



CHINO BASIN
**Water
Conservation
District**

**Waterwise
Community
Center**

2019-20
**ANNUAL
REPORT**



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LETTER FROM THE EXECUTIVE DIRECTOR



***Our mission remains constant:
to protect and preserve the Chino Basin
as a drinking water supply for a healthy
and thriving community.***

Someone asked me recently to pick one word to sum up what FY20 was like for Chino Basin Water Conservation District (CBWCD). Several came to mind: challenging, unprecedented, fluid, virtual. It's easy to look back on the year and remember those early nerve-wracking days of the first stay-at-home orders and how quickly we had to adapt to coronavirus pandemic health precautions while trying to run the district's day-to-day operations.

As I thought more about the year, another set of words came to mind: adaptability, optimism, grit and determination. Challenges grew but so did our capacity to meet them and rise above. It was the resilience of our Board, our staff and our community that made it possible for us to move through the adversity of the last half of this fiscal year. This resilience has empowered us to rethink how we work and how we encourage and inspire water use efficiency without the face-to-face interactions we're known for, and that we enjoy so much, at the Waterwise Community Center.

As we move through COVID-19 recovery and look to the future, FY20's adaptations and achievements will serve us well in expanding our reach. It will be more important than ever as our region strives to make the most of every drop of water to cope with the more volatile weather patterns expected to result from the warming temperatures brought by climate change. More efficient water

use will continue to be vital, as will expanding stormwater capture and groundwater recharge. We are poised to help with both.

Our more robust online educational content will help us reach more people about water use efficiency even when we return to in-person events, and more time spent at home has renewed many people's interest in improving their homes and landscapes. We will continue to refine our basin management practices ensuring that water efficiently percolates into the groundwater basin, enabling us to capture rain from larger storm events.

Resiliency is the capacity to recover quickly from difficulties. It is a quality we need individually and collectively as we move into an uncertain future. At CBWCD, our mission remains constant: to protect and preserve the Chino Basin as a drinking water supply for a healthy and thriving community. It is that goal and the support of our community, Board and staff that enables us to persist and emerge stronger after this unprecedented year.

Thank you.

A handwritten signature in blue ink that reads "Elizabeth Skrzat".

Elizabeth Skrzat
Executive Director

ABOUT US

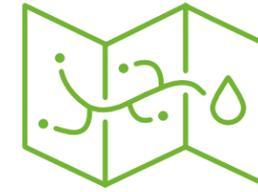
CBWCD was created by a vote of the people in 1949. The idea was championed by a group of farmers who wanted to protect and replenish the Chino Groundwater Basin, the aquifer that San Bernardino County communities rely on as a drinking water supply. Today, the district manages eight percolation basins. These are large, open areas that collect rain, melted snow, recycled water, stormwater and imported water to recharge the aquifer. This water is pumped year-round by water retailers to supply potable water to the cities of Montclair, Chino, Ontario, Upland, Rancho Cucamonga, and Chino Hills.

Besides maintaining the percolation basins, CBWCD also educates people who live and work in the area about how they can protect these supplies by using water wisely. When we make water conservation an everyday, year-round way of life, we are helping to make our community more resilient to future droughts. We are also putting more water into storage, so it is available to use when we really need it.



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FACILITIES & OPERATIONS



Did You Know?

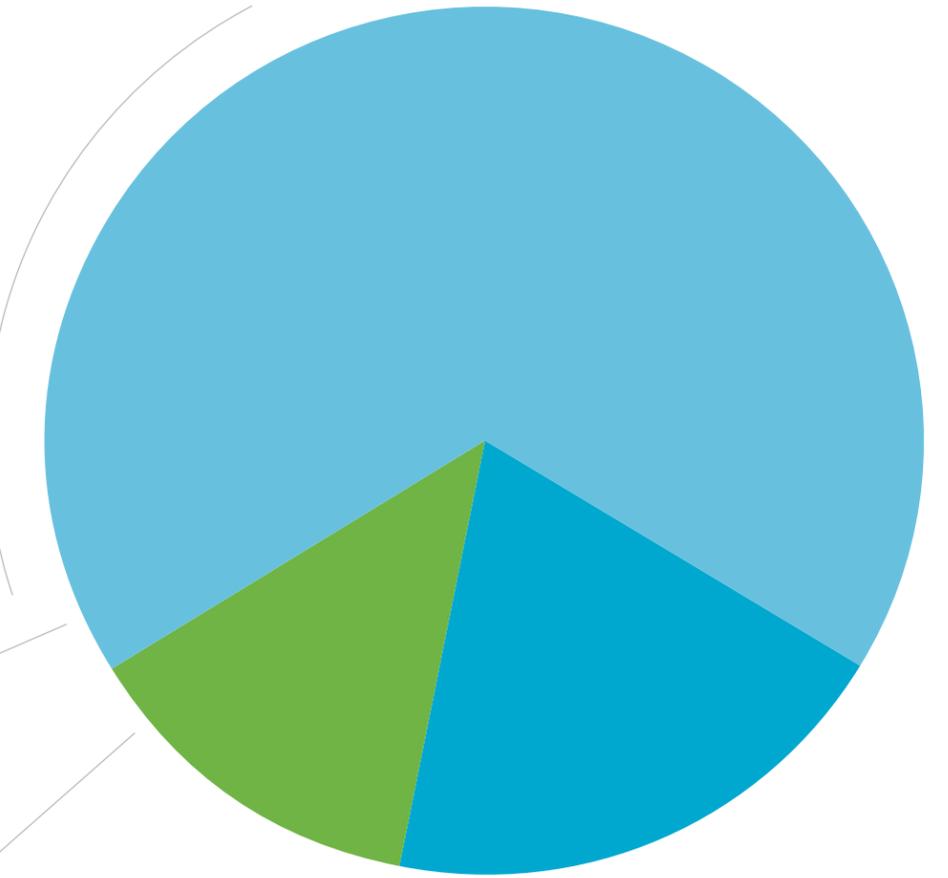
CBWCD staff manages **134** acres or **5.8** million square feet of land for groundwater recharge.



Infiltration

Total Recharged:

FY20: 11,980 AF*
 FY19: 8,621
 FY18: 21,678
 FY17: 14,222



Imported Water:

FY20: 8,089 AF
 FY19: 3,962
 FY18: 19,272
 FY17: 11,091



Recycled Water:

FY20: 1,585 AF
 FY19: 1,842
 FY18: 1,771
 FY17: 882



Stormwater:

FY20: 2,306 AF
 FY19: 2,816
 FY18: 635
 FY17: 2,249

* An acre-foot (AF) is about 325,600 gallons of water, enough water to cover an acre of land, about the size of a football field, one foot deep. An average California household uses between one-half and one acre-foot of water per year for indoor and outdoor use.



Annual Precipitation:*

FY20: 14.28 inches
FY19: 16.08
FY18: 3.91
FY17: 15.63



*Water captured at CBWCD demonstration garden, park and parking lot**:*

FY20: 2.1 million gallons
FY19: 2.4
FY18: 0.6
FY17: 2.3

Visitors



In-person visitors to the Waterwise Community Center:

FY20: 9,640 visitors***
FY19: 15,491
FY18: 16,916
FY17: 16,553



* Precipitation data from the National Centers for Environmental Information for Ontario International Airport station. <https://www.ncdc.noaa.gov/cdo-web/datasets/GSOM/stations/GHCND:USW00003102/detail>

** CBWCD has restandardized its collection of precipitation data so these numbers may differ from previous years' reporting.

*** All in-person events and workshops since March 2020 were cancelled due to COVID-19 health restrictions.



Through the year the channels and basins are under a continual siege of the urban waste stream.

COLLECTING TRASH HELPS COLLECT WATER

The network of channels emptying into CBWCD's eight percolation basins got a much-needed clean-up this year when the facilities and operations department removed enough trash and debris to fill seven concrete mixer trucks.

Tires, toys, tree and landscape debris, bottles, cans, plastic bags and even car parts were among the 100 cubic yards of items found in the channels that deliver stormwater, recycled water and imported water to recharge our groundwater basin. Through the year the channels and basins are under a continual siege of the urban waste stream. From intentional littering, illegal dumping, and windy weather, the city streets and its thousands of storm drains provide an ideal conduit for trash to find its way to recharge basins.

Cleaning up both organic materials and discarded trash in the basin benefits our water supply. Too much silt and debris like tumbleweeds and tree branches can reduce a basin's capacity to soak up water, so we regularly clear this out to reduce algae growth and other barriers to percolation. During basin restoration and silt and debris removals, soil materials with less trash are more cost-effective to place in landfills or process into landscape soils.

We can all help with reducing trash by not littering. By reducing trash in the channels and storm drains, water can flow more easily into the basin and percolate more effectively into the aquifer. It's a simple step we can all take to help improve our water supplies.

CONSERVATION PROGRAMS



Landscape Efficiency Audits

FY20: 144 landscape efficiency audits conducted, with the potential to save 13.9 million gallons or 42.5 acre-feet of water per year.

FY19: 161 landscape efficiency audits with potential to save 36.7 million gallons or 113 acre-feet of water per year.

FY18: 106 FY17: 49



Landscape Designs Created

FY20: 26 landscape designs* created from the Design Assistance Program for residents planning to convert to waterwise landscapes at home (in collaboration with IEUA and area water providers).

FY19: 93 FY18: 67 FY17: 123

*Starting in 2020, the District required those seeking a landscape design to attend our "Landscape Transformation Basics" in order to raise the percentage of participants who put their landscapes in within one year.



Residential Landscape Classes

FY20: 34 waterwise landscaping and landscape maintenance classes held.

FY19: 35 FY18: 22



Mulch Giveaways

FY20: Community members picked up more than 260 cubic yards of free mulch for the gardens and more than 425 cubic yards of free compost through our ongoing self-serve giveaway.

FY19: 1,177 community members received free mulch to help with landscape water savings at mulch giveaway events.

FY18: 944 FY17: 725

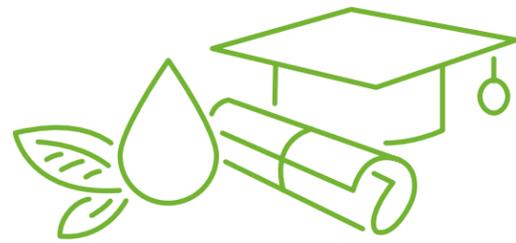
CREATING PARTNERS IN CONSERVATION



Valley View High School Partnership

FY20: 15 Valley View High School horticulture students earned QWEL professional certifications through our collaboration with Chaffey Joint Union HSD.

FY19: 49 FY18: 43 FY17: 28



QWEL Certifications

FY20: 38 Master Gardeners and landscape professionals earned Qualified Water Efficient Landscape professional certifications.

FY19: 29 FY18: 34 FY17: 84





CITY OF CHINO HILLS SAVES WITHOUT SACRIFICE

People visiting the city of Chino Hills' parks have one more reason to enjoy their visit. Thanks to a large-scale irrigation and water efficiency audit conducted by CBWCD staff in FY19 and FY20, 20 of the city's parks that use potable water for irrigation are now more water-efficient than ever. Patrons may not even notice a difference in the way the parks and playgrounds look, but the benefits are in place just as the region enters another drought.

"The city of Chino Hills is dedicated to continuously finding new ways to enhance our extensive water conservation efforts throughout the city's many parks, facilities, and residential and commercial areas. We are proud to partner with CBWCD to evaluate the existing irrigation and landscape at our public parks," said Jake Loukeh, city of Chino Hills water use efficiency coordinator.

20 of the city's parks that use potable water for irrigation are now more water-efficient than ever.

CBWCD staff worked with city officials to create custom water budgets for each park property based on square footage of each landscape type. Budgets like these are crucial tools that help parks officials determine "at a glance" if a property is being watered efficiently. The report also provided detailed recommendations for improving water use efficiency further through future actions or investments. The 20 parks totaled 65 acres of land.

"Large landscapes like public parks use a significant amount of water within Chino Hills and therefore represent a great opportunity for savings. By working with CBWCD, we are able to efficiently evaluate and reduce water use in passive non-essential grassy areas while leaving the existing landscape and irrigation in place so our residents may enjoy the same park experience," said Loukeh.

Audits like this help large landscape owners and managers help our community meet water use efficiency goals. CBWCD looks forward to working with additional municipalities in our sphere of influence to help keep public parks looking great while irrigating efficiently.

BRANDON BURGESS ON BEING WATERWISE

Spend any time talking to Brandon Burgess and his passion for educating others about water-efficient landscaping is crystal clear. He joined CBWCD in 2017 as a conservation specialist, bringing with him years of experience teaching as well as hands-on work as a landscape and irrigation specialist for property owners and managers throughout the Inland Empire.

While the region has had time to recover from the drought in 2011-2016, dry conditions returned in the winter of 2019-2020. Droughts are a part of our region's climate, which demands everyone

conserve in wet years so that we can get through the dry ones. "We're constantly in these cyclical droughts and it pains me to see water from sprinklers running down the street," Burgess said. "Especially when the landscape it's supposed to be watering doesn't even look healthy." His goal is to get more people interested, involved and aware of rebates and small fixes that can help them use less water and still have healthy, attractive landscapes. Telling people about the rebates and free resources available to them is one of his favorite parts of the job, especially when they hadn't heard about them before.

Burgess got his start in landscaping during his high school summers spent working on tree crews for his parents' landscape company. That experience combined with his work ethic and collaborative approach earned him respect from his co-workers as well as the contractors and city managers he works with regularly. At CBWCD, Burgess heads up the district's landscape and evaluation audit program, where he audits irrigation systems for efficiency, trains landscape professionals and helps homeowners' transition to waterwise gardens.

While the COVID-19 pandemic changed how he delivered trainings and audits, Burgess noticed that homeowners' interest in waterwise landscaping and irrigation efficiency rose as they spent more time at home due to stay-at-home orders. He worked with others at CBWCD to put more content online, a rich resource that will continue to bear fruit in years to come even after in-person trainings resume. "We just want to keep the conversation about water use efficiency going," Burgess said. "We're always learning too. We want to figure out the best way to serve our community."

A portrait of Brandon Burgess, a man with a beard and short brown hair, smiling. He is wearing a light-colored shirt with a small floral pattern. The background is a blurred outdoor setting with trees and greenery.

Homeowners' interest in waterwise landscaping and irrigation efficiency rose as they spent more time at home due to stay-at-home orders.

EDUCATION & COMMUNITY PROGRAMS



K-12 Education

Students served by CBWCD Next Generation Science Standards-aligned youth education programs:

FY20: 5,928 students*
FY19: 7,738
FY18: 8,430
FY17: 15,270

Students Participating in Field Trips:

FY20: 3,803 students*
FY19: 4,624
FY18: 5,023
FY17: 6,415

Online Outreach

Followers on Facebook, Instagram, and Twitter social media platforms:

FY20: 3,225 followers
FY19: 2,848
FY18: 2,419
FY17: 1,826

* Educational programs were closed or cancelled in the spring of 2020 due to COVID-19 health restrictions.



Users of the CBWCD website:

FY20: 37,263 users
FY19: 44,916
FY18: 81,915
FY17: 50,712

Users of the Inland Valley Garden Planner website:

FY20: 225,374 users
FY19: 113,386
FY18: 51,543
FY17: Launched in May 2017, 1,700 unique users and 9,400 unique page views in first month.



FAMILY FUN AT LANDSCAPE & WATER CONSERVATION FESTIVAL

The 13th Annual Landscape and Water Conservation Festival hosted by CBWCD was held at the Waterwise Community Center on October 12, 2019. More than 900 people attended this free, family-friendly event featuring educational workshops and exhibits, a pumpkin patch, petting zoo, activities for children, raffles and giveaways, entertainment, and a food truck.

A dozen exhibitor booths offered water and landscaping information and resources, and another 15 activity centers drew children for hands-on craft activities. Local professionals hosted three workshops on topics such as water-efficient gardening practices and water rights issues.

The Annual Landscape and Water Conservation Festival is a regional event sponsored by Chino Basin Water Conservation District in partnership with the cities of Chino, Chino Hills, Fontana, Ontario, Upland, Inland Empire Utilities Agency (IEUA), Monte Vista Water District, Chino Basin Watermaster, and San Antonio Water Company. These agencies have worked together for 13 years to host this annual family-friendly festival featuring free workshops, demonstrations, plant sales, entertainment and activities to celebrate and provide waterwise landscaping and conservation resources to attendees.

HANDS-ON NATURE EXPERIENCE

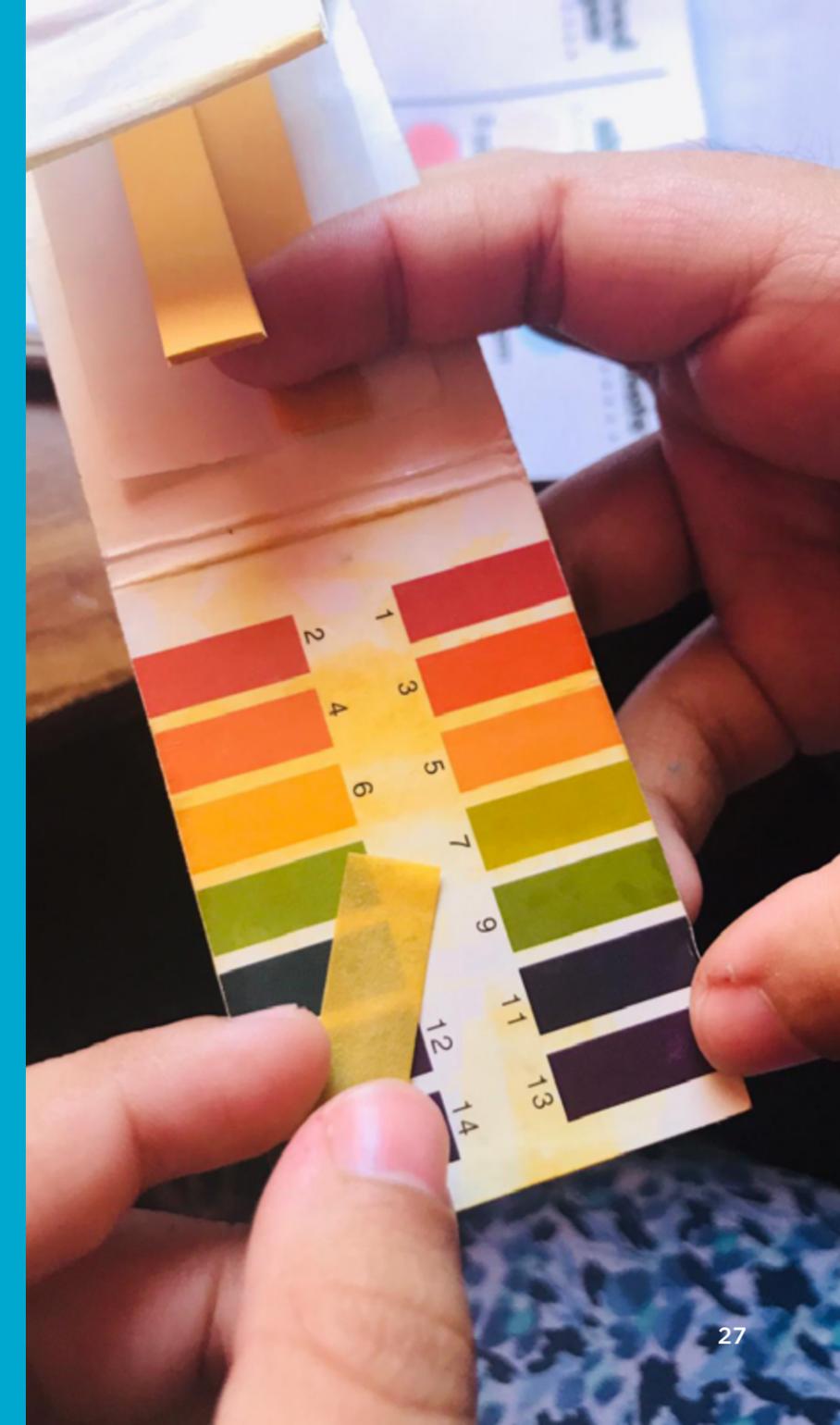
CBWCD's annual Watershed Expeditions summer camp from July 8 to 12, 2019, connected 15 middle school students with outdoor learning in the Santa Ana River Watershed.

Led by CBWCD's community programs team, participants adventured from the mountains to the ocean to learn how their actions impact local water resources. With the assistance of five high school counselors, two teaching fellows from the University of Redlands and CBWCD staff, the students discovered solutions to local water issues by learning about their watershed, groundwater, and how the District's recharge basins along the watershed help replenish the Chino Basin Aquifer.

This unique program took students on an in-person journey through the Santa Ana River Watershed on daily field trips beginning at headwaters of the Santa Ana River in the San Gabriel Mountains at San Antonio Creek where students test water samples and learn about macroinvertebrates. They continue to follow the river's path each day, visiting Prado Regional Park, Chino Creek Wetlands and the Santa Ana River south of the wetlands while testing the water quality at each location and culminating at the end of the watershed where the Santa Ana River flows into the ocean at Huntington Beach.



The last day of camp is a wonderful community celebration hosted at the Waterwise Community Center attended by family and friends of the students and CBWCD Board members and staff. Students present projects about what they learned visiting the watershed and actions we can take to protect it.

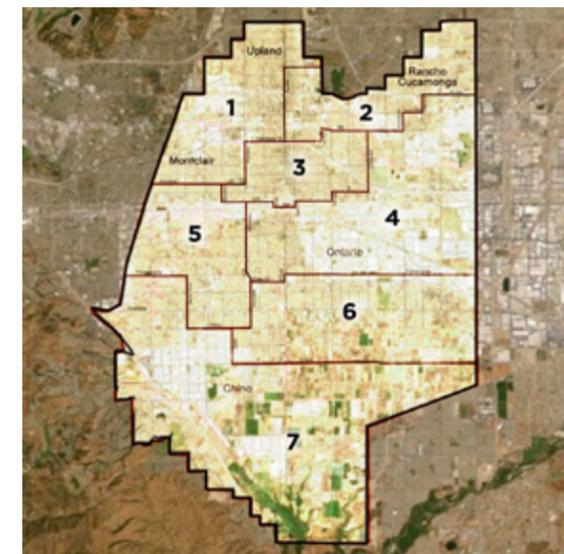


GOVERNANCE



CBWCD BOARD OF DIRECTORS

The Chino Basin Water Conservation District, incorporated on December 6, 1949, is an independent special district that operates under the authority of Division 21 of the California Water Code. Located in the western region of San Bernardino County, California, the District encompasses the entire cities of Montclair and Chino, and portions of the cities of Chino Hills, Upland, Ontario, Rancho Cucamonga, and some of the unincorporated areas of western San Bernardino County. The District is governed by an elected seven-member Board. Each Director must reside within the geographical area established for their respective Divisions.



Terence M. King - DIVISION 1

Board President

Marc Grupposo - DIVISION 2

Board Treasurer

Margaret Hamilton - DIVISION 3

Board Vice President

Mark Ligtenberg - DIVISION 4

Gil Aldaco - DIVISION 5

Dr. Hanif Gulmahamad - DIVISION 6

Ryan Sonnenberg - DIVISION 7

MARGARET HAMILTON MAKES HASTE, NOT WASTE

Ask CBWCD Director Margaret Hamilton when she first became aware of the importance of water supplies and she has a quick answer. “In Nigeria,” she said. As a young adult, she traveled around the world as a teacher working for the U.S. Department of Defense, teaching youth on military bases in Japan and England. A trip to visit a friend doing missionary work in Nigeria taught her that having an ample supply of clean, running water was a luxury that not everyone could count on. On one of her first days there, the indoor water tank ran completely out of

water halfway through her shower. It is still a vivid memory today and in part informs her work as Vice President on the Board helping the district sustain the region’s water supply. “We take water for granted and we shouldn’t,” she said.

Hamilton began her tenure on the Board in 2012 a few years after retiring as an elementary school teacher in Chino. She quickly put her background and experience to good use, representing CBWCD’s Board during the district’s educational

activities. “I’m proud to do as much as I can for our education programs,” she said. For her, it’s all about making people more conscious of both the water they use and the water they waste. During the last drought, she recalls handing out buckets for people to collect water from showerheads as they waited for it to heat up.

She’s most proud of resources CBWCD makes available to teachers. The district’s educational programs are high quality and meet Next Generation Science Standards. The annual poster contest creates excitement, allowing members of the public to vote on the winners. Both the students and the teachers win prizes. “Teachers are always spending out of their pockets for the classroom, so those gift cards make a difference,” Hamilton said. Best of all, she said, teaching children about water means that the lessons also go home to the parents.

Hamilton has watched the region change over the decades she has lived here, going from orange groves and dairy farms to residential neighborhoods and shopping areas. She takes pride in the region’s ability to save water, noting that Southern California’s total water use has stayed the same while its population has increased by 7.3 million people since 1990. She looks forward to helping more people learn how simple saving water can be. There’s no doubt it will continue to be important.



*We take water for granted
and we shouldn't.*



SAVE WATER
WITH US!

Being waterwise is more important than ever as we recognize the drought conditions are the new normal. At the Waterwise Community Center, we have lots of resources to help you save water inside and outside your home and your business or organization. Here are just a few highlights:

Landscape Water Efficiency Consultations

CBWCD offers qualifying properties a free and complete evaluation of their landscape and irrigation system and recommendations on how to improve overall water use efficiency.

Homeowners' Workshops

A variety of workshops educate residents on how to water their lawns and gardens, landscape with native and drought-tolerant plants, take advantage of rebate programs, maintain irrigation systems and more.

Landscape Conservation

In addition to our online and in-person workshops, we offer a number of resources to assist with using less water outdoors, such as the Inland Valley Garden Planner website which helps people learn about and choose the best plants for inland Southern California landscapes. Our landscape design consultation service helps people design beautiful, waterwise landscapes to replace turf.

Waterwise Demonstration Garden

A stroll through our 1.75-acre Demonstration Garden inspires many visitors to try waterwise plants in their landscapes. This Certified Wildlife Habitat includes garden sections in styles including Southwest, Mediterranean, and Woodland, each designed to thrive in our sunny, inland climate without using too much water. You can also view our turf demonstration area to learn more about how much water your lawn needs, discover how bioswales help collect runoff water when it rains, and why permeable surfaces help our groundwater basin.

Connect With Us!



cbwcd.org | [@CBWCD](https://twitter.com/CBWCD)

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