



WATER TOMORROW

Regional Progress Report

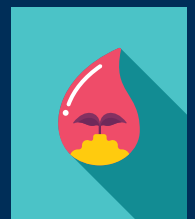
An Annual Report to the California State Legislature on
Achievements in Conservation, Recycling and Groundwater Recharge

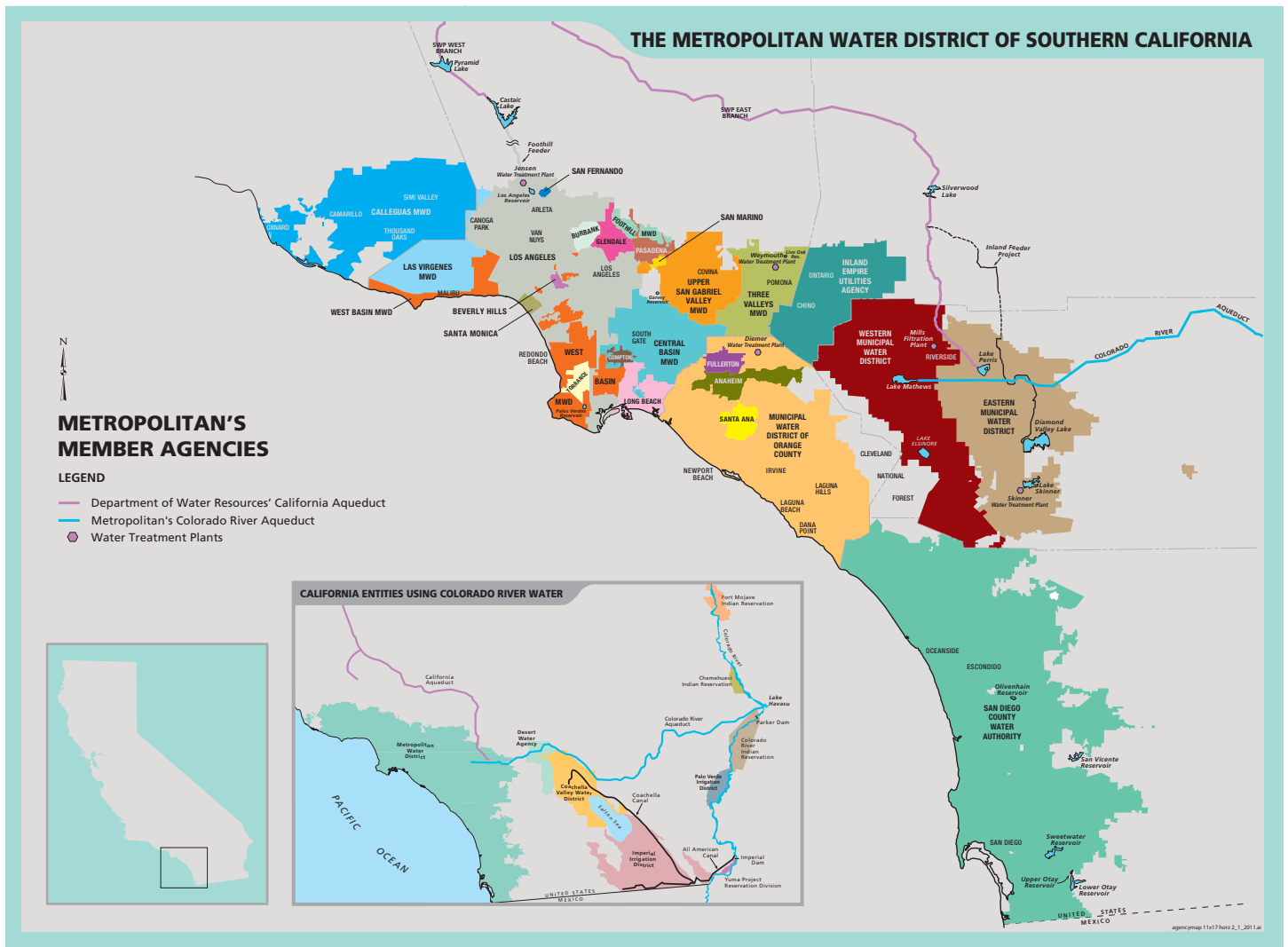


FEBRUARY 2016

Covering the reporting period
of July 2014 - June 2015

Diamond Valley Lake





About Metropolitan

The Metropolitan Water District of Southern California was established in 1928 under an act of the state Legislature to provide supplemental water supplies to its member agencies in Southern California.

Metropolitan is a public agency and a regional water wholesaler. It is governed by a 38-member board of directors representing 26 member agencies that purchase some or all of their water from Metropolitan and serve about 19 million people across six Southern California counties.

The mission of Metropolitan is to provide its 5,200-square-mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan draws supplies from the Colorado River through the Colorado River Aqueduct, which it owns and operates; from Northern California via the State Water Project; and from transfer arrangements and local programs.



TABLE OF CONTENTS

Introduction 3

Achievement Scorecard 4

Conservation 6

Communications and Outreach 10

Local Resources 14

Watershed Initiatives 17

About This Report 20

For more information about this report contact Kathy Cole, Metropolitan’s executive legislative representative, at 916.650.2642 or kcole@mwdh2o.com.



**Smart Gardens
Save Water**
 A California-Friendly
 Landscape
 be.waterwise.com[®]
 THE METROPOLITAN WATER DISTRICT
 OF SOUTHERN CALIFORNIA

Making room for a California Friendly[®] landscape

INTRODUCTION

Southern California faced an extraordinary water challenge in the 2014/15 year. The Metropolitan Water District responded with an unprecedented investment in long-term conservation.

Dry conditions in 2013 and 2014 were followed by a record low Sierra Nevada snowpack in 2015, triggering a historic set of water management actions throughout the state. Gov. Jerry Brown in April 2015 ordered the first-ever statewide mandatory conservation targets for cities and a 25 percent reduction in urban water use compared to 2013 levels. That same month, Metropolitan through its allocation plan enacted reductions in water deliveries to its 26 member agencies, effective July 1, 2015.

The impact of this investment speaks for itself. Conservation efforts rose dramatically, and Metropolitan's turf removal program is expected to remove about 175 million square feet of lawn, which is more than triple the governor's goal for the entire state established in his April 2015 drought declaration. Along with conservation gained by rebates for water-saving devices and other direct conservation incentives, the cumulative impact in enhanced conservation over the coming years is the equivalent amount of water that can be held in Metropolitan's largest reservoir, the 810,000 acre-foot Diamond Valley Lake in Riverside County.

We're in a new era. The idea of your nice little green grass getting lots of water every day, that's going to be a thing of the past.

Gov. Jerry Brown, April 2015

Metropolitan responded with a focused effort to capitalize on the public's enhanced awareness of the limits of water and the need to conserve. Metropolitan expanded its existing rebate programs for turf removal and numerous water-saving products from \$20 million to \$450 million, funding the largest single investment in water conservation incentives in the nation's history. A \$5.5 million multi-media water conservation public education campaign in five languages was readied for launch.

This historic investment in conservation occurred on the 25th anniversary of Metropolitan beginning its conservation program and investing in local projects to lower demand. Over the years, Metropolitan investments have totaled nearly \$1 billion and water saved from conservation, recycled water and groundwater recovery stands at 5.2 million acre-feet. The longevity of this program speaks to the importance of a sustained conservation ethic that must continue even when any given drought cycle is finally over.

Senate Bill 60 in 1999 declared the Legislature's intent for Metropolitan to expand water conservation and other local efforts. This annual report details a historic expansion of conservation efforts in the 2014/15 year, broadening a water portfolio that maintains imported supplies as a vital foundation for a future that embraces both conservation and an ever-diversifying supply mix.

ACHIEVEMENT SCORECARD

| | | |
|---|----------------------|----------------------|
| Conservation | | |
| FY 2014/15 Total Water Saved ¹ | 944,000 acre-feet | |
| New Water Saved From Metropolitan Conservation Credits Program ² | 18,580 acre-feet | |
| Water Saved From Existing Metropolitan Conservation Credits Program ³ | 179,300 acre-feet | |
| FY 2014/15 Investment | | |
| Metropolitan Conservation Credits Program Investment ⁴ | \$138 million | |
| Member Agency Conservation Investment ⁵ | \$32 million | |
| Metropolitan Outreach & Education | \$5.5 million | |
| Cumulative Savings Since 1990 | | |
| Water Saved From Metropolitan Conservation Credits Program ⁶ | 2,222,000 acre-feet | |
| Metropolitan Conservation Investment (excl. funding by member agencies) | \$495 million | |
| Recycled Water | | |
| FY 2014/15 Production ⁷ | 414,000 acre-feet | |
| Water Produced From Projects Receiving Metropolitan Funding | 184,000 acre-feet | |
| Water Produced From Projects Without Metropolitan Funding (incl. Santa Ana River base flow) | 230,000 acre-feet | |
| FY 2014/15 Investment | | |
| Metropolitan Funding | \$30 million | |
| Cumulative Production & Investment Since Inception⁸ | | |
| Production With Metropolitan Funding | 2,237,000 acre-feet | |
| Metropolitan Investment | \$372 million | |
| Groundwater Recovery | | |
| FY 2014/15 Production | 115,000 acre-feet | |
| Water Produced From Projects Receiving Metropolitan Funding | 60,000 acre-feet | |
| Water Produced From Projects Without Metropolitan Funding | 55,000 acre-feet | |
| FY 2014/15 Investment | | |
| Metropolitan Funding | \$8 million | |
| Cumulative Production & Investment Since Inception⁹ | | |
| Production With Metropolitan Funding | 791,000 acre-feet | |
| Metropolitan Investment | \$132 million | |
| Conjunctive Use Program¹⁰ | | |
| Metropolitan Cumulative Capital Investment | \$26.5 million | |
| Proposition 13 Grant Funds Administered by Metropolitan | \$45 million | |
| Water Stored Since Program Inception through September 2015 | 273,000 acre-feet | |
| Water Extracted Since Program Inception through September 2015 | 239,000 acre-feet | |
| Groundwater Replenishment¹¹ | | |
| FY 2014/2015 Delivery | 108,000 acre-feet | |
| Cumulative Replenishment Delivery since 1984 | 3,366,000 acre-feet | |
| Total Regional Investment | FY 2014/15 | Cumulative |
| Metropolitan's Investment in Water Conservation, Recycled Water and Groundwater Recovery | \$176 million | \$999 million |

RECORD-BREAKING INVESTMENT » RECORD-BREAKING RESPONSE

Metropolitan's Board of Directors approved a
\$450 million conservation budget
making it the **largest rebate program in the country.**

The added funding was in response to record public demand for Metropolitan's **water-savings rebate programs**, led by the popularity of **turf removal**.

An award-winning outreach and advertising campaign showcased saving opportunities. At one point, the rebate hotline was handling 2,000 calls and processing \$10 million a day in rebate applications.



The turf program will see the removal of 175 million square feet of turf, equal to about 3,000 football fields, and ultimately save upwards of 7.5 billion gallons of water a year.



The conservation program has helped change the mindset of **Southern Californians** to replace thirsty lawns with drought-tolerant plants and install new **water-saving devices** inside homes and businesses.



Footnotes for Achievement Scorecard

Numbers in this report are based on best available information during the production of this report and are subject to revision for accounting reconciliation.

1. Annual total savings include Metropolitan's Conservation Credits Program, code-based conservation achieved through legislation, building and plumbing codes and ordinances, reduced consumption resulting from changes in water pricing, and pre-1990 device retrofits.

2. New water savings achieved through Metropolitan's Conservation Credits Program and from member agency-funded programs initiated in fiscal year 2014/15.

3. Includes water savings initially achieved through Metropolitan's Conservation Credits Program and subsequently maintained through plumbing codes.

4. Active conservation investment includes administrative fees for contracted program vendors.

5. In addition to Metropolitan's Conservation Credits Program, member agencies and retailers also implemented local water conservation programs within their respective service areas. Member agency investment figures include rebate funding beyond rebates already provided by Metropolitan's Conservation Credits Program.

6. Cumulative water savings since 1990 that include water savings initially achieved through Metropolitan's Conservation Credits Program and subsequently maintained through plumbing codes.

7. Figures reflect actual and estimated deliveries for all Metropolitan-assisted projects and payments for fiscal year 2014/15; cumulative production and investment reflect accounting reconciliation as data become available; annual regional production for recycled water includes an estimated 63,000 acre-feet of treated wastewater discharged to the Santa Ana River base flow that percolates into downstream groundwater basins.

8. Metropolitan initiated its Local Resources Program in 1982 to encourage production of recycled water for municipal purposes.

9. Metropolitan initiated its Groundwater Recovery Program in 1991 to encourage treatment and use of degraded groundwater for municipal purposes.

10. Construction of the conjunctive use storage programs was completed in 2008. Proposition 13 refers to Chapter 9 of the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act of 2000. Water extracted since program inception includes losses.

11. Figure is cumulative since 1984. Prior to 2013, Metropolitan provided replenishment water at a discounted rate to encourage long-term recharge and maintenance of groundwater basins and local reservoirs. Although the discounted replenishment rate was discontinued Jan. 1, 2013, Metropolitan continues to provide water for replenishment purposes at full service rates.



California Friendly® garden color splash

CONSERVATION

Fiscal year 2014/15 was a banner year for conservation. It also marked the 25th anniversary of Metropolitan's conservation programs. Metropolitan's Board of Directors approved its highest ever conservation and outreach budget, to institute the largest program in the nation. Metropolitan continues to encourage conservation in different ways.



Since 1990, Metropolitan has spent more than \$495 million for conservation. In the next fiscal year, 2015/16, Metropolitan will spend an additional \$307 million, bringing the total cumulative spending on conservation to \$802 million, more than half of which was in the last two years alone.

Aside from financial incentives that include the rebate program and a tiered pricing structure, Metropolitan supports new plumbing codes and other regulations that facilitate water savings.

In fiscal year 2014/15, the region saved approximately 944,000 acre-feet of water. Rebates funded through Metropolitan's Conservation Credits Program generated approximately 18,580 acre-feet of water savings.

FY 2014/15 Conservation Program Highlights

- Metropolitan's Board of Directors approved its largest ever conservation and outreach budget of \$450 million for fiscal years 2014/15 and 2015/16.
- In the first year of the two-year budget, Metropolitan funded \$143 million in rebates and advertising to help water customers improve water-use efficiency in their homes and businesses.
- Metropolitan funded more than \$91 million in turf removal rebates after the incentive was doubled to \$2 per square foot in May 2014, making it Metropolitan's most popular program ever.
- SoCal Water\$mart, Metropolitan's regional rebate program rebated a record 108,000 applications in fiscal year 2014/15.
- The SoCal Water\$mart program launched a new website in both English and Spanish along with a mobile-friendly online rebate application.

Working together, water providers, consumers and businesses can weather this drought by making conservation part of our daily lives.

Metropolitan General Manager Jeffrey Kightlinger

Metropolitan's Residential Conservation Programs

Residential customers in the Southland can receive conservation rebates from Metropolitan's SoCal Water\$mart program and through programs administered by Metropolitan's member agencies.

SoCal Water\$mart Residential Program

Launched in 2008, SoCal Water\$mart provides rebates to residential customers to encourage the use of water-efficient products. Current program rebates include turf removal, high-efficiency clothes washers, high-efficiency toilets, multi-stream rotary sprinkler nozzles, irrigation controllers and rain barrels. For fiscal year 2014/15, an estimated 7,050 acre-feet of water was saved through 146,000 residential conservation device rebates funded by Metropolitan. This is more than double the water savings achieved the previous year.

Member Agency Residential Programs

Metropolitan also provides funding to member agencies for locally-administered conservation programs. Qualifying residential projects included turf removal, toilet distribution and replacement programs, direct installation clothes washer programs and residential water audits. Member agency residential programs were estimated to save about 4,780 acre-feet of water annually.

Turf Removal

Metropolitan's turf removal program provides residential and commercial customers with financial incentives to replace their turf with California Friendly® landscapes. In January 2014, Metropolitan added turf removal to the SoCal Water\$mart Regional Program, making it available to customers throughout the service area. In addition, as an emergency drought response, Metropolitan doubled the base rebate for customers to \$2 per square foot of turf removed. Coupled with additional member agency contributions, many residents were able to receive \$3 per square foot or more of turf removed. About 35 million square feet of lawn turf was removed as a result of Metropolitan's rebate program. In fiscal year 2014/15, Metropolitan estimates water savings of about 7,030 acre-feet of water annually from 35 million square feet of turf removal. These numbers will increase in the years ahead.



High-efficiency washers eligible for rebates

Our goal is to equitably provide rebate funds to as many people as possible and lock-in permanent changes in water use by transforming to drought-tolerant landscapes that better fit our mediterranean climate.

Metropolitan Board Chairman Randy Record

High-efficiency Clothes Washers

High-efficiency clothes washers (HECW) with a water factor 3.7 or less are eligible to receive rebates. The water factor is the measure of the amount of water used to wash a standard load of laundry. An HECW saves more than 10,000 gallons per year over a conventional top loading clothes washer. In fiscal year 2014/15, Metropolitan estimates HECW rebates resulted in about 910 acre-feet of water savings. Metropolitan supplements its HECW rebate using state or federal grants when they are available.

High-efficiency Toilets

Metropolitan has provided incentives for toilet replacement programs since 1988. Metropolitan provides funding for high-efficiency toilets (HETs—1.28 gallons per flush or less), which use 20 percent less than ultra-low-flush toilets (1.6 gallons per flush) and recently added premium high-efficiency toilets (1.1 gallons or less per flush). Metropolitan uses the EPA WaterSense list of performance tested HETs and the Maximum Performance of Premium Toilet Models testing list to distinguish qualifying models. Metropolitan estimates that HET rebates issued for both residential and commercial customers in fiscal year 2014/15 will save about 6,130 acre-feet of water per year.

Metropolitan's Commercial Programs

Metropolitan's commercial conservation programs provide rebates for water saving devices to businesses and institutions throughout Southern California. The programs are comprised of SoCal Water\$mart, member agency commercial programs, and the Water Savings Incentive Program. Metropolitan estimates savings of about 6,750 acre-feet of water annually from new rebates issued by commercial conservation programs in fiscal year 2014/15.

SoCal Water\$mart and Member Agency Commercial Programs

The majority of commercial conservation activity came from Metropolitan's SoCal Water\$mart program. In addition, Metropolitan's member and retail water agencies implemented water conservation programs for commercial sectors using Metropolitan incentives. Qualifying commercial projects have included turf removal along with direct installation of HETs and multi-stream rotating nozzles. Metropolitan estimates water savings of about 4,930 acre-feet from 316,350 new device rebates issued through SoCal Water\$mart in fiscal year 2014/15. An additional 1,690 acre-feet of water was saved from member agency incentive programs.

Water Savings Incentive Program

The Water Savings Incentive Program is a regional pay-for-performance initiative. It is open to all commercial, industrial, institutional, agricultural and large landscape customers with qualifying projects within Metropolitan's service area. In fiscal year 2014/15, Metropolitan estimates savings of about 130 acre-feet of water. Incentives are paid based on the amount of water saved and capped at 50 percent of eligible project costs. Financial incentives are available for customized water efficiency projects, including the installation of commercial or industrial high-efficiency equipment; industrial process improvements; agricultural and landscape water efficiency improvements; and water management services.



Metropolitan supports innovation in a number of arenas, including irrigation efficiency and new technologies

Research and Development

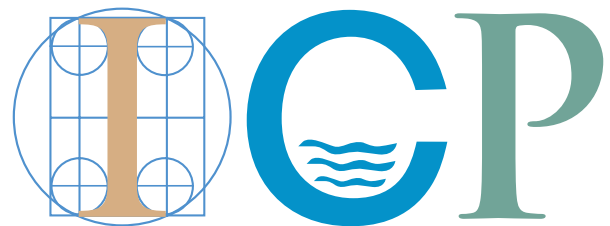
Innovative Conservation Program

Metropolitan's Innovative Conservation Program (ICP) encourages research and development of new and creative ways to conserve water. It is a competitive grant program that evaluates water savings and reliability of new water-savings devices, technologies and strategies. New projects are identified and evaluated every other year. Funding is provided by the U.S. Bureau of Reclamation, Central Arizona Project and Southern Nevada Water Authority with \$450,000 allocated for research. Examples of funded projects include soil amendments, water-audit mobile applications, home graywater systems, soil moisture sensors, and agricultural irrigation improvements. A new solicitation for projects in this program began in fall 2015.

Metropolitan Research Focus

In addition to the ICP, Metropolitan has been involved in:

- Researching water savings from Metropolitan's turf replacement program
- Researching water-savings performance of multi-stream rotary nozzles
- Developing performance benchmarks for landscape irrigation technology with the Center for Irrigation Technology at California State University, Fresno
- Studying the effects of drought and salinity on turf grasses with the California Turfgrass and Landscape Foundation and the Turfgrass Research Facility at University of California, Riverside
- Partnering with the Alliance for Water Efficiency for water conservation research on projects that include: a drought management study of Australia, and studies on commercial kitchen efficiency, outdoor impacts of the drought, and reasons and rationale for landscape choices



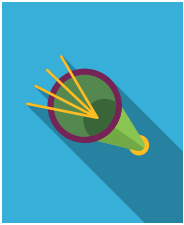
**I N N O V A T I V E
C O N S E R V A T I O N
P R O G R A M**
Metropolitan Water District
of Southern California



Solar Cup™ is the nation's largest solar boat competition

COMMUNICATIONS AND OUTREACH

Metropolitan expanded its conservation-related outreach and educational programs amid unprecedented drought conditions.



In cooperation with the district's 26 member public agencies that serve communities from Ventura to the Mexican border, from coastal areas to the Inland Empire, Metropolitan conducted a \$5.5 million multilingual, multicultural water conservation advertising and outreach campaign

that turned the goal of saving water into measurable results throughout the region.

minutes. Combined, these elements promoted the ongoing need for conservation in Southern California, the importance of long-term investments in water storage and development of local water resources. The campaign highlighted the availability of rebates and incentives for turf removal and the purchase of water-saving devices and appliances.

The goal of this advertising campaign is to showcase a lot of little ways we can all embrace a water-saving lifestyle.

Deputy General Manager Dee Zinke

The visually strong campaign, authorized by the Board of Directors, showcases knobs and faucets and uses the tagline "Let's All Take A Turn" to emphasize the seriousness of the drought and share the message that if we all do a little more to save water, it adds up to make a huge difference.

The research-based effort included television, radio, digital, social media, outdoor advertising and other customized materials and outreach events throughout the Southland. For the first time, the campaign was produced in five languages: English, Spanish, Mandarin, Korean and Vietnamese. The media strategy focused on diverse communities, age groups, homeowners and renters, and the major languages spoken in the region.

The Turn campaign supplements Metropolitan's other outreach activities and educational programs to inform and assist residents, businesses, public agency officials, community leaders and elected officials on the importance of water conservation.

As part of the campaign, staff organized press events and placed hundreds of conservation articles, videos, presentations and infographics in multiple languages on TV, radio, social media and print media. Recognizing the growing role of social and digital media as a source of information for people of all ages, cultures and socio-economic backgrounds, Metropolitan made extensive use of its Facebook and Twitter audiences. The campaign reached hundreds of thousands of viewers and listeners through display and banner ads, search-engine optimization, and the very popular water-saving playlists on Pandora and its Spanish-language equivalent Uforia that featured songs timed to keep showers less than five

One of the most visible events was Metropolitan's sponsorship of the temporary makeover of the iconic giant doughnut sign on top of Randy's Donuts in Inglewood, which attracted worldwide media attention to encourage water conservation. The doughnut was transformed into the focal point of the Turn advertising campaign – a red spigot knob which was visible for several days from one of the nation's busiest freeways. Customers were asked to take a pledge to save water, and those messages were shared on social media to large audiences.



Throughout the year, Metropolitan officials conducted dozens of interviews with news outlets from Southern California to Europe and Asia. They issued 45 press releases and statements, and responded to more than 1,000 media requests for information and interviews on drought conditions, conservation programs and rebates, local water supply projects, the Colorado River, the Delta and other key issues. Informational materials, videos, talking points, and other tools were used to communicate Metropolitan's operations, policies, news and programs in ways that increased public awareness.

To reach a broader audience about the Southland's water supply situation, Metropolitan unveiled a revamped website that is easier to navigate and has more mobile features, graphics and photographs. The debut of a Web-based General Manager's blog, a video blog, e-newsletter and expanded social media presence with Facebook, Twitter and Instagram provided regular updates about a wide range of water supply issues, conditions and events.

Metropolitan's conservation website, bewaterwise.com[®], provided water conservation information to nearly 760,000 unique visitors from July 1, 2014 through June 30, 2015. The website offers drought information and links to rebates and incentives for homes, businesses, industry, agriculture, and schools. Metropolitan also provides a Spanish language version of the site to educate and inform the region's Spanish-speaking population. The website features tips and California Friendly[®] Landscape training and online classes. Here home gardeners and landscape professionals can learn about irrigation systems, watering and fertilizing, plant identification and the latest ways to reduce water use in landscapes.

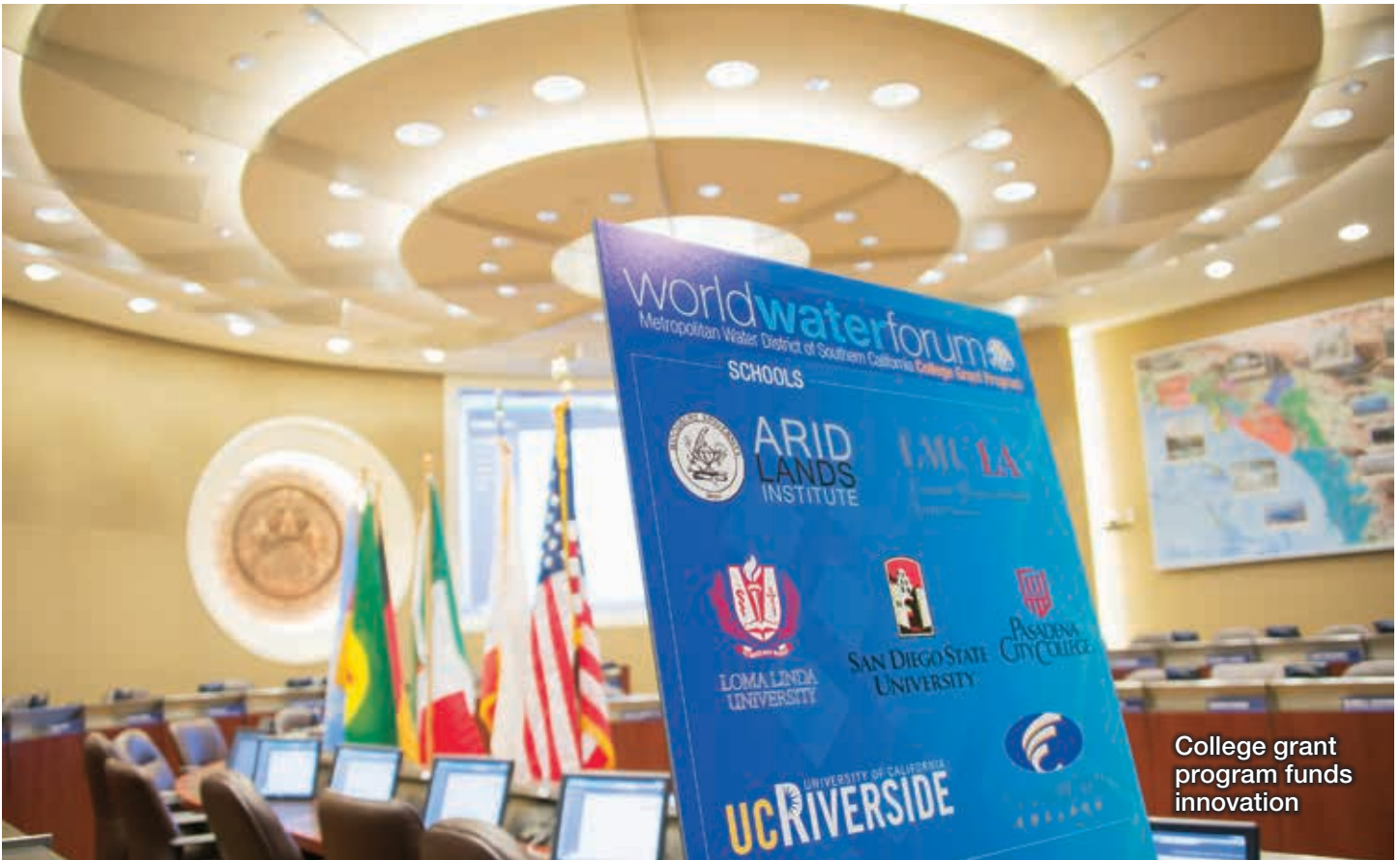
In 2015, Metropolitan continued a focused outreach effort for businesses and industries with high volume water use. Metropolitan's Board of Directors and executive management met with leaders in the beverage, bottling, refining, aerospace, tourism, and golf industries through programs such as "Water for Business, Business for Water" to discuss Southern California's water outlook, key policy issues, and opportunities to collaborate on water use efficiency projects that will reduce demand and increase supplies.

The modern and efficient layout of mwdh2o.com also is in keeping with Metropolitan's standing as a dynamic, innovative and tech-savvy leader.

Metropolitan General Manager Jeffrey Kightlinger



Metropolitan news conference on drought response



College grant program funds innovation

Community Outreach

Metropolitan continues to maintain a strong presence in community water-resource education and conservation activities. Through its Community Partnering Program, Metropolitan co-sponsored and staffed booths at more than 60 water-related education and outreach programs for member agencies, community groups, and non-profit organizations. Projects included community events, conservation and garden projects, publications in multiple languages, and educational materials dealing with watersheds, conservation and water recycling. Staff also made more than 375 presentations at community events, chambers of commerce and other organizations. Staffers conducted 30 briefings for state legislators and their district staff, and coordinated with member agencies to provide information about drought and water supply conditions, water systems, conservation programs, and other issues of interest.

The reopening of Metropolitan’s museum-quality exhibit at the California Department of Water Resources’ Vista del Lago visitor’s center at Pyramid Lake provides information on water resources, environmental programs and conservation to more than 140,000 visitors annually. At Metropolitan’s Diamond Valley Lake Visitor Center, more than 10,000 visitors and 2,300 students learned about Metropolitan’s water systems and operations, programs and water stewardship.

Education Programs

Metropolitan continues to update and expand a comprehensive K-12 water education curriculum that meets state standards for each grade level in the areas of science, math, language arts and social studies classroom materials. This year, events were held at 280 schools and more than 100,000 students and teachers used activities and curriculum materials provided by Metropolitan and its member agencies.

The World Water Forum College Grant Program, a partnership between Metropolitan, the U.S. Bureau of Reclamation, the Sanitation Districts of Los Angeles County, Water For People, and Friends of the United Nations provides grants to colleges and universities for local and globally-focused projects that foster a better understanding and community awareness of water issues, while improving technology related to water supply and delivery, water conservation and sanitation programs. Solar Cup™ is the nation’s largest solar-powered boat competition and in 2015, drew 41 high school teams to demonstrate advanced skills in engineering, math and communication, and water conservation. The “Water is Life” Student Art and Calendar Program features student artwork representing the importance of conservation and was viewed by more than 20,000 people.



Purple pipes distinguish recycled water projects

LOCAL RESOURCES

Water recycling, groundwater recovery and groundwater storage are important elements in the region's diverse local resource portfolio and help bring greater water supply reliability to Southern California.



Metropolitan provides financial incentives through its Local Resources Program (LRP) for the development and use of recycled water and recovered groundwater. Since the inception of the LRP in 1982, Metropolitan has provided \$372 million to produce about 2.2 million acre-feet of recycled water. Metropolitan

also provided approximately \$132 million to produce 791,000 acre-feet of recovered degraded groundwater for municipal use. To date, there are 75 water recycling projects and 24 groundwater recovery projects in the program.

Water Recycling and Groundwater Recovery

In fiscal year 2014/15, Metropolitan's funding supported the production of about 184,000 acre-feet of recycled water for non-potable and indirect potable uses. In addition, another 230,000 acre-feet of recycled water, which includes the base flow recharge from the Santa Ana River, was produced by local agencies through other funding sources. In fiscal year 2014/15, Metropolitan funds supported projects that provided 60,000 acre-feet of recovered groundwater for

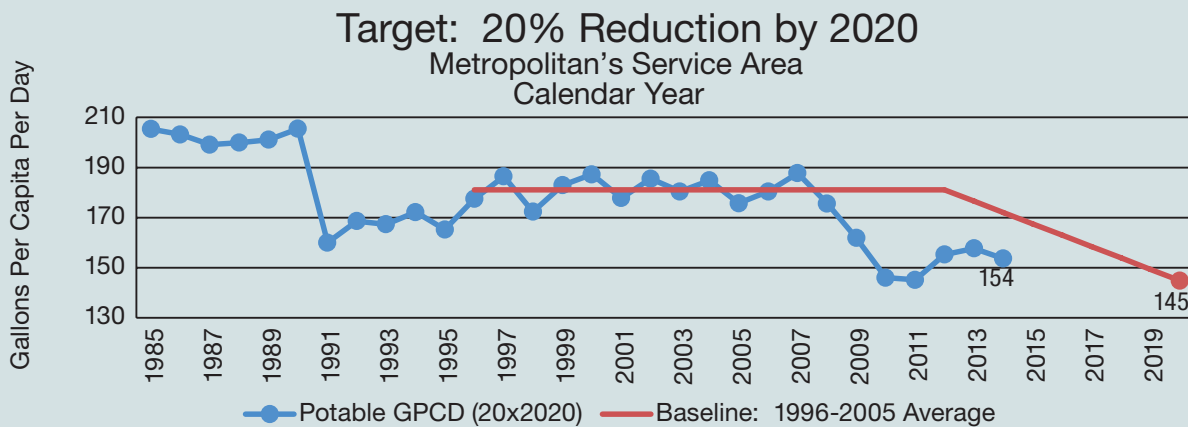
municipal use. An additional 55,000 acre-feet of recovered groundwater was produced by local agencies through other funding sources. Figures 1 and 2 (next page) illustrate total recycled water and groundwater recovery production in Metropolitan's service area, including local agency funded projects.

Fiscal Year 2014/15 Local Resource Highlights

- Metropolitan launched the On-site Retrofit Pilot Program to provide financial incentives for conversion of potable irrigation or industrial water systems to recycled water and has committed to provide \$5.8 million for converting approximately 6,700 acre-feet of potable water to recycled water.
- Metropolitan adopted additional refinements to the LRP in October 2014 to further encourage development of recycled water projects which included increasing the incentive up to \$340/AF and allowing reimbursable services to member agencies for design, construction, and operation of local projects.

Water-Use Efficiency Strategy

Metropolitan and the Natural Resources Defense Council co-sponsored the Water Conservation Act of 2009 (SBX7-7), which targets a 20 percent reduction statewide in urban per capita water use by 2020. In calendar year 2014, Metropolitan had reduced water usage by 15 percent, and was on track to meet its 2020 target. Per capita water use is one indicator of progress in advancing water-use efficiency. Metropolitan's baseline is 181 gallons per capita per day (GPCD) and the 2020 reduction target is 145 GPCD.



Notes about the graph:

1. Calendar year data.
2. 2014 GPCD based on best available data as of October 2015 and is subject to change.
3. Baseline per capita water use based on 1996-2005 average (181 GPCD).
4. Target GPCD for 2020 based on 20% reduction from baseline (145 GPCD).
5. From 2011-2014, there was a slight increase in per capita water use explained in part by continued economic recovery and drier weather as compared to previous years.

Groundwater Management

Metropolitan partners with local agencies to store imported surface water in groundwater basins for use in times of shortage under conjunctive use agreements. Metropolitan currently has nine storage projects with nearly 212,000 acre-feet of storage capacity and can withdraw up to 70,000 acre-feet annually during shortage years. In fiscal year 2014/15, Metropolitan produced 37,600 acre-feet for drought mitigation.

Foundational Actions Funding Program

The pilot Foundational Actions Funding Program addresses regional funding needs for actions that reduce barriers to future water resource production. The program is open to Metropolitan’s member agencies. Proposed actions consist of technical studies or pilot projects related to recycled water, seawater desalination, groundwater and stormwater. Metropolitan entered into 13 contracts for technical studies and pilot projects totaling \$3 million in matching funds. These projects are currently underway, and final results are due to Metropolitan in early 2016.

Figure 1

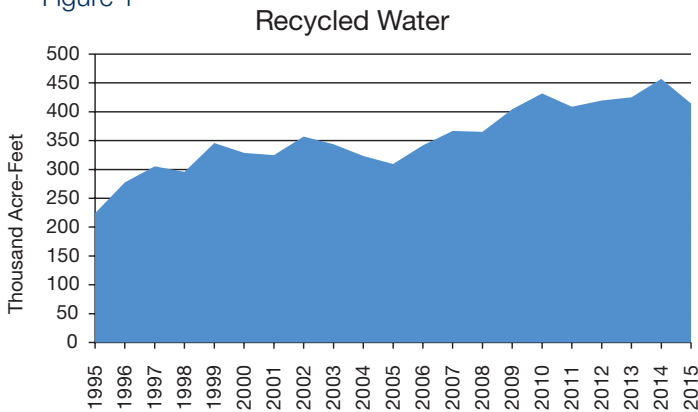
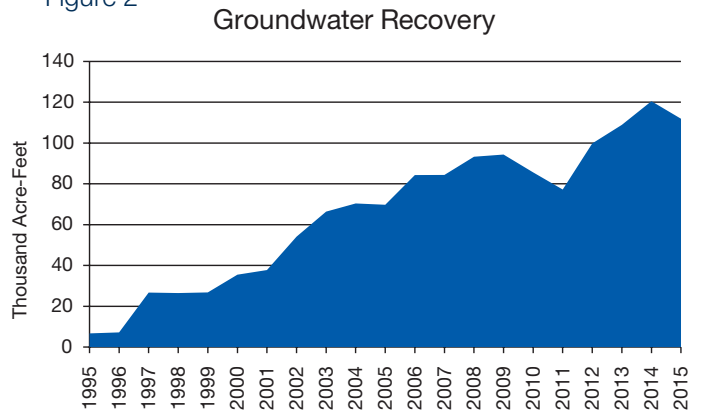


Figure 2



Water Recycling and Groundwater Recovery

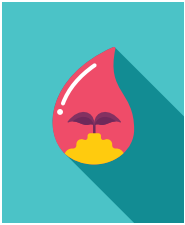
Recycling and groundwater recovery are local resources that add balance to the region’s diverse portfolio of resource options. Figures 1 and 2 show the fiscal-year production of these local resources as the region places greater emphasis on water-use efficiency and improving basin health. While water recycling and groundwater recovery projects are developed by local water agencies, many projects receive financial incentives for water production through Metropolitan’s Local Resources Program. Figure 1 includes treated wastewater discharged to the Santa Ana River base flow that percolates into downstream groundwater basins.



Colorado River Aqueduct near Lake Mathews in Riverside

WATERSHED INITIATIVES

Metropolitan is active on planning boards and organizations formed to improve watershed management and restoration.



Metropolitan works with many watershed interests to protect water quality at the source, including the following initiatives:

Local Organizations

Integrated Regional Water Management

Metropolitan continues to participate in this multi-jurisdictional water planning effort, serving on the Greater Los Angeles County Region Leadership Committee as its surface water management area representative.

Southern California Water Committee Stormwater Task Force

Metropolitan hosted the fourth annual workshop in June 2015 to discuss funding strategies, legislative opportunities and lessons learned through the Municipal Separate Storm Sewer System permit process.

The Los Angeles Basin Stormwater Conservation Study

The \$2.4 million study is a cooperative effort among the Los Angeles County Flood Control District, the U.S. Bureau of Reclamation and several local agencies, including Metropolitan. The Basin Study, expected to be complete by December 2015, identifies alternatives, conducts trade-off analyses and develops recommendations for meeting future water demands in the watersheds.

Council for Watershed Health

Metropolitan has been partnering with the Council for Watershed Health since 2000 in various research studies and educational outreach efforts related to improving water supply reliability, water quality and promotion of water-use efficiency. Currently, the Council has four programs: urban stormwater, sustainable landscape, watershed coordination, and watershed monitoring.

Sacramento-San Joaquin Delta

Bay Delta Conservation Plan

Metropolitan participates in the BDCP/California WaterFix process and continues to work with agencies and stakeholders throughout the Delta watershed to restore the ecosystem and to protect Delta water quality for drinking water uses and aquatic wildlife.

Municipal Water Quality Investigations Program

Metropolitan continues to support the state Department of Water Resources' MWQI, which implements water quality monitoring and special studies in the Delta and its tributaries. In fiscal year 2014/15, this program continued to operate five real-time water quality monitoring stations, completed seasonal water quality forecasts, finalized an urban runoff water quality study, and continued the State Water Project limnology study.



Delta Nutrient Impact Studies

Metropolitan continues to work with state and federal water contractors to support studies and management actions addressing the impact of nutrients and other water quality stressors in the Delta watershed. Metropolitan continued to participate in the Delta Regional Monitoring Program, and in the Regional Water Quality Control Board nutrient management programs in the Central Valley and San Francisco Bay.

Battle Creek Salmon and Steelhead Restoration Project

This federal project is one of the largest cold-water fish restoration efforts in North America. Metropolitan supported and financially assisted this project, which will open almost 50 miles of winter-, spring- and late fall-run salmon and steelhead habitat in the Sacramento River watershed. Construction is anticipated to be completed by 2020.

Colorado River

The Lower Colorado River Multi-Species Conservation Program

The 50-year program was created to balance the use of the Colorado River water resources with the conservation of native species and their habitats. The program provides endangered species compliance for federal and non-federal covered actions within the Lower Colorado River flood plain from the lower reaches of the Grand Canyon to the southern international boundary with Mexico. This includes Metropolitan's current and future water, power, and facilities operations along the Colorado River. Metropolitan is an active member of the Steering Committee and is the largest non-federal contributor.



ABOUT THIS REPORT

Every year Metropolitan reports its accomplishments in water conservation, recycling and groundwater recharge to the state Legislature. Achievements are chronicled and detailed in this report, which focuses on local resource development. Metropolitan held a public hearing on December 7, 2015 to receive input. Comments received at the hearing are on file at Metropolitan and are available upon request.

Southern California depends on Metropolitan's strategic investments in infrastructure and smart management of water resources. Since the adoption of the Integrated Water Resources Plan in 1996, Metropolitan has focused on water use efficiency through conservation and local resources to protect the region from future supply shortages. This forward-looking planning process is collaborative and open to all individuals, businesses and organizations that have an interest in the Southland's future water supplies. Public workshops are held periodically and announced in the mwdwatertomorrow.com website. Input is always welcome.



Diamond Valley Lake reserves drawn down during drought

METROPOLITAN'S MEMBER AGENCIES



Joined Metropolitan
December 6, 1928



Joined Metropolitan
December 6, 1928



Joined Metropolitan
December 6, 1928



Joined Metropolitan
December 14, 1960



Joined Metropolitan
November 12, 1954



Joined Metropolitan
June 23, 1931



Joined Metropolitan
October 16, 1950



Joined Metropolitan
January 15, 1953



Joined Metropolitan
February 27, 1931



Joined Metropolitan
December 6, 1928



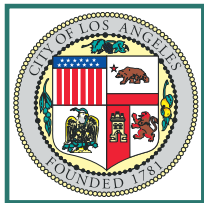
Joined Metropolitan
November 26, 1951



Joined Metropolitan
December 1, 1960



Joined Metropolitan
February 27, 1931



Joined Metropolitan
December 6, 1928



Joined Metropolitan
November 26, 1951



Joined Metropolitan
December 6, 1928



Joined Metropolitan
December 17, 1946



Joined Metropolitan
November 12, 1971



Joined Metropolitan
December 6, 1928



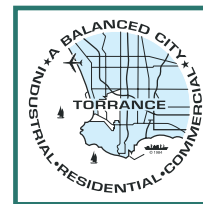
Joined Metropolitan
December 6, 1928



Joined Metropolitan
December 6, 1928



Joined Metropolitan
November 15, 1950



Joined Metropolitan
February 27, 1931



Joined Metropolitan
March 27, 1963



Joined Metropolitan
July 23, 1948



Joined Metropolitan
November 12, 1954



*THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA*

The Metropolitan Water District
of Southern California
P.O. Box 54153
Los Angeles, CA 90054-0153
mwdh2o.com
bewaterwise.com

CONTACT METROPOLITAN

For more information about this report contact Kathy Cole,
Metropolitan's Executive Legislative Representative, at (916) 650-2642
or kcole@mwdh2o.com.



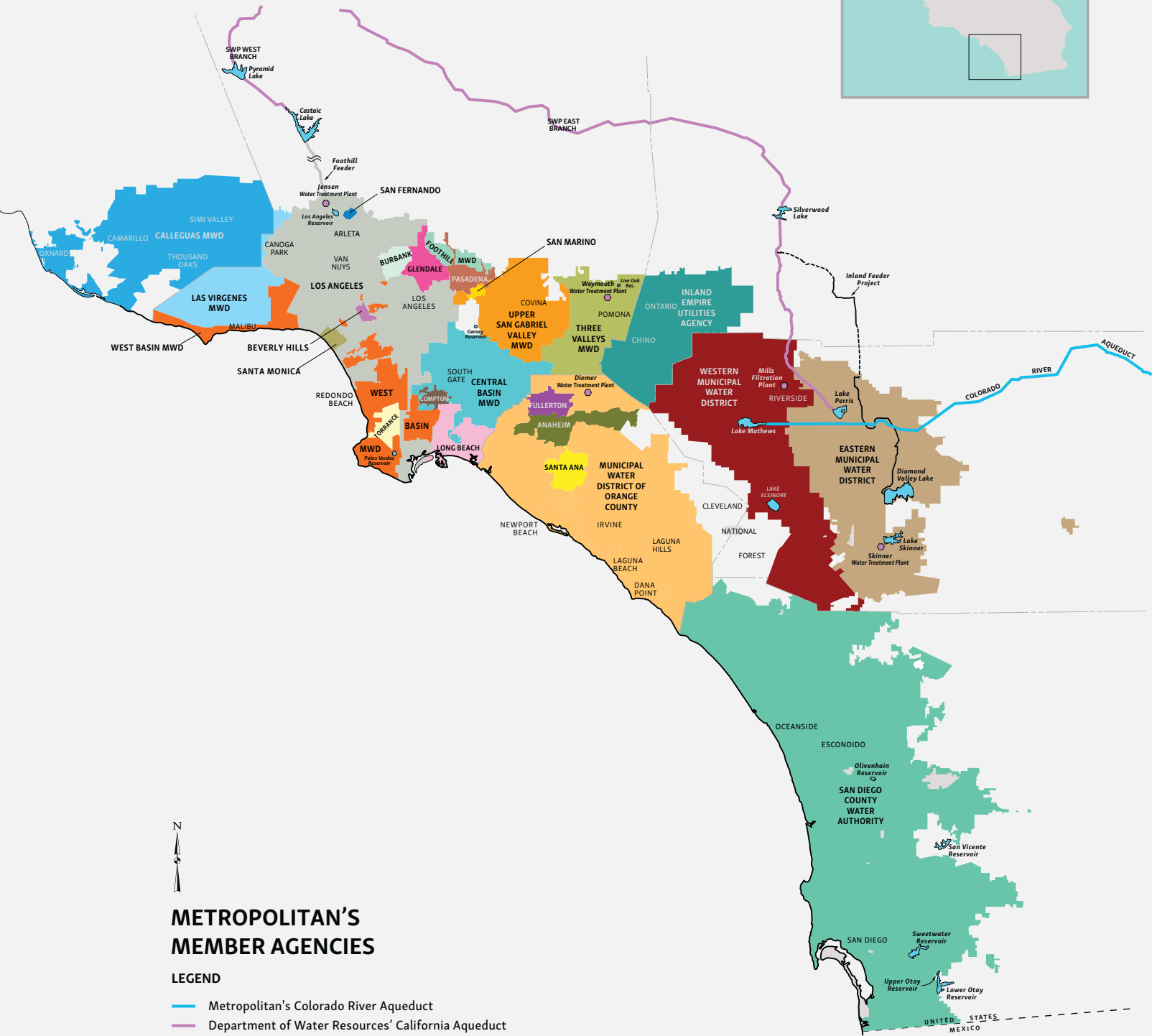
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Achievements in
Conservation, Recycling
and Groundwater Recharge

FEBRUARY 2017

Covering the
reporting period of
July 2015 – June 2016

WATER  **TOMORROW**
Annual Report to the California State Legislature



METROPOLITAN'S MEMBER AGENCIES

LEGEND

- Metropolitan's Colorado River Aqueduct
- Department of Water Resources' California Aqueduct
- Metropolitan's Water Treatment Plants

TABLE OF CONTENTS

| | |
|-----------------------------|----|
| Introduction | 3 |
| Achievement Scorecard | 4 |
| Conservation | 7 |
| Communications and Outreach | 11 |
| Local Resources | 17 |
| Watershed Initiatives | 21 |
| About this Report | 24 |





About Metropolitan

The Metropolitan Water District of Southern California was established in 1928 under an act of the state Legislature to provide supplemental water supplies to its member agencies in Southern California.

Metropolitan is a public agency and a regional water wholesaler. It is governed by a 38-member board of directors representing 26 member agencies that purchase some or all of their water from Metropolitan and serve about 19 million people across six Southern California counties.

The mission of Metropolitan is to provide its 5,200-square-mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan draws supplies from the Colorado River through the Colorado River Aqueduct, which it owns and operates; from Northern California via the State Water Project; and from local programs and transfer arrangements. An increasing percentage of Southern California's water supply comes from conservation, water recycling and recovered groundwater, which are further described in this report.

INTRODUCTION

For Southern California, the 2015/16 year marked the eighth dry year over the past decade, driving home the need to use water as efficiently as possible. The region has managed to survive this dry cycle in part due to lower water use and reserves stored in reservoirs and groundwater basins. However, groundwater levels in many basins within the service area were at or were approaching historically low levels, and Metropolitan's dry-year storage reserves reached their lowest levels since the previous drought in 2007-2009.

As all of California remained under a drought-time Executive Order by Governor Jerry Brown to reduce residential urban water use by an average of 25 percent, thousands of Southland residents took advantage of a historic \$450 million investment by Metropolitan to advance conservation through rebates for turf removal and various water-saving devices. By July 2015, available funds for the turf removal program were reserved by the applicants. The eventual result was the removal of an estimated 172 million square-feet of turf in homes and businesses throughout the Southland. A multi-million-dollar consumer awareness campaign continued in the summer and relaunched in the spring, featuring everything from ads in six languages, water-themed short songs to sing in the shower to an innovative partnership with the Los Angeles Galaxy soccer team.

The result of this comprehensive approach to conservation was a dramatic drop in water use. Southland residents lowered their actual water use at twice the levels targeted in Metropolitan's own allocation plan for reduced deliveries to the district's 26 member agencies. By 2015, daily potable per-capita water use in the Southland had dipped to 131 gallons, well below the target set for 2020 in state law.

Metropolitan's 25-year planning strategy, The Integrated Resources Plan, was updated in January 2016 setting increased targets for local supply development and conservation based on a new assessment of projected supplies and demands for the coming quarter century. The primary reasons: Lowered projections of groundwater yields from Southland basins because of years of drought and slightly lowered projections of water from Northern California via the State Water Project because of ongoing environmental challenges in the Sacramento-San Joaquin Delta.

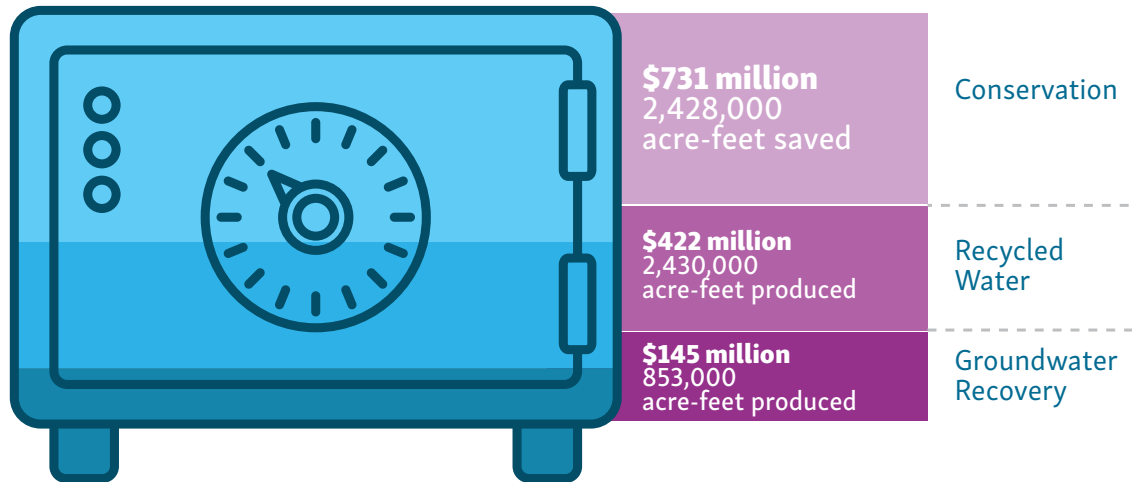
While Metropolitan has provided hundreds of millions of dollars to member agencies to advance their local projects, the district to date has not developed a new water supply within its own service area. That potential new frontier was brought to the forefront in November 2015 when the board of directors provided funds to explore a partnership with the Sanitation Districts of Los Angeles County. Detailed analysis began to explore the potential of purifying wastewater into a new regional water supply to replenish groundwater basins in Los Angeles and Orange counties and augment water supply deliveries for the entire service area. Further technical and financial studies will be necessary before a future decision can be made to advance the project. Yet the willingness of Metropolitan to explore development of a local supply demonstrates the district's commitment to a comprehensive approach to the Southland's water challenges.

Senate Bill 60 in 1999 sought to advance conservation in Southern California. Lowering demand has proven invaluable for the region during this prolonged dry cycle and will continue to improve Metropolitan's reliability going forward.

Achievement Scorecard

| Conservation | | |
|---|---------------------|-------------------|
| FY 2015/16 Total Water Saved¹ | 978,000 acre-feet | |
| New Water Saved From Metropolitan Conservation Credits Program ² | 26,000 acre-feet | |
| Water Saved From Existing Metropolitan Conservation Credits Program ³ | 203,000 acre-feet | |
| FY 2015/16 Investment | | |
| Metropolitan Conservation Credits Program Investment ⁴ | \$236 million | |
| Member Agency Conservation Investment ⁵ | \$48 million | |
| Metropolitan Outreach & Education | \$5.2 million | |
| Cumulative Savings Since 1990 | | |
| Water Saved From Metropolitan Conservation Credits Program ⁶ | 2,428,000 acre-feet | |
| Metropolitan Conservation Investment (excl. funding by member agencies) | \$731 million | |
| Recycled Water | | |
| FY 2015/16 Production⁷ | 443,000 acre-feet | |
| Water Produced From Projects Receiving Metropolitan Funding | 178,000 acre-feet | |
| Water Produced From Projects Without Metropolitan Funding (incl. Santa Ana River base flow) | 265,000 acre-feet | |
| FY 2015/16 Investment | | |
| Metropolitan Funding | \$30 million | |
| Cumulative Production & Investment Since Inception⁸ | | |
| Production With Metropolitan Funding | 2,430,000 acre-feet | |
| Metropolitan Investment | \$422 million | |
| Groundwater Recovery | | |
| FY 2015/16 Production | 90,000 acre-feet | |
| Water Produced From Projects Receiving Metropolitan Funding | 49,000 acre-feet | |
| Water Produced From Projects Without Metropolitan Funding | 41,000 acre-feet | |
| FY 2015/16 Investment | | |
| Metropolitan Funding | \$8 million | |
| Cumulative Production & Investment Since Inception⁹ | | |
| Production With Metropolitan Funding | 853,000 acre-feet | |
| Metropolitan Investment | \$145 million | |
| Conjunctive Use Program ¹⁰ | | |
| Metropolitan Cumulative Capital Investment | \$27 million | |
| Proposition 13 Grant Funds Administered by Metropolitan | \$45 million | |
| Water Stored Since Program Inception through August 2016 | 273,000 acre-feet | |
| Water Extracted Since Program Inception through August 2016 | 255,000 acre-feet | |
| Groundwater Replenishment ¹¹ | | |
| FY 2015/2016 Delivery | 95,000 acre-feet | |
| Cumulative Replenishment Delivery since 1984 | 3,461,000 acre-feet | |
| Regional Summary | | |
| | FY 2015/16 | Cumulative |
| Metropolitan's Investment in Water Conservation, Recycled Water and Groundwater Recovery | \$274 million | \$1,298 million |

Metropolitan's Cumulative Investment: Nearly \$1.3 billion



Footnotes for the Achievement Scorecard

Numbers in this report are based on the best available information during the production of this report and are subject to revision for accounting reconciliation.

1. Annual total savings include Metropolitan's Conservation Credits Program, code-based conservation achieved through legislation, building and plumbing codes and ordinances, reduced consumption resulting from changes in water pricing, and pre-1990 device retrofits.

2. New water savings achieved through Metropolitan's Conservation Credits Program and from member agency-funded programs initiated in fiscal year 2015/16.

3. Includes water savings initially achieved through Metropolitan's Conservation Credits Program and subsequently maintained through plumbing codes.

4. Active conservation investment includes administrative fees for contracted program vendors.

5. In addition to Metropolitan's Conservation Credits Program, member agencies and retailers also implemented local water conservation programs within their respective service areas. Member agency investment figures include rebate funding beyond rebates already provided by Metropolitan's Conservation Credits Program.

6. Cumulative water savings since 1990 include water savings initially achieved through Metropolitan's Conservation Credits Program and subsequently maintained through plumbing codes.

7. Figures reflect actual and estimated deliveries for all Metropolitan-assisted projects and payments reported for fiscal year 2015/16; cumulative production and investment reflect accounting reconciliation as data become available; annual regional production for recycled water includes an estimated 79,000 acre-feet of treated wastewater discharged to the Santa Ana River base flow that percolates into downstream groundwater basins.

8. Metropolitan initiated its Local Resources Program in 1982 to encourage production of recycled water for municipal purposes.

9. Metropolitan initiated its Groundwater Recovery Program in 1991 to encourage treatment and use of degraded groundwater for municipal purposes.

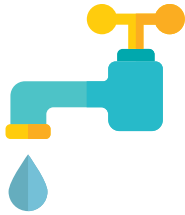
10. Construction of the conjunctive use storage programs was completed in 2008. Proposition 13 refers to Chapter 9 of the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act of 2000. Water extracted since program inception includes losses.

11. Figure is cumulative since 1984. Prior to 2013, Metropolitan provided replenishment water at a discounted rate to encourage long-term recharge and maintenance of groundwater basins and local reservoirs. Although the discounted replenishment rate was discontinued Jan. 1, 2013, Metropolitan continues to provide water for replenishment purposes at full service rates.



A California Friendly™ landscape replaces water-thirsty turf with vibrant color and textures.

CONSERVATION



“With the state entering its fifth year of drought and climate change threatening water resources on multiple fronts, conservation is the best way to ensure water reliability in the region.”

- Metropolitan Board Chairman Randy Record

Metropolitan and its member agencies have long been leaders in water conservation. Conservation is encouraged with financial incentives, outreach and education programs, and support for new plumbing codes and other regulations that facilitate water savings. In fiscal year 2015/16, the region saved about 978,000 acre-feet of water. Rebates funded through Metropolitan’s Conservation Credits Program generated approximately 26,000 acre-feet of new water savings last year and will continue to produce more savings in years to come. Since 1990, Metropolitan has invested more than \$731 million in conservation, \$236 million of which was spent in fiscal year 2015/16. Metropolitan supplements its conservation programs using state and federal grants when they are available.

Fiscal Year 2015/16 Conservation Program Highlights

- In the second year of its two-year budget, Metropolitan funded \$236 million in rebates and advertising to help consumers reduce water use in their homes and businesses.
- Metropolitan customers submitted 173,667 applications for a total of \$247,706,169 in funding.
- Metropolitan received a record 100 proposals for the Innovative Conservation Program in fiscal year 2015/16.
- Metropolitan’s conservation program received the Los Angeles County Green Leadership Award.

Metropolitan’s Residential Conservation Programs

Residential customers in the Southland can receive conservation rebates from Metropolitan’s SoCal Water\$mart program and through programs administered by Metropolitan’s member agencies.

SoCal Water\$mart Residential Program

SoCal Water\$mart provides rebates to residential customers to encourage the use of water-efficient products. Program rebates in fiscal year 2015/16 included high-efficiency clothes washers, high-efficiency toilets, multi-stream rotary sprinkler nozzles, irrigation controllers and rain barrels. Metropolitan estimates water savings of about 14,720 acre-feet annually from about 323,950 residential conservation device rebates funded by Metropolitan in fiscal year 2015/16.

Member Agency Residential Programs

Metropolitan also provides funding to member agencies for locally administered conservation programs. Qualifying residential projects included low-flow toilet distribution and replacement programs, direct installation of water-efficient clothes washer programs and residential water audits. Metropolitan estimates water savings of about 1,750 acre-feet annually from residential programs administered in fiscal year 2015/16.

Turf Removal

Metropolitan's turf removal program provides residential and commercial customers with financial incentives to replace their turf lawns with more sustainable landscapes. In January 2014, Metropolitan added turf removal to the SoCal Water\$mart Regional Program, making it available to customers throughout the service area. About 172 million square feet of lawn turf was removed as a result of Metropolitan's rebate program. Metropolitan estimates water savings of about 13,240 acre-feet of water annually from turf removed in fiscal year 2015/16.

The California Department of Water Resources also launched a separate turf replacement program for single-family residences. However, the program was not available for residents whose service areas had turf rebate programs that offered \$2 per square foot or more in 2014 or 2015.

High-efficiency Clothes Washers

High-efficiency clothes washers (HECW) with an integrated water factor of 3.7 or less are eligible to receive rebates. The integrated water factor is the measure of the amount of water used to wash a standard load of laundry. An HECW saves more than 10,000 gallons per

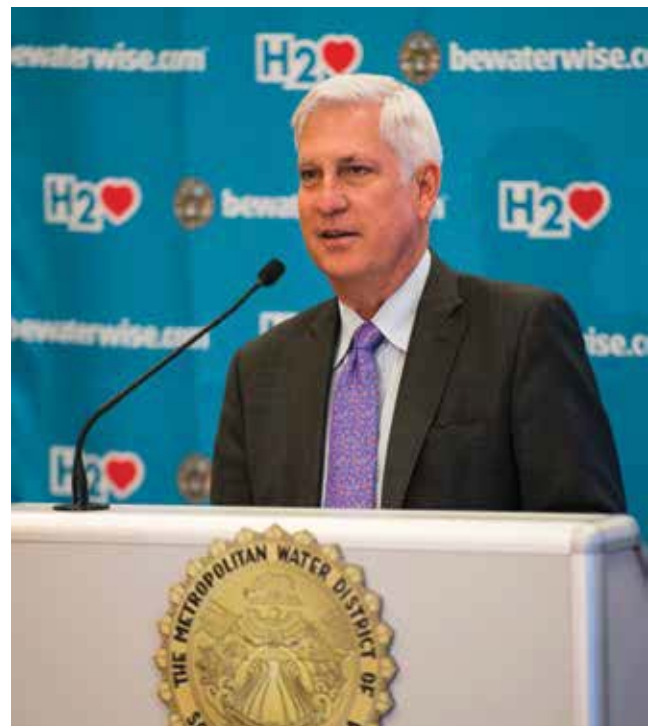
year over a conventional top-loading clothes washer. Metropolitan estimates water savings of about 780 acre-feet annually from HECW rebates funded by Metropolitan in fiscal year 2015/16.

High-efficiency Toilets

Metropolitan offers rebates for premium high-efficiency toilets. These toilets use no more than 1.1 gallons per flush and save about 30 percent when compared to older ultra-low-flush toilets (1.6 gallons per flush). Metropolitan estimates that toilet rebates issued for both residential and commercial customers in fiscal year 2015/16 will save about 7,190 acre-feet of water per year.

Metropolitan's Commercial Programs

Metropolitan's commercial conservation programs provide rebates for water-saving devices to businesses and institutions throughout Southern California. The programs are comprised of SoCal Water\$mart, member agency commercial programs, and the Water Savings Incentive Program. Metropolitan estimates savings of about 9,170 acre-feet of water annually from new rebates issued by commercial conservation programs in fiscal year 2015/16.



Metropolitan General Manager Jeffrey Kightlinger announces H2 Love advertising campaign at start-of-summer press conference.



Altman Specialty Plants in Perris, CA received funding through Metropolitan's Water Saving Incentive Program to install a system to capture, treat and reuse nursery runoff.

SoCal Water\$mart and Member Agency Commercial Programs

The majority of commercial conservation activity came from Metropolitan's SoCal Water\$mart program. In addition, Metropolitan's member and retail water agencies implemented water conservation programs for commercial sectors using Metropolitan incentives. Qualifying commercial projects included turf removal, along with direct installation of premium high-efficiency toilets and multi-stream rotating nozzles. Metropolitan estimates water savings of about 7,410 acre-feet annually from 472,620 new device rebates issued through SoCal Water\$mart in fiscal year 2015/16. An additional 1,530 acre-feet of water was saved from member agency incentive programs during the fiscal year.

Water Savings Incentive Program

The Water Savings Incentive Program is a regional pay-for-performance initiative. It is open to all commercial, industrial, institutional, agricultural and large landscape customers with qualifying projects within Metropolitan's service area. Financial incentives are available for customized water efficiency projects, including the installation of commercial or industrial high-efficiency equipment; industrial process improvements; agricultural and landscape water efficiency improvements; and water management services. Incentives are based on the amount of water saved and capped at 50 percent of eligible project costs. In fiscal year 2015/16, Metropolitan estimates savings of about 230 acre-feet of water.

Research and Development

Innovative Conservation Program (ICP)

Metropolitan's Innovative Conservation Program is a competitive grant program that evaluates water savings and reliability of new water-saving devices, technologies and strategies. The focus for the 2016 round of proposals was the water/energy nexus. With funding provided by the U.S. Bureau of Reclamation, the Environmental Protection Agency, Southern Nevada Water Authority, Central Arizona Project, Southern California Gas Company, Western Resource Advocates and Metropolitan, about \$560,000 was available. The program received about 100 project proposals.

Metropolitan Research Focus

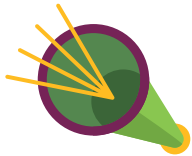
In addition to the ICP, Metropolitan has been involved in:

- A comprehensive study on Metropolitan's turf removal program
- Partnering with the Alliance for Water Efficiency for water conservation research on the rationale for landscape choices
- Development of a conservation software planning model that allows for the input of different variables to maximize cost savings to the agency as well as water savings for the consumer
- Developing and monitoring a pilot program with Inland Empire Utilities Agency on pressure regulation
- Analyzing rain barrel rebates for potential correlation to other consumer water-saving measures or behaviors



Solar Cup™ is the nation's largest solar boat competition which drew 39 high school teams in 2016.

COMMUNICATIONS AND OUTREACH



“We want to encourage residents to make that personal connection to water as a valued resource through our H2Love campaign.”

- Metropolitan Assistant General Manager Dee Zinke

In fiscal year 2015/16, Metropolitan implemented a variety of conservation and education outreach programs. Since late 2013, the primary focus of these programs has been the drought and the need for additional conservation in order to help maintain the region’s supply reliability. In 2016, Metropolitan’s Board of Directors authorized a \$2.2 million extension to the multilingual communications, outreach and advertising campaign that was launched on July 1, 2015. The campaign continued the “Let’s All Take A Turn” message, but added additional messaging around a new trademarked logo of H2Love, and the tagline, “Love Water. Save Water.” which emphasizes the value of water conservation not only during the drought, but every day. Working with Metropolitan’s 26 member agencies, the research-based advertising campaign includes several months of media coverage through radio live reads, 53 community newspapers, digital and online advertising, other customized materials and special outreach events throughout Southern California. The entire campaign is produced in five languages: English, Spanish, Mandarin, Korean and Vietnamese and Print advertising included Tagalog language materials.

The campaign’s design was informed by extensive research through focus groups, telephone interviews, and web surveys conducted in two languages throughout Metropolitan’s service area. The media strategy was developed to effectively target the diverse communities, age groups, socioeconomic factors, and languages spoken in the region. The “Let’s All Take A Turn” campaign supplements Metropolitan’s strong program of outreach activities, social and traditional media, and business outreach efforts to spread the word to residents, businesses, community leaders and elected officials about the importance of water conservation.

A new component of the conservation campaign was an official sponsorship with Major League Soccer’s LA Galaxy. This partnership provided digital signage at the StubHub Center in Carson, water-awareness exhibit booths at four home games, public service announcements and social media videos featuring LA Galaxy goalie Brian Rowe, cross-promotion of water-saving messages on Metropolitan and LA Galaxy social media platforms, Facebook Live events with actor Johnny Rey Diaz and outreach activities with the LA Galaxy community foundation organization.

As part of the campaign, Metropolitan also conducted several television interviews and placed a series of advertorial news stories in the online editions of the Los Angeles Times and Nativo for added value news stories. Metropolitan placed advertorials on digital media focusing on the seriousness of the drought, what people can do to save water and offering landscape and gardening advice including a Facebook Live broadcast by Sunset Magazine which was viewed by more than 7,000 people. In addition, Metropolitan used social and digital media to reach large audiences in cost effective and optimized strategies, including setting up playlists on Pandora and its Spanish-language equivalent, Uforia. The playlists promote shorter showers by listening to

five-minute-long songs about water or rain. These elements promoted the ongoing need for conservation in Southern California, describing long-term benefits of investments in water storage and local water resources, and the availability of rebates and incentives for turf removal and water-saving devices and appliances.

Throughout the year, Metropolitan officials conducted dozens of interviews with news reporters to discuss water-related topics such as the impact of the drought, water supply reliability and conservation. As part of this public outreach, Metropolitan’s General Manager blogged on Metropolitan’s website about various water challenges facing the region.

Metropolitan’s Partnership with the LA Galaxy: Results

14,800
viewers  **LIVE**

Facebook Live broadcasts at games

 **31,000**
people
reached

With custom Snapchat geofilters



250,200
people 

*Attended 2016 LA Galaxy games
featuring H2Love messages*

H2  **350 million**
impressions

Made from H2Love/LA Galaxy sponsorship

“Californians conserve. It’s part of who we are. So our goal is to think every day about our water use and how we can be more efficient. These may seem like small gestures, but together our conservation really adds up.”

- Metropolitan External Affairs Manager Sue Sims

In fiscal year 2015/2016, Metropolitan continued a focused outreach effort for leading businesses and industries that are high-volume water-use customers within its service area. Metropolitan’s executive management met with business executives to discuss Southern California’s water outlook, key policy issues, and opportunities to collaborate on water use efficiency projects that will reduce demand for potable water.

Metropolitan’s conservation website, bewaterwise.com[®], provided water conservation information to hundreds of thousands of unique visitors each year. The website offers conservation ideas, drought information, and links to rebates and incentives for homes, businesses, industry, agriculture and institutions. In addition to a Spanish language version of the site, Metropolitan created a new Chinese version of the website. The site also features California Friendly[®] landscape training classes where home gardeners and landscape professionals can learn the latest ways to reduce water use in landscapes. Classes cover the basics of irrigation systems, watering and fertilizing, landscape design and plant identification.

Metropolitan’s presence on social media grew dramatically with more than 30 million impressions on Facebook and more than 300,000 organic impressions on Twitter. Instagram, launched in September 2015, grew to more than 1,300 followers.

One of the outreach highlights was the commemoration of the 75th anniversary of the first deliveries to Southern California from the Colorado River Aqueduct. More than 500 people attended an event at Union Station in June 2016 to hear from noted historian Dr. Kevin Starr about the importance of Metropolitan’s leadership and reliable water deliveries to Southern California.



Metropolitan’s partnership with the LA Galaxy extended the conservation message with cross promotion across different media platforms.



Metropolitan's revamped space at the California Department of Water Resources' Vista del Lago Visitors Center at Pyramid Lake welcomes more than 125,000 visitors annually.

2016 Awards Sampling



A museum-quality exhibit was created for the headquarters lobby, and new videos and historical information was showcased on social media, the Metropolitan website and in publications.

The success of Metropolitan's outreach activities was recognized with several prestigious awards including The National Association of Government Communicators' Communicator of the Year; Green Leadership Award 2016, County of Los Angeles; The American Academy of Environmental Engineers and Scientists (AAEES) Environmental Communications Award; Diversity in Communications Award from the national organization PR News Group; and the PRISM Award from the Public Relations Society of America, Los Angeles chapter.

Community Outreach

Metropolitan continues to maintain a strong presence in community water resource and conservation education. Through its Community Partnering Program, Metropolitan co-sponsored and staffed booths at more than 60 water-related education and outreach programs for member agencies, community groups, and nonprofit organizations. Activities included community events, conservation and garden projects, publications in multiple languages, and educational materials dealing with watersheds, conservation and water recycling.

The reopening of Metropolitan's exhibit at the California Department of Water Resources' Vista del Lago Visitors Center at Pyramid Lake provides information on water resources, environmental programs and conservation to more than 125,000 visitors annually. At Metropolitan's Diamond Valley Lake Visitor Center, more than 10,000 visitors and 7,000 students learned about Metropolitan's water systems and operations, programs and water stewardship.

Education Programs

Metropolitan continues to update and expand a comprehensive K-12 water education curriculum that meets state standards for each grade level in the areas of science, math, language arts and social studies classroom materials. Metropolitan worked with member agencies to hold more than 700 water education events and promoted critical thinking of water through online and social media engagements. These efforts directly exposed more than 170,000 students, teachers, parents and educators to Metropolitan's water education programs, curricular materials and resources. Metropolitan's water education services are offered to educators within Metropolitan's service area at no charge, enabling greater access to quality materials for outreach to underserved communities. These efforts led to Metropolitan's Education Unit being awarded the Governor's

Environmental and Economic Leadership Award (GEELA), California's highest environmental honor, as well as the PR News National Diversity Award.

The World Water Forum College Grant Program is a partnership between Metropolitan, the U.S. Bureau of Reclamation, the Sanitation Districts of Los Angeles County, Water For People, and Friends of the United Nations. The program provides grants to colleges and universities for local and globally focused projects that foster a better understanding and community awareness of water issues, while improving technology related to water supply and delivery, water conservation and sanitation programs. The fourth funding cycle of the Southern California World Water Forum College Grant Program began

in September 2014. Since 2004, the Metropolitan grant program has provided \$600,000 to more than 62 college and university teams. This year, Metropolitan was awarded a grant from the USBR which secured funding for a fifth cycle of the World Water Forum that will launch in fall 2017.

Solar Cup™ is the nation's largest solar-powered boat competition and in 2016 drew 39 high school teams to demonstrate advanced skills in engineering, math and communication, and water conservation.

The "Water is Life" Student Art and Calendar Program features student artwork representing the importance of conservation and was viewed by more than 20,000 people.



Metropolitan's college grant program, World Water Forum, sponsors exploration of local, regional and global water supply and energy solutions.



Purple pipes signify one of many recycled water programs supported by the Local Resources Program and member agencies.

LOCAL RESOURCES



“When Metropolitan says we are looking for conservation and local supplies to meet all new future demands, we mean it.”

- Metropolitan Assistant General Manager/Chief Operating Officer Debra Man

Metropolitan provides financial incentives through its Local Resources Program (LRP) for the development and use of recycled water and recovered groundwater. Since the inception of the LRP in 1982, Metropolitan has provided \$422 million to produce about 2.4 million acre-feet of recycled water. Metropolitan also provided approximately \$145 million to produce 853,000 acre-feet of recovered degraded groundwater for municipal use. To date, there are 75 water recycling projects and 24 groundwater recovery projects in the program.

Water Recycling and Groundwater Recovery

In fiscal year 2015/16, Metropolitan’s funding supported the production of 178,000 acre-feet of recycled water for non-potable and indirect potable uses. In addition, another 265,000 acre-feet of recycled water was produced by local agencies through other funding sources. In fiscal year 2015/16, Metropolitan supported projects that produced 49,000 acre-feet of recovered groundwater for municipal use. An additional 41,000 acre-feet of recovered groundwater was produced by local agencies through other funding sources. Figures 1 and 2 show total recycled water and groundwater recovery production in Metropolitan’s service area, including local agency funded projects.

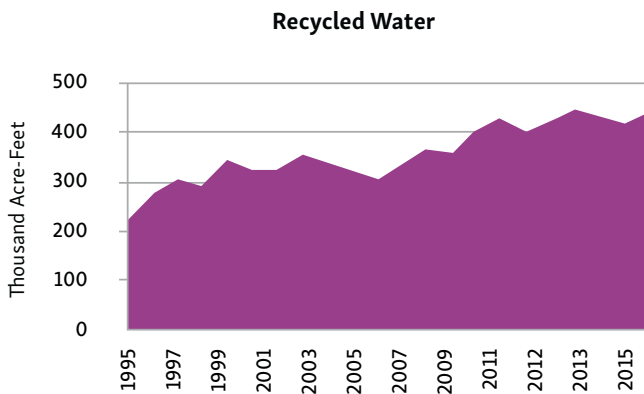


Figure 1

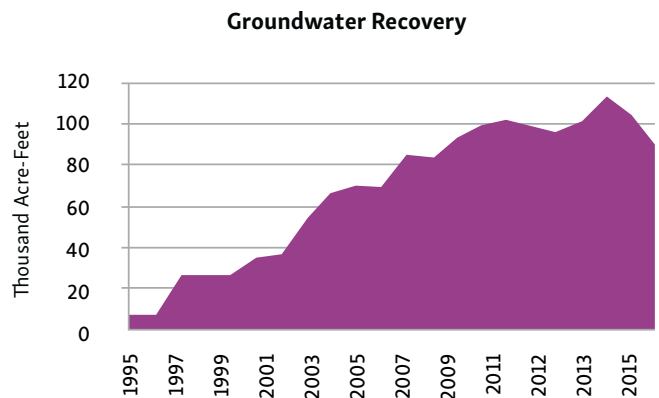


Figure 2

Fiscal Year 2015/16 Local Resource Highlights

- Metropolitan continued the On-site Retrofit Pilot Program, which was launched in July 2014, to provide financial incentives for conversion of potable irrigation or industrial water systems to recycled water. Metropolitan, with additional financial support from the U.S. Bureau of Reclamation, has committed to provide up to \$8.2 million for converting about 8,400 acre-feet of potable water to recycled water. In April 2016, the Metropolitan board approved an extension of the On-site Retrofit Program to June 2018 and authorized an additional \$10 million.
- Nine recycled water, groundwater recovery and seawater desalination projects with a collective yield of about 81,000 acre-feet per year were submitted by member agencies.
- Metropolitan, in collaboration with its member agencies and local agencies and organizations, initiated work to develop a regional recycled water geographic information system (GIS) database to identify potential recycled water needs.

Water-use Efficiency Strategy

Metropolitan and the Natural Resources Defense Council co-sponsored the Water Conservation Act of 2009 (SBX7-7), which requires a 20 percent reduction statewide in urban per capita potable water use by 2020. Per capita water use is one indicator of progress in advancing water-use efficiency. Metropolitan's baseline is 181 gallons per capita per day (GPCD), and the 2020 reduction target is 145 GPCD. Between 2011 and 2014, there was a slight increase in per capita water use in part due to continued economic recovery from the Great Recession and drier weather as compared with previous years. During calendar year 2015, the region responded to the governor's Executive Order B-29-15 that mandated a 25 percent emergency reduction in urban water use. This resulted in a regional potable GPCD of 131, which was below the 2020 target.

Groundwater Management

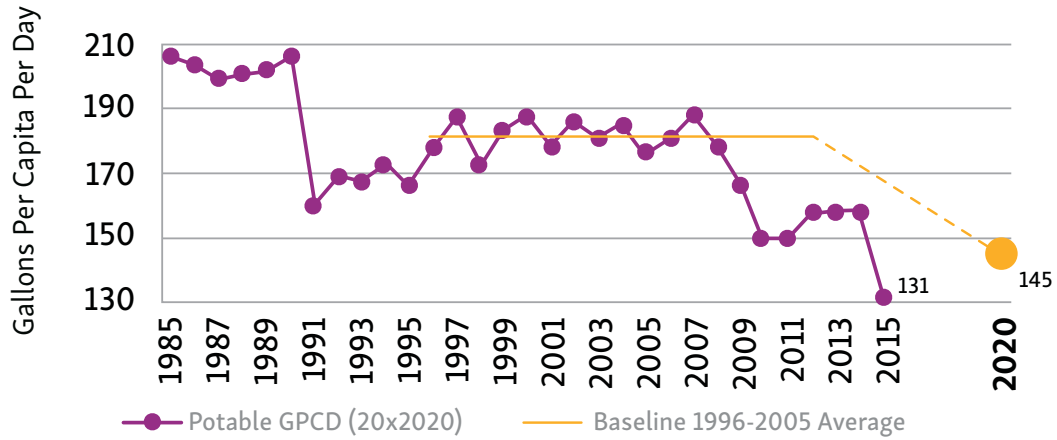
Metropolitan partners with local agencies to store imported surface water in groundwater basins for use in times of shortage under conjunctive use agreements. Metropolitan currently has nine storage projects with nearly 212,000 acre-feet of storage capacity and can withdraw up to 70,000 acre-feet annually during shortage years. In fiscal year 2015/16, Metropolitan produced about 18,000 acre-feet for drought mitigation.

Foundational Actions Funding Program

The pilot Foundational Actions Funding Program addresses regional funding needs for actions that reduce barriers to future water resource production. The program is open to Metropolitan's member agencies, which are required to match the funding dollar-for-dollar with non-Metropolitan funds. Proposed actions consist of technical studies or pilot projects related to recycled water, seawater desalination, groundwater and stormwater. Metropolitan entered into 13 contracts for technical studies and pilot projects totaling \$3 million. Metropolitan received 11 final reports in early 2016, and the remaining final reports are expected to be completed by fiscal year 2016/17.



Target: 20% Reduction by 2020
Metropolitan's Service Area Calendar Year



Notes about the graph:

1. Calendar year data.
2. 2015 GPCD based on best available data as of April 2016 and is subject to change.

3. Baseline per capita water use based on 1996-2005 average (181 GPCD).
4. Target GPCD for 2020 based on 20% reduction from baseline (145 GPCD).



Orange County Water District's Groundwater Replenishment Program.



Metropolitan has a hand in many watershed initiatives to protect source water quality and improve habitat conditions.

WATERSHED INITIATIVES



“The Tule Red Restoration Project in Solano County is a signature effort to share expenses to advance both restoration and new Delta ecosystem science research. When complete in 2018, the project will be monitored to advance the knowledge and techniques of successful restoration for this and future projects.”

- Metropolitan General Manager Jeffrey Kightlinger

Metropolitan is active on planning boards and organizations that improve watershed management and restoration. Metropolitan also works with many watershed interests to protect water quality at the source, including the following initiatives:

Local Organizations

Integrated Regional Water Management

Metropolitan continues to participate in this multijurisdictional water planning effort, serving on the Greater Los Angeles County Region Leadership Committee as its surface water management area representative.

Southern California Water Committee Stormwater Task Force

Metropolitan is actively engaged in the development of a regional database of case studies to gain an understanding of project data, such as actual (versus planned) stormwater capture and costs.

The Los Angeles Basin Stormwater Conservation Study

The \$2.4 million study was a cooperative effort among the Los Angeles County Flood Control District, the U.S. Bureau of Reclamation and several local agencies, including Metropolitan. The basin study, completed in December 2015, identifies alternatives, conducts trade-off analyses, and develops recommendations for meeting future water demands in the watersheds.

Council for Watershed Health

Metropolitan has been partnering with the Council for Watershed Health since 2000 in various research studies, including the Water Augmentation Study, and educational outreach efforts to improve water supply reliability, water quality and promotion of water-use efficiency. Currently, the council has four programs: living laboratory, sustainable landscape resources, healthy streams, and watershed coordination and planning.

A Water Augmentation Study, a 15-year study evaluating the effects of urban runoff on groundwater quality, concluded this year. A February 2016 workshop celebrated the successes of the study and the accomplishments of the Council for Watershed Health.

Sacramento-San Joaquin Delta

California EcoRestore

Metropolitan participates in the California EcoRestore program, a comprehensive state planning process to restore critical Delta habitat. In fiscal year 2015/16, Metropolitan worked with the California Department of Water Resources and other water and wildlife agencies to conduct planning and permitting for the Tule Red Restoration Project in Suisun Marsh to restore tidal marsh wetlands. Construction of the Tule Red Restoration Project began in September 2016.

Municipal Water Quality Investigations Program

Metropolitan continues to support the Department of Water Resources' MWQI Program, which implements water quality monitoring and special studies in the Delta and its tributaries. In fiscal year 2015/16, this program operated five real-time water quality monitoring stations, completed seasonal water quality forecasts, conducted pre-habitat restoration baseline water quality monitoring, and continued the State Water Project limnology study.

Delta Nutrient Impact Studies

Metropolitan continues to work with state and federal water contractors to support studies and management actions addressing the impact of nutrients and other water quality stressors in the Delta watershed. Metropolitan participated in the Delta Regional Monitoring Program, and in the Central Valley and San Francisco Bay Regional, Water Quality Control Boards nutrient management programs.

Battle Creek Salmon and Steelhead Restoration Project

This federal project is one of the largest cold water fish restoration efforts in North America. Metropolitan supported and financially assisted this project, which will create almost 50 miles of winter-, spring- and late fall-run salmon and steelhead habitat in the Sacramento River watershed. Construction is anticipated to be completed by 2020.



Colorado River

The Lower Colorado River Multi-Species Conservation Program

The 50-year program was created to balance the use of the Colorado River water resources with the conservation of native species and their habitats. The program provides endangered species compliance within the Lower Colorado River floodplain, from the lower reaches of the Grand Canyon to the southern international boundary with Mexico. This includes Metropolitan's current and future water, power, and facilities operations along the Colorado River. Metropolitan is an active member of the Steering Committee and is the largest non-federal contributor.

Covered under the program are 26 federal or state listed, candidate and sensitive species and their associated habitats, ranging from aquatic and wetland habitats to riparian and upland areas. Implementation will help create more than 8,000 acres of new habitat and produce 660,000 razorback suckers and bonytail to augment the existing populations of these sensitive fish. The program's substantial research and monitoring component has resulted in significant advancements in species science and restoration technology. It is a prime example of successfully balancing species and natural community restoration goals with water and infrastructure needs for residents of California, Nevada and Arizona.

The Colorado River Basin Salinity Control Program

The Colorado River Basin Salinity Control Program is a unique cooperative watershed effort between several federal agencies and seven states designated to meet national, international and state water quality objectives. Since 1974 these entities have worked as partners to manage the Colorado river's salinity. The program reduces salinity by preventing salts from dissolving and mixing with the river's flow. Irrigation improvements (sprinklers, gated pipe, lined ditches) and vegetation management reduce the amount of water needed to transport salts. Point sources such as saline springs also are controlled. The federal government, basin states and Program participants spend close to \$35 million annually on salinity control programs. Control projects have reduced salinity concentrations of Colorado River water on average by more than 100 micrograms per liter, avoiding hundreds of millions of dollars in damages to crops and infrastructure. Metropolitan is an active member of the Colorado River Basin Salinity Control Forum and is the largest non-federal contributor.



South Hills at Diamond Valley Lake.



About This Report

Every year, Metropolitan reports its accomplishments in water conservation, recycling and groundwater recharge to the state Legislature. Achievements are chronicled and detailed in this report. To coincide with the preparation of the report, the MWD Act requires Metropolitan to “hold an annual public hearing... during which the district shall review its urban water management plan... for adequacy in achieving an increased emphasis on cost-effective conservation, recycling, and groundwater recharge.” While the Urban Water Management Plan is prepared and updated every five years according to state requirements (with the next update due in July 2021), Metropolitan hosts an annual December hearing to share progress on fiscal year plan objectives, and to receive public comments.

Metropolitan held a public hearing on December 12, 2016 to receive public and stakeholder input. Comments received at the hearing are on file at Metropolitan and are available upon request.

METROPOLITAN'S MEMBER AGENCIES



City of Anaheim



City of Beverly Hills



City of Burbank



City of Compton



City of Fullerton



City of Glendale



City of Long Beach



City of Los Angeles



City of Pasadena



City of San Fernando



City of San Marino



City of Santa Ana



City of Santa Monica



City of Torrance



Calleguas Municipal Water District



Central Basin Municipal Water District



Eastern Municipal Water District



Foothill Municipal Water District



Inland Empire Utilities Agency



Las Virgenes Municipal Water District



Municipal Water District of Orange County



San Diego County Water Authority



Three Valley Municipal Water District



Upper San Gabriel Valley Municipal Water District



West Basin Municipal Water District



Western Municipal



*THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA*

P.O.Box 54153
Los Angeles, CA 90054-0153
mwdh2o.com
bewaterwise.com



[/mwdh2o](https://www.facebook.com/mwdh2o) [/mwdh2o](https://twitter.com/mwdh2o) [/mwdh2o](https://www.instagram.com/mwdh2o)

“KEEP SAVING WATER
FOR THE BIRDS AND
THE BEES.
AND ME.”



A THANKFUL BUTTERFLY

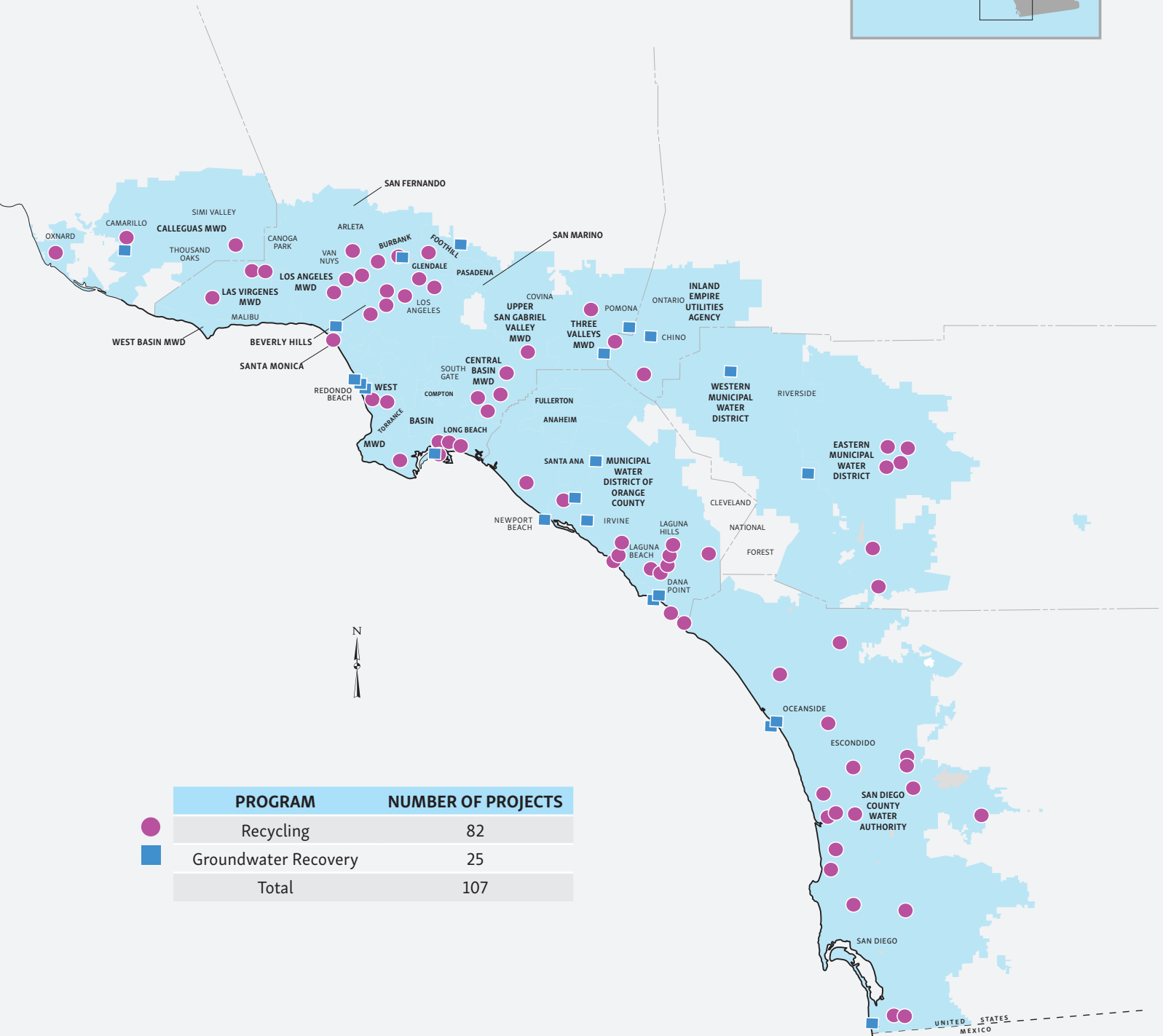


Achievements in
Conservation, Recycling
and Groundwater Recharge

FEBRUARY 2018

Covering the fiscal year
of July 2016 – June 2017

METROPOLITAN'S LOCAL RESOURCES PROGRAM

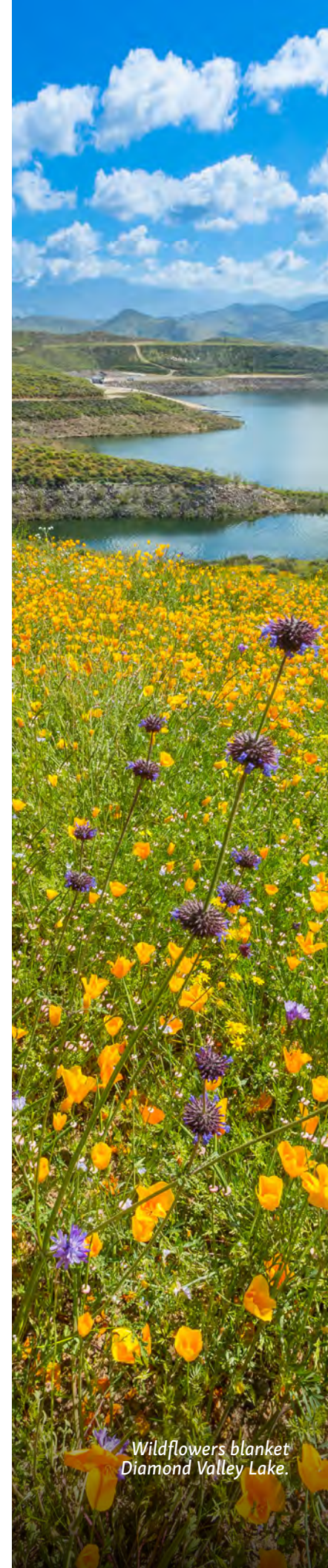


| PROGRAM | NUMBER OF PROJECTS |
|----------------------|--------------------|
| Recycling | 82 |
| Groundwater Recovery | 25 |
| Total | 107 |

TABLE OF CONTENTS

| | |
|-----------------------------|----|
| Introduction | 3 |
| Achievement Scorecard | 4 |
| Conservation | 7 |
| Communications and Outreach | 11 |
| Local Resources | 17 |
| Watershed Initiatives | 21 |
| About this Report | 24 |

For more information about this report, contact Kathy Cole, Metropolitan's executive legislative representative, at 916.650.2642 or kcole@mwdh2o.com.



*Wildflowers blanket
Diamond Valley Lake.*



About Metropolitan

The Metropolitan Water District of Southern California was established in 1928 under an act of the State Legislature to provide supplemental water supplies to its member agencies in Southern California.

Metropolitan is a public agency and a regional water wholesaler. It is a voluntary cooperative of 26 member agencies that purchase some or all of their water from Metropolitan. These member agencies and their sub agencies serve about 19 million people across six Southern California counties. Metropolitan is governed by a 38-member Board of Directors made up of representatives from each of Metropolitan's member agencies.

The mission of Metropolitan is to provide its 5,200-square-mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan draws supplies from the Colorado River through the Colorado River Aqueduct, which it owns and operates; from Northern California via its participation in the State Water Project; and from local programs and transfer arrangements. An increasing percentage of Southern California's water supply comes from conservation, water recycling and recovered groundwater.

Metropolitan contributes to these efforts through its conservation and local resource programs. Conservation and local resource development take place at the local level, and regional approaches have proven to be effective and benefit all Metropolitan member agencies. These programs help to increase regional water supply reliability, and reduce demands for imported water supplies. They decrease the burden on Metropolitan's infrastructure, reduce system costs, and free up conveyance capacity to the benefit of all system users. The programs advance the legislative intent that Metropolitan increase "sustainable, environmentally sound and cost-effective water conservation, recycling, and groundwater storage and replenishment measures." Metropolitan is also involved in other beneficial programs and initiatives as detailed in this report.

INTRODUCTION

For the Metropolitan Water District of Southern California, fiscal year 2016/17 marked an important milestone in the region's conservation efforts. Efforts to lower water demand are estimated to save more than 1 million acre-feet of water supply.

This achievement in conservation better positions Southern California for a reliable water future. Most of the per-capita reductions in water use that were achieved during the recent drought cycle remained in place on a voluntary basis by Southland residents and businesses, a sign that Southern Californians are committed to making conservation a way of life.

The lower demand had further benefits for the region's long-term water reliability. Metropolitan was able to take full advantage of the record wet conditions in Northern California and replenish the district's network of groundwater banks and reservoirs. Metropolitan was on track to place as much as 1.2 million acre-feet of water into reserve – the largest quantity put into storage in a single year.

Maintaining the momentum for conservation was a key priority for Metropolitan in fiscal year 2016/17. Metropolitan used multiple strategies and strong collaboration with our member agencies to encourage Southland residents and businesses to embrace additional conservation measures and behaviors. Metropolitan funded about \$45 million in rebates, classes, research and advertising to encourage lower water use. This included \$3.5 million in direct outreach via the award-winning H2Love campaign. The investment had notable results.

Since 1990, the district has invested nearly \$1.4 billion in conservation, recycling and groundwater replenishment. More investments are on the immediate horizon, with continued funding for rebates, classes, research and advertising, as well as construction of a recycled water demonstration facility to advance Metropolitan's partnership with the Sanitation Districts of Los Angeles County. This advanced water treatment facility could lead to one of the largest water recycling programs in the nation.

While the Southland undoubtedly will face variable economic and hydrologic conditions ahead, the region has established a solid foundation of achievements in conservation. Senate Bill 60, passed in 1999, stated the Legislature's intent that Metropolitan "expand water conservation, water recycling, and groundwater recovery efforts" and to "place increased emphasis on sustainable, environmentally sound, and cost-effective water conservation, recycling, and groundwater storage and replenishment measures." Metropolitan will continue to build on its achievements in conservation, recycling and groundwater recharge in the years ahead.

Achievement Scorecard

| Conservation | | |
|--|---------------------|-------------------|
| FY 2016/17 Total Water Saved¹ | 1,013,000 acre-feet | |
| New Water Saved From Metropolitan Conservation Credits Program ² | 8,000 acre-feet | |
| Water Saved From Existing Metropolitan Conservation Credits Program ³ | 206,000 acre-feet | |
| FY 2016/17 Investment | | |
| Metropolitan Conservation Credits Program Investment ⁴ | \$41 million | |
| Member Agency Conservation Investment ⁵ | \$11 million | |
| Metropolitan Outreach & Education | \$4 million | |
| Cumulative Savings Since 1990 | | |
| Water Saved From Metropolitan Conservation Credits Program ⁶ | 2,635,000 acre-feet | |
| Metropolitan Conservation Investment (excluding funding by member agencies) | \$772 million | |
| Recycled Water | | |
| FY 2016/17 Production⁷ | 460,000 acre-feet | |
| Water Produced From Projects Receiving Metropolitan Funding | 180,000 acre-feet | |
| Water Produced From Projects Without Metropolitan Funding (incl. Santa Ana River base flow) ⁸ | 280,000 acre-feet | |
| FY 2016/17 Investment | | |
| Metropolitan Funding | \$29 million | |
| Cumulative Production & Investment Since Inception⁹ | | |
| Production With Metropolitan Funding | 2,592,000 acre-feet | |
| Metropolitan Investment | \$448 million | |
| Groundwater Recovery | | |
| FY 2016/17 Production | 89,000 acre-feet | |
| Water Produced From Projects Receiving Metropolitan Funding | 48,000 acre-feet | |
| Water Produced From Projects Without Metropolitan Funding | 41,000 acre-feet | |
| FY 2016/17 Investment | | |
| Metropolitan Funding | \$7 million | |
| Cumulative Production & Investment Since Inception¹⁰ | | |
| Production With Metropolitan Funding | 893,000 acre-feet | |
| Metropolitan Investment | \$151 million | |
| Conjunctive Use Program ¹¹ | | |
| Metropolitan Cumulative Capital Investment | \$27 million | |
| Proposition 13 Grant Funds Administered by Metropolitan | \$45 million | |
| Water Stored Since Program Inception through August 2017 | 297,000 acre-feet | |
| Water Extracted Since Program Inception through August 2017 | 256,000 acre-feet | |
| Groundwater Replenishment ¹² | | |
| FY 2016/2017 Delivery | 177,000 acre-feet | |
| Cumulative Replenishment Delivery since 1984 | 3,650,000 acre-feet | |
| Regional Summary | | |
| | FY 2016/17 | Cumulative |
| Metropolitan's Investment in Water Conservation, Recycled Water and Groundwater Recovery | \$77 million | \$1,372 million |

Metropolitan's Cumulative Investment: Nearly \$1.4 billion



\$772 million
2,635,000 acre-feet saved

\$448 million
2,592,000 acre-feet produced

\$151 million
893,000 acre-feet recovered

Footnotes for the Achievement Scorecard

Numbers in this report are based on the best available information during the production of this report and are subject to revision for accounting reconciliation.

1. Annual total savings include Metropolitan's Conservation Credits Program, code-based conservation achieved through legislation, building and plumbing codes and ordinances, reduced consumption resulting from changes in water pricing, and pre-1990 device retrofits.
2. New water savings achieved through Metropolitan's Conservation Credits Program and from member agency-funded programs initiated in fiscal year 2016/17.
3. Includes water savings initially achieved through Metropolitan's Conservation Credits Program and subsequently maintained through plumbing codes.

Table below shows total water savings based on audited historical conservation device data and revised population data from the California Department of Finance.

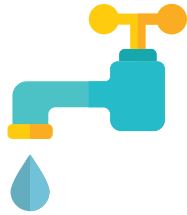
| 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 776,000 | 805,000 | 834,000 | 859,000 | 880,000 | 903,000 | 927,000 | 957,000 | 994,000 | 1,013,000 |

4. Active conservation investment includes administrative fees for contracted program vendors.
5. In addition to Metropolitan's Conservation Credits Program, member agencies and sub-agency retailers also implemented local water conservation programs within their respective service areas. Member agency investment figures include rebate funding beyond rebates already provided by Metropolitan's Conservation Credits Program.
6. Cumulative water savings since 1990 that include water savings initially achieved through Metropolitan's Conservation Credits Program and subsequently maintained through plumbing codes.
7. Totals may not foot due to rounding for this report. Figures reflect actual and estimated deliveries for all Metropolitan-assisted projects and payments reported for fiscal year 2016/17; cumulative production and investment reflect accounting reconciliation as data become available; annual regional production for recycled water includes an estimated 68,000 acre-feet of treated wastewater discharged to the Santa Ana River base flow that percolates into downstream groundwater basins.
8. Projects accounted for here include some that received funding at the outset through Metropolitan's Local Resources Program. Once the term of the funding agreement expires, the projects continue, but further production is not factored into program totals.
9. Metropolitan initiated its Local Resources Program in 1982 to encourage production of recycled water for municipal purposes. Figure reflects a correction to previous fiscal year 2015/16 reporting of cumulative LRP production and investment.
10. Metropolitan initiated its Groundwater Recovery Program in 1991 to encourage treatment and use of degraded groundwater for municipal purposes.
11. Construction of the conjunctive use storage programs was completed in 2008. Proposition 13 refers to Chapter 9 of the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act of 2000. Water extracted since program inception includes losses.
12. Figure is cumulative since 1984. Prior to 2013, Metropolitan provided replenishment water at a discounted rate to encourage long-term recharge and maintenance of groundwater basins and local reservoirs. Although the discounted replenishment rate was discontinued Jan. 1, 2013, Metropolitan continues to provide water for replenishment purposes at full service rates through conjunctive use and other supply programs.



A California Friendly™ landscape replaces water-thirsty turf with vibrant color and textures.

CONSERVATION



“A fundamental pillar of our reliability plan is increased conservation and efficient water use. We want to do everything we can to help Southern Californians conserve.”

- Metropolitan General Manager Jeffrey Kightlinger

Metropolitan and its member agencies are nationally recognized as longtime leaders in water conservation. One of the pillars of Metropolitan’s plan to be reliable is continued conservation and efficient water use. In fact, by 2040, conservation and water recycling will account for one-third of Southern California’s water supply portfolio in Metropolitan’s service area. To encourage continued commitment to conservation, Metropolitan supports financial incentives, education and outreach programs and regulations that facilitate water savings at the local level.

In fiscal year 2016/17, the region saved about 1 million acre-feet of water.* Rebates funded through Metropolitan’s Conservation Credits Program generated approximately 8,400 acre-feet of new water savings last year and will continue to produce more savings in years to come. Since 1990, Metropolitan has invested more than \$772 million in conservation, about \$41 million of which was spent in fiscal year 2016/17. Metropolitan pays \$195 per acre-foot of water savings over the life of a measure, except in certain cases when seeking market transformation. Metropolitan occasionally supplements its conservation programs using state and federal grant funds when they are available.

Fiscal Year 2016/17 Conservation Program Highlights

- Metropolitan funded about \$41 million in rebates, classes, research and advertising to help consumers reduce water use in their homes and businesses.
- Metropolitan processed more than 124,000 applications for a total of \$37.1 million in funding.
- The U.S. Environmental Protection Agency honored Metropolitan’s conservation program for excellence in promoting WaterSense®-labeled products.
- Turf removal courses were made available throughout the region for homeowners, property managers and others.

*For reference, an acre-foot is nearly 326,000 gallons, about the amount used by three Southern California families in a year.

Metropolitan's Residential Conservation Programs

SoCal Water\$mart Residential Program

SoCal Water\$mart provides rebates to residential customers to encourage the use of water-efficient products. Program rebates in fiscal year 2016/17 included high-efficiency clothes washers, high-efficiency toilets, multi-stream rotary sprinkler nozzles, irrigation controllers, and rain barrels. Metropolitan estimates water savings of about 2,930 acre-feet annually from more than 117,800 residential conservation device rebates funded by Metropolitan in fiscal year 2016/17.

Member Agency Residential Programs

Metropolitan also provides funding to member agencies for locally administered conservation programs. Qualifying residential projects included low-flow toilet distribution and replacement programs, direct installation of water-efficient clothes washer programs and residential water audits. Metropolitan estimates water savings of about 510 acre-feet annually from residential programs administered in fiscal year 2016/17.

Turf Removal

In January 2014, Metropolitan added turf removal to the SoCal Water\$mart Regional Program, making it available to customers throughout the service area. More than 17 million square feet of lawn were removed last year as Metropolitan's rebate program fulfilled the remaining rebate requests from the waiting list of applicants created after the program closed to new applicants in 2016. Metropolitan estimates water savings of about 2,300 acre-feet annually from turf removed in fiscal year 2016/17.

High-Efficiency Toilets

Metropolitan offers rebates for premium high-efficiency toilets. These toilets use no more than 1.1 gallons per flush and save about 30 percent when compared to older ultra-low-flush toilets (1.6 gallons per flush). Metropolitan estimates that toilet rebates issued for both residential and commercial customers in fiscal year 2016/17 will save about 1,150 acre-feet of water per year.

High-Efficiency Clothes Washers

High-efficiency clothes washers with an integrated water factor of 3.7 or less are eligible to receive rebates. The integrated water factor is the measure of the amount of water used to wash a standard load of laundry. An HECW saves more than 10,000 gallons per year over a conventional top-loading clothes washer. Metropolitan estimates water savings of about 620 acre-feet annually from HECW rebates in fiscal year 2016/17.

Smart Irrigation Controllers

Smart irrigation controllers have been offered in Metropolitan's rebate program since 2006. With numerous technological advancements incorporated into new controller models, these units now are more customer-friendly and have greater ability to determine weather effects and water needs. Smart irrigation controllers automatically adjust watering schedules based on weather, soil conditions, plant material, sun exposure and slope. Metropolitan estimates water savings of about 2,190 acre-feet annually from smart controller rebates funded by Metropolitan in fiscal year 2016/17.

"Metropolitan constantly evaluates its conservation programs for efficacy and value and explores opportunities for new water savings potential."

*- Metropolitan Water Efficiency Manager
Bill McDonnell*

Metropolitan's Commercial Conservation Programs

Metropolitan's commercial conservation programs provide financial incentives for water-saving devices and projects to businesses and institutions throughout Southern California. Metropolitan estimates savings of about 5,000 acre-feet annually from commercial conservation programs in fiscal year 2016/17.

SoCal Water\$mart and Member Agency Commercial Programs

The majority of commercial conservation activity came from Metropolitan's SoCal Water\$mart program. In addition, Metropolitan's member agencies and sub-agencies implemented water conservation programs for commercial sectors using Metropolitan incentives. Qualifying commercial projects have included turf removal, along with direct installation of HETs and multi-stream rotating nozzles. Metropolitan estimates water savings of about 3,500 acre-feet from more than 6,400 applications processed through SoCal Water\$mart in fiscal year 2016/17. An additional 760 acre-feet of water was saved from member agency incentive programs.

Water Savings Incentive Program

The Water Savings Incentive Program is a regional pay-for-performance initiative. It is open to all commercial, industrial, institutional, agricultural and large landscape consumers with qualifying projects within Metropolitan's service area. Financial incentives are available for customized water efficiency projects, including the installation of commercial or industrial high-efficiency equipment; industrial process improvements; agricultural and landscape water efficiency improvements; and water management services. Incentives are based on the amount of water saved and capped at 50 percent of eligible project costs. In fiscal year 2016/17, Metropolitan estimates savings of about 720 acre-feet of water.

Research and Development

Innovative Conservation Program

Metropolitan's Innovative Conservation Program is a competitive grant program that evaluates water savings and reliability of innovative devices, technologies and strategies. With funding provided by the U.S. Bureau of Reclamation, the U.S. Environmental Protection Agency, Southern Nevada Water Authority, the Central Arizona Project, Southern California Gas Company, Western Resource Advocates and Metropolitan, approximately \$560,000 was available for research. Ten projects were selected for up to \$100,000 funding each.

Metropolitan Research Focus

In addition to the ICP, Metropolitan has been involved in multiple research efforts:

- Studying Metropolitan's turf removal program
- Partnering with the Alliance for Water Efficiency for research on the rationale for landscape choices
- Creating a pilot program with Inland Empire Utilities Agency on pressure regulation of irrigation systems
- Analyzing rain barrel rebates for potential correlation to other consumer water-saving measures or behaviors
- Evaluating water saving potential for commercial cooling towers
- Studying market saturation of residential indoor water fixtures.

Alliance for Water Efficiency Peer Review

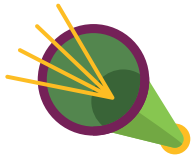
The Alliance for Water Efficiency conducted a peer review of Metropolitan's water-use efficiency programs. The peer review team found that Metropolitan's water-use efficiency programs were exceptional, far-reaching and innovative. They provided 11 recommendations to Metropolitan:

1. Evaluate and increase the base conservation rate of \$195 per acre-foot
2. Improve and expand conservation research
3. Develop a comprehensive education effort
4. Reinstate the turf removal program
5. Expand the Water Savings Incentive Program
6. Restart the member agency Program Advisory Committee
7. Work with member agencies on a sunset date and final promotion before ending rebates
8. Continue the Regional Rebate Program and the Member Agency Administered Program
9. Consider additional staff for water-use efficiency
10. Maintain a role in codes and standards legislation
11. Target programs to disadvantaged high water users



The H2Love campaign lit the Pacific Park Ferris wheel on the Santa Monica pier to spread the conservation message on high-traffic summer nights.

COMMUNICATIONS AND OUTREACH



“Our ongoing conservation advertising and outreach campaign looks to inspire a cultural shift in how we value water every day.”

- Metropolitan Assistant General Manager Dee Zinke

In 2016, Metropolitan’s advertising campaign responded to changing water conditions and public perceptions about the importance of conservation. Metropolitan convened focus groups to better understand those changing perceptions. The results underscored a strong willingness of many Southern Californians to permanently change their water use because it “is the right thing to do” regardless of drought conditions. Metropolitan re-branded key elements and unveiled a new H2Love logo that underscored the value of water with the tagline: Love Water, Save Water.

Another factor was responding to the dramatic changes in how people across all demographics receive their information and media. Mobile, social and digital media are reshaping news. With a smaller budget of \$3.5 million for 2016, leveraging additional value was critical. This was done with traffic and weather live read spots on radio stations throughout the six county region; digital, mobile friendly banner ads and videos in multiple languages; and search engine optimization.

Metropolitan continued with its multi-media approach with paid advertising in 53 community newspapers in six languages which expanded the reach of the conservation message. Metropolitan continued to focus on reaching more Californians, especially the younger demographics in the region, which required creative approaches. Metropolitan used Snapchat geofilters and Facebook Live broadcasts, while exploring marketing and educational opportunities that used a range of augmented reality tools and games to provide information about water conservation.

In 2017, a new media campaign called “H2Love Letters” extended a big thanks through fun messages on billboards, buses and newspapers. H2Love Letters continued the messaging of Metropolitan’s original H2Love campaign, with a personal touch. The goal of the campaign is to get Southern Californians to rethink how they value water and make a commitment to water conservation as a way of life.

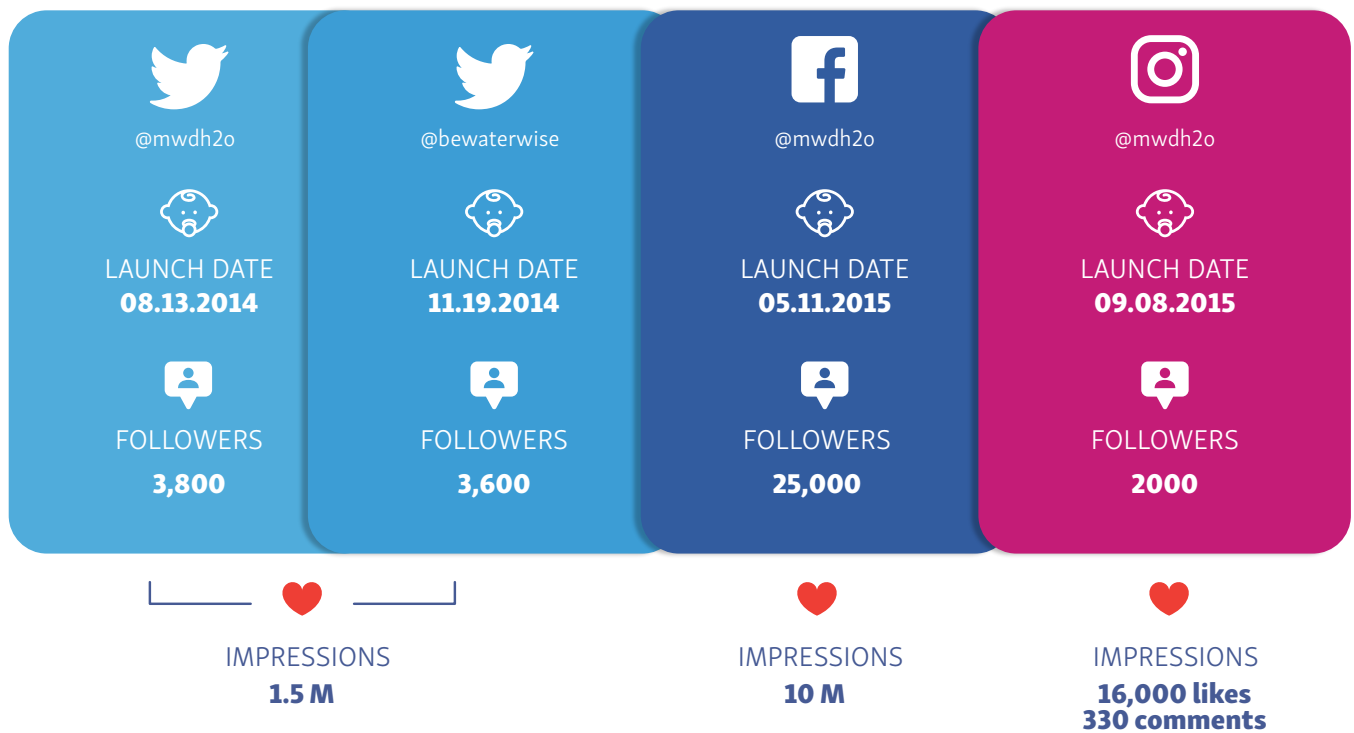
The latest conservation campaign was featured on 450 billboards in six languages across Southern California. The \$2.8 million media buy for the campaign was delivered through 3,200 radio spots on 75 Southern California stations, print ads in community newspapers, online video advertising and through Metropolitan’s growing social media network.

Metropolitan also found creative ways to directly share the conservation message with the public. The H2Love campaign took over the Ferris wheel on the Santa Monica pier for four consecutive Saturday nights in August and September. The water-saving message was delivered to thousands of beachgoers and visitors through the Ferris wheel’s live webcam and television broadcasts.

As it did the previous summer, Metropolitan partnered with Major League Soccer’s LA Galaxy, which promoted conservation through an exciting and fun video featuring goalie Brian Rowe and other in-stadium messaging. Rowe also helped Metropolitan showcase wise water use at the August dedication of a new conservation garden and educational center at Debs Regional Park in Los Angeles.

All of the elements of Metropolitan’s latest water-saving campaign direct audiences to bewaterwise.com[®], Metropolitan’s online water conservation portal available in English, Spanish and Chinese. There, visitors can find conservation tips, online water-wise gardening classes, and access to Metropolitan’s rebates for an array of water-saving devices such as sprinklers, irrigation devices, washing machines, toilets, rain barrels and more.

A Growing Social Media Presence in Fiscal Year 2016/2017



“Permanent, sustainable water conservation has become a way of life. And Metropolitan played a big role in making this happen. Ultimately, conservation is not simply a drought response effort, but a long-term vision and way of life.”

- Metropolitan External Affairs Manager Sue Sims



Metropolitan’s partnership with the LA Galaxy extended the conservation message to new audiences. Brand ambassador Galaxy Goalie Brian Rowe and Metropolitan’s Dee Zinke opened a new children’s garden to highlight waterwise plants near downtown Los Angeles.

The addition of Metropolitan’s Garden of the Month video series to bewaterwise.com® and multiple social media platforms, featuring California Friendly™ gardens, has increased views and provided ideas on how water-guzzling lawns can be replaced with beautiful water-conserving gardens that also provide habitat to butterflies, hummingbirds and other animals. The July Garden of the Month video, for example, received more than 145,000 views on Facebook.

Metropolitan continued to promote U.S. EPA WaterSense®-labeled toilets and irrigation controllers in 2016, and consumers used those rebates to purchase more than 114,000 WaterSense®-labeled residential and commercial toilets and nearly 15,000 weather-based irrigation controllers. During this year’s U.S. EPA Fix a Leak Week, Metropolitan staff created multilingual home

videos that encouraged checking for and fixing leaks to conserve water. Daily pictures, videos and social media messages were shared to demonstrate how much water is wasted if leaks go unattended. The week-long campaign generated more than 45,000 social media impressions.

In fiscal year 2016/17, Metropolitan’s Facebook page received more than 10 million impressions, with the number of followers increasing 12 percent over the last year. A conservation tip posted in June 2017 received 1 million impressions alone. On Twitter, followers increased by 20 percent and engagement grew nearly 450 percent. Metropolitan used Facebook Live and Snapchat geofilters to reach a broader audience during its conservation and outreach campaign.



Metropolitan's college grant program, World Water Forum, sponsors exploration of local, regional and global water supply and energy solutions.

Metropolitan continued its track record of receiving recognition for its outstanding outreach efforts, including the 2017 U.S. EPA WaterSense® Excellence Award for promoting WaterSense®-labeled products, the American Water Works Association for Public Communications Achievement Award, PR News for Corporate Social Responsibility Awards in the categories for Environmental Stewardship and Twitter Communications, and the LA County Green Leadership Award.

Community Outreach

Metropolitan co-sponsored and staffed booths at about 50 Community Partnering Program water-related education and outreach programs for member agencies, community groups, nonprofit organizations and educational institutions. These activities varied from conservation and garden signage projects to community events and educational materials that addressed watersheds, conservation, rebates and water recycling.

Education Programs

Metropolitan's Education Unit provides programs for more than 5 million students and teachers in Metropolitan's service area in preschool through college. Teacher workshops, classroom materials, field trips and class instruction are available to schools throughout Metropolitan's service area. The Education Unit's growing use of technology, its mobile-friendly website and social media are expanding the scope and reach of Metropolitan's education programs.

Staff worked with member agencies to hold more than 400 events and engage with nearly 300,000 students, teachers, parents, and participants through activities, social media and curriculum materials. Metropolitan continues to develop K-12 water education curriculum in support of California's Education and Environment Initiative. These educational resources align to modern education standards (Common Core, Next Generation Science Standards) and support early bilingual education (Spanish and Mandarin).

Metropolitan concluded the fourth cycle of the World Water Forum College Grant Program and highlighted the program during Metropolitan's annual Spring Green event at Union Station in Los Angeles. This event showcased the water conservation and treatment projects of colleges and universities supported by the World Water Forum. The program provides 17 grants to colleges and universities for local and globally-focused projects that foster a better understanding and community awareness of water issues, while improving technology related to water supply and delivery, water conservation, and/or sanitation programs. The U.S. Bureau of Reclamation and Sanitation Districts of Los Angeles County continued their involvement in funding. Additional program sponsors included Water for People, and Friends of the United Nations.

Solar Cup™ is the nation's largest solar-powered boat competition and in 2017, drew 43 teams from Southern California high schools to Lake Skinner in Temecula on May 19-21. More than 800 students participated in the 15th annual event. The event attracted a wide variety of media coverage, with extensive local news reports originating from throughout Southern California. The seven-month program immersed students in engineering, math, and communication concepts, as they created water conservation-focused public service announcements.

The Diamond Valley Lake Education Program marked its 24th anniversary, conducting numerous field trips that engaged more than 3,000 fourth- through seventh-graders. Metropolitan staff collaborated with the Western Science Center Outreach Program to provide activities for more than 4,000 second through fifth grade students and oversaw the DVL Visitor Center that educated more than 10,000 guests on water stewardship.

Metropolitan's "Water is Life" Student Art and Calendar Program features student artwork representing the importance of conservation inside and outside the home. The program annually compiles more than 14,000 pieces of art generated by K -12 students throughout Metropolitan's service area. The 2017 Student Art Exhibit was displayed at 27 member and retail agencies and viewed by more than 20,000 people.

"Learning about renewable energy and water conservation in a program like Solar Cup™ often inspires a lifelong interest in science and math."

- Metropolitan Solar Cup™ Coordinator Julie Miller Kalbacher

Solar Cup™ --the nation's largest solar boat race-- drew 43 high school teams for the 2017 competition.





Recycled water programs are growing across the Southland with nearly \$448 million invested by Metropolitan to date. Photo courtesy CA Dept. of Water Resources.

LOCAL RESOURCES



“The value of being a regional water agency is that Metropolitan can make forward-looking investments to benefit the region’s residents and businesses.”

- Metropolitan Board Chairman Randy Record

Water recycling and groundwater recovery continue to be growing assets in the region’s water supply portfolio. For a quarter of a century, Metropolitan has invested in regional projects, committing about \$448 million to help local agencies produce 2.6 million acre-feet of recycled water. An investment of \$151 million has been made to recover about 893,000 acre-feet of degraded groundwater for municipal use. To date, there are 82 water recycling projects and 25 groundwater recovery projects in the program that cost-effectively support local resource development. Since inception, the average Metropolitan cost to encourage the development of new water recycling and groundwater recovery projects is \$171 per acre-foot. For the first time, Metropolitan is embarking on a region-wide recycling demonstration project with the potential to become the nation’s largest water recycling facility if the program moves forward to full scale.

Water Recycling and Groundwater Recovery

In fiscal year 2016/17, Metropolitan approved Local Resources Program incentives to member agencies toward the development of seven water recycling projects and one groundwater recovery project. These projects are expected to produce about 25,000 acre-feet per year when fully developed. Metropolitan’s funding supported the production of 180,000 acre-feet of recycled water for non-potable and indirect potable uses. Metropolitan supported projects that produced about 48,000 acre-feet of recovered groundwater for municipal use. In addition, another 280,000 acre-feet of recycled water and 41,000 acre-foot of recovered groundwater were produced by local agencies through other funding sources. Figures 1 and 2 show total recycled water and groundwater recovery production in Metropolitan’s service area, including local agency funded projects. Figure 1 includes treated wastewater discharged to the Santa Ana River base flow that percolates into downstream groundwater basins.

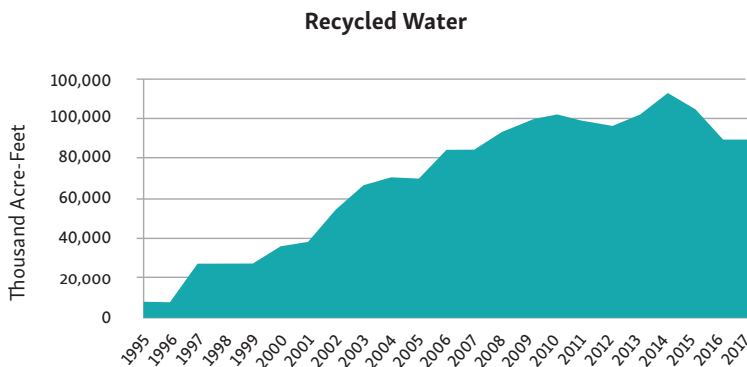


Figure 1

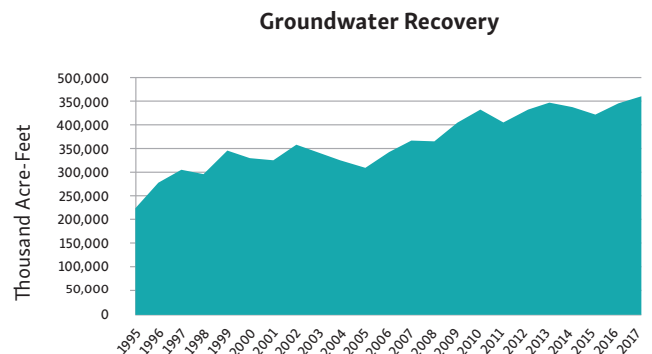


Figure 2



Metropolitan and Sanitation Districts of Los Angeles County broke ground for a regional recycled water demonstration plant in Carson, CA.

On-site Retrofit Pilot Program

The On-site Retrofit Pilot Program with a budget of \$7.5 million was launched in July 2014 to provide financial incentives for conversion of potable irrigation or industrial water systems to recycled water. In addition, the pilot program also received a \$700,000 grant from the U.S. Bureau of Reclamation. In April 2016, the Metropolitan board approved an additional \$10 million for the program. As of June 30, 2017 Metropolitan has provided about \$7 million to 267 consumers who agreed to retrofit their facilities and have used about 8,900 acre-feet per year of recycled water. An additional 38 projects are in design or under construction.

Groundwater Management

Metropolitan partners with local agencies to store imported water in groundwater basins for use in times of shortage under conjunctive use agreements. Metropolitan currently has nine storage projects with nearly 212,000 acre-feet of storage capacity and can store up to 53,000 acre-feet per year and withdraw up to 71,000 acre-feet annually during shortage years.

Due to improved hydrologic conditions, Metropolitan called upon agencies to store water in their conjunctive use accounts. In fiscal year 2016/17, Metropolitan stored about 7,900 acre-feet for future drought mitigation. Continued storage over the coming year will increase storage in these accounts.

The board authorized the general manager to enter into Cyclic Storage Agreements with Metropolitan's member agencies. Under the existing cyclic agreements with Upper San Gabriel Valley Municipal Water District and Three Valleys Municipal Water District, about 27,000 acre-feet were stored. No new cyclic agreements had been executed as of June 2017.

Regional Recycled Water Program

Metropolitan and the Sanitation Districts of Los Angeles County inaugurated a regional water recycling program that could help refill groundwater basins across Southern California and, through member agencies provide water to hundreds of thousands of homes. Located in Carson, the Sanitation Districts' Joint Water Pollution Control Plant currently treats and cleans wastewater discharged from homes, businesses and industry. Under this potential new program, Metropolitan would purify treated wastewater through multiple advanced processes to produce safe, high-quality water that could help replenish groundwater basins in Los Angeles and Orange counties. In fiscal year 2016/17, a comprehensive feasibility study was completed to evaluate groundwater basin conditions, treatment requirements, conveyance facilities, and cost of a full-scale project. The agencies broke ground on Sept. 18, 2017 for construction of a demonstration advanced purification facility that will generate information needed for the potential future construction of a full-scale advanced water treatment plant that would produce up to 150 million gallons daily. The demonstration plant is expected to be operational in early 2019.

Future Supply Actions

In 2013, Metropolitan's board approved a pilot Foundational Actions Funding Program that consisted of member agency co-funded technical studies and pilot projects in the areas of groundwater, recycled water, seawater desalination, and stormwater. Foundational Actions, which were renamed as Future Supply Actions in Metropolitan's Integrated Water Resources Plan 2015 Update, are relatively low-cost, low-risk supply development actions designed to better prepare the region for unforeseen water supply challenges.

Collectively, the projects funded by this program reduce barriers and are intended to enhance regional understanding of the challenges and technical requirements necessary to develop future water supplies.

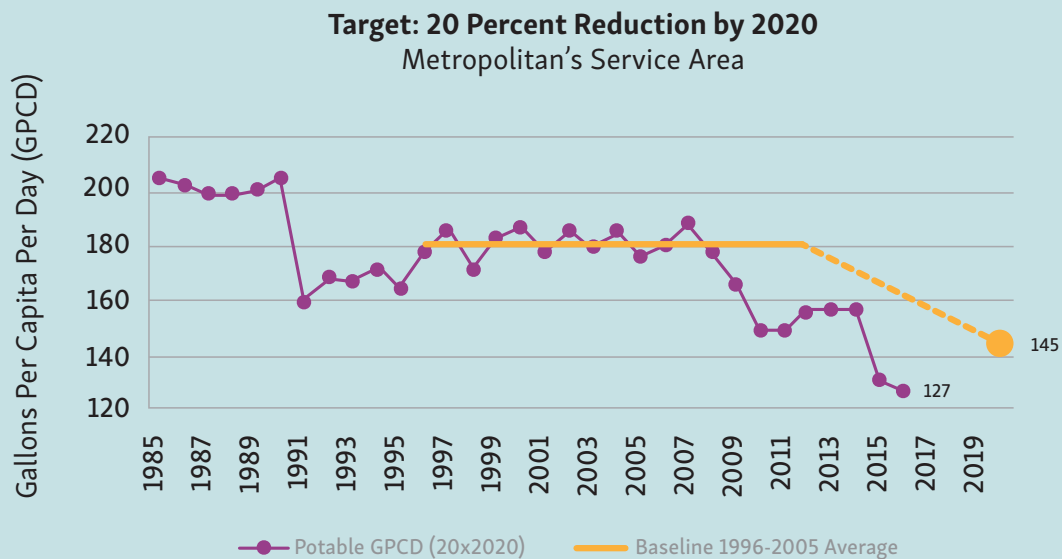
Under the FAF Program, Metropolitan funded up to \$500,000 per project per member agency, with participating member agencies providing dollar-for-dollar matching funds. Metropolitan provided approximately \$3 million of funding for 13 technical studies and pilot projects, and all but one of which were completed by 2017. Metropolitan hosted a February 2017 technical conference on the findings of these projects. More than 300 people attended in person or via webinar, and each of the participating agencies presented their research findings and took part in panel discussions.



Well-attended Foundational Actions Funding Program technical conference presented findings from 13 studies and pilot programs.

Water-Use Efficiency Strategy

Metropolitan and the Natural Resources Defense Council cosponsored the Water Conservation Act of 2009 (SBX7-7), which targets a 20 percent reduction statewide in urban per capita potable water use by the year 2020. Per capita water use is one indicator of progress in advancing water-use efficiency. Metropolitan’s baseline is 181 gallons per capita per day (GPCD), and the 2020 reduction target is 145 GPCD. Between 2011 and 2014, there was a slight increase in per capita water use explained in part by continued economic recovery and drier weather as compared with previous years. GPCD fell significantly during calendar years 2015 and 2016, as the region responded to the governor’s Executive Order B-29-15 that mandated a 25 percent emergency reduction in urban water use. As California’s drought emergency remained in effect throughout 2016, regional potable GPCD fell to 127, which was below the 2020 target.



Notes about the graph:

1. Calendar year data
2. 2016 GPCD based on best available data as of April 2017 and is subject to change

3. Baseline per capita water use based on 1996-2005 average (181 GPCD)
4. Target GPCD for 2020 based on 20% reduction from baseline (145 GPCD)



A great egret takes flight in the Yolo Bypass Wildlife Area, photo courtesy CA Department of Water Resources.

WATERSHED INITIATIVES



“Metropolitan is always evaluating innovative science opportunities that we can bring to the table to collaborate on habitat restoration, watershed improvements, and other environmental projects.”

*- Metropolitan Assistant General Manager, Chief Operating Officer
Deven Upadhyay*

Metropolitan’s environmental values extend to habitat restoration and watershed improvements and management. Staff is active on planning boards and organizations focused on these efforts, which include the protection of water quality at the source. Metropolitan participates in the following initiatives:

Local Watersheds

Integrated Regional Water Management

Metropolitan continues to participate in a multi-jurisdictional water planning effort, serving on the Greater Los Angeles County Region Leadership Committee as its surface water management area representative.

Southern California Water Committee Stormwater Task Force

Metropolitan, in coordination with the Southern California Water Committee, Los Angeles County Department of Public Works, and others, is actively engaged in the development of a white paper on the results of a study of 50 stormwater projects currently in operation to assess actual stormwater capture volumes and cost data. While agencies record and track their benefits and costs differently, many lessons have been learned to help guide the region’s water planners as projects move from concept to operation.

In addition, Metropolitan hosted the SCWC Stormwater Task Force Annual Workshop on September 29, 2016. This annual workshop brought together local agencies, regional planners, and non-government agencies to discuss stormwater issues in the region.

Council for Watershed Health

Metropolitan has partnered with the Council for Watershed Health in various research studies, including the Water Augmentation Study (from 2000 through 2015), and educational outreach efforts to improve water supply reliability, water quality and promotion of water-use efficiency. Currently, the council has four programs: Living Laboratory, Sustainable Landscape Resources, Healthy Streams, and Watershed Coordination and Planning. Metropolitan serves on the council's board of directors and continues to seek ways to collaborate in furthering its mission to advance the health and sustainability of the region's watersheds, rivers, streams and habitat.

Southern California Salinity Coalition

The Southern California Salinity Coalition is a nonprofit organization formed in 2002 by water and wastewater agencies in Southern California to address the critical need to remove salt from water supplies and to preserve our water resources. SCSC focuses on research and outreach activities that address the need to control or reduce salinity in drinking water, wastewater, and recycled water. Metropolitan is a founding member of the SCSC and holds a position on SCSC's board. In 2016 the SCSC launched a study of the impacts of increasing wastewater salinity concentrations on recycled water potential in Southern California.

Ecological Reserves

Four large-scale multi-species reserves spanning more than 30,000 acres are the cornerstone of Metropolitan's investments in environmental conservation and stewardship. Reserves provide mitigation for impacts from Metropolitan projects, watershed protection around reservoirs, protection of open space for native species and their habitat, trails for hiking and horseback riding, and opportunities for research and education.

Lesser snow geese fly across Yolo Bypass Wildlife Area, photo courtesy CA Department of Water Resources.

1. Southwestern Riverside County Multi-Species Reserve

Nearly 13,500 acres surrounding Diamond Valley Lake and Lake Skinner, and in the connecting Dr. Roy E. Shipley Reserve, provide protection for habitat and many wildlife species. The reserve is home to at least eight types of habitat and up to 16 sensitive bird, animal and plant species. Metropolitan partners with the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, Riverside County Regional Park and Open-Space District, and Riverside County Habitat Conservation Agency to cooperatively manage the Multi-Species Reserve for these species and habitats. Management includes important provisions for watershed protection for Diamond Valley Lake and Lake Skinner through appropriate siting of public access, fire management, and careful review of vegetation management tools.

2. Upper Salt Creek Wetland Preserve

A 40-acre mitigation site for the Eastside Pipeline feature of Diamond Valley Lake provides protection for unique vernal pool habitat and rare plants. Metropolitan manages the preserve solely for the purpose of protecting these habitats and plants under agreement with the U.S. Army Corps of Engineers. The preserve does not allow for public access and is protected in perpetuity from future development. The Upper Salt Creek Wetland Preserve serves as a cornerstone for broader regional conservation goals under Riverside County's multi-species habitat conservation program.

3. Santa Rosa Plateau Ecological Reserve

The 9,000-acre Santa Rosa Plateau Ecological Reserve is home to 200 species of native birds and 49 endangered, threatened, or rare animals and plants, including one rare species of fairy shrimp that exists nowhere else on earth. Establishment of the reserve, as partial mitigation for construction of Diamond Valley Lake, protected some of the most unique grassland, chaparral and oak habitats in California.



4. *Lake Mathews Multiple Species Reserve*

The 5,100-acre reserve surrounding Lake Mathews is managed for native habitat and sensitive plant and animal species, including the endangered Stephens' kangaroo rat. Lake Mathews is an important bird resting and feeding site, especially in winter, when ducks, double-crested cormorants, grebes and eagles visit. The Reserve is cooperatively managed by Metropolitan, Riverside County Habitat Conservation Agency, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife under the provisions of a Habitat Conservation Plan and Natural Community Conservation Plan. Equally important to habitat preservation is protection of the watershed surrounding Lake Mathews. Habitat management tools and strategies are critically evaluated for potential effects to water quality, including the use of grazing and prescribed fires to enhance habitat and limit the potential for catastrophic wildfires.

Sacramento-San Joaquin Delta

Habitat Restoration

Metropolitan participates in a working group dealing with a biological opinion for the Yolo Bypass. It is also a cooperating agency for the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS), a comprehensive federal/state planning process to address biological opinion requirements for enhanced access to rearing habitat and increased passage for adult salmonids. In fiscal year 2016/17, Metropolitan worked with the California Department of Water Resources, the U.S. Bureau of Reclamation, and local stakeholders to develop and refine alternatives for analysis in the EIR/EIS. The draft EIR/EIS was released for public review in October 2017.

Metropolitan is also working with the State and Federal Contractors Water Agency to develop the Tule Red Restoration Project in Suisun Marsh to restore tidal marsh wetlands. The Tule Red project is expected to provide benefits to native fish species.

Municipal Water Quality Investigations Program

Metropolitan continues to support DWR's Municipal Water Quality Investigations Program, which implements water quality monitoring and special studies in the Delta and its tributaries. In fiscal year 2016/17, this program operated five real-time water quality monitoring stations, completed seasonal water quality forecasts, and conducted pre-habitat restoration baseline water quality monitoring in the Cache Slough watershed.

Delta Nutrient Impact Studies

Metropolitan continues to work with state and federal water contractors to support studies and management actions addressing the impact of nutrients and other water quality stressors in the Delta watershed. Metropolitan participated in the Delta Regional Monitoring Program, and in the Central Valley and San Francisco Bay Regional Water Quality Control Boards' nutrient management programs.

Battle Creek Salmon and Steelhead Restoration Project

This partnership project between Pacific Gas and Electric Company, the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service and California Department of Fish and Wildlife is one of the largest cold water fish restoration efforts in North America. Metropolitan supported and financially assisted this project, which is restoring almost 50 miles of habitat in Battle Creek and Battle Creek tributaries within the Sacramento River watershed for threatened and endangered winter- and spring-run Chinook salmon and steelhead, while maintaining the continued production of hydroelectric power at the Battle Creek Hydroelectric Project. Construction is anticipated to be completed by 2022.



Colorado River

The Lower Colorado River Multi-Species Conservation Program

The Lower Colorado River Multi-Species Conservation Program is a comprehensive restoration program along the Colorado River through the states of Arizona, Nevada and California. The plan targets the restoration of natural habitat communities once prevalent along the river corridor—riparian forests, marshes, and backwaters. The benefits of restoring natural communities go beyond providing critical habitat for native aquatic and terrestrial species. Creation of more than 8,000 acres of new habitat provides other environmental benefits including water quality improvements and greenhouse gas reduction. Through its financial contributions and staff participation during 2017, Metropolitan was a proud supporter of this program whose Habitat Conservation Plan was amended for the first time to include the Northern Mexican gartersnake which was previously believed to no longer inhabit the planning area.

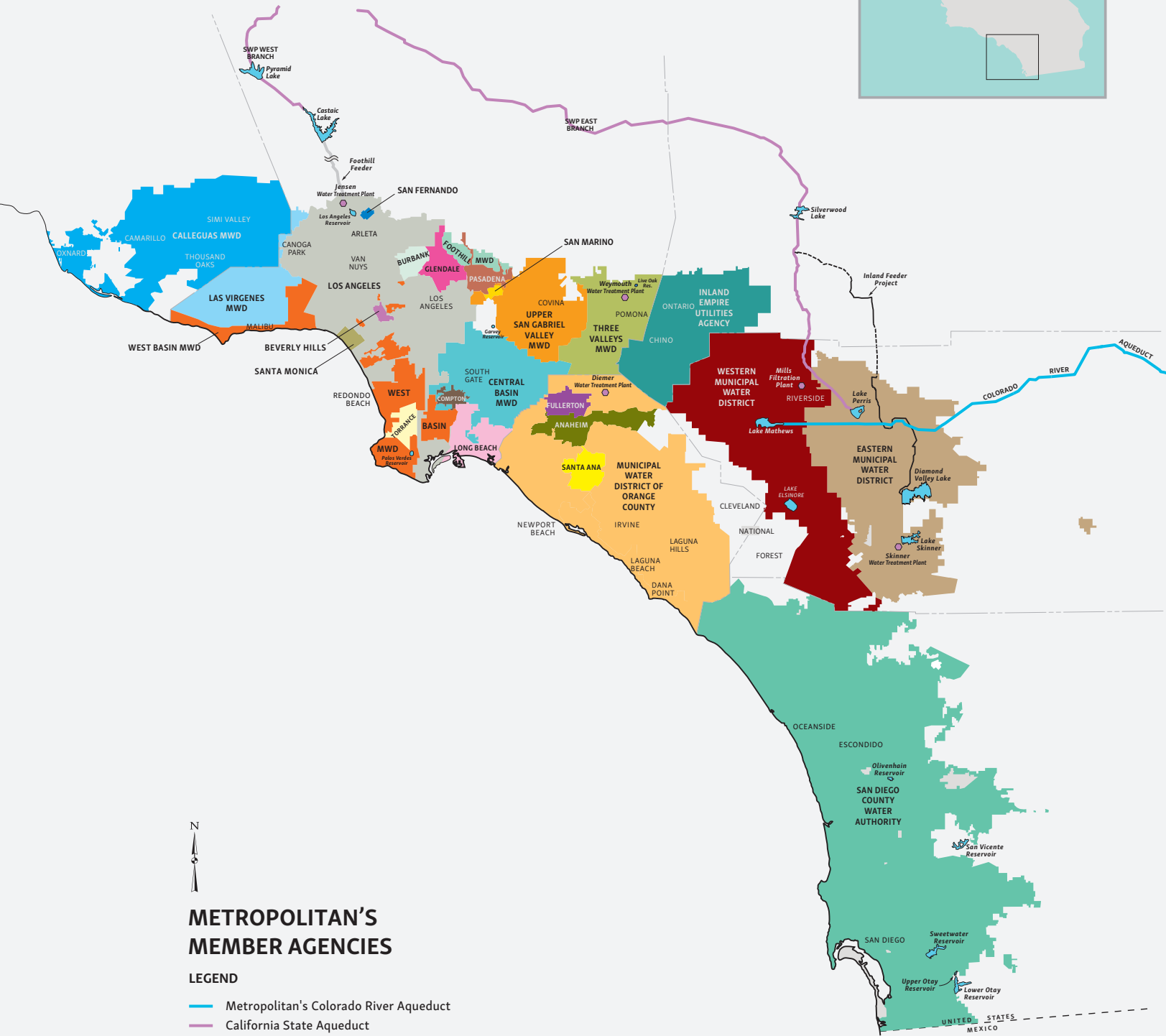
Colorado River Salinity Control Forum

The Colorado River Basin Salinity Control Forum is an organization of the seven Colorado River Basin states of Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. The purpose of the forum is to coordinate salinity control efforts among the states; coordinate with federal agencies on the implementation of the Colorado River Basin Salinity Control Program; work with Congress on the authorization and funding of the program; act to disseminate information on salinity control and otherwise promote efforts to reduce the salt loading to the Colorado River. Metropolitan holds positions on the forum's board and participates in the forum's work-groups and related meetings. In fiscal year 2016/17 the forum's salinity control measures removed about 1.3 million tons of salt per year from the Colorado River. This translates into a 100 mg/L reduction in salinity concentration in the Colorado River's lower basin and Metropolitan's Colorado River Aqueduct supplies. Planned projects are expected to control an additional 63,500 tons per year by 2020.



About This Report

Every year, Metropolitan reports its accomplishments in water conservation, recycling and groundwater recharge to the state Legislature. Achievements are chronicled and detailed in this report. To coincide with the preparation of the report, the MWD Act requires Metropolitan to “hold an annual public hearing... during which the district shall review its urban water management plan... for adequacy in achieving an increased emphasis on cost-effective conservation, recycling, and groundwater recharge.” While the Urban Water Management Plan is prepared and updated every five years according to state requirements (with the next update due in July 2021), Metropolitan hosts an annual December hearing to share progress on fiscal year plan objectives, and to receive public comments. Metropolitan held a public hearing on December 11, 2017 to receive public and stakeholder input. Comments received at the hearing are on file at Metropolitan and are available upon request.



METROPOLITAN'S MEMBER AGENCIES



City of Anaheim



City of Beverly Hills



City of Burbank



City of Compton



City of Fullerton



City of Glendale



City of Long Beach



City of Los Angeles



City of Pasadena



City of San Fernando



City of San Marino



City of Santa Ana



City of Santa Monica



City of Torrance



Calleguas Municipal Water District



Central Basin Municipal Water District



Eastern Municipal Water District



Foothill Municipal Water District



Inland Empire Utilities Agency



Las Virgenes Municipal Water District



Municipal Water District of Orange County



San Diego County Water Authority



Three Valley Municipal Water District



Upper San Gabriel Valley Municipal Water District



West Basin Municipal Water District



Western Municipal Water District

P.O.Box 54153
 Los Angeles, CA 90054-0153
mwdh2o.com
bewaterwise.com[®]



/mwdh2o



/mwdh2o



/mwdh2o

