

Water Conservation

FY 2012-13 Annual Report



About Us

The Santa Clara Valley Water District manages an integrated water resources system that includes the supply of clean, safe water, flood protection and stewardship of streams on behalf of Santa Clara County's 1.8 million residents. The district effectively manages 10 dams and surface water reservoirs, three water treatment plants, a state-of-the-art water quality laboratory, nearly 400 acres of groundwater recharge ponds and more than 275 miles of streams. We provide wholesale water and groundwater management services to local municipalities and private water retailers who deliver drinking water directly to homes and businesses in Santa Clara County.



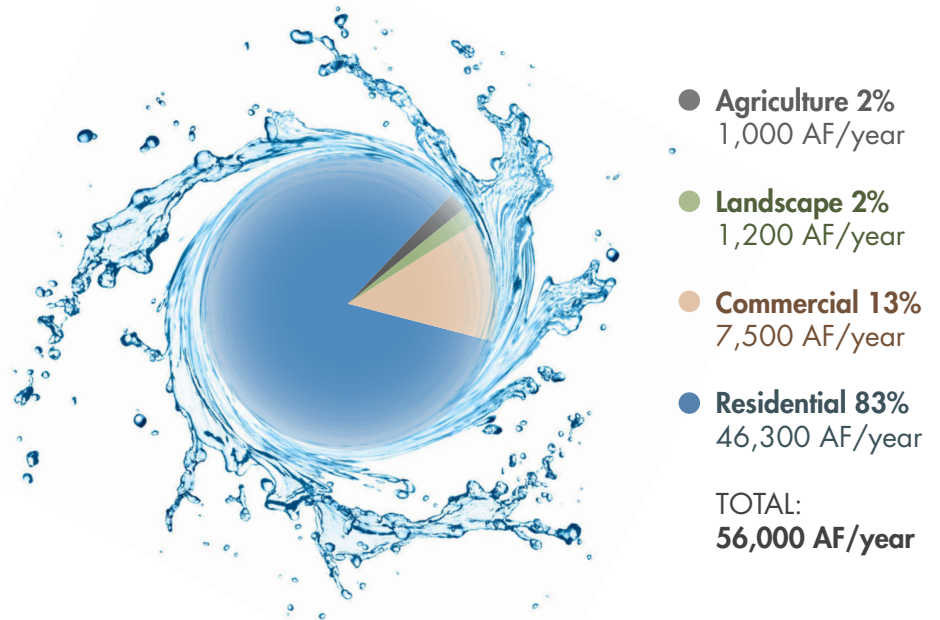
Summary

This 12th annual Water Conservation Report documents the actions taken by the Santa Clara Valley Water District, and the community at large, to achieve water conservation goals for FY 2012/13.

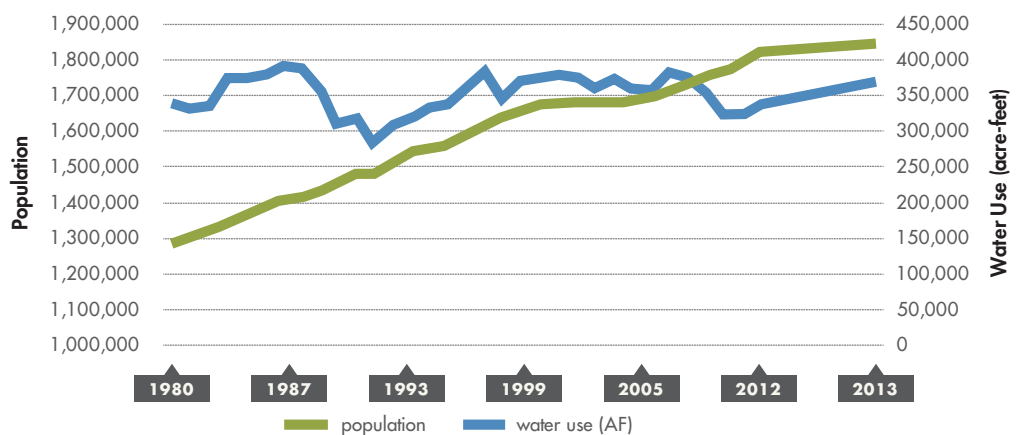
Water conservation, which is primarily funded through groundwater production charges, is an essential component in meeting the water district's mission of providing a reliable water supply to current and future generations.

The water district's annual budget for water conservation in FY 2012/13 was \$5.7 million, with approximately \$4.5 million of that set aside for program implementation (\$1.2 million was for labor and overhead). Because of the investments the water district has made in water conservation since 1992, water use in Santa Clara County has remained relatively flat despite a 25% increase in population over the same time period.

Total Water Conservation Savings in FY 2012/13



Population and Water Use Over Time



In addition to helping meet long-term water supply goals, the water district's programs help meet short-term demands during critically dry periods as well as during a water shortage due to a catastrophe, such as an earthquake.

Although Santa Clara Valley, and California as a whole, experienced another year of below-average amount of rainfall in FY 2012/13, the water supply available to Santa Clara County was sufficient to meet demands, due in large part to healthy groundwater reserves and continuing water conservation.

The Water Conservation Unit continually evaluates the water conservation programs, making changes and improvements to its programs based on customer satisfaction surveys, stakeholder feedback, technology updates and data analysis. These adjustments help create programs that are easy to use and as cost effective as possible.

As a result of the water district's and the community's efforts, 56,000 acre-feet of water was saved in FY 2012/13. However, this amount is still slightly below the annual target needed to meet its long-term goal of saving 98,500 acre-feet of water by year 2030, when water conservation efforts are projected to account for approximately 20 percent of the county's total water supply.

In order to coordinate efforts to promote water conservation, the water district continued to foster its partnerships with its water retailers. To that end, the district worked closely with the water retailers on program development as well as water conservation outreach and education. Additionally, cost-sharing agreements between the water district and the water retailers for water district-administered water conservation programs reached more than \$900,000. Lastly, the water district was recognized by the city of Cupertino through a proclamation

commending and recognizing the water district for its support of the city's Do-It-Yourself Green@Home Toolkit.

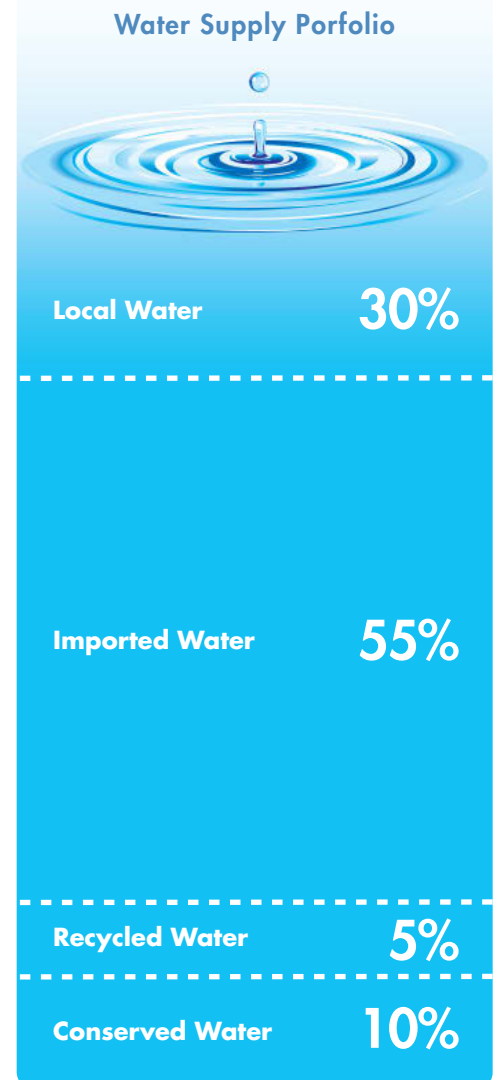
As for grant funding, in FY 2012/13, the water district was part of a group of San Francisco Bay Area water agencies that received a state of California Proposition 84, Chapter 2, Round 1, Integrated Regional Water Management grant. The grant funds were shared among the water agencies for programs that include high-efficiency clothes washer, toilet, and landscape rebates. These water agencies will also be applying for funding for next round of grant funding in FY 2013/14.

Water Conservation Programs

Program Name	Program Participation for FY 2012/13	Total Program Participation to Date
Residential Programs		
Water Wise House Calls	1,135	34,496
Residential High-Efficiency Toilet Program*	2,887	15,999
Residential High-Efficiency Clothes Washer Rebate Program	11,586	149,332
Showerhead/Aerator Distribution Program	4,453	317,623
Landscape Programs		
Landscape Survey Program	49	1,570
Weather-Based Irrigation Controller	137	1,190
Landscape Conversion Rebates	128	1,162
Irrigation Hardware Rebates	84	682
Commercial, Industrial, Institutional (CII) Programs		
Commercial Clothes Washer Rebate Program	199	4,164
CII & Multi-Family Dwelling High-Efficiency Toilet Installation Program**	607	23,038
Water Efficient Technologies Program	4	95
Pre-Rinse Spray Valve Program	35	4,498
Submeter Rebate Program	374	5,575
Aerator Distribution (0.5 gpm)	650	7,001
CII High-Efficiency Urinal Valve Retrofit Program	349	1,395
CII High-Efficiency Toilet Rebate Program	5	89

* In addition, the water district has rebated/installed 244,494 residential Ultra-Low Flush Toilets.

** In addition, the water district has rebated/installed 8,870 commercial Ultra-Low Flush Toilets.



Source: FY 2014-18 Water Utility Enterprise Operation Plan



Water Conservation in the Home

The water district continues to expand programs in the residential sector, which remains one of the key areas for water conservation. The water district employs a variety of incentives and rebates, one-on-one home visits with free installation of water-saving devices, workshops, and outreach at community events to promote residential water savings.

In FY 2012/13, the total annual savings attributable to all residential conservation programs reached 46,300 acre-feet.

Measuring a lawn during a Water-Wise House Call.

Water-Wise House Call Program

The water district has been providing free Water Wise House Calls to Santa Clara County residents since 1998. The program is available to residents of single family homes and to owners/managers of apartments, condominiums and mobile home complexes. During the survey, technicians check and install free toilet flappers, showerheads and aerators, check for toilet flapper leaks, measure fixture flow rates and offer conservation information.

Surveyors also test the customer's irrigation system for distribution uniformity, calculate and program a personalized irrigation schedule, and provide landscaping tips. The survey also serves as a pre-inspection for the Landscape Rebate Program.

The surveyors performed over 1,100 residential home surveys during FY 2012/13. More than 34,000 home surveys have been completed since the program began.



Checking a water meter.

Residential High-Efficiency Clothes Washer Rebate Program

The water district began offering rebates for new, qualifying water-efficient clothes washers in 1995. In FY 2012/13, 11,586 rebates were issued; since the program began, more than 149,000 rebates have been issued.

The HEW rebate is \$125 and includes a combined water and energy rebate in conjunction with PG&E, as part of a large Bay Area-wide regional program. The partnership with PG&E and the other participating water agencies began in January of 2008 and allows customers to apply for the rebate using one application form for both the water and energy rebate. This program continues to transform the market by offering rebates for the most efficient machines (Tier 3), while making it easier for customers to apply for the combined rebate.



High efficiency clothes washer.

High-Efficiency Toilet Rebate Program

The water district's High-Efficiency Toilet (HET) Rebate Program began in FY 2003/04 and continues to provide a rebate of up to \$125 per toilet to residents when they replace their old, inefficient (3.5 gallons per flush or more) toilets with a new qualifying HET. This year, the district also offered qualifying businesses and institutions HET rebates that did not wish to participate in the CII High-Efficiency Toilet and Urinal Flush Valve Installation Program. HETs use at least 20 percent less water than the federally regulated 1.6 gpf toilets and include three types of technologies: pressure assisted flush, which utilizes a flush valve similar to commercial grade toilets; dual-flush toilets which have full and half-flush options; and gravity flush toilets.

The water district has issued approximately 16,000 High-Efficiency Toilet rebates since the program began in FY 2003/04. In FY 2012/13, a total of 2,887 residential and five commercial rebates were issued.



High efficiency toilet.

Low-Flow Showerhead and Residential Aerator Distribution Program

In FY 2012/13, the water district distributed 2,628 residential aerators and 1,825 low-flow showerheads. Showerheads and aerators are provided free of charge, by request, to the public and to local water retailers; they are also installed in residences during Water-Wise House Calls.

More than 317,000 showerheads and aerators have been distributed since the program started.



Low flow showerhead.



Water Conservation in Business

The water district combines education, surveys and technical assistance, and financial incentives to encourage reduced water consumption among commercial, industrial and institutional water users.

Annual water savings attributable to business conservation programs reached 7,500 acre-feet in FY 2012/13.

Vacuum pump, replaced with a rebate from the custom/measured rebate program.

Commercial Rebate Program

In FY 2012/13, in order to streamline and make the commercial conservation programs easier for commercial sites to understand and participate in, the water district combined several existing programs into one program: the Commercial Rebate Program. Additionally, several new rebates were added. Qualifying projects are divided up into two types: Set Rebates and Custom or Measured Rebates. The Commercial Rebate Program now consists of:

Custom/Measured Rebate Program *(formerly the Water Efficient Technologies Program)*

The Custom or Measured Rebate Program (formerly known as the Water Efficient Technologies Program) provides rebates for process, technology, and equipment retrofits that save water. The rebate rate is \$4.00 per hundred cubic feet (CCF) of water saved annually with a minimum annual water savings requirement of 100 CCF.

Since 1997, the water district and the City of San José have maintained a cost-sharing agreement to help fund this program. To date, the water district has funded (either entirely or through cost-sharing with the City of San José) roughly 95 projects saving approximately 642,300 CCF/year. In FY 2012/13, there were four projects, which save a combined amount of roughly 10,590 CCF/year. These projects included an ozone laundry system; a reuse of acid waste neutralization water project; and two large showerhead retrofit projects.

Rebates

Commercial Clothes Washer Rebates

The Commercial Clothes Washer Rebate Program provides Laundromats and apartment complexes in Santa Clara County a rebate of up to \$400 for each purchased or leased commercial high-efficiency clothes washer.

The water district rebates only the most water efficient machines. By doing this, the water district hopes to influence buyers to make the most water-efficient choice (Tier 3) and maximize water savings. The Commercial Clothes Washer Rebate Program provided 199 rebates in FY 2012/13. Since the start of the program, approximately 4,100 rebates have been issued.



Commercial clothes washer.

Connectionless Food Steamers Rebates

The Connectionless Food Steamer Rebate was added to the Commercial Rebate Program in FY 2012/13. The rebate is for up to \$485 per compartment for changing from a water-intensive connected steamer to one that uses a pan in the bottom of the steamer ("connectionless").



Ice maker.

Air-Cooled Ice Machine Rebates

The Air-Cooled Ice Machine Rebate was added to the Commercial Rebate Program in FY 2012/13 and gives up to \$1,000 per machine, for replacing a water-cooled ice machine for one that is air-cooled.

High-Efficiency Urinal Rebates

The High-Efficiency Urinal Rebate was added to the Commercial Rebate Program in FY 2012/13. Commercial facilities that have old, inefficient urinals can take advantage of this rebate by replacing these fixtures with WaterSense certified ones that flush at 0.125 gallons or less. The rebate is up to \$300 per urinal.



Commercial urinals.

Submeter Rebates

This program, which began as a pilot program in FY 2000/01, gives a rebate for every water submeter installed at mobile home parks, condominium or apartment complexes. During the three-year pilot program, 1,187 rebates were installed in mobile home parks. Water use records from participating mobile home parks showed an average water savings of 23 percent per mobile home. Due to the results of the pilot study, the program was initiated again in 2007, and expanded to include condominium and apartment complexes in FY 2012/13. In FY 2012/13, 374 water submeters were installed, bringing the total number rebated to 5,775.



Residential water submeter.

Pre-Rinse Spray Valve Distribution

The water district provides pre-rinse spray valves, with a flow rate of 1.15 gallons per minute, to commercial site, such as restaurants, corporate cafeterias and commercial kitchens. In FY 2012/13, a postcard was sent to restaurants promoting the availability of these devices which are available for free by calling the water district. The water district also provides sprayers to water retailers to distribute to their commercial customers. A total of 35 of these sprayers were distributed through this program in FY 2012/13. Roughly 4,500 sprayers have been installed since the program began in FY 2002/03.



Pre-rinse spray nozzle.

Commercial Faucet Aerator Program

For the last several years the water district has been offering free faucet aerators, with a flow rate of 0.5 gallons per minute, to qualifying businesses and schools to replace aerators that are currently flowing at 1.0 gpm or more. The water district distributed 650 of these 0.5 gpm aerators in FY 2012/13. Since the water district started this program, over 7,000 of these aerators have been distributed.

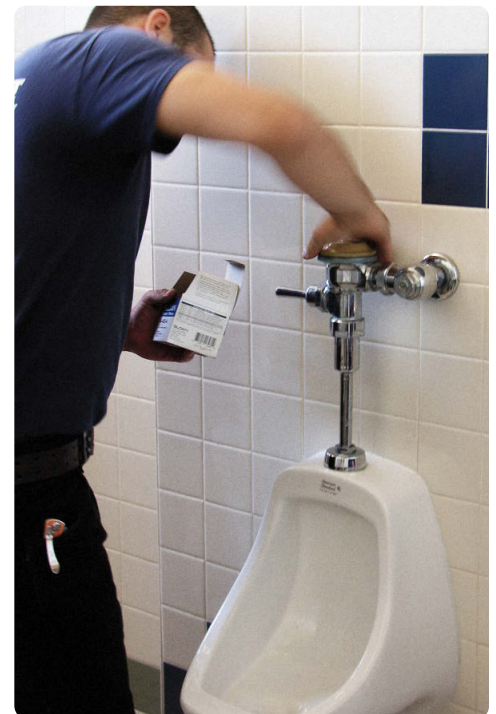


Commercial low-flow faucet aerator.

Commercial and Apartment High-Efficiency Toilet and Urinal Flush Valve Installation Program

This program installs high-efficiency toilets (HETs) and urinal flush valves (HEUs) in the commercial, industrial and institutional sectors, as well as in the multi-family sector.

There were 349 HETs installed in the commercial, industrial and institutional sectors and 258 HETs installed in the multi-family dwelling sector, for a total of about 600 installations for FY 2012/13. There were also 349 high-efficiency urinal flush valves installed in FY 2012/13. Since the program began, more than 24,400 HETs and HEUs have been installed.



Inserting a high-efficiency flush valve into a urinal.



Measuring irrigation efficiency.

Water Conservation in Landscape

On average, about half of the water used by residents in the county goes to irrigating outdoor landscape. Landscape offers the greatest potential for water savings in both the residential and commercial sectors. The water district offers a variety of programs, from landscape evaluations to rebates for converting qualifying landscape and upgrading to water-efficient irrigation equipment, as well as classes and workshops, all of which help businesses and homeowners become more water efficient. The water savings attributed to these programs for FY 2012/13 is approximately 1,200 acre-feet per year.

Landscape Survey Program

Since 1994, the Santa Clara Valley Water District has been helping landscape managers improve their irrigation efficiency. Through the innovative Landscape Survey Program, surveyors perform complimentary evaluations to assist Commercial, Industrial, and Institutional (CII) as well as multi-family property owners to understand and better manage their water use. Landscape surveys have shown a potential savings of up to \$1,000 in water savings per acre of irrigated landscape.

The Landscape Survey Program is available to any Santa Clara County business owner or property manager who would like to improve the efficiency of their irrigation system and has 5,000 square feet or more of irrigated landscape. The survey also prequalifies CII and multi-family sites for the Landscape Rebate Program.

The components of a Landscape Survey include: a system check and irrigation budget, site-specific recommendations and scheduling, as well as a site report. In FY 2012/13, the Landscape Survey Program evaluated 49 sites. Since the program began, more than 1,500 sites have been surveyed.

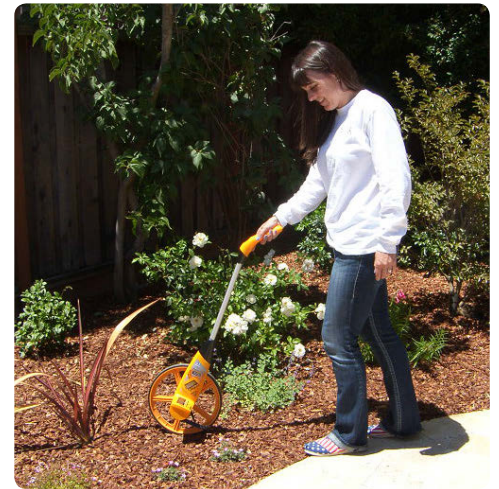


High-efficiency rotating nozzle.

Landscape Rebate Program

The Landscape Rebate Program is designed to assist homeowners, commercial, industrial and institutional property owners, as well as multi-family complexes increase their outdoor water use efficiency by converting to qualifying low water using landscape and/or upgrading to qualifying irrigation equipment. Simple changes in plant type and irrigation methods can greatly reduce the water required for an attractive landscape. There are many qualifying plants in Santa Clara County that require little to no irrigation once established. There are also several irrigation equipment upgrades that increase a site's irrigation efficiency, all of which can result in saving water, energy, and money.

The water district's Landscape Rebate Program provides three types of rebates that can be combined or issued separately: landscape conversion rebates, irrigation hardware rebates, and weather-based irrigation controller rebates.



Landscape Conversion Rebates

Approved sites can receive rebates for converting to qualifying low water using landscape. Program requirements include: a minimum of 50 percent qualifying plant coverage, 2 to 3 inches of mulch, and a conversion to drip/micro spray/ bubbler or no irrigation. In FY 2012/13, 128 sites participated, for a program total of 1,162 sites.



Measuring converted landscape.

Irrigation Hardware Rebates

Approved sites can receive rebates for upgrading to qualifying high efficiency irrigation equipment, including:

- Rain sensors
- High-efficiency nozzles
- Rotary sprinklers or spray bodies with pressure regulation and/or check valves
- Dedicated landscape meters

In FY 2012/13, 84 rebates were awarded, for a program total of 682 rebates.



Adjusting an irrigation schedule.

Weather-Based Irrigation Controller Rebates

Approved sites can receive rebates for upgrading to qualifying weather-based irrigation controllers. The rebate is based on the number of qualifying stations per controller. Smart controllers, or weather-based irrigation controllers, can save up to 20 percent of irrigation water usage.

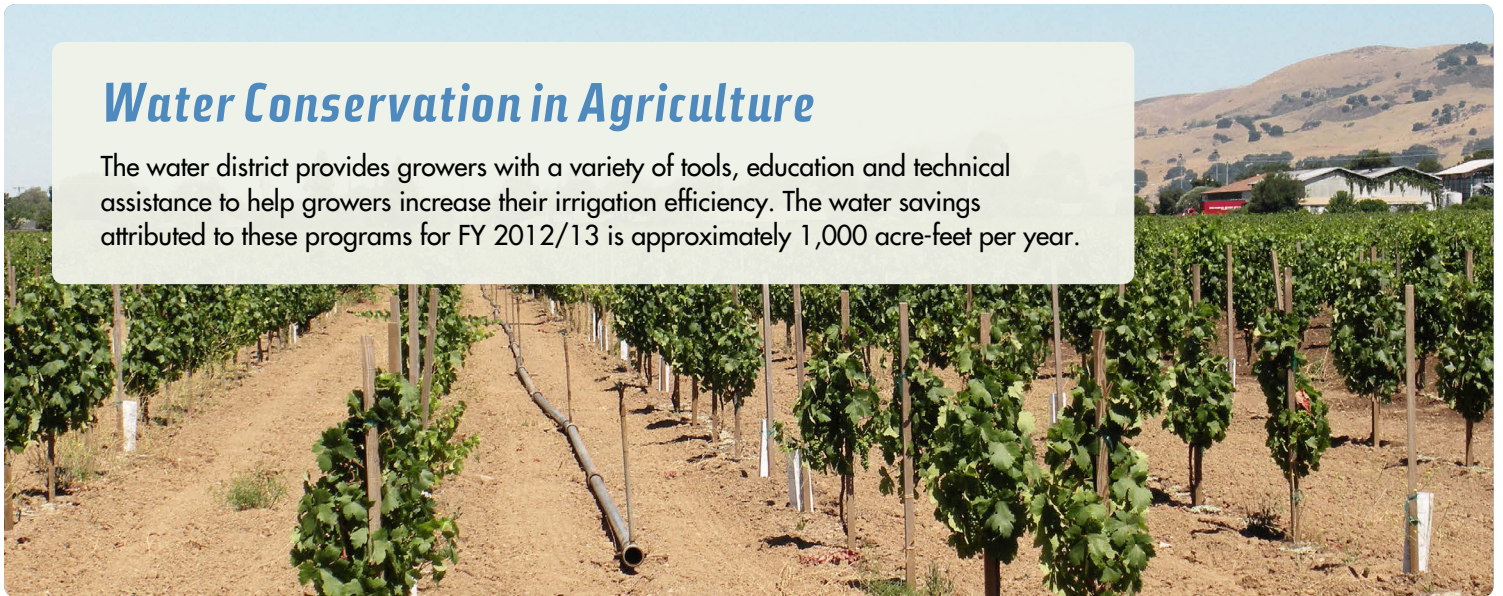
In FY 2012/13, there were 137 rebates awarded, for a program total of 1,190 rebates.



Weather-based irrigation controller.

Water Conservation in Agriculture

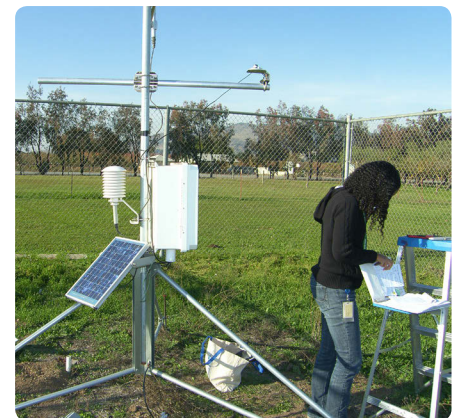
The water district provides growers with a variety of tools, education and technical assistance to help growers increase their irrigation efficiency. The water savings attributed to these programs for FY 2012/13 is approximately 1,000 acre-feet per year.



California Irrigation Management Information System (CIMIS)

This free service provides daily reference evapotranspiration estimates to growers and landscape irrigators to use for irrigation scheduling. Reference evapotranspiration is the water use of a standardized cool season green grass surface. Estimates of the evapotranspiration of all crops and landscapes can be mathematically related to reference evapotranspiration.

The water district owns and maintains a station in the Saratoga Foothills. A CIMIS station east of Gilroy, owned by Syngenta, Inc., is maintained by the water district. Growers and landscape irrigators can access current evapotranspiration information around the clock by visiting the water district's web site at www.valleywater.org.



Checking a CIMIS Weather Station.

On-Line Irrigation Scheduling Calculators

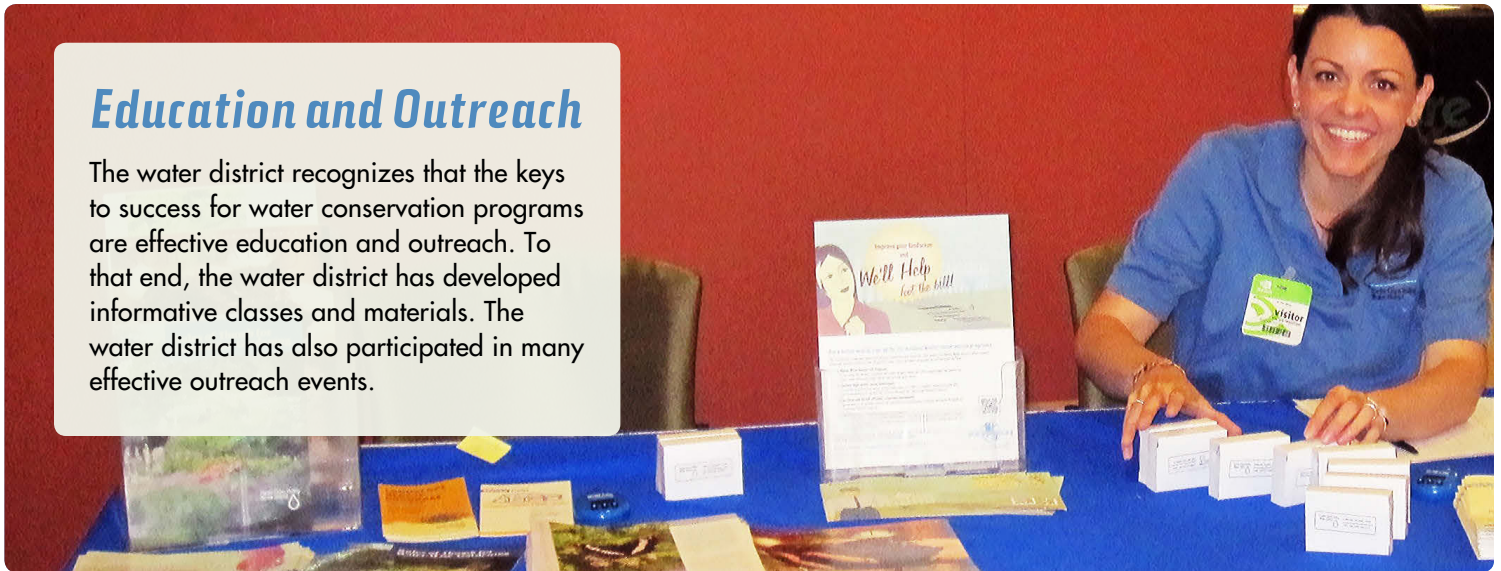
This online resource consists of two calculators: one for drip irrigation systems; the other for sprinkler systems. Each system makes it easy to calculate a crop's irrigation requirements based on local California Irrigation Management Information System (CIMIS) weather station data or satellite-based spatial CIMIS data coupled with the percentage of a field that is shaded by the crop around high noon. These calculators are used to estimate the irrigation water requirement since the last irrigation, and forecast a crop's irrigation requirements for the coming few days.

Agricultural Irrigation Management Program

The district cooperates with the Loma Prieta Resource Conservation District to provide growers in Santa Clara County free irrigation system evaluation and irrigation efficiency services. The goal of the new Agriculture Irrigation Management Program is to provide growers with information on how to achieve an irrigation efficiency of 80% or greater. In addition, the program includes a nutrient management component to help protect groundwater quality. This program is intended to be a long-term, multi-year program that engages growers and develops strong grower relationships. All growers in the district's service area are eligible to receive a thorough irrigation system evaluation that includes a distribution uniformity (DU) assessment, a system audit that checks pressure readings throughout the system and identifies major leaks or breaks, and a summary report with recommendations that can be used to help improve overall irrigation system performance. Selected growers are also able to utilize intensive season-long irrigation efficiency services that include the aforementioned system evaluation along with irrigation water flow monitoring with flow meters, soil moisture monitoring, and weekly irrigation scheduling recommendations based on crop type and size, soil type, and local evapotranspiration data.

Education and Outreach

The water district recognizes that the keys to success for water conservation programs are effective education and outreach. To that end, the water district has developed informative classes and materials. The water district has also participated in many effective outreach events.



Engaging the public during an outreach event.

Save 20 Gallons

For the past several years, the water district has run a multi-media campaign, Save 20 Gallons, in English, Spanish, Chinese and Vietnamese languages, that emphasizes the importance of water conservation. The goal of the campaign is to reduce water consumption and to promote water conservation programs to residents and businesses. The campaign was made up of the following elements:

- online (both the water district's webpage and its micro-site, Save20gallons.org);
- print ads (in Spanish, Vietnamese and Chinese languages) and in trade publications;
- social media (Twitter, Facebook, YouTube and monthly e-Newsletters), and other media outreach, through news releases;
- water retailer bill inserts and direct mailers to residents and businesses;
- community outreach, events and school programs.

One of the highlights of the campaign was a drawing for a high-efficiency clothes washer, which encouraged residents to make use of our rebate programs. Residents entered either online or by mail for a chance to win and find out more about the water district's water conservation programs. The promotional drawing this year took place from May to July. This year, there were more than 470 entries into the drawing, and the online banner ads generated more than 300 clicks to the water district's website.

Targeting Mailings

This year, a targeted direct mail campaign was planned, with a launch date set for the summer of 2013. The water district hired a company which specializes in targeted direct mail campaigns. As each mailing goes out, this contractor will adjust the campaign strategy to be as effective as possible.



Water conservation information table.



Water conservation banner at a local nursery.

Store Displays

The water district has been working with stores – both “big box” stores and smaller retail stores – to increase awareness of and participation in water conservation programs. To that end, staff are calling and visiting the stores in person, to train store employees and give them program literature to distribute. Additionally, the water district has been working with a company to help market the water conservation programs to these stores. Together with staff’s efforts, this company helps ensure that retail store personnel are trained, that updated information is distributed to the public and that qualifying products are properly marked.

Community Gardens

Beginning in the spring, the water district began to increase its efforts to reach out to community gardens throughout the county. Staff has been contacting representatives to determine how best to assist them, including the type of educational material that would be appropriate for their members and how to distribute the information. Staff has also been offering presentations in English and Spanish.

Community Engagement

The water district promoted water conservation at numerous community events in FY 2012/13, including: neighborhood association meetings, environmental fairs, Earth Day events, Community Garden meetings, presentations to the Building Owners and Management Association, the California Landscape Contractors Association, the Santa Clara County School Superintendents and many others. These events provide the water district with opportunities to talk to the public directly, and to educate residents and businesses about water conservation utilizing informative displays, educational handouts, and one-on-one interaction.

Nursery Program

For more than ten years the water district has distributed water conservation information through display racks located at county nursery and landscape supply stores. These display racks contain literature with information on water-wise gardening, efficient irrigation techniques, drought resistant plants, drip irrigation, and water district programs. In FY 2012/13, 31 nurseries and landscape supply stores participated in the program.

Going Native Garden Tour

The 11th annual Going Native Garden Tour, a native plant tour of Santa Clara Valley and Peninsula gardens, took place on April 20 and 21, 2013. The California Native Plant Society, Silicon Valley Chapter, puts on this tour and the water district was once again a sponsor of this event. The 3,209 registrants who signed up for the tour made 6,553 visits to the open gardens. There were 262 volunteers participating on tour day, serving as docents and greeters at the 62 open gardens. Attendees could also purchase native plants at one of the locations.



Catch can test during workshop.



A local native garden.



Measuring converted landscape.

Water conservation is a community wide effort, and it takes the water savings of many agencies, cities, organizations and water retailers to meet current and future goals. In particular, the district has endeavored to work collaboratively with the water retailers in its service area, especially in the area of water conservation. Water district staff meets regularly with its water retailers to discuss water conservation program development and implementation. We also discuss ways to co-promote water conservation programs, through water bill inserts, promotions at events, direct mailings and on websites. Additionally, the water retailers and district staff collaborated on state water conservation requirements for reporting.

The water district maintains cost sharing agreements with many water retailers to provide water conservation programs as efficiently and effectively as possible. These cost sharing agreements benefit all parties, through economies of scale with regard to marketing, for example. In FY 2012/13, the water district administered more than \$900,000 in cost-sharing agreements.

Cost-Sharing Agreements that were active in FY 2012/13 include:

CITY	WATER CONSERVATION PROGRAM	AMOUNT
Palo Alto	Residential and Commercial Water Conservation Programs (indoor and outdoor)	\$271,785
California Water Service Co.	Residential and Commercial Water Conservation Programs (indoor and outdoor)	\$64,500
City of San José	Residential and Commercial Water Conservation Programs (indoor only)	\$500,000
Stanford	Landscape Conversion Program and Residential High-Efficiency Toilet Rebate Program	\$15,000
Morgan Hill	Landscape Conversion Program and Residential High Efficiency Toilet Rebate Program	\$40,000
Santa Clara	Commercial Clothes Washer Rebate Program	\$12,500
TOTAL		\$903,785



Board of Directors

Dennis Kennedy,
District 1

Barbara Keegan,
District 2

Richard P. Santos,
District 3

Linda J. LeZotte,
District 4

Nai Hsueh,
District 5

Tony Estremera,
District 6

Brian A. Schmidt,
District 7

Executive Leadership

Beau Goldie
Chief Executive Officer

Jim Fiedler
Chief Operating Officer

Joan Maher
Deputy Operating Officer

Teresa Alvarado
Deputy Administrative Officer

Marketing and Graphic Design Team

Marty Grimes
Program Administrator

Benjamin Apolo
Public Info Rep II—Graphics

Diana Thai
Graphic Intern

Marta Lugo
Public Info

Joy O. Lim
Public Info Rep II—Graphics

Stephanie Yee
Graphic Intern



Water Conservation Unit Staff

Jerry De La Piedra
Program Administrator

Karen Koppett
Senior Water Conservation Specialist

Virginia O'Rourke
Water Conservation Specialist

Ashley Carter
Water Conservation Specialist



Water Conservation Unit Interns

Craig Bessette

Jessica Cordia

Nick Garza

Adam Gomez

Nick Smith

Tyler Kuhach

Scott Ledley

Andrea Olivarez

Lewis Reed



Santa Clara Valley Water District



Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686
Phone: (408) 265-2600
Fax: (408) 266-0271
www.valleywater.org

