irrigation systems, MPWMD increased the number of verification inspections in 2012.

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 759 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 2012 were estimated to add 9.011 AFA to annual conservation savings. Interestingly, approximately 80 percent of the toilets seen in 2012 were High Efficiency Toilets, resulting in higher water savings than would have been achieved with ULF toilets.

Water Permits have numerous water efficiency requirements attached as conditions of approval. MPWMD enforces these restrictions through recordation of deed restrictions that specify the requirements. Of the 781 Water Permits issued in 2012, 233 (30%) 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.

Expanded 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. In 2012, MPWMD amended its program to implement a requirement for High Efficiency Toilets (when replacing an older non-water efficient toilet), High Efficiency Urinals and other aggressive retrofits. The retrofits must be completed by January 1, 2014. A summary of the requirements is shown as [Table 20](#).

Conservation Program Staffing

The Water Demand Division of the MPWMD employs a staff of five (including one position fully funded by the conservation surcharge). MPWMD budgeted approximately \$400,000 in regular full-time labor costs for the conservation staff in 2012. 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 2012, MPWMD continued employment of a temporary full-time employee at an additional cost of \$37,000 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

The water conservation partnership website, www.montereywaterinfo.org is hosted on MPWMD's server, with full editing capabilities by both California American Water and MPWMD staff. As a quality control measure, there are a limited number of employees authorized to make changes to the website. The website is designed to provide factual information with a focus on the Monterey Peninsula's water conservation and efficiency programs. During 2012, MPWMD staff regularly updated and maintained the information on the joint website.

Table 20. MPWMD Expanded Water Efficiency Requirements



Water Efficiency Requirements For Non-Residential Customers

Commercial Conservation on the Monterey Peninsula

MPWMD has adopted extensive water efficiency requirements over the years to comply with regulatory restrictions and to address a limited water supply. By December 31, 2013, existing non-residential water users will need to meet the requirements outlined in this fact sheet. Rebates and other resources are available to help achieve the targets. More information can be found on the Conservation Program website at www.montereywaterinfo.org.

Visitor-Serving Businesses

In addition to meeting the Indoor and Outdoor requirements, visitor-serving facilities and buildings must implement additional requirements. Mirror clings, and towel and linen reuse cards are available from MPWMD.

- Water efficient ice machines that meet or exceed Energy Star standards for air-cooled ice machines
- Placards or decals promoting water conservation must be displayed in restrooms, kitchens, and dining areas
- Drinking water is to be provided only upon request. Notification of this requirement must be provided on each table or menu
- Towel and linen reuse programs must be promoted by written notice in the rooms

Indoor

- High Efficiency Toilets (1.28 gpf) unless already Ultra Low Flush (1.6 gpf)
- High Efficiency Urinals (0.5 gpf)
- Routine replacement of toilets after December 31, 2012 must be with HET
- Showerheads: 2.0 gallons per minute (gpm)
- Public Washbasins: 0.5 gpm max.
- Public Washbasins equipped with automatic shut off devices or sensor faucets: 0.25 gallons per cycle max.
- Private Washbasins (e.g., hotel or motel guest rooms and hospital patient rooms): 1.5 gpm max.
- All other sinks: 2.2 gpm max.
- Water Efficient Pre-Rinse Spray Valves (1.6 gpm)
- High Efficiency Clothes Washers (Energy Star rated washers with a Water Factor of 5.1-6.0 that were purchased between 2006 and 2013 are exempt)
- Car washes must recycle 50% of water used
- Tenants must be provided with information about local water use restrictions

Outdoor

- Ornamental water uses, must recirculate/recycle water.
- Pools and spas drained/refilled only to prevent or correct structural damage or to comply with public health regulations
- Potable water is not to be used for washing buildings or other hard surfaces, except when health/safety are at risk
- Excessive or indiscriminate water use is prohibited
- Odd/even watering days and times (Rule 172)
- Rain and Soil Moisture Sensors are encouraged on Automatic Irrigation Systems

Best Management Practices

Best Management Practices (or BMPs) are cost-effective, proven ways to conserve water and reduce utility bills (both water and energy). Rebates and other incentives are available. Excellent information about BMPs is available on the following websites:

<http://www.epa.gov/watersense/commercial/bmps.html>

<http://www.allianceforwaterefficiency.org/resource-library/default.aspx>



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Visit us online at www.montereywaterinfo.org

Rebate Program Start Up

After a year and a half, the Monterey Peninsula's Rebate Program restarted on November 19, 2012. MPWMD collaborated with California American Water to implement an advertising campaign and to issue press releases and update the conservation website. Rebate applications were revised and printed, and local retailers and suppliers were contacted and given information, brochures and applications. MPWMD began development of an online rebate application that will mesh with its comprehensive database.

Between November 19 and December 31, 2012, 101 applications were received, of which 69 were approved. This is in keeping with the approval level of rebates from previous programs. Between one-quarter to one-third of the applications are denied because of MPWMD permit or conservation requirements for the device(s) or because the device does not meet the standards for a rebate. During the first month of the program, \$27,435 was refunded for High Efficiency Toilets, High Efficiency Dishwashers and Clothes Washers and cisterns.

Rebate Program Applications

MPWMD purchased 1,000 Rebate Program applications in 2012 at a cost of just over \$453. The documents are 2-sided forms. As mentioned in the previous item, MPWMD is working with its programmer, Zone 24x7, to develop a web-based rebate application that would be accessible from the "montereywaterinfo.org" website. The application should be available before mid-2013 and will cost approximately \$5,000.

Promotion of Alternate Water Supplies

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

During 2012, this group developed and distributed a graywater/rainwater harvesting brochure and assisted Ecology Action of Santa Cruz with locating potential sites for graywater demonstration projects on the Monterey Peninsula.

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 resources³ 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 many cases, BMP implementation requires an initial expenditure with a reasonable return on investment.

When funding is available, 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.

³ 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>)

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Monterey Peninsula Water Management District - 2013 Program Goals

In 2013, MPWMD will focus its efforts to develop and implement regulations and strategies to reduce non-residential and outdoor consumption ([Table 21](#)). The current efforts of MPWMD and California American Water have been quite successful in reducing upper tier (i.e., Tier 4 and Tier 5) water use. Outdoor water use continues to receive recognition as the most likely place to achieve significant water savings on the Monterey Peninsula. MPWMD will also begin focusing efforts on educating the CII sectors about efficiency measures beyond toilet retrofits, including communication of the MPWMD's requirement for installation of water efficient pre-rinse spray valves and HET.

Table 21. Summary of MPWMD 2013 Program Goals

Program	Funding	Budget	Implementation Plan	Timeline
Landscape Water Audits/Budgets	CAW	\$475,000	Contract with CLIA to conduct landscape water audits and prepare landscape water budgets pursuant to MPWMD Rule 172	May 2013- December 2013
CLIA training	CAW	\$5,000	CLIA training in conjunction with another outdoor efficiency workshop	Summer 2013
School Retrofit Program	CAW	\$100,000	Initiate cost-effective retrofits in Monterey Unified School District schools	June 2013
Rebate Program	CAW	\$900,000	Rebate program for cost-effective retrofits. MPWMD to provide administration and an online application	Ongoing
Water Efficiency Training and Education	MPWMD	\$10,000	Sponsor Green Gardener, Laundry to Landscape and other outdoor water efficiency workshops in collaboration with California American Water	Through Dec 2013
Alternate Water Source Demonstration Project	CAW	\$20,000	Sponsor movable display to educate public on alternative water source use.	December 2013
Participation in Community Water Efficiency Events	MPWMD	\$2,500	Provide sponsorship and staff outreach at local water efficiency-related events and conferences	Through Jun 2013

Program	Funding	Budget	Implementation Plan	Timeline
Linen and Towel Program	MPWMD	\$0	Continue supporting program with existing inventory and outreach to local hospitality businesses	As needed
Water Wise Gardening for Monterey County (Garden Soft)	CAW	\$5,000	Annual license for web-based software	Annually
Conservation Devices	CAW	\$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	MPWMD	N/A	Work with stakeholders and others to prepare new water rationing plan	By February 2014
Update Rules and Regulations as Needed	MPWMD	N/A	Respond to Board, staff and community concerns to update and amend regulations as needed	Ongoing
Enforcement of MPWMD regulations	MPWMD	N/A	Implementation and enforcement of MPWMD policies and regulations	Ongoing

Landscape Water Audits

MPWMD will contract to complete required landscape water audits and to have a CLIA develop landscape water budgets for properties required to have audits pursuant to MPWMD Rule 172. This requirement has been pending funding for over a year. Properties requiring audits/budgets are identified annually by California American Water through a review of consumption records at the conclusion of the Water Year (i.e. September 30). Adherence to a water budget is required in Stages 2-4 of MPWMD Regulation XV and California American Water Rule 14.1.1. During 2013, MPWMD will expand the program to include public parks that are currently not required to have budgets because a restroom or other use is on the meter. The new rule will apply to public irrigated open spaces.

CLIA Training

Certified Landscape Irrigation Auditors oversee the landscape water audits and budgets required by MPWMD Rule 172 and by the State Model Water Efficiency Landscape Ordinance. Certification as a CLIA involves the quantification of landscape irrigation water use and involves collecting site data, making maintenance recommendations and performing minor repairs, performing, performing field measurements and observations, determining irrigation uniformity and efficiency, developing a basic irrigation schedule, and working water manager or property owner to manage overall irrigation water use. Certification also requires actual field experience and successful completion of a certification test.

CLIA training will be conducted by Bob Costa during the summer of 2013. The training will be offered with a scholarship for completion of the course.

School Retrofit Program

The School Retrofit Program is designed to grant money to educational facilities on the Monterey Peninsula to achieve cost-effective water-saving retrofits that might otherwise not occur due to budget constraints or conflicting funding priorities. In anticipation of additional funding in the 2012-2014 General Rate Case, MPWMD had all schools audited in late 2011. The results of the audits will be used to identify the most cost-effective retrofits for funding in 2013 and 2014. Schools that are planning and implementing student participation gardens will be contacted regarding the potential for rainwater harvesting as a source of water for the gardens.

Rebate Program

MPWMD will continue to promote and administer the Rebate Program. MPWMD will be reviewing components of the program during 2013 to determine whether rebates should be added or adjusted.

Water Efficiency Training and Education

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

Alternative Water Source Demonstration Project

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

Sponsor and/or Participate in Community Water Efficiency Events

MPWMD frequently participates in community events, most of which are summarized under California American Water's Outreach section of this report. MPWMD will provide staff to educate the public about its programs and will offer free water saving devices. A key reason for joint participation in these events is that each agency 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 local mandatory conservation requirements. These presentations will take place throughout 2013. Along with giving presentations, MPWMD will be distributing fact sheets about the requirements to California American Water's customers and to owners of non-residential property through direct mail pieces.

Linen and Towel Program

MPWMD will continue to support distribution of mirror clings and other visitor-serving commercial signage that promotes water conservation during 2013. MPWMD will also be working with the Monterey County Hospitality Association and Chambers of Commerce during 2013 to educate the industry about the Linen and Towel Programs and about the MPWMD requirement to implement these programs. In addition, MPWMD will provide information about rebate opportunities and approaching retrofit mandates via industry newsletters and email blasts, through District newsletters and speaking engagements, and through the local media. MPWMD will support the efforts to achieve BMPs for the various businesses and industries on the Peninsula.

Water Wise Gardening for Monterey County (GardenSoft)

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

Conservation Devices and Publications

During 2013, MPWMD will coordinate with California American Water to acquire and distribute devices and other items to help customers reduce water consumption. A rebate program brochure completed in 2011 is planned for distribution in 2013. In addition, MPWMD staff will be preparing a comprehensive brochure to inform the public about the conservation and water efficiency requirements of the MPWMD.

CIMIS Stations

MPWMD will continue to maintain three CIMIS stations on the Monterey Peninsula during 2013. MPWMD staff performs periodic maintenance at the station to clean the equipment for optimal performance. Costs associated with the CIMIS stations are only for cellular lines to transmit data to the Department of Water Resources.

Revise Non-Residential Rationing Plan

MPWMD, with assistance from California American Water, will facilitate further a review and revision of the Non-Residential water rationing plan. The current plan relies on allotments that will likely be discontinued if a new commercial rate structure currently under consideration by the CPUC is adopted and implemented in 2013. Eventually, a revised rationing plan will be presented to the MPWMD Board of Directors for action.

Enforcement of MPWMD Regulations

MPWMD will continue its inspection and enforcement procedures related to its water efficiency rules and to help the public achieve compliance with the various regulations. Also planned for 2013 is a revision to the water waste enforcement process to make it more effective and efficient, along with other revisions to policies and practices to improve customer service.
