

State Water Resources Control Board
Order 05/02/2012

Provision 13 - Water Loss and Water Use
Efficiency



March 29, 2013

Prepared by

**Sonoma County Water Agency
404 Aviation Blvd
Santa Rosa, CA 95403**

1 Introduction

This report has been prepared by the Sonoma County Water Agency (Water Agency) to fulfill the requirements of Provision 13 of the State Water Resources Control Board (State Board) Order dated May 2, 2012 (Order).

Provision 13 of the Order directs the Water Agency to take the following actions:

SCWA shall provide a written update to the Deputy Director by March 31, 2013 regarding activities and programs being implemented by SCWA and its Water Contractors to assess and reduce water loss and promote increasing water use efficiency.

2 Water Loss and Water Use Efficiency

The Water Agency has been working on two new pilot projects, funded through the California Water Foundation, with the intent of increasing water use efficiency and reducing water loss. The California Water Foundation (Foundation) supports innovative projects and policies that address water challenges today, while bringing together experts, stakeholders, and the public to achieve long-term, science-based solutions for the future. The Foundation's goal is to create a sustainable water management system that can capitalize on increased supply in wet years to meet water needs in dry years. The Foundation does this by:

- Providing incentives and tools to better manage water resources
- Supporting critical innovative demonstration projects, technologies, and research
- Engaging broad-based coalitions in decisions about the state's water future and support for effective policies

The Foundation has provided funding to the Water Agency for the Residential Unaccounted for Water Leak Detection Project and the AquaJust Demand Response Pilot Project. Each project is briefly described below:

Residential Unaccounted Water Leak Detection Program (Leak Detection Program): The Leak Detection Program seeks to address the problem of water that has been produced by a water utility and is subsequently lost to leaks that are undetected by current meter technology. The Leak Detection Program will purchase and install approximately 100 devices on residential accounts within the Water Agency's service area. The devices allow low linear flows that would normally go undetected through the meter to be registered by the meter. The Water Agency will collect and analyze data for one year to determine if low flows are in fact moving through meters and contributing to unaccounted for water.

AquaJust Demand Response: The Water Agency is partnering with SmartMarkets, Inc. to test an innovative program called AquaJust. The AquaJust Program will test the theory that water awareness combined with direct customer benefits will increase water efficiency. It will

establish customer baselines for each account. Users below that threshold will be awarded efficiency credits, or “EcoShares”; those exceeding it may choose to pay as per usual, or purchase EcoShares from their more efficient neighbors. The City of Sonoma is interested in participating in this pilot to reduce demand and meet their statewide goal of 20% reduction by 2020, which current projections show may not be achieved.

3 Sonoma-Marin Saving Water Partnership Annual Report

The Cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, Petaluma, Town of Windsor and North Marin, Marin Municipal and Valley of the Moon Water Districts and the Water Agency formed the Sonoma-Marin Saving Water Partnership in 2010. The purpose of the Sonoma-Marin Saving Water Partnership is to establish the financial obligation for the eight local water utilities, Marin Municipal Water District and Sonoma County Water Agency, identify and recommend implementation of water conservation projects and to maximize the cost-effective projects for the Partnership.

The Partners are committed to remain as members in good standing of the California Urban Water Conservation Council (CUWCC) and implement the Best Management Practices (BMPs) for water conservation. The Partners will implement or use best efforts to secure the implementation of any water conservation requirements and will publish an Annual Report to track progress. The Annual Report will track program implementation, highlight program milestones, and reinforce the importance of protecting and preserving water resources for future generations. The 2011/2012 Annual Report for the Partnership is attached in Appendix A.

Appendix A

**2011/2012 Annual Report for the
Sonoma-Marín Saving Water Partnership**

(begins on the following page)



(ANNUAL REPORT)
FISCAL YEAR 2011/2012



A Team Effort

Every day we wake up and turn on the tap to draw water and begin our daily routine. It's a marvel that fresh water appears instantly and this marvel is a testament to the men and women of the Sonoma County Water Agency and area retail water providers working together to ensure a safe, reliable water supply is available for residents of Sonoma and Marin counties. Whether the water is naturally filtered from the Russian River, local groundwater sources or treated surface water from local lakes, the coordinated effort to extract, treat and deliver water to area residents is often taken for granted. Conservation of precious water resources is critical as we strive to make water available for our communities while preserving our natural resources.

The Sonoma-Marin Saving Water Partnership (Partnership) was formed in late 2010. The Partnership recognizes that establishing common regional water conservation projects may cost effectively conserve more water than would otherwise be conserved by individual agencies. This regional approach is based on meeting water conservation regulatory requirements by offering financial incentives to conserve and by educating water users about where drinking water comes from and how to use it most efficiently. The Partnership, through its many water efficiency programs, educational seminars and outreach campaigns, is working every day of the year to educate our communities about the importance of conserving water resources and curbing water-wasting behaviors.

The time and energy invested in the Partnership is paying off. The 2011/2012 winter and spring saw limited rainfall and dry year conditions in our service area. Nevertheless, water use in the Sonoma-Marin region remained at significantly reduced levels compared to prior years resulting in no need for extreme water use restrictions. The Partnership will continue to offer educational resources, programs and incentives to aid our communities in meeting water use efficiency requirements in the future, responding to variable water year conditions and maintaining supplies for beneficial use and instream needs.

Sincerely,

Susan Gorin, Chair
Water Advisory Committee
Council Member
City of Santa Rosa

Efren Carrillo
Board of Directors
Sonoma County Water Agency

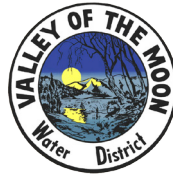
About the Partnership

The Sonoma-Marín Saving Water Partnership (Partnership) represents 10 water utilities in Sonoma and Marin counties who have joined together to provide regional solutions for water-use efficiency.

The utilities include the Cities of Santa Rosa, Rohnert Park, Petaluma, Sonoma, Cotati; North Marin, Valley of the Moon and Marin Municipal Water Districts; Town of Windsor and Sonoma County Water Agency (Partners). Each of the Partners have water conservation programs that can assist you in reducing your water use.

The Partnership was formed to identify and recommend implementation of water-use efficiency projects, and maximize the cost-effectiveness of water use efficiency programs in our region.

The Partners are committed to remain members in good standing of the California Urban Water Conservation Council (CUWCC) and implement the Best Management Practices (BMPs) for water conservation.



Our Service Area

More than 600,000 residents in Sonoma and Marin counties rely on the water delivered from the Russian River by the Sonoma County Water Agency (Water Agency) to the nine cities and districts in the Partnership. Supplementing the water provided by the Water Agency are local supplies including recycled water, groundwater from underground aquifers and surface water reservoirs.

Wildlife, including threatened and endangered species, such as steelhead, coho salmon and Chinook salmon, recreational interests, and agricultural crops, also rely on these same natural resources in order to thrive.

Realizing the importance of protecting and preserving water resources for future generations, the members of the Partnership have taken a proactive role in helping fund, maintain and implement an array of water supply, water use efficiency and fishery recovery programs.

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Partnership Achievements by the Numbers

Fiscal Year 2011/2012

57 graywater systems were installed.

37 students graduated from the Qualified Water Efficient Landscaper (QWEL) and Spanish QWEL programs.

332 parents volunteered to chaperone their child's class during their field study visit to the Water Agency's Russian River Field Study Site near Forestville. The parents participated along with the students allowing the Field Study Program to reach adults as well as children.

23,696,000 gallons of water per year are being saved by local businesses through sustained reduction programs where rebates are provided for implementing process changes and equipment upgrades resulting in measurable water use efficiencies.

5,801 students received direct instruction, 2,426 in the classroom only program and 3,375 in the classroom and Field Study program.

1,757 rebates were issued to residents for replacing their old, inefficient toilets with new, EPA WaterSense labeled high-efficiency toilets that flush at 1.28 gallons per flush or less.

23,050 gallons of rainwater storage capacity have been rebated through rainwater harvesting rebate programs.

340,607 square feet of lawn were removed through turf conversion programs — enough to cover nearly six professional football fields.

3,375 students participated in the Field Study Program where the 5th grade students performed water related experiments along the banks of the Russian River and learned about the riparian ecosystem.



10,104 students experienced "The Musical Watershed" performed by the ZunZun performing arts group in 35 shows at 25 different elementary schools.

317 rebates were issued to businesses for installing high-efficiency toilets.



2,155 high-efficiency clothes washer rebates were issued. These EPA EnergyStar rated clothes washers use 40 to 60% less water than older, top loading models and they save energy from heating less water and wringing out more water before the clothes go into the dryer.

3,031 Water Smart Home evaluations were performed. These in-home water efficiency assessments are performed by trained technicians to find opportunities for improvements, identify leaks, and inform homeowners about their indoor and outdoor water use.

511 businesses participated in our water use survey programs.



444 high school students went on technical tours of the Water Agency's Mirabel and Wohler water transmission facilities. Students learned about the water system and explored career opportunities in the field of water.



Partnership Highlights

680 guests visited the 18 gardens that participated in the First Annual Eco Friendly Garden Tour.

19,722 students in 911 different classrooms received curriculum materials provided by the Water Education Program.

ANNUAL MULTI-MEDIA PUBLIC EDUCATION CAMPAIGN

The annual public education campaign continued this year to increase awareness about water efficiency rebates available through the Partnership. The campaign featured local residents from throughout the North Bay region who have participated in rebate programs.

Advertisements were placed in local and regional newspapers, in local movie theaters, on various media websites and a radio campaign was also developed.

PROGRAM EXPENDITURES

Partners have pledged to fund water use efficiency programs. The baseline funding is established in the MOU and is based on historic water deliveries through the Water Agency's water transmission system, ensuring that programs will always be available to help residents use our water resources efficiently.

Minimum funding levels are presented in the orange bar in the table below. Current expenditures and those of the previous two fiscal years are included.

For the Town of Windsor, additional required funding paid through a direct diversion water conservation sub-charge is not included with their MOU minimum.

These additional funds are designated for the Town's water use efficiency programs and is included in their annual program expenditures.

The Water Agency's Water Use Efficiency Program is funded by the water contractors through the Water Conservation Sub-Charge as part of the Water Agency wholesale water rates. The amount of money deposited in the fund is calculated based on the estimate of the total costs for all regional Water Conservation Projects for each fiscal year.

The Sonoma-Marin Saving Water Partnership does not specify a minimum amount that should be utilized for regional programs.

Program Expenditures (in thousands of dollars)

	City of Cotati	Marin Municipal Water District	North Marin Water District	City of Petaluma	City of Rohnert Park	City of Santa Rosa	City of Sonoma	Valley of the Moon Water District	Town of Windsor	Sonoma County Water Agency	Regional Total
FY 09-10	\$74	\$2,500	\$479	\$528	\$13	\$1,883	\$168	\$239	\$235	\$1,583	\$7,701
FY 10-11	\$107	\$1,900	\$383	\$657	\$17	\$1,221	\$137	\$120	\$158	\$1,573	\$6,220
FY 11-12	\$115	\$1,900	\$270	\$638	\$21	\$909	\$117	\$75	\$243	\$1,505	\$5,794
Minimum	\$25	\$177	\$241	\$242	\$120	\$557	\$55	\$72	\$10	NA	\$1,500

2011 TEMPORARY URGENCY CHANGE PETITION

On April 18, 2011, the Water Agency submitted a Temporary Urgency Change Petition to the State Water Resources Control Board (SWRCB) requesting to modify the minimum in-stream flow requirements for the Russian River and preserve water in Lake Mendocino for late release to benefit returning Chinook salmon.

On June 1, 2011 the SWRCB responded with an Order approving the request. The Order contained two terms that pertained to water use efficiency: the SBx7-7 targets and 2011 gallons per capita per day (GPCD) status for each Partner (Provision 12) and assigned water budgets to dedicated irrigation customers designed to achieve a Maximum Applied Water Allowance (MAWA) of 60% reference evapotranspiration (ETo) (Provision 13).

The purpose of the SBx7-7 report was to update the SWRCB on the long term per capita water use goals for our region and document the 2011 measurement. The report detailed GPCD for each of the Partners and as a region, which is identical to the chart on Page 7. This report was submitted to the SWRCB on March 28, 2012.

The MAWA provision required each Partner to develop and notify their dedicated irrigation customers of a site specific water budget. This site specific water budget was then compared to the site's actual water use to determine if the site adhered to the water budget. The average MAWA achieved by the Partners from May to November 2011 was 53% ETo. This Report was submitted to the SWRCB on March 28, 2012.

20 x 2020 GOALS

In 2009, SBx7-7 established a statewide goal, known as 20 x 2020, to reduce per capita water use 20% by the year 2020 with an interim goal of a 10% reduction by 2015.

The chart below displays 2011 per capita water use in each Partner service area and the region as a whole. The 2015 and 2020 goals are indicated by the green and red lines, respectively.

While the chart shows that all Partners are currently meeting the 2020 targets, we recognize that water use efficiency

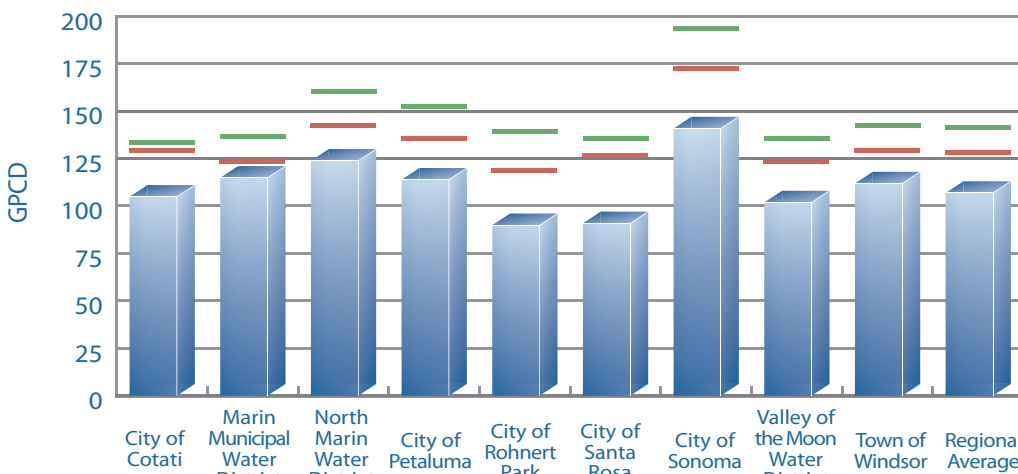
must continue. Many factors can affect water use patterns as has been seen in recent years. This downward trend is a result of many factors including the California drought, slow economy, changes in weather conditions, and active water conservation programs.

It is important to continue the work on water use efficiency to maintain the savings already achieved and make sure the region captures all the benefits of future water savings.

2,304 actions were inspired by the 350 Home & Garden Challenge.

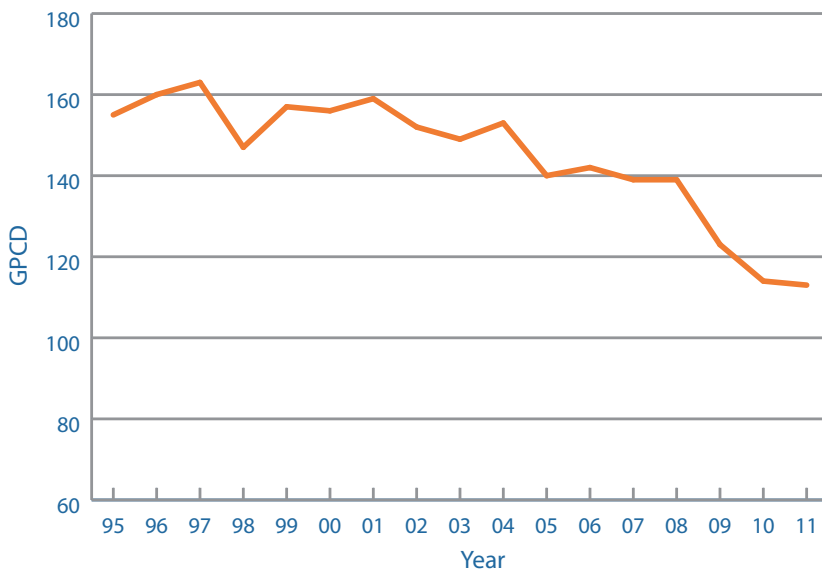
211 people attended Rainwater Harvesting classes.

2011 GPCD and 20 x 2020 Goals



	City of Cotati	Marin Municipal Water District	North Marin Water District	City of Petaluma	City of Rohnert Park	City of Santa Rosa	City of Sonoma	Valley of the Moon Water District	Town of Windsor	Regional Average
2011 Actual	111	121	130	120	96	97	147	108	118	113
2015 Target	134	137	161	153	140	136	194	136	143	142
2020 Target	130	124	143	136	119	127	173	124	130	129

Regional Gallons per Capita per Day (GPCD) Usage



WATER USE EFFICIENCY HELPS MEET FEDERAL MANDATE

The National Marine Fisheries Service Biological Opinion (BO) determined that the summertime flows in the Russian River established under State Water Board regulations are too high for young coho and steelhead. The BO requires that the Water Agency reduce minimum water flow rates in the Russian River and Dry Creek during the summer months. Water use efficiency programs will help ensure the Agency meets these reduced flow requirements while continuing to provide reliable drinking water supplies.



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City of Rohnert Park
(707) 588-3300
www.rpcity.org



City of Cotati
(707) 665-3631
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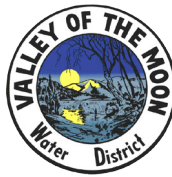


North Marin
Water District
(415) 897-4133 x8412
www.nmwd.com



Town of Windsor
(707) 838-1004
townofwindsor.com

Valley of the Moon
Water District
(707) 996-1037
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City of Petaluma
(707) 778-4507
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Marin Municipal
Water District
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(707) 933-2237
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Sonoma County Water Agency
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www.sonomacountywater.org

SONOMA-MARIN **SAVING WATER** PARTNERSHIP
www.savingwaterpartnership.org