

2018 Annual Report



CHINO BASIN

**Water
Conservation
District**

**Waterwise
Community
Center**



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LETTER FROM THE EXECUTIVE DIRECTOR

Vivian Castro, Executive Director

A changing climate, conversion of undeveloped land to pavement, and an ever-increasing demand for clean water requires communities across California to face the reality that serious and growing threats to reliable supplies of water persist.

This is where we step in. Chino Basin Water Conservation District (CBWCD) is a public agency whose overarching goal is the protection of the Chino Groundwater Basin to guarantee that current and future water needs are met. We contribute to basin recharge by the capture and percolation of stormwater through the District's green infrastructure and groundwater recharge basins. To reduce demand on the resource, we engage our diverse community with the Waterwise Community Center, packed with innovative programs, initiatives, and demonstrations available for the

public, as well as advanced technical and educational assistance for professionals to promote the efficient use of our shared water resources.

This annual report documents our positive impact on local communities and the region as a whole.

Fiscal year 2018 has been an exciting time with the integration of many new ideas and concepts. We are now proud to call our headquarters facility the Waterwise Community Center, a program of the Chino Basin Water Conservation District.

While looking toward the future to meet our resource challenges, it's also equally important to reflect on the past. Urban areas in Southern California have a long history of designing stormwater systems to move water as quickly as possible away from streets, buildings, and the local



landscape. In the Chino Groundwater Basin, historic creeks were converted to concrete channels to reduce flooding and prevent property damage caused by unpredictable stormwater flows. Fast forwarding to today, local governments are being held to increasingly stringent regulations concerning pollutants flowing through our natural systems and waterways. However, what would happen if we maximize the stormwater captured, cleaned, and used to recharge the aquifer and boost local water supplies?

CBWCD's Board of Directors and staff are working towards these goals by acquiring a parcel of land located strategically at the confluence of Chino and San Antonio Creek Channels. Read on to learn more about how this exciting property acquisition is being designed to cost effectively provide multiple benefits including: water supply, water quality

improvement, flood mitigation, education, open space, passive recreation, and more.

We are excited about the potential the future holds for conservation in our region, and we are dedicated to continuing this important work for YOU and along with YOU, the community who makes our vision possible. The following pages reflect the hard work of our staff over the past year in designing, developing, and operating innovative water conservation programs and initiatives to inspire all ages and benefit all those we serve.

Sincerely,

Vivian Pastor

ABOUT US

The Chino Basin Water Conservation District and Waterwise Community Center work to sustain a regional water supply through public stewardship by engaging in the following key strategies:

DEMONSTRATE

the multiple benefits of water efficient landscapes to conserve water, capture stormwater, and use recycled and greywater while providing beautiful and inspiring places to live, work, and play.





CHINO BASIN

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EDUCATE

to inspire the broad adoption of a water conservation ethic and ACTIVATE public stewardship and a water-efficiency workforce.



PERCOLATE

stormwater and promote distributed onsite capture to replenish local groundwater supplies, ensuring our region's needs are efficiently met while improving regional water quality.



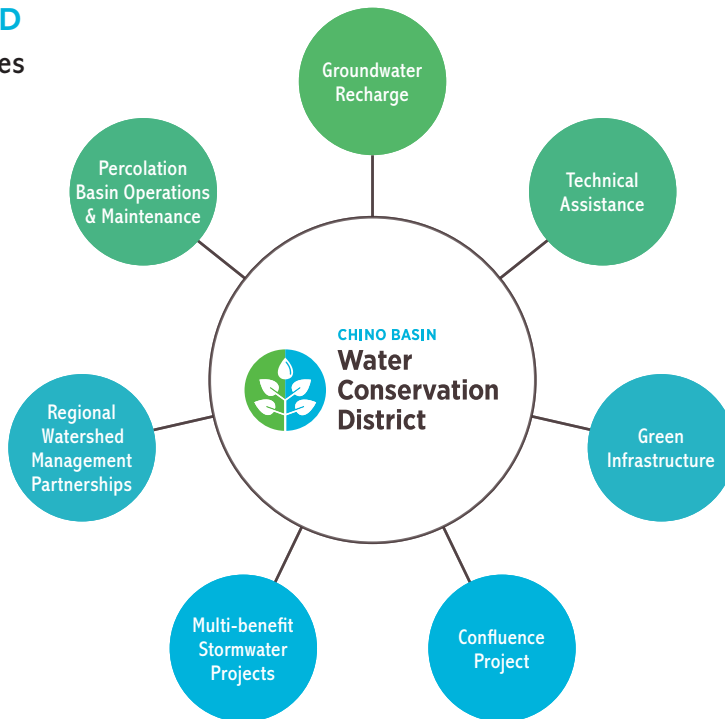
ANNOUNCING THE WATERWISE COMMUNITY CENTER

After a year of soliciting input from stakeholders, program participants, and community members, we have a new look and a new name for our public programs and resources! We're still the Chino Basin Water Conservation District, but our facility in Montclair and associated education and conservation programs and services provided to the greater service area will now be known as the Waterise Community Center, an acknowledgement of the work we do for the community we serve.



Activities and Audiences of the District

CBWCD Activities



Audiences

Water Agencies
Municipalities
State Agencies
Federal Agencies
Water & Landscape Professionals

WATERWISE COMMUNITY CENTER Activities





Audiences

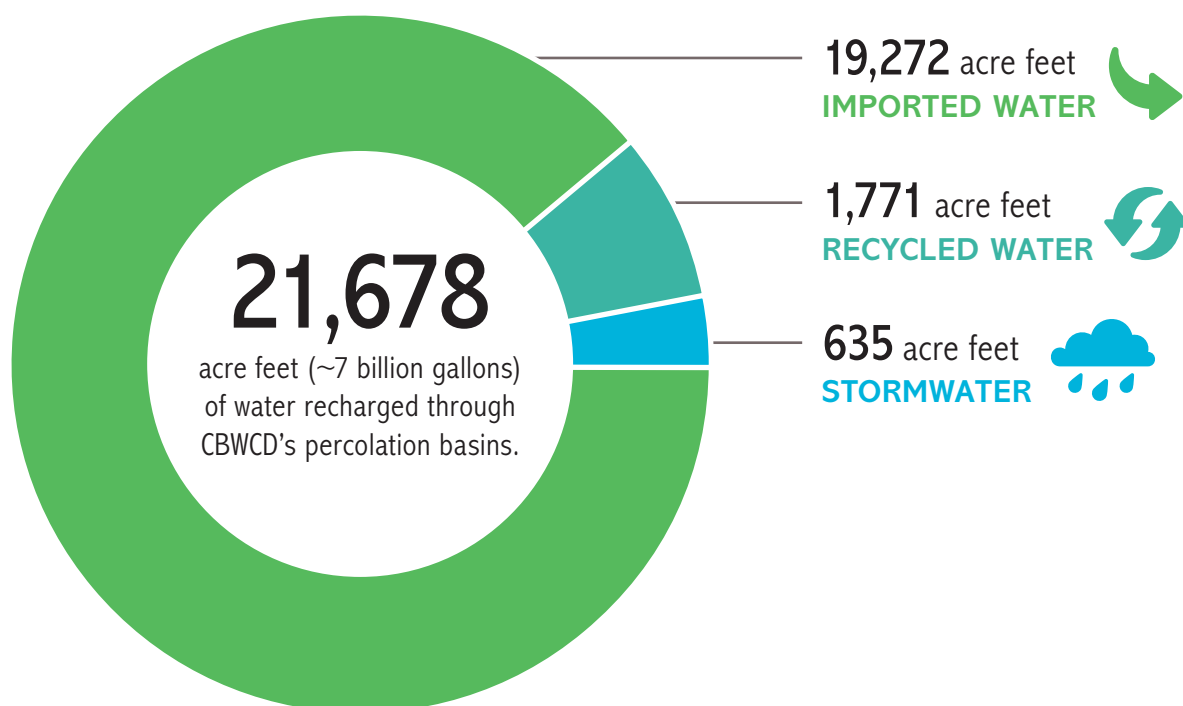
Homeowners
Educators
Families
K-12
Higher Education
Community Members
Community-based Organizations

2018 BY THE NUMBERS

Numbers tell part of our story, but conservation is about more than numbers. It is a cultural shift that requires an integrated approach to carefully considered and diverse programming. With the ultimate goal of water conservation, our work is to inspire, equip, and support community members, professionals, and partners to make conservation a way of life.

1.2 **MILLION RESIDENTS** 
served through CBWCD activities, including groundwater recharge.

5,886 **GALLONS OF WATER** 
recharged for each resident of the Chino Groundwater Basin.







Demonstration

16,916 

IN-PERSON VISITORS to the Waterwise Community Center.

2.8   

MILLION GALLONS (8.6 acre feet) of water captured at the CBWCD demonstration garden, park, and parking lot.

K-12 Education

 8,430

K-12 STUDENTS served by CBWCD Next Generation Science Standards-aligned youth education programs.

5,023 

students participated in Waterwise Community Center **FIELD TRIPS**.

 1,004

ADULTS participated in CBWCD youth education programs as teachers or chaperones.

83% 

OF TEACHERS surveyed said that the field trip experience “Exceeded my expectations.”



Percolation



134 acres (5.8 million sq. ft.) of land maintained by the CBWCD staff for **GROUNDWATER RECHARGE**.

Resident Education

THIS YEAR, CBWCD CONSERVATION PROGRAMS PROVIDED:

106



LANDSCAPE EFFICIENCY AUDITS with potential to save

9.8

MILLION GALLONS (30.1 acre feet) of water per year.*



67

LANDSCAPE DESIGNS created from the Design Assistance Program for residents planning to convert to waterwise landscapes at home.*

22



RESIDENTIAL LANDSCAPE CLASSES that taught 525 Community Members waterwise landscaping and landscape maintenance skills.



944

COMMUNITY MEMBERS received free mulch to help with landscape water savings at mulch giveaways events.

*in collaboration with the Inland Empire Utilities Agency and area water providers




Creating Partners in Conservation

TO MULTIPLY OUR IMPACT, BUILD REGIONAL CAPACITY & SUPPORT CAREER DEVELOPMENT

43  Valley View High School Horticulture Students earned Qualified Water Efficient Landscaper **PROFESSIONAL CERTIFICATIONS** through our collaboration with Chaffey Joint Union HSD.

 **34** **MASTER GARDENERS & LANDSCAPE PROFESSIONALS** earned Qualified Water Efficient Landscaper professional certifications.

75  Landscape Professionals and Master Gardeners attended CBWCD horticulture **PROFESSIONAL DEVELOPMENT WORKSHOPS**

Online Outreach

81,915  **WEBSITE VISITORS** to cbwcd.org

 **2,419** **FOLLOWERS** on Facebook, Twitter, and Instagram

51,543

WEBSITE VISITORS to inlandvalleygardenplanner.org





A YEAR IN PHOTOS





“Had a great time here at the Chino Basin Water District for one of their free classes... Such a great local resource for learning and creating.”

WORKSHOP PARTICIPANT



“I want to thank Dave for his presentation on Saturday. It has already proved to be a valuable resource in my planning. I am truly impressed by CBWCD’s leadership in making such a wonderful site and educational opportunities available to the public.”

WORKSHOP PARTICIPANT



“These beautiful gardens give garden lovers inspiration and ideas on how to incorporate drought-tolerant plants in their gardens.”

FACEBOOK REVIEW



GROUNDWATER RECHARGE OPTIMIZATION

Recharge Spotlight Story

A large priority for 2018 was to optimize the District's grounds and basins to enhance groundwater recharge and provide additional public benefits within District owned spaces. Projects included removing silt and invasive weeds to allow for increased groundwater recharge rates, repairing spillways and berms to ensure safe and efficient water conveyance, adding fencing to basins to advance public safety, and installing fitness equipment at the Wilderness Park to provide additional recreation opportunities at the Waterwise Community Center.



A NEW DEMONSTRATION OF PUBLIC-SCALE CALIFORNIA NATIVE PLANTINGS

Landscape Spotlight Story

The Waterwise Community Center's public park is now home to a diverse landscape of California native plants, providing visitors a lovely garden experience while demonstrating how native plantings can be beautiful, use very little water, and provide habitat for a plethora of bird and pollinator species. This year, staff designed and built this new addition, which will also function as a demonstration of design and maintenance techniques for public-scale native landscapes. Public-scale landscapes face fundamentally different challenges than residential landscapes. This planting will be a dynamic program space in which hands-on maintenance training, plant assessment, and documentation of maintenance techniques for the creation of educational resources will take place.





SCOUTS PLEDGE TO CONSERVE

Community Spotlight Story

One of the most important questions for Southern California is how we can holistically manage our water quality and water supply during a period of extended drought in a changing climate. Students from the urban settings of our service area are rarely afforded opportunities to explore local streams and rivers. As water resource management becomes increasingly complex, an environmentally literate citizenry is critical. We strive to provide local students from underserved communities opportunities to explore and investigate the watershed. Through increased understanding of water systems, a stronger sense of place, and experiential learning, we work to inspire the next generation of watershed stewards and conservationists.

In addition to our traditional Water Conservation Center field trips that provide bussing and facilitate science and engineering investigations related to water conservation concepts for over 5,000 K-12 students, we partnered with exceptional education and conservation professionals in the region to pilot watershed field expedition trips.

***“Great educational experience.
They loved all the activities!”***

SCOUT LEADER



WATER EFFICIENCY FOR LARGE LANDSCAPES

Conservation Spotlight Story

Over the last year, the Waterwise Community Center's Landscape Evaluation and Audit Program brought a renewed and refined focus to large landscapes, including public parks, homeowners associations, a mobile home park, and commercial and business park landscapes. The team evaluated 46 acres of these larger landscapes, estimating a total water savings potential of 23-acre feet per year if report recommendations are followed. Providing local residents these services to support home landscapes continues to be crucial to our mission, while large-scale landscapes maximize conservation potential.


Larger landscape sites are typically high water users, and often have either neglected or unintentionally deferred maintenance issues with their irrigation systems. Leaks and other issues

often go unseen as systems run at night unobserved. Large leaks are sometimes discovered on these evaluations, but more often multiple small leaks across a site can add up to a large amount of water waste. Further, irrigation scheduling for large sites is often not optimally set for plant material and season. Landscape maintenance workers are rarely trained on current best practices for irrigation scheduling, and schedule optimization across a large site can have potential for significant water savings.

Working on large sites allows staff to interact directly with and provide learning opportunities for contractors and landscape workers maintaining commercial and residential landscapes. These industry professionals, in turn, can apply their new knowledge to other landscapes they maintain across the region.

Through these interactions staff can encourage contractors and maintenance workers to take part in our Qualified Water Efficient Landscaper (QWEL) certification courses, further developing their conservation skill set and building capacity for regional water use efficiency.





TRAINING NEXT GENERATION TEACHERS

Community Spotlight Story

To further strengthen strategic workforce development initiatives, the Waterwise Community Center partners with education programs at local universities to offer fellowship opportunities to qualified pre-service teachers. By training our next generation of local teachers about best practices in water conservation education, the District expands its capacity for conservation messaging in classrooms across the region.

The training includes content familiarization on watershed and ecology concepts, coaching on behavior management strategies, and training on curriculum that integrates Next Generation Science Standards and Environmental Principles & Concepts as they relate to water. Pre-service teachers spend 10 hours per week each semester assisting with instruction in the Waterwise Community

Center's field trip programming, and leave with increased confidence and competence for teaching about water in their classrooms.

"I learned so much! I think the most surprising experience was learning about water availability in Southern California, and the time, money, and energy used to purchase water from Northern California if we do not have enough. This completely opened my eyes to the need for protecting our groundwater."

TEACHER-IN-TRAINING





THE CONFLUENCE REGIONAL WATER RESOURCES PROJECT

With the population projected to dramatically increase in future years, the District believes that increased water conservation and efficiency efforts will be necessary as an effective means of coping with increased demand. The certainty of future intermittent regional droughts calls for continued creativity and innovation in the extension of water conservation practices as a vital tool in protecting our shared water resources. There is a critical need to pursue additional stormwater capture and recharge projects within the District's boundaries and the Chino groundwater basin as a whole. Such projects require partnerships and collaboration.

Earlier this year, the District completed the purchase of properties located at 3349 Riverside Drive, in the unincorporated Chino area, comprised of five indi-

vidual parcels located at the confluence of the Chino and San Antonio Creeks.

The District seeks the best use of these properties to meet its mission and the greater needs of the Chino Groundwater Basin region. The primary project considered is known as the Confluence Regional Water Resources Project (the Confluence Project). This project would capture stormwater, dry season flows, and pollutants at the merging of the two channels, which would otherwise leave the Chino Groundwater Basin. The flow would then be naturally treated and conveyed to upstream recharge basins for conservation storage. The Confluence Project is a multi-benefit project based on a holistic watershed approach.

The proposed project would have several benefits, as follows:

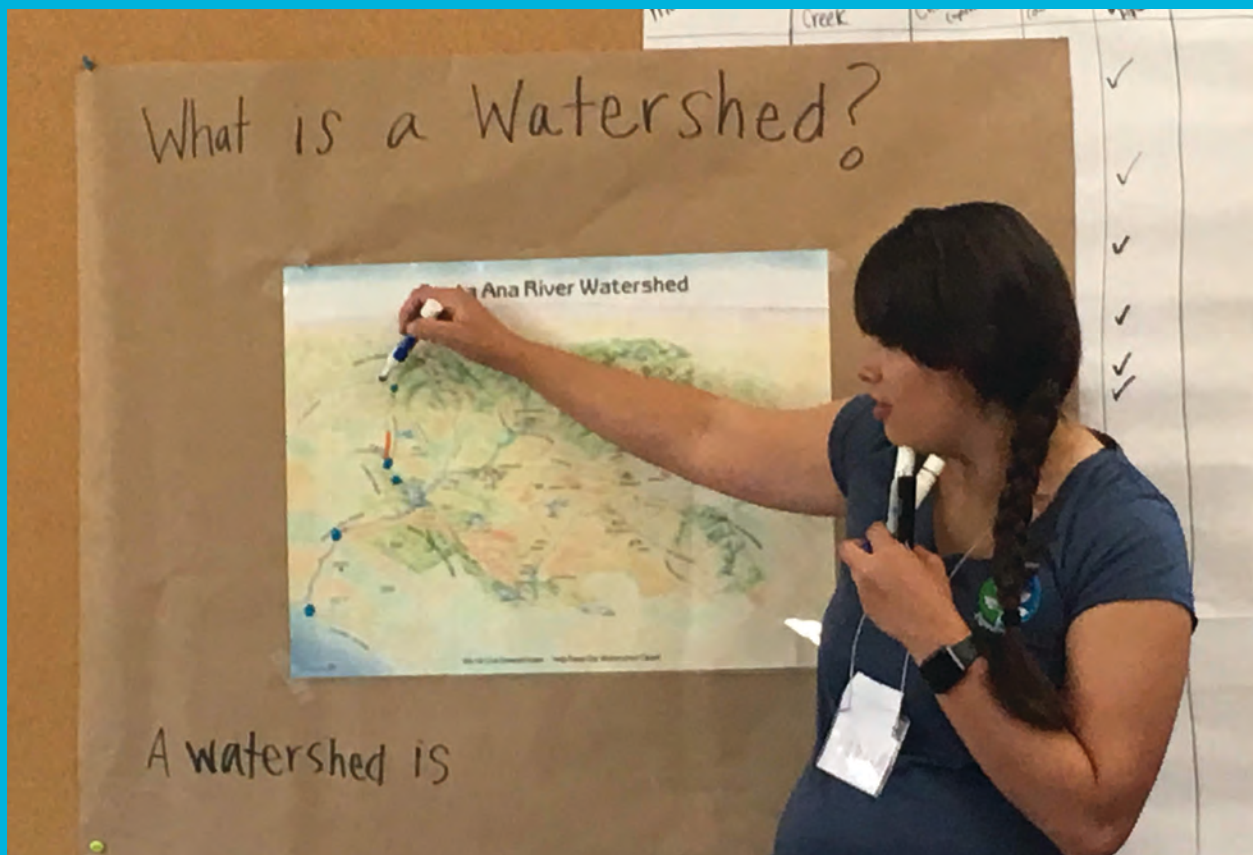


- Development of an additional local stormwater collection and distribution system: Climate change increases the risk of reliable imported water sources from other regions of the State. Investments in optimizing local water capture and recharge in the Chino Groundwater Basin reduces reliance on vulnerable imported water sources.
- Economic benefit to local communities: By utilizing effective stormwater strategies to reduce the reliance-upon, and amount of, imported water needed in the Chino Groundwater Basin region, the Confluence Project will provide a lower-cost alternative to local communities compared to the high costs associated with imported water.
- Water quality improvements: Will improve wildlife and wetland habitat through the removal of pollutants in the water.
- Partnership programs: Collaboration among various stakeholders to develop and refine the project will create a resource we can all enjoy and benefit from. For example, subsequent research and educational opportunities will be provided by the demonstration of nature-based pre-treatment strategies to treat stormwater and improve water quality. The non-traditional alliances of water supply, environmental protection and educational institutions will accelerate effective problem-solving among public and private resource managers, scientists, and decision-makers.

THE EMERGING PROFESSIONALS

Student interns from nearby colleges and universities work with staff on water conservation resources and education programs, building real-world work experience in the field of water conservation. The students have brought fresh perspectives, diverse skill sets, and have greatly enriched our programs and resources.

We look forward to watching these students grow as leaders in the conservation field!



Student Interns

Ana Mejia

California State University San Bernardino
SAWPA Disadvantaged Communities
Involvement Program

Benjamin Rigby

Pomona College
Environmental Analysis

Julia Walls

Chaffey High School
Watershed Expeditions Camp Award
Recipient

Mackenzie Elliot

Colony High School
Watershed Expeditions Camp Award
Recipient

Gift Gnamdi

Chaffey High School
Watershed Expeditions Camp Award
Recipient

Jennifer Hernandez

Chaffey High School
Watershed Expeditions Camp Award
Recipient

Natalia Salazar

Chaffey High School
Watershed Expeditions Camp Award
Recipient



Environmental Education Fellows | University of Redlands

Erin Parra

Multiple Subject Credential Candidate

Tiffany Johnstone

Single Subject Credential Candidate

Alyssa Ortiz

Single Subject Credential Candidate

Daniel Palmer

Single Subject Credential Candidate

Savannah Waller

Single Subject Credential Candidate

Gurri Grewal

Single Subject Credential Candidate

VOLUNTEER OF THE YEAR

Volunteers are critical to building successful conservation programs and events. More than 80 individual volunteers have contributed over 1,317 hours to support community programs and events. We are honored to recognize Jennifer Hernandez, a local Chaffey High School Student, as volunteer of the year, for providing over 120 hours of service to support community programs and research.



THE FACES BEHIND CONSERVATION

Eighteen hardworking staff in the Administrative, Conservation Programs, Community Programs, and Facilities and Operations Departments work with passionate dedication to serve the Chino Basin community.



BACK ROW (from left): Juan Vazquez, Danny Akers, Brandon Burgess, Scott Kleinrock, David Schroeder, Steve Sentes, Robert Sotomayor, James Salcido **FRONT ROW** (from left): Omone' Abu, Becky Rittenburg, Natalie Gonzaga, Judy Taylor, Vivian Castro, Victoria Kramer, Jenna Hoover
NOT PICTURED: Mary Gandara, Lindsey McConnell, Frankie Sotomayor

GOVERNANCE

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.

Board of Directors

Terrence M. King – Division 1
Board President

Margaret Hamilton – Division 3
Board Vice President

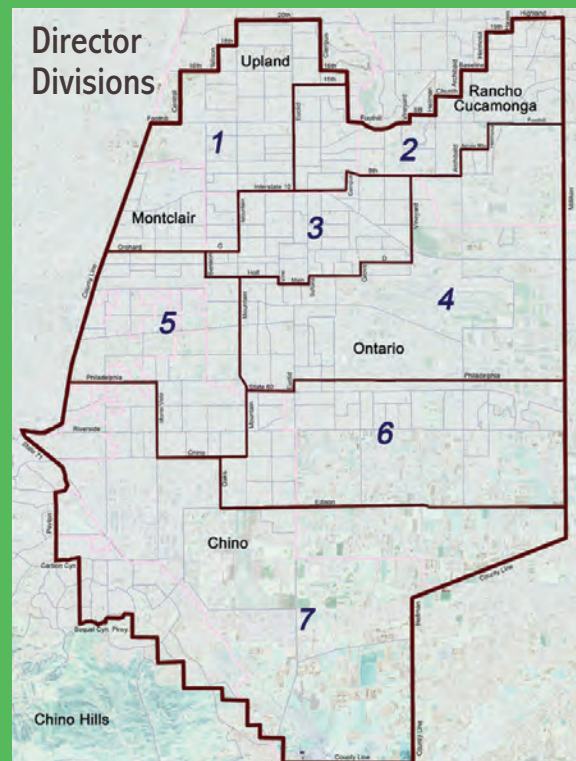
Geoffrey Vanden Heuvel – Division 7
Treasurer

Marc Grupposo – Division 2

Mark Ligtenberg – Division 4

Gil Aldaco – Division 5

Dr. Hanif Gulmahamad – Division 6







JOIN US!

With many exciting projects and programs planned for FY 2019, we invite you to participate as one of our valued community partners. Join us as a participant in a workshop, symposium, or program; a user of our conservation resources; or a collaborative partner in community-based conservation. Here are just a few projects we are looking forward to next year:

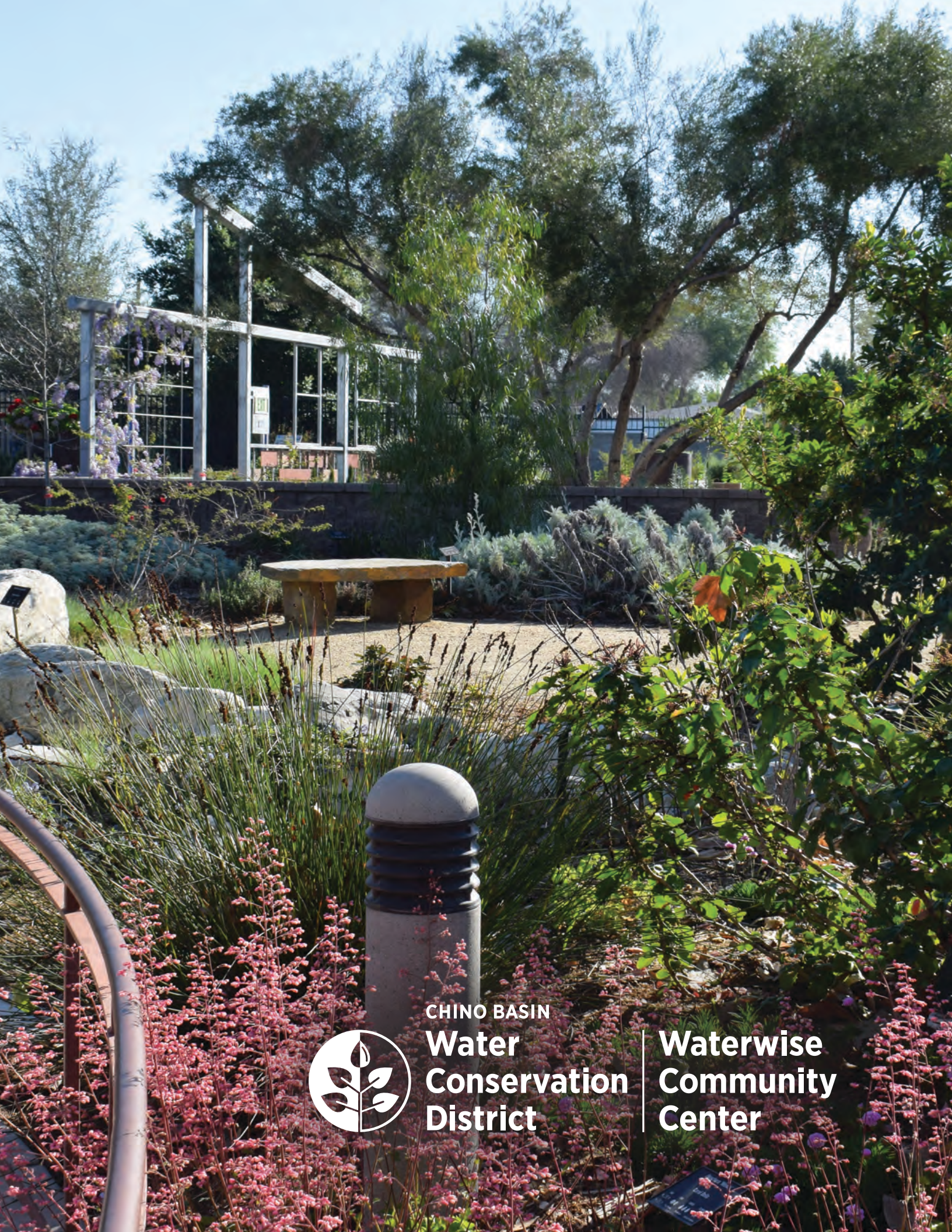
- Welcoming new audiences to take advantage of the Waterwise Community Center and its resources.
- Incorporating additional programming and content in both English and Spanish.
- Finding additional opportunities to train the next generation of landscape professionals and educators.
- Developing the design concept for The Confluence Regional Water Resources Project.



CONNECT & CONSERVE WITH US!



cbwcd.org | @CBWCD



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