

**City of San Diego
Public Utilities Department**

**SAN DIEGANS
WASTE
NO WATER
ALL DAY. EVERY DAY.**

**Annual Water Conservation Report
Fiscal Year (FY) 2013**

Current Water Supply Status

As the summer of 2013 ends, San Diego's water supply forecast is one of moderate concern. Imported water represents approximately 85 percent of the City's current water supply sources. Both the Colorado River and Northern California watersheds are currently experiencing dry conditions. However, there is sufficient water in local and regional storage to assure San Diego that shortages are not imminent. Normal variations in precipitation are attenuated by supplies stored in reservoirs. Additionally, the local development of alternative water supplies such as seawater desalination (operational in 2016) and potable reuse (potentially operational in 2023 or later) will further diminish the dry/wet cycle variability.

Conditions on the Colorado River (representing about 60 percent of the region's imported water supplies) are dry. The river is managed by the U.S. Bureau of Reclamation, which recently said that under standard operations, Lake Powell would fall below an elevation of 3,575 feet. Reducing releases from Lake Powell is among the management steps set in 2007 to minimize the impacts of dry periods on the river system. The changes planned for 2014 do not directly trigger shortage allocations for water users, though they do move the region closer in that direction. The Bureau expects to reduce releases from Lake Powell to Lake Mead by an estimated 750,000 acre-feet (AF) in the 2014 water year, which started October 1, 2013. The decision was triggered by projections to that possibility. If Lake Mead falls below an elevation of 1,075 feet--about 31 feet below where it is today--Arizona and Nevada would get less water from the Colorado River per the 2007 agreement. Current hydrological models show a very small likelihood of that occurring in the fall of 2014. If that were to happen, California still would receive its basic annual apportionment of 4.4 million AF because of the state's senior rights on the Colorado River.

Due to dry conditions in northern California, 2013 allocations for State Water Project water were reduced from 1,668,958 AF to 1,460,342 AF. This reduction equates to a drop in allocations from 40 percent to 35 percent. As of July 2013, Lake Oroville was at 61 percent of capacity, as compared to 76 percent the previous year. The Metropolitan Water District of Southern



California Aqueduct

California's (MWD) Diamond Valley Reservoir was still at 80 percent of capacity in July of 2013, as compared to 97 percent the previous year. Local City of San Diego reservoirs are at 41 percent as of July 2013, as compared to 52 percent the previous year.

Reduce, Reuse, Recycle

Most people are aware of the three R's related to the environment: reduce, reuse, recycle. The City of San Diego Public Utilities Department is developing innovative ways to implement these three R's. The Department has a comprehensive water recycling effort, using recycled water primarily for landscape irrigation distributed through a network of purple pipes. The Department also recently completed an award winning Water Purification Demonstration Project that looks to reuse waste water as a supplemental water source after it goes through an advanced treatment process. Information on that ground-breaking project can be found at: www.purewatersd.org. However, remaining at the top of the waste minimization hierarchy is Reduce. Reduction is consistently considered the most favored and least expensive option. In the City of San Diego, that's where the Water Conservation Section comes in.



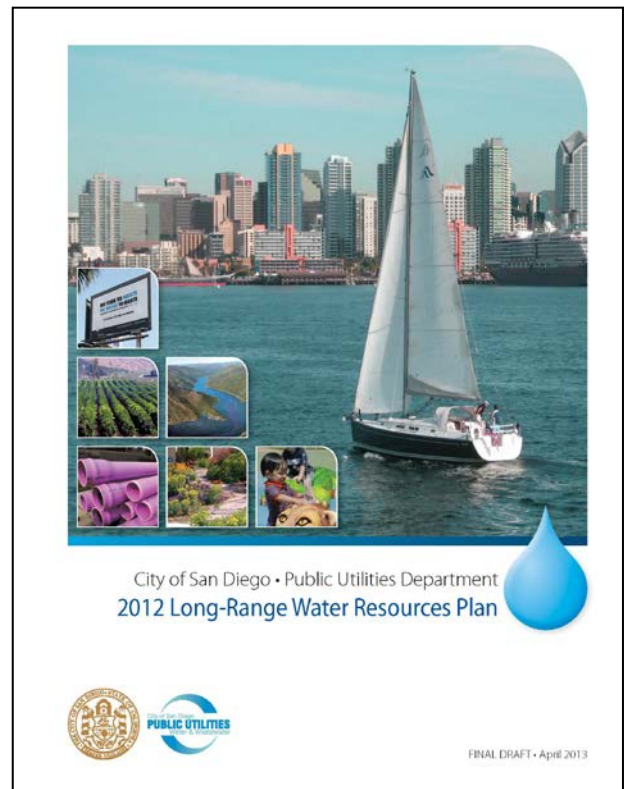
Water Savings

In 1985, the San Diego City Council officially established the City's Water Conservation Section to reduce San Diego's dependency upon imported water. The City's commitment to resource efficiency was further highlighted on September 23, 1991, when the San Diego City Council joined the California Urban Water Conservation Council (CUWCC) by signing the Memorandum of Understanding (MOU) for Urban Water Conservation in California. The MOU is a collaborative effort by members of the CUWCC which gives strength and commitment to water rights decisions that affect California's water allocations and commits the City to implementing Best Management Practices (BMPs) as defined in the MOU. Today, programs initiated by the Water Conservation Section account for water savings of over 31.8 million gallons per day (mgd) or 35,600 AF per year. Depending on conditions, this savings can be as much as 20 percent of raw water purchases annually. The savings have been achieved by creating a water conservation ethic, adopting programs, policies and ordinances designed to promote water conservation practices, and implementing comprehensive public information and education campaigns.

Water Planning

Based on the City's 2010 Urban Water Management Plan (UWMP) approved by the City Council on September 28, 2011, [<http://www.sandiego.gov/water/pdf/110519uwmp.pdf>] the Water Conservation Section has an updated overall goal of 40,400 AF of water saved by 2020. One AF of water equals 325,851 gallons, or enough water to cover an area of land about the size of a football field one foot deep. Depending on use, one AF of water can supply two typical California homes with a year's worth of water for all indoor and outdoor needs.

The UWMP builds upon the previously approved *2005 Urban Water Management Plan*, the *2002 City of San Diego Long-Range Water Resources Plan (2002 – 2030)* and the *Strategic Plan for Water Supply (1997 – 2015)*. The Public Utilities Department is currently developing a *2012 Long-Range Water Resources Plan (2012 Plan)*. In April 2011, the City began work on the 2012 Plan to update the 2002 Long-Range Plan. In developing the 2012 Plan, the City convened a stakeholder committee, who provided guidance and input on alternative strategies for meeting San Diego’s water needs through 2035. The 2012 Plan addressed various concerns, including those related to population growth, water resource diversification, climate change and other issues affecting water reliability. The 2012 Plan was heard by the City’s Natural Resources and Culture Committee on July 31, 2013.



2012 Long-Range Water Resources Plan

Water Conservation Act of 2009

In February 2008, the State of California introduced a comprehensive plan for improving the Sacramento-San Joaquin Delta. The Delta is located roughly between Sacramento on the north and Stockton on the south and encompasses about 1,000 miles of waterways. The main contributing rivers are the Sacramento River, coming in from the north, and the San Joaquin River, coming in from the south. Other rivers feeding into the two major rivers include the American River, the Mokelumne River, the Cosumnes River and the Calaveras River. These rivers empty into the Pacific Ocean via San Francisco Bay. Approximately two-thirds of all Californians--an estimated 23 million people--obtain at least some of their water from the Delta. This means the Sacramento-San Joaquin Delta is the single largest source of California’s water.

The Water Conservation Act of 2009 (also known as SB x7-7) requires the California Department of Water Resources (DWR) to develop a plan to reduce statewide per capita urban water use by 20 percent by the year 2020. One of the primary focus points of the statewide 20x2020 Plan will be on urban retail water suppliers, such as the City of San Diego--which services a population of approximately 1.3 million residents. The City is required to adopt and achieve water use targets based on a 20 percent reduction, with broad discretion regarding the water efficiency measures to be implemented for each customer sector.

SB x7-7 requires the City to establish gallon per capita day (gpcd) water use targets by using one of four methods.

- Method 1: Eighty percent of the urban retail water supplier’s baseline per capita daily water use using a 10-year average starting no earlier than 1995.

- Method 2: The per capita daily water use that is estimated using the sum of several defined performance standards. This method requires quantifying the landscaped area and the baseline commercial, industrial, and institutional use.
- Method 3: Ninety-five percent of the applicable state hydrologic region target, as set forth in the DWR Guidebook (DWR, 2011). The City is located in DWR’s South Coast Hydrologic Region Number 4.
- Method 4: A provisional method that was released by DWR in February 2011 that develops the target based on indoor residential, commercial, industrial, institutional, outdoor, and water loss components.

An urban water supplier must select one of the aforementioned methods to set their per capita water use target. Water suppliers may choose to change the selected method until 2015. The City has selected Method 3 for establishing the 2020 per capita water use target of 142 gpcd, as it is a straightforward target and appears to be achievable.

Ongoing Conservation Programs and Initiatives

To meet established goals, the Water Conservation Section integrates new programs into existing programs, all focused on achieving water savings. The following outlines ongoing programs and initiatives.

Outdoor Water Conservation Rebates

In FY 2013, the Water Conservation Section continued to utilize \$1.1 million dollars in funding from a California Proposition 50 Integrated Regional Water Management (IRWM) Plan grant to offer customers rebates for outdoor water conservation projects and devices. Additional funding of \$200,000 was provided by the City’s Storm Water Pollution Prevention Program (Storm Water) along with \$100,000 from the MWD. The Water Conservation Section is contributing \$178,000 worth of “in kind” services including: providing on-site consultation to customers participating in the rebate program, application and rebate processing, program website development and maintenance, customer support on how to complete landscape projects, and program administration duties. The program offers customers a variety of rebates including: Smart Controllers (weather based irrigation controllers), Micro Irrigation (micro-spray, drip, and in-line emitters) and Sustainable Landscape-Turf Replacement. The goal is to conserve potable water while also reducing pollutant-laden dry weather urban runoff flows into sensitive receiving waters.



Sustainable Landscape Retrofit Results

In FY 2013, rebates for residential and commercial properties were processed for: 97 smart controllers, 67 micro-irrigation conversions, and 88 sustainable low water use landscape installations. Department customers can participate in the rebate program on a first-come, first-served basis while funds are available. Estimated annual water savings generated from this program to date, is 34 acre-feet of water per year.

Rain Barrel Rebates

The Water Conservation Section continued to team up with Storm Water to include rain barrels as an item that can receive a rebate through the “Outdoor Water Conservation Rebate Program.” Storm Water provides funding for rebates and staff time, while Water Conservation manages program operations.

Rain barrels are used to collect rainwater from hard surfaces, such as rooftops. When residential customers install a rain barrel at their home, they are helping to maintain a healthy urban watershed by reducing demand on the urban water system, and by reducing the amount of wet weather runoff that is sent into the public storm water system.

Proper water conservation techniques and rain barrels assist the City’s Storm Water Pollution Prevention Program in meeting its BMPs. Excess irrigation and wet weather water often flows out of landscapes and directly into storm drains. Everything that flows into a storm drain goes untreated into canyons, creeks, bays, lagoons and ultimately the ocean. Irrigation and wet weather runoff water carries pesticides, fertilizers, motor oil, pet waste and silt. The Federal Clean Water Act prohibits disposal of wastes and pollutants into



Residential Rain Barrel

creeks, bays, lakes and oceans. Such pollutants have harmful effects on recreational areas, waterways and wildlife. Use of rain barrels, and the diversion of rooftop runoff from the storm drain to on-site landscape areas, can help reduce storm water pollution and reduce the use of potable water for irrigation. The program was kicked off mid-way through the rainy season in FY 2012. Through June 2013, the Water Conservation Section has rebated 293 rain barrels with an average size of 169 gallons of storage capacity for a total rebate amount of over \$26,000. Based on average San Diego rainfall, water savings is estimated to be 1.1 million gallons per year.

Water-Wise Business Survey

A Water-Wise Business Survey is a recent, no additional charge service offered to all City of San Diego Public Utilities Department commercial, industrial and institutional customers. The survey provides a customized review of water usage, including an on-site visit to identify areas where water use efficiencies can be achieved and effectively implemented. Recommendations can help business customers use water more efficiently and save energy.

During FY 2013 surveys were conducted for four businesses including three restaurants and an addiction recovery center. Typical savings range from 10 to 20 percent of total water consumption. Based on the information obtained to date, projected water savings for the businesses for which surveys were conducted are over 5 million gallons per year.

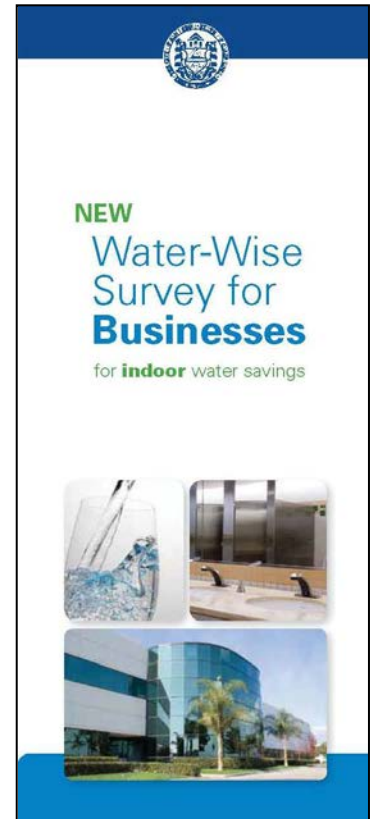
Water Waste Investigations

Water Conservation Section staff respond to water waste complaints generated by citizens throughout the Department's service area. The majority of complaints are due to either excessive irrigation or leaks. To resolve water waste issues, City staff contact the property owner or manager and work to eliminate water waste issues and associated hazards. Water waste complaints can vary drastically. A typical example would be a broken sprinkler head which can waste up to 20 gallons per minute (gpm) and flood adjacent properties and streets. In FY 2013, over 728 water waste complaints were addressed at an estimated 60 gpd per complaint. This translates to estimated water savings of 15 million gallons annually.

Water Conserving Municipal Codes – Plumbing Retrofit Upon Resale

A Memorandum Decision was issued on March 28, 1991, by U.S. District Court Judge Rudi Brewster in concluding a lawsuit filed by the United States Government, the State of California and the Sierra Club against the City of San Diego (Civil Case # 88-1101-B) over violations of the Clean Water Act. The plaintiffs established evidence that the City had been in violation of the Clean Water Act due to: insufficient control of pretreatment of sewage by industrial customers; sewage spills; and, the absence of secondary treatment at the Point Loma Waste Water Treatment Plant.

Judge Brewster imposed a \$3 million penalty against the City, \$500,000 of which was to be payable to the U.S. Treasury upon entry of the judgment. The remaining \$2.5 million was to be paid to the U.S. Treasury on January 1, 1992, unless the City opted to act on an "optional credit project" as an offset of \$2.5 million of the \$3 million fine. The credit project consisted of *permanent* water conservation codes including the installation of water conserving plumbing fixtures in new construction, a plumbing retrofit upon re-sale and bathroom alteration code, and a



rebate program that offered financial incentives to residential and commercial customers for installing ultra-low-flush toilets (ULFTs), low-flush urinals, low-flow showerheads and faucet aerators at a funding level of \$500,000 or more per year for five years.

By March 14, 1991, San Diego had an ordinance which required the installation of ultra-low flush toilets (ULFTs) in all new construction. In addition, the City Council requested that the City Manager develop a separate ordinance requiring the replacement of existing toilets with ULFTs when remodeling a bathroom or upon change of property ownership. Over 133,000 certificates of compliance with San Diego Municipal Code (SDMC) 147.04 have been filed since its inception, with 4,481 certificates completed in FY 2013.

SoCal Water\$mart Rebates



On September 28, 2012, the Metropolitan Water District of Southern California (MWD) consolidated its two rebate programs for residential (SoCal Water\$mart) and commercial (Save A Buck) customers all under the SoCal Water\$mart umbrella. The MWD and its member agencies, inclusive of the City of San Diego, offer a limited number of rebates each year on various devices including: high-efficiency clothes washers (HEWs), smart controllers or weather-based irrigation controllers (WBICs), rotating sprinkler nozzles, air cooled ice machines, cooling tower conductivity controllers and waterless urinals. Funds for these rebates are limited. Customers can contact SoCal Water\$mart by phone at 1-888-376-3314 or via the internet at <http://socalwatersmart.com/>.

City customers received incentives for 5,376 devices in FY 2013. Combined, these devices provide new water savings of 41.5 million gallons annually. In FY 2014 MWD will reinstate rebates for residential high-efficiency toilets.

Residential Interior/Exterior Water Surveys

The Water Conservation Section first implemented the Residential Water Survey Program in July of 1992. This program offers residential customers an interior and exterior water use survey of their home. To date, over 47,000 surveys have been completed. San Diego's residential survey program is one of the largest ongoing water survey programs in the nation.

During a survey appointment, a trained water surveyor meets with a residential customer for approximately one hour, shows them how to read the meter, measures the flows of all interior water use fixtures, identifies leaks, checks the water pressure and provides conservation tips. The surveyor then performs a landscape irrigation evaluation including identification of up to 26 potential problems or sources of water waste, and provides an irrigation schedule specific to the soil type, plant material and micro-climate zone where the customer lives. A typical participating single-family dwelling can reduce water consumption by an estimated 13 to 28 percent. In FY 2013, the Section completed 1,368 surveys at single-family residences. Starting in FY 2012, an emphasis was placed on reaching out to multi-family customers. In FY 2013 this resulted in multifamily surveys at 21 properties totaling 335 units. Savings from the multi-family surveys equates to new water savings of 8 million gallons annually.

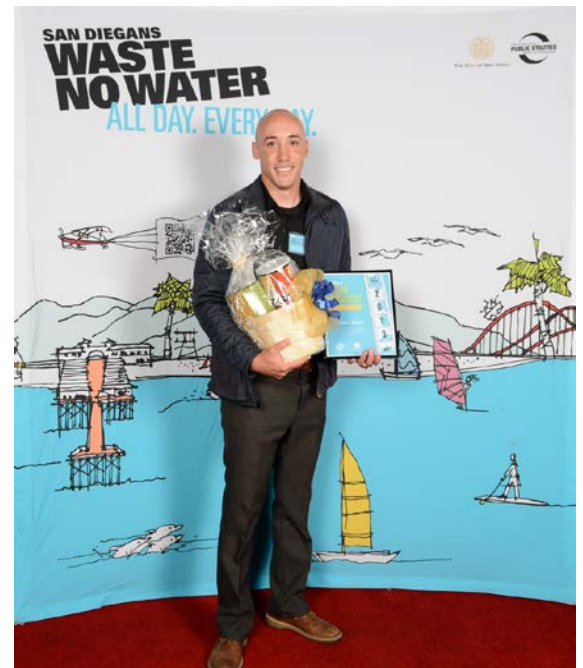
Commercial Landscape Survey Program (CLSP)

Commercial properties can also receive a free survey of their irrigation system, water-saving recommendations and a water use budget. In FY 2013, Water Conservation staff performed nine CLSP surveys for new water savings of 1.1 million gallons annually.

Water Conservation Film Contest

The City of San Diego Water Conservation Section kicked off its 5th Annual Water Conservation Film Contest, titled “San Diegans Waste No Water” in the spring of 2013. This contest was open to high school students and college students in the cities of San Diego, Coronado and Imperial Beach. The film contest created an opportunity to engage students directly about the importance of conserving water, allowing the creativity of the students to inspire the rest of our community to use water more efficiently.

All contest entrants were recognized, and the finalists’ films were shown at a special “Red Carpet Premiere” on Wednesday, May 15, 2013, at the IMAX Theater at the Reuben H. Fleet Science Center in Balboa Park. At the premiere, 3rd Place, 2nd Place, and the Grand Prize winners were announced and received prize packages donated by local businesses and attractions.



Film Contest Winner Michael Bowie

Winning filmmaker Michael J. Bowie from San Diego State University took top honors with “The Hydrologist,” which featured vivid cinematography and the dramatic contrast of color and black and white to illustrate the benefits rain barrels can bring to your garden. The winning film was also shown at Mission Valley and Plaza Bonita AMC Theaters, as well as the Mira Mesa Edwards Theater, as a public service announcement before feature presentations. To watch the videos, visit www.sandiego.gov/water/conservation/contests/film and click on the video links.

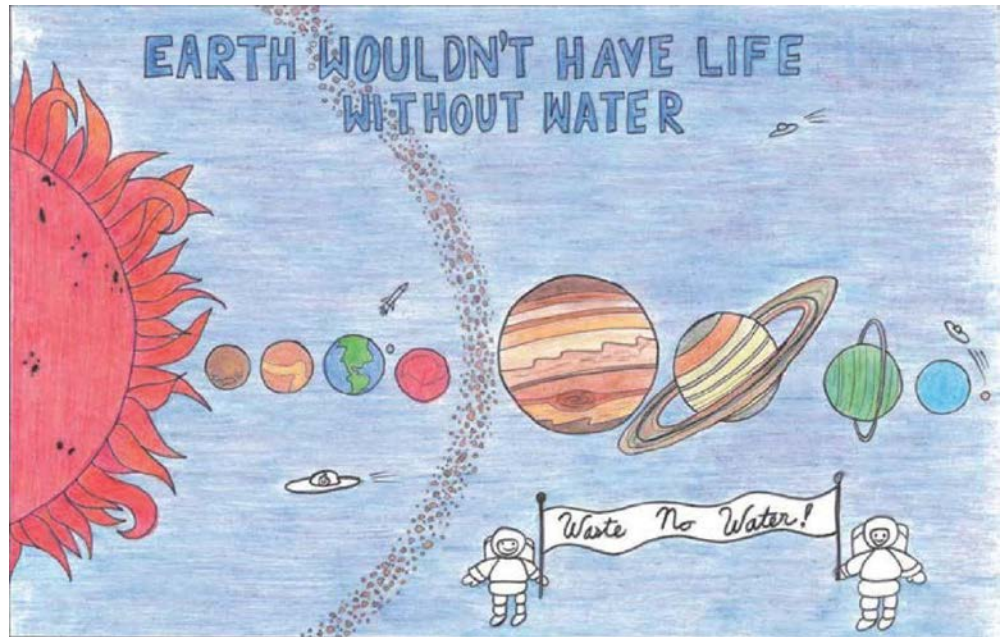
Water Conservation Poster Contest

The entire San Diego City Council celebrated the creative efforts of the winners of the 13th Annual Water Conservation Poster Contest in the City Council Chambers on May 14, 2013. The ceremony honored the 19 outstanding student artists who won this year's contest and included their proud teachers and family members.

Held each year by the City of San Diego Public Utilities Department, the poster

contest provides a focal point for teachers to talk with their students about the importance of using water wisely. This year's "San Diegans Waste No Water" theme gave thousands of students the opportunity to artistically illustrate meaningful water conservation and recycled water messages by creating original artwork. All students who enter the contest received a certificate of participation. Nineteen winners received prizes and will have their artwork featured in a calendar, on the City's website, and displayed at various public venues including the San Diego County Fair.

The Public Utilities Department then made another splash in partnership with the San Diego Watercolor Society. The winning posters from the 2013 Children's Water Conservation Poster Contest were on exhibit alongside original watercolor paintings reflecting the "Wet 'n' Wild" theme at the Watercolor Society's Gallery in the Naval Training Center Promenade at Point Loma's Liberty Station. To kick off the month-long exhibit, a special reception was held on Friday, June 7, 2013, at the Watercolor Society's Showcase Gallery. The event again honored the 19 winners who submitted posters to the 2013 contest. During the reception, student artists and member artists were recognized. Awards and prizes were given out by the Watercolor Society and the City of San Diego Public Utilities Department. In addition, the Public Utilities Department bestowed an award to Linda Mullen for her painting "Balboa Reflecting Pool."



Sidharth Udata, Third Grade, Ocean Air Elementary School

Student Education

Separate from student education through the film and poster contests, the Public Utilities Department uses additional methods to educate students in the service area. In partnership with the San Diego County Water Authority (CWA), students have access to: a DVD titled “Be Water Smart,” “Water Supply” and “Water Cycle” posters, water quality testing kits for high school classroom use, “Splashlab” a self-contained mobile lab that provides students with hands-on science experience as well as two theater programs “Waterology” and “H2O, Where Did You Go?”

Another student education program is the City of San Diego Junior Lifeguard program, which provides a fun and safe aquatic education course to the youth of San Diego with an emphasis on developing confidence, mental and physical fitness along with respect for others and the coastal environment. In cooperation with “Think Blue San Diego,” the Water Conservation Section participated in two, one-day events that were dedicated to promoting environmental awareness. Over 1,000 Junior Guards cycled through seven booths each day and participated in educational activities regarding recycling, watershed/water pollution awareness and water conservation. At the end of the session, each participant received a backpack containing additional information supporting the important messages delivered throughout the day.

Separate but complimentary to the Junior Lifeguard and CWA efforts, the City funds school assemblies with Ms. Smarty-Plants™. Ms. Smarty-Plants™ is the student educator at the Water Conservation Garden on the Campus of Cuyamaca College. She tutors kids about the fascinating adaptations of drought tolerant plants. Children also learn that they can make a difference with the conservation action steps Ms. Smarty-Plants™ teaches. In FY 2013, the City funded education and outreach assemblies via Ms. Smarty-Plants™ reaching 5,378 school children.

Water Conservation Garden (The Garden) on the Campus of Cuyamaca College

Ms. Smarty-Plants™ is just part of the education efforts at The Garden. The Garden is a state-of-the-art demonstration garden that operates as an educational center for San Diego County residents. The Garden hosts events, festivals, plant sales and classes. The Garden also offers a beautiful collection of California-Friendly landscaping and other water wise gardening techniques.



The Garden’s Ms. Smarty-Plants™

The four-and-a-half acre site includes multiple educational exhibits, a 350 seat amphitheatre, over 360 trees, and 100,000 square feet of water wise landscaping. The Garden encourages homeowners, developers and landscape professionals to use California-Friendly landscaping, efficient irrigation design and appropriate maintenance, which can reduce outdoor water use by 30 to 70 percent.

The Garden is a not-for-profit corporation focusing on education, and supported partially by earned income and contributions of six member agencies, including the City of San Diego. The Water Conservation Garden’s Spring Garden Festival “Celebrating Urban Farms & Gardens” was held on Saturday, April 27, 2013, and included members of the aforementioned San Diego Water Color Society, who held their monthly “paint out” in the garden led by accomplished watercolorist Chuck McPherson. Approximately 42 percent of the Garden’s 45,000 annual visitors and participants who registered at the gate are residents of the City of San Diego.

The Public Utilities Department contributes to The Garden through an annual assessment and sends delegates to the Garden Board, Strategic Planning Committee and Facilities Maintenance Committee.

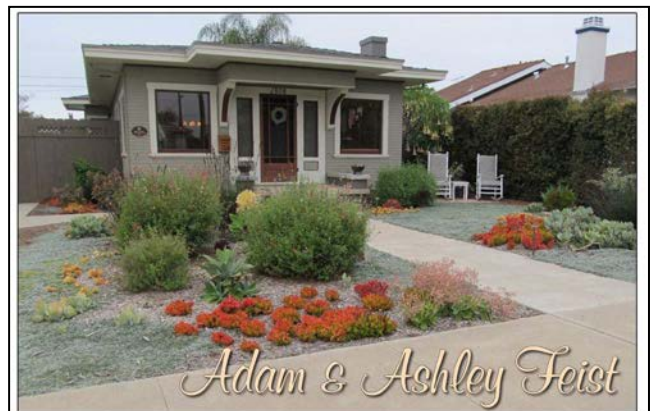
California-Friendly Landscape Contest

The City of San Diego Public Utilities Department participated in the regional 2013 Water Agency California-Friendly Landscape Contest. The Best in District winner was Adam and Ashley Feist who received a \$250 gift certificate to a local nursery at the award ceremony at The Garden on May 18, 2013.

The Feist’s initially attended a ‘ditch the turf’ class at The Garden. They also read information materials about drip irrigation and low-evaporation irrigation. After their landscape designer planned out the yard, they prepared it by removing the grass, installing ground drip and low-evaporation sprayers, and enriching the soil. The Feist’s transformed their thirsty turf lawn into a water-wise succulent garden.

California Irrigation Management Information System (CIMIS) Stations

One of the keys to effectively managing irrigation for commercial nurseries and agricultural customers is accurate weather information. Weather patterns (solar radiation, wind, rain and relative humidity) have a direct impact on the watering needs for



City of San Diego



Adam & Ashley Feist’s Winning Landscape

turf, trees, shrubs and other plants. The City of San Diego partners with the DWR to calibrate and maintain three CIMIS weather stations. CIMIS stations are passive data loggers that gather accurate weather data to create and track evapotranspiration (ET) values. ET provides the quantitative data needed to accurately determine plant watering needs. Real-time weather data can be used to determine appropriate watering schedules for central control irrigation systems and conventional controllers. CIMIS is a recognized standard and the equipment calibration is performed regularly. City staff, working in conjunction with the DWR, provide local support for the four CIMIS stations located in the maritime, coastal, central and inland weather bands of San Diego. The data from these stations is used to develop water budgets used in the Commercial Landscape Survey Program. Data from the University of California, Berkeley, shows a water reduction of 13 percent when CIMIS data is used, which equals 32.85 million gallons of water saved annually for the City's agricultural customers, nurseries and large landscape sites.

Public Education, Information and Community Outreach



Water Conservation Staff at the Annual EarthFair Event

Water Conservation staff members actively participate in community fairs and events, or as speakers to community groups, providing informational brochures on the various programs and promoting both simple and highly technical water conservation measures. In FY 2013, Water Conservation staff attended 63 events and made eight public speaking presentations. As an example of one of our larger events, the Water Conservation Section has participated in EarthFair at Balboa Park since 1990.

The Water Conservation Section continues to maintain its interactive educational display at the Reuben H. Fleet Science Center in Balboa Park. The exhibit, entitled “*San Diego’s Water, From Source to Tap,*” details the long journey our water makes to reach our faucets and the technology involved in providing water to our customers. The exhibit is part of the Science Center’s TechnoVation collection, showcasing local technological achievements. The exhibit reaches an annual audience of 2.1 million. The project was created in partnership with the CWA and made possible through a grant from the Hans and Margaret Doe Charitable Trust.

Water Budget Based Billing Evaluation Project

Water budget based billing is a water management tool that establishes an individualized “base water budget” for every water account. While there are various tiered rate structures designed to promote water conservation by increasing the water rate as usage increases, water budgets are unique because they apply efficiency standards to the specific characteristics of an individual water account. Water budget rates are designed to price water reasonably, based on an efficient level of water use for indoor and outdoor purposes. Lower rates are applied to usage that falls within the budget, while higher rates are imposed on usage that exceeds the budget. For communities like San Diego, that are challenged to continue providing customers with a reliable and safe water supply in a cost effective and environmentally sensitive way, water budgets may offer an alternative approach.

At the Mayor’s direction, Water Conservation staff initiated a pilot study in 2010 to study the water budget approach and determine if implementing such a water pricing structure makes sense for San Diego. With positive results from the initial research, the Water Conservation Section retained Red Oak Consulting in 2012 to assist the Department’s continued evaluation by identifying challenges and opportunities associated with water budgets, and recommending long-term water conservation programs that would most effectively support customers when a water budget is in place. In FY 2013, Red Oak completed a study that found it would be feasible to develop water budgets for the City’s entire customer base. For more information about the study, visit http://docs.sandiego.gov/councilcomm_agendas_attach/2013/NRC_130731_9.pdf.

The results of the Consultant report were presented to the Independent Rates and Oversight Committee (IROC) on June 24, 2013. At that meeting, IROC passed a motion to recommend that the Natural Resources & Culture Committee (NR&C) accept the report and move forward with the next phase of the project that includes modeling water budget rates for the Irrigation customer class. When using past water consumption to predict performance in a water budget rate structure, the consultant’s preliminary research found that the Irrigation class as a whole had the greatest percentage of ‘over budget’ water use, suggesting the greatest potential to increase efficiency. The Irrigation class accounts for approximately two percent of all accounts, but eleven percent of total water consumption. Continuing the evaluation of water budgets for the Irrigation class also aligns with recommendations from the City’s Water Policy Implementation Task Force to focus on water use efficiency for these customers. IROC passed a second motion recommending against going forward with rate modeling or implementation of water budgets for the residential customer class. They cited the complexity, anticipated expense and potentially limited benefit associated with the implementation of water budget based billing across all customer classes as significant. The NR&C is scheduled to hear the results of the Consultant report in early FY 2014 and determine whether or not to authorize the Mayor and Department to proceed with the next phase of the project.

Conclusion

In FY 2013, the Water Conservation Section continued its award winning public information and community outreach campaign that is successful in reducing the City’s overall water demands by

more than 35,600 AF per year. The Section is now focused on long-term water conservation savings needed to meet the requirements of Senate Bill SB x7-7, which calls for a statewide 20 percent reduction in urban per capita water use by 2020. The attached spreadsheet outlines estimated water savings and how each program contributes to City-wide water savings. The programs outlined here undergo annual reevaluation to ensure the realization of forecasted savings. Additionally, changes in water conservation technologies require reassessment of long-range water conservation plans. Because of these changes, this document is updated at the end of each fiscal year to provide an ongoing assessment, redirecting or enhancing efforts as needed.

Water Conservation Estimated Water Savings

Program Title	2008 RESULTS	2009 RESULTS	2010 RESULTS	2011 RESULTS	2012 RESULTS	2013 RESULTS
Retired Water Conservation Programs* (gpd)	10,056,926	10,099,427	10,107,498	10,107,661	10,107,661	10,107,661
Outdoor Water Conservation Rebates/IRWM Grant (gpd)				4,356	25,529	40,080
Water-Wise Business Surveys (gpd)					9,223	13,803
Rainbarrel Rebates (gpd)					866	3,050
Water Waste Investigations (gpd)	137,932	207,892	515,512	680,752	738,472	782,152
SDMC 147.04 (gpd)**	3,224,496	3,274,080	3,361,224	3,441,720	3,533,568	3,641,112
Res HEWs [currently MWD SoCal Water\$mart] (gpd)	584,103	668,895	731,039	878,578	941,161	1,003,744
ULFTs/HETs/Urinals [currently MWD] (gpd)	9,990,819	10,045,723	10,214,671	10,258,182	10,263,461	10,274,401
CII Incentives [currently MWD Save A Buck] (gpd)	1,064,560	1,172,875	1,177,763	1,189,304	1,192,352	1,206,742
MWD Irrigation Controllers [Water\$mart & Save A Buck] (gpd)	2,480	59,337	290,686	332,699	436,569	450,608
Irrigation Nozzles [Water\$mart & Save A Buck] (gpd)		11,191	23,936	66,479	119,665	131,530
Residential Water Survey Program (gpd)†	1,398,869	1,484,669	1,561,049	1,561,049	1,561,049	1,561,049
Enhanced Multi-Family Survey Program (gpd)				71,280	75,240	97,350
Commercial Landscape Survey Program (gpd)	2,023,229	2,108,501	2,112,652	2,114,614	2,119,056	2,122,187
CIMIS Station Program (gpd)	90,000	90,000	90,000	90,000	90,000	90,000
Enhanced Public Education (gpd)	250,000	300,000	300,000	300,000	300,000	300,000
Total Gallon Savings Per Day	28,823,414	29,522,590	30,486,030	31,096,675	31,513,872	31,825,469
Total Gallon Savings Per Year	10,520,546,110	10,775,745,350	11,127,401,020	11,350,286,232	11,502,563,346	11,616,296,163
Total Acre Feet Savings Per Year	32,286	33,070	34,149	34,833	35,300	35,649

* Retired Water Conservation Programs refer to programs fulfilled years ago, such as the City Facilities Retrofit Program where all City of San Diego facilities were retrofit with low flow plumbing fixtures.

** Passive water savings included here starting in 2005 to be consistent with CWA stats and the City's own 2005 Urban Water Management Plan.

† Residential Water Survey Program water savings has plateaued, with new surveys replacing water savings lost from surveys that occurred years ago.