



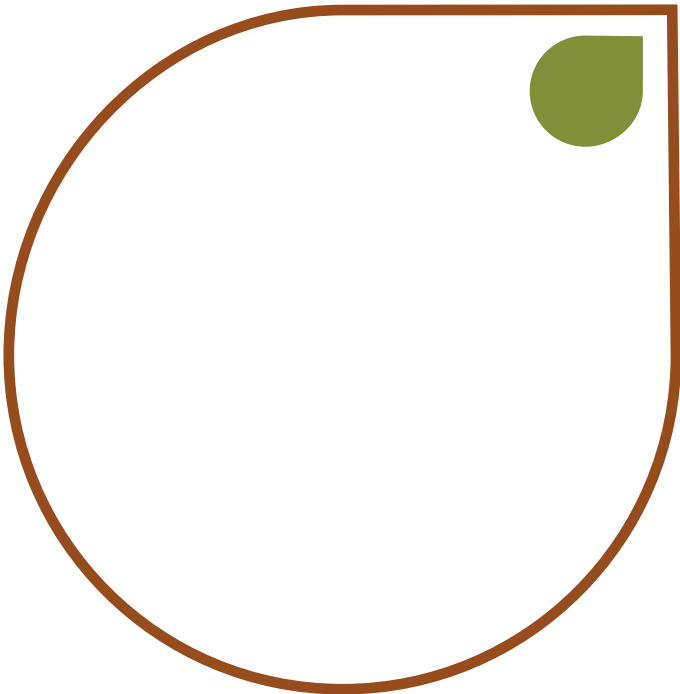
Courtesy of Metropolitan Water District of Southern California



CALIFORNIA URBAN WATER AGENCIES

CUWA

ANNUAL REPORT



East Bay Municipal Utility District

FISCAL YEAR
2015



City of San Diego Public Utilities Department

CUWA MISSION

The mission of California Urban Water Agencies (CUWA) is to provide a forum for combining the expertise and resources of its member agencies to advance reliable, high-quality water supplies for California's current and future urban water needs in a cost-effective manner for the public, the environment, and the economy.

WHO WE ARE

Established in 1990, CUWA is a nonprofit corporation of 10 major urban water agencies collectively delivering drinking water to approximately two-thirds of California's population. Water delivered by CUWA member agencies is a lifeline supporting California's urban populations and the state's \$2.3 trillion annual economy. Together, CUWA member agencies invest nearly \$3 billion each year in capital projects to deliver water reliably.

WHAT WE DO

California water agencies today face many challenges—aging infrastructure, great uncertainties affecting future supply and demand, rising costs, affordability, and the ongoing need to reduce water and energy use. Together, CUWA members are exploring ways to address these challenges and improve outcomes and efficiencies statewide and within individual organizations. CUWA continues to exercise a well-respected and powerful collective urban voice to inform California water policy and provide a common understanding of consensus-based solutions among the urban water community.

HOW WE WORK

CUWA provides a forum for our Board members, General Managers and other high level agency decision-makers representing each agency, to exchange ideas and approaches to address current and future challenges. The CUWA Board is supported by representative staff from each agency on a range of technical committees. CUWA benefits its member agencies through:

- Efficient scaling and leveraging of collective work, saving individual agency resource investments on issues of common interest and enabling sharing of case studies and lessons learned.
- Engagement in a neutral forum, allowing agency leaders to exchange ideas and further enhance cooperative relationships through regular Board meetings (six times per year), ongoing committee efforts, and other communication venues.
- Effective outreach and communications with other leaders in California water on critical statewide issues.



2015 FISCAL YEAR HIGHLIGHTS

In 2015, CUWA focused on leading long-term changes in California water. Though the year demanded extraordinary efforts for near-term drought response, our member agencies are looking beyond the current year and taking actions to achieve lasting improvements in water use efficiency, reliability, resilience, and affordability.

Meeting the Challenges of Unprecedented Drought. CUWA agencies have put great effort towards addressing a drought of historic proportion by reducing water demands, delivering water under challenging circumstances, and dealing with financial implications. CUWA agencies expanded public education, outreach campaigns, and rebate programs to achieve significant water demand reductions in spite of abnormally warm and dry conditions.

CUWA supported our member agencies' efforts by providing a forum for exchange and collaboration, acting as a liaison, and communicating with a unified urban voice in statewide venues. CUWA has provided leadership in statewide dialogue on drought response and worked with the State Water Resources Control Board (SWRCB), California Urban Water Conservation Council (CUWCC), and others to coordinate effective responses to the governor's mandatory conservation directives.

Creating Long-Term Change for Sustained Efficiency. CUWA agencies are seizing the opportunity presented by the drought to create sustained efficiencies by changing customer habits for the long-term. All CUWA agencies have substantially ramped up programs targeting outdoor water use efficiencies and are helping to create a new vision for California landscapes by supporting the replacement of turf with California-friendly low water use plants. CUWA also coordinated with environmental non-governmental organizations (NGOs) and land use agencies to explore opportunities to further advance long-term water use efficiency.

Developing Reliable and Safe Supplies. With greater uncertainties and challenges ahead for California water, the reliability of future water supplies is more important than ever. The current drought has underscored the importance of planning for resilient future supplies, including a diverse portfolio of options to enable more flexibility. CUWA is leading efforts to promote reliable, high-quality water supply for the State's current and future urban water needs and, in particular, taking steps to enable potable reuse in California.

Addressing Affordability. In FY 2015, CUWA formed a Water Equity Committee to help address the growing statewide challenge of water affordability. CUWA conducted an assessment to quantify the magnitude of affordability issues within our member agencies' service areas and is focused on addressing the needs of the State's sizeable low-income population residing in our service areas. The committee also drafted Water Affordability Policy Principles to articulate CUWA's position and contribute to the statewide dialogue.

CUWA and its member agencies continue to provide leadership and explore consensus-based solutions among the urban water community to benefit California during this challenging drought and for the long-term.

Beau Goldie, CUWA Board Chair

Cindy Paulson, CUWA Executive Director



Courtesy of Metropolitan Water District of Southern California

CUWA ACTIVITIES AND ACCOMPLISHMENTS

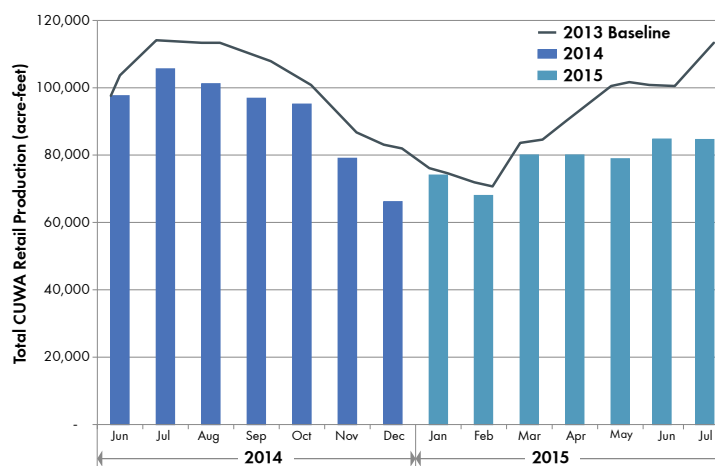
MEETING THE CHALLENGES OF UNPRECEDENTED DROUGHT

Investments over the last few decades in water conservation, local supplies, and storage strengthened CUWA agencies' ability to respond to the current drought. Even so, the severity of the drought challenged our agencies and others across California to become even more efficient in achieving immediate water use reductions.

CUWA has provided a voice of leadership during drought response and expanded collaboration efforts. CUWA worked with CUWCC and other water associations to coordinate effective drought response, and supported CUWA agencies by acting as a liaison to the SWRCB, providing comments throughout the year on drought regulations and relevant SWRCB-driven drought initiatives. While CUWA agencies were focused on continuing to manage demand and provide reliable water supplies, CUWA staff briefed CUWA agencies on statewide drought issues. CUWA meetings provided a forum for agencies to exchange information and share best practices at the staff and Board levels.



Investments in more sources of supply, such as Alameda County Water District's brackish groundwater desalination facility, paid off great dividends in this extreme drought year.



CUWA agency demands are meeting the Governor's mandated reductions for water use and gaining momentum as customer outreach is taking hold.



In early 2015, CUWA submitted conservation and recycling recommendations to the SWRCB in a joint letter with a number of environmental NGOs including Natural Resources Defense Council (NRDC), Pacific Institute, Surfrider, and others. Our recommendations were largely reflected in the SWRCB's Emergency Water Conservation Regulation.

As founding members of CUWCC, CUWA is built on a legacy of conservation, which has served the agencies and their customers well for decades. However, in response to the drought and emergency regulations, CUWA agencies are taking unprecedented actions to meet the Governor's directive for statewide 25% urban water use reductions. The conservation standard ranges from 4% to 36% for urban retail water suppliers, based on local residential water use. June 2015 was the first month urban water suppliers were mandated to meet or exceed their emergency goal. Despite exceptionally hot conditions, including the warmest June on record statewide for California, the CUWA retail agencies exceeded their collective goal of 16% savings, reducing water use by 22% in June and 25% in July. Our agencies have significantly increased public education, outreach campaigns, and rebate programs to achieve immediate water savings.

CUWA agencies are also leveraging technology as a drought response tool by using social media and electronic communications to reach their customers. Many have developed smartphone apps to allow customers to report water waste in their service area. Some have implemented home water use reports with tailored water conservation information to help customers better understand their water use and target conservation efforts for increased savings.



CUWA agencies reached customers in new ways, including the smartphone app allowing customers to report water waste directly to the City of San Diego's Water Conservation team.

Many CUWA agencies invested in new infrastructure to meet drought demands, such as this new pipeline constructed by Zone 7 to recapture, transfer, and recharge groundwater from mining operations.

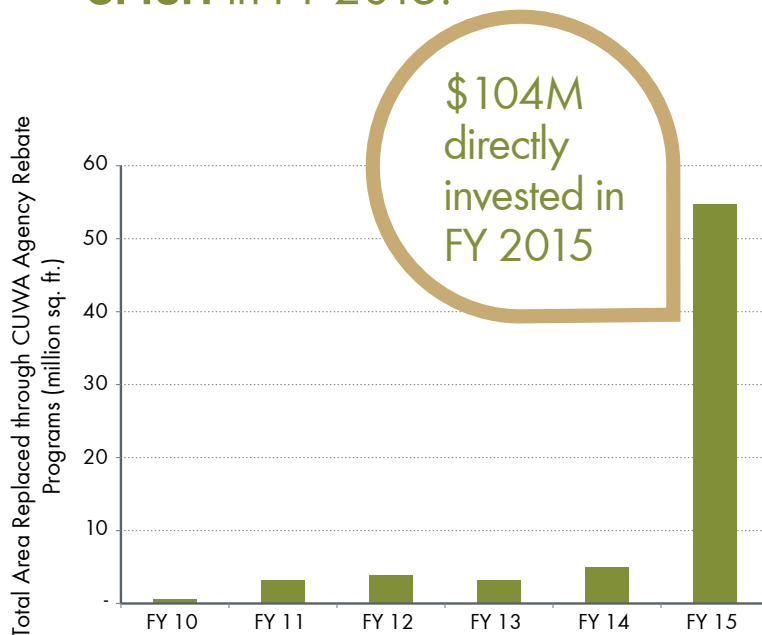


CREATING LONG-TERM CHANGE FOR SUSTAINED EFFICIENCY

The ongoing drought brings significant challenges but also presents a window of opportunity to institute long-term change. In particular, CUWA recognizes significant additional potential to reduce outdoor water use in urban areas, and CUWA agencies have ramped up programs to achieve a new vision for California landscapes with sustained efficiencies. A significant investment for CUWA agencies has been turf replacement programs at levels far surpassing previous years. In fact, CUWA agencies directly funded replacement of nearly 55 million square feet of turf in FY 2015, exceeding the Governor's Executive Order to replace 50 million square feet statewide.

In FY 2016, CUWA agencies anticipate even greater spending of \$250 million to replace another 125 million square feet. CUWA agencies have also expanded public outreach and workshops to educate customers and landscape professionals on California-friendly landscape approaches that use less water while still providing visual appeal and water management benefits.

CUWA agency rebate programs helped to remove nearly **55 million square feet of turf** in FY 2015.



Residents throughout California have embraced low water use landscapes in place of lawns. Conversions like this one in East Bay Municipal Utility District's service area contribute to permanent water savings.



Partnerships between water agencies and NGOs, such as Surfrider's Ocean Friendly Garden program in the Metropolitan Water District service area, involve public outreach, workshops, and training that are transforming the California landscape by more effectively managing water.

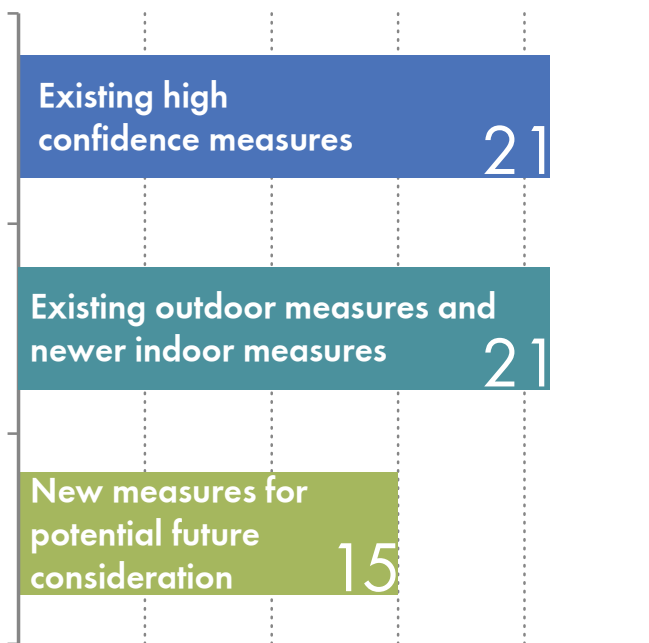


CUWA's engagement with several NGOs in 2015 went beyond near-term drought response coordination to explore and advance mutual interests in long-term water use transformations, including outdoor water use reductions. The CUWA/NGO group also initiated discussions with land use agencies to identify ways to work together to make "Conservation a California Way of Life" in support of the Governor's California Water Action Plan.

CUWA and our member agencies also collaborated with the Department of Water Resources (DWR) and CUWCC on statewide water use efficiency efforts, including informing updates to the model water efficient landscape ordinance (MWELO) to further promote water efficient landscapes in new developments and retrofitted landscapes.

Quantifying savings remains a challenge with water use efficiency measures. Marking the close of an effort that spanned several years, CUWA completed a Water Savings Study in April 2015 to document water savings and useful life information for a prioritized list of conservation technologies and measures. The resulting information can help agencies to consistently estimate savings. The study also makes it possible to vet water savings assumptions and estimates among the larger California water conservation community. CUWA is coordinating with CUWCC on next steps for disseminating the Water Savings Study to other agencies and ways CUWCC will engage its members to keep the document current with new developments.

To help create the next significant advancement in water conservation, CUWA provided seed funding to the Alliance for Water Efficiency (AWE) for an Outdoor Water Savings Study. This study provides an opportunity to identify new approaches and fill data gaps by quantifying savings for more efficient landscape water approaches. The first project phase was completed in early 2015 and analyzed published research on outdoor water savings. CUWA has committed to support AWE in a more detailed follow up study currently being scoped.



CUWA's Water Savings Study summarizes data to help standardize information about water savings for nearly 60 conservation technologies and measures.



DEVELOPING RELIABLE AND SAFE SUPPLIES

CUWA agencies see a continuing need to diversify their water portfolios and develop new supplies to address challenges to future water supply reliability. As noted in CUWA's Water Supply Reliability Report, diverse portfolios are the foundation for resilience to meet future uncertainties.

Agencies in the San Diego region are collaborating to develop new local supplies, including potable reuse and desalination. The Pure Water Program is expected to produce purified water to serve one-third of the City of San Diego's drinking water supply by 2035, while the San Diego County Water Authority's Carlsbad Desalination Facility is expected provide about 7% of the potable water needs for the San Diego region beginning in Fall 2015.

Reuse is an increasingly important element of a diverse California water supply portfolio, and the drought has elevated awareness of water reuse as a resilient supply source. This year, CUWA built on our Water Reuse Policy Principles developed in 2014, taking further steps to advance reuse.

A regulatory framework for potable reuse is key to increase statewide reuse by the order of magnitude needed to meet SWRCB goals. In 2015, CUWA has taken further direct action to enable "scaling up" reuse, and particularly potable reuse, both within individual member agencies' service areas and statewide, through regular collaboration with CUWA's Water Reuse Committee and frequent engagement of WaterReuse CA and the SWRCB's Division of Drinking Water (DDW). In addition, individual CUWA agencies serve on DDW's Advisory Committee to provide advice on direct potable reuse to DDW's Expert Panel.

As noted in CUWA's Water Reuse Policy Principles, water reuse must, first and foremost, fully protect public health and the environment, like other sources of water supply. CUWA agencies are working with DDW, WaterReuse, and the Water Research Foundation to support that objective and fund critical research to ensure that future potable reuse requirements have a solid technical basis and are fully protective.



Santa Clara Valley Water District's Silicon Valley Advanced Water Purification Center is one of several CUWA agency projects to expand reuse.

In May 2015, CUWA launched a phased effort with several other organizations to recommend an approach for DDW's Advisory Committee to consider in creating a potable reuse operator training and certification program. The collaboration effectively integrates efforts of WaterReuse California (CA), AWWA California-Nevada Section (CA-NV), California Water Environment Association (CWEA), and California Association of Sanitation Agencies (CASA). The first phase involves a literature review and survey of WaterReuse CA membership to research current water and wastewater certifications, existing standard practices for required certification and training of operators at potable reuse facilities, and potential strategies for agencies planning potable reuse.

The second phase, scheduled for fall of 2015, involves a two-day facilitated workshop and will result in a recommended strategy for a training and certification program for DDW to consider. AWWA CA-NV will lead execution of the potable reuse operator training and certification program.



Stormwater capture and reuse is emerging as a viable local supply, as described in Los Angeles Department of Water and Power's Stormwater Capture Master Plan.

Water quality remains a key focus area for CUWA. Currently, CUWA is providing the urban water perspective in the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) process, a program to develop sustainable salinity and nitrate management planning for the Central Valley. Urban agencies are particularly concerned about downstream water quality implications of the strategies that may result from CV-SALTS. As one of few representatives for water agencies, CUWA is working to include provisions that protect drinking water quality while enabling other program objectives to move forward.



San Diego County Water Authority's Carlsbad Desalination Plant will diversify the service area's water portfolio by producing enough water to meet 48,000 to 56,000 acre-feet per year of the San Diego region's water demand.



Los Angeles Department of Water and Power

ADDRESSING AFFORDABILITY

The need for local investment continues to increase the cost of water service. Urban water agencies need to continue investing in diverse and sustainable supply sources. The increasing cost of water services is largely passed on to ratepayers, many of whom are already struggling to cover living expenses.

Programs to help address California’s recent prolonged drought require additional funding, such as use of supplemental supplies and expanded demand management, which further exacerbates the issue of water affordability.

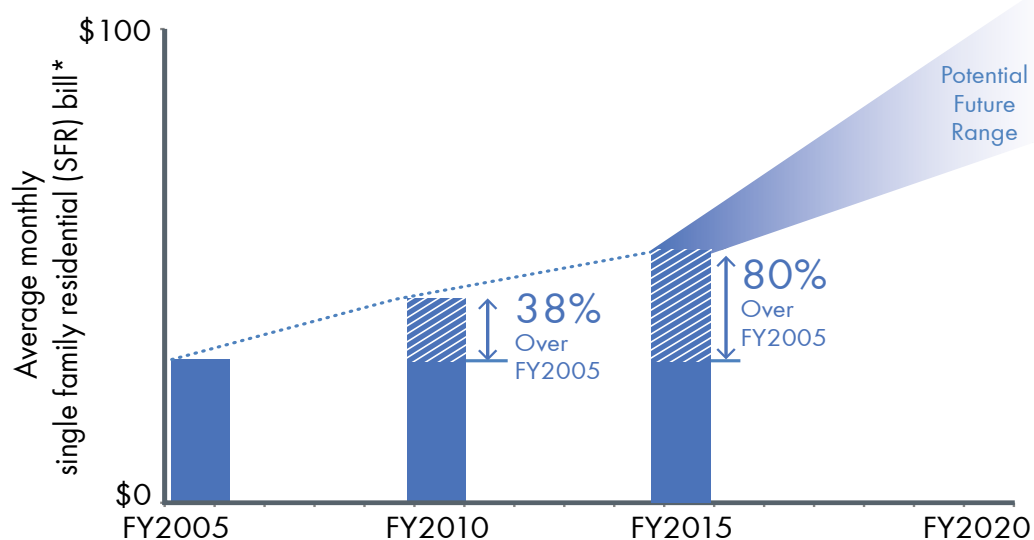
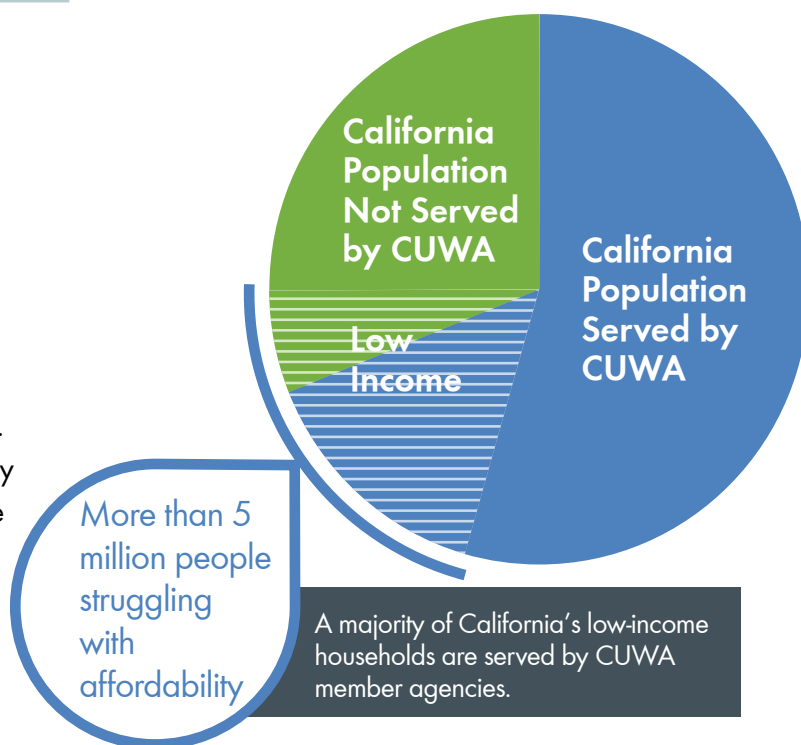
Upgrading, repairing, and replacing aging water infrastructure is a critical investment need for CUWA agencies, as demonstrated by the San Francisco Public Utilities Commission’s Water System Improvement Program (WSIP).



© San Francisco Public Utilities Commission



To help tackle the growing statewide challenge of providing for underserved communities, CUWA formed a Water Equity Committee focused on addressing the needs of the state's sizeable low-income population residing in our service areas. CUWA conducted an assessment to quantify the magnitude of the problem within our member agencies' service areas, and revealed that approximately 20% of CUWA agencies' collective service area is comprised of low-income households. The committee also drafted Water Affordability Policy Principles that articulate CUWA's position, contribute to the statewide dialogue, and reaffirm CUWA agencies' commitment to providing safe, clean, affordable, and accessible water for the 26 million customers they collectively serve.



*Not adjusted for inflation.

CUWA retail agencies' residential customers are paying significantly more for water with increasing costs.



INFORMING THE DIALOGUE ON WATER-ENERGY

CUWA continues to work towards ensuring a sustainable water and energy future for California. In conjunction with the California Municipal Utilities Association (CMUA), CUWA has continued to engage in a statewide dialogue on water-related energy use and energy intensity. In FY 2015, CUWA and CMUA released Water-Energy Policy Principles and a fact sheet to clarify where energy is used and

how best to achieve and track reductions in the water sector. CUWA and CMUA also collaborated with the Association of California Water Agencies (ACWA) to submit to DWR recommendations related to the calculation of energy intensity for voluntary reporting in 2015 Urban Water Management Plans. DWR was highly receptive to the suggestions presented.



© San Francisco Public Utilities Commission; Robin Scheswohl



Agencies are forming new partnerships to address drought and long-term opportunities, such as the pilot project to transfer water from Contra Costa Water District to Alameda County Water District.

CONNECTING AROUND WATER

CUWA has taken an active role in engaging with others to tackle the challenges California water is facing in 2015. CUWA has reached out to state regulatory agencies through numerous comment letters and discussions to provide urban perspectives and inform the direction of state initiatives and regulations. CUWA has also explored areas of potential common interest with NGOs to help address some critical statewide water issues. Collectively, these efforts have resulted in more frequent requests for CUWA's participation to provide insights representative of the state's large urban water interests.

CUWA and our member agencies recognize the growing importance of regional partnerships. The CUWA organization serves as a foundation for other lasting partnerships to grow and develop their ability to increase water supply reliability by optimizing local supplies and system flexibility. In Northern California, six CUWA member agencies are involved in the Bay Area Regional Reliability partnership, an effort to develop regional solutions to improve water supply reliability.



A LOOK BACK AND FORWARD TO CREATE LONG-TERM CHANGE

As remembered by a long-standing CUWA Board member:

"CUWA was founded to provide a way for the state's larger urban water agencies to overcome the historical north-south divide over water issues and to identify and advance our agencies' many common interests."

Walt Wadlow,
Former General Manager of Alameda County Water District

2015 marks the 25-year anniversary of CUWA. When established in 1990, CUWA added a new dimension to California water by creating a forum that represents urban water perspectives. CUWA provided strong leadership on Bay-Delta discussions in the 1990s, filling a void with scientific work and changing the direction forward. CUWA recognized the need to bring various interests together to advance a water efficient California, and helped to form CUWCC in 1991.

CUWA continued to focus on technical studies in the 2000s and beyond. In 2010, the CUWA Board created a new organizational structure that remains intact today, with Board members chairing committees established to address a suite of topic areas.

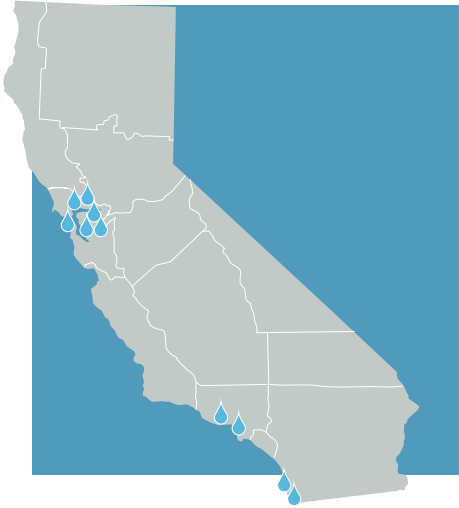
Over the past 25 years, CUWA has significantly diversified the focus of the organization and raised its profile. In recent years, CUWA and others obtained Central Valley Regional Water Quality Control Board approval of the country's first

drinking water policy of its kind, after more than a decade of work. CUWA has released work products to inform policy issues from a technical perspective, such as the Water Supply Reliability Report and Water Reuse Update, and has collaborated with counterpart associations, such as CMUA co-endorsement for Reliable Water Finance Policy Principles and white papers.

The organization will continue to evolve to address emerging issues such as affordability and new opportunities, such as regional partnerships to manage resources more effectively. CUWA remains committed to serving as a forum for California urban water leaders to collaborate and advance reliable, high-quality water supplies for current and future urban water needs. The ability to recognize the shared challenges and to leverage the talent and resources of multiple agencies to respond – despite regional differences and politics – will be the key to a successful future for CUWA and the millions of ratepayers we represent.

10

CUWA MEMBER AGENCIES



AS OF 2013, 69% OF THE STATE'S POPULATION
RESIDES WITHIN THE AREAS SERVED BY CUWA
MEMBER AGENCIES.

RETAIL

- Alameda County Water District (ACWD)
REPRESENTATIVE: Bob Shaver, General Manager
- East Bay Municipal Utility District (EBMUD)
REPRESENTATIVE: Alex Coate, General Manager
- Los Angeles Department of Water and Power (LADWP)
REPRESENTATIVE: Marty Adams, Senior Assistant General
Manager, Water System and CUWA Board Vice-Chair

RETAIL/WHOLESALE

- Contra Costa Water District (CCWD)
REPRESENTATIVE: Jerry Brown, General Manager
- City of San Diego Public Utilities Department (PUD)
REPRESENTATIVE: Halla Razak, Director
- San Francisco Public Utilities Commission (SFPUC)
REPRESENTATIVE: Michael Carlin, Deputy General Manager/
and CUWA Board Secretary/Treasurer

WHOLESALE

- Metropolitan Water District of Southern California (MWDSC)
REPRESENTATIVE: Debra Man, Chief Operating Officer,
Assistant General Manager
- Santa Clara Valley Water District (SCVWD)
REPRESENTATIVE: Beau Goldie, Chief Executive Officer
and CUWA Board Chair
- San Diego County Water Authority (SDCWA)
REPRESENTATIVE: Maureen Stapleton, General Manager
- Zone 7 Water Agency (Zone 7)
REPRESENTATIVE: Jill Duerig, General Manager

CUWA STAFF

Executive Director, Cindy Paulson
Staff Engineers, Jenny Gain and Wendy Broley

25 YEARS
LOOKING
BACK / LOOKING
AHEAD

POPULATION SERVED: 26 MILLION



Santa Clara Valley Water District

FOR MORE INFORMATION See www.cuwa.org for recent work, including:

CUWA Policy Principles

- [Water-Energy](#) (October 2014, joint with CMUA)
- [Climate Change](#) (October 2013)
- [Water Reuse](#) (July 2013)
- [Cap and Trade Investment Plan](#) (April 2013, joint with CMUA)
- [Reliable Water Financing](#) (March 2013 update, joint with CMUA)
- [Water Supply Reliability](#) (December 2012)
- [Water Conservation](#) (August 2012)
- [Water Quality](#) (April 2012)

CUWA Reports and White Papers

- [Meeting California's Water Needs—Water Reuse Update](#) (March 2014, updated October 2014)
- [Water Supply Reliability Report](#) (August 2012)
- Public Investment White Papers
[Phase 1—October 2011](#)
[Phase 2—March 2012](#)

CUWA Fact Sheets

- [CUWA Conservation and Water Use Fact Sheet](#) (February 2015)
- [CUWA-CMUA Water-Energy Fact Sheet](#) (January 2015)
- [Investing In Reliable Water Service](#) (August 2013)