



**San Bernardino Valley
Water Conservation District**

Helping Nature Store Our Water

Collaboration in Action



Report on Accomplishments 2021

General Manager's Letter

A volatile mix of searing temperatures and disabling drought in 2021 challenged water agencies throughout the state to adapt to extreme water shortages – with no hope that things will improve any time soon.

Our region fared much better than others in the state, thanks to some key new projects and the collaborative nature of local agencies to pitch in and work together for the sake of reliably boosting our local water supplies.

Groundwater storage for the 2020-21 water year was up despite the drought – topping out at a significant 66% above what was stored in previous dry years. In the future, we anticipate significant increases in the amount of water we store, thanks to several recent and upcoming projects such as the Plunge Creek Conservation Project.

Good leadership was the driving force behind these advances – and in that spirit, I'd like to give a special shout out and thank you to Board President Melody Henriques-McDonald, who celebrated her 30th year on the Board of Directors this year. Much of the collaboration we see among water districts in our region today is a direct result of her earnest push early on for everyone to work together for a common, greater purpose.

Finally, our work to reestablish habitat for native, threatened, and endangered species at the Wash is showing much promise. The Upper Santa Ana River Wash Habitat Conservation Plan, approved in 2020, and its Plunge Creek Habitat Conservation project were kicked into action this year and are demonstrating significant progress.

Early findings show that the San Bernardino kangaroo rat is inhabiting the majority of lands we designated as habitat within the Wash Plan Preserve. This is an exciting victory for the species and for the field of habitat conservation. The work we are doing has the potential to set new standards for protecting species, and we look forward to continuing collaboration with our partners to establish groundbreaking new models for others to follow.

Looking forward, 2022 will show significant results from the hard work we've done in the past. We've tilled the soil and sown the seeds – and the many advances we've made in water recharge and habitat conservation will come to full fruition in the years ahead.



Daniel B. Cozad
General Manager

Current Board Members

Division 1:

Richard Corneille
Vice President
Term of office expires:
December 09, 2024

Division 2:

David E. Raley
Term of office expires:
December 11, 2022

Division 3:

Robert Stewart
Term of office expires:
December 09, 2024

Division 4:

John Longville
Term of office expires:
December 11, 2022

Division 5:

Melody Henriques-McDonald
President
Term of office expires:
December 11, 2022

Local Water Storage was Excellent for a Drought Year

Recent improvements in water recharge helped replenish the Bunker Hill Groundwater Basin with above-average levels of groundwater storage when compared to other recent periods of drought.

Totals for the 2020-2021 water year, running from Oct. 1 to Sept. 30, reflect a 66% increase from the amount of native surface water stored in previous dry years. A total of 7,266 acre-feet of native surface water was stored in 2020-21 compared to 4,004 acre-feet in 2007-2008; 6,097 acre-feet in 2013-2014; 2,625 acre-feet in 2014-2015; 4,277 acre feet in 2015-2016 and 4,617 acre feet in 2017-2018.

This year's water storage, achieved at a time when local precipitation was just 44% of normal, totals about 2.4 billion gallons, enough to serve nearly 22,000 families for a year.

A Long History of Boosting Water Supplies and Quality

Our region is home to some of the best quality water in California.

Much of that has to do with work the District has been doing for nearly 100 years: capturing and recharging water from area rivers and streams into the Bunker Hill Groundwater Basin, which today serves some 70% of the local population.

This surface water, fed by pristine snowmelt from the nearby San Bernardino Mountains, is captured in percolation ponds where it seeps slowly through layers of sand and silt that filter out contaminants — just as nature intended.



Snowmelt filtered through the earth via ground basins provide high-quality water. Photo Credit Kimberli Munkres

Partnerships for Future Recharge

The District's engineering team this year completed preliminary design for five of seven Active Recharge Transfer projects, which are designed to capture water from storms and from the Seven Oaks Dam for recharge into the Bunker Hill Groundwater Basin.

Coordinated in partnership with the San Bernardino Valley Municipal Water District and San Bernardino County Flood Control District, these projects represent next-generation approaches to making the most of existing infrastructure to provide multiple benefits to the community. Anticipated to take about a decade to complete, these improvements comprise one of the most ambitious projects in our District's history.

Another promising advancement for future recharge was the District's participation in the Upper Santa Ana River Watershed Infrastructure Financing Authority, a Joint Powers Authority coordinated by the San Bernardino Valley Municipal Water District to support partnerships to help finance water-related projects such as the Active Recharge Transfer projects mentioned above. District General Manager Daniel Cozad was named vice chair.



The Active Recharge Transfer projects will build upon existing infrastructure to optimize stormwater recharge to replenish the aquifer. Photo Credit Kimberli Munkres

Plunge Creek:

Increasing Future Recharge



The Plunge Creek Project after a January storm.
Photo Credit Stephen Readmond

Plunge Creek Project to Dramatically Enhance Water Storage

Future water recharge will dramatically increase, thanks to last year's completion and this year's operation of the Plunge Creek project, which will result in 10 times the amount of groundwater captured when compared to years past.

Plunge Creek was a cooperative project with the U.S. Fish and Wildlife Service to develop over 200 acres of new, high-quality habitat for the San Bernardino kangaroo rat and woolly star – while significantly enhancing groundwater recharge capacity on District-owned land.

Funded through a generous grant from the California Department of Water Resources Proposition 84 grant program administered by the Santa Ana Watershed Project Authority,

construction of the project was completed in 2020, and a full reimbursement received this year.

Unanticipated fall rains this year demonstrated the projected success of the project, with water flow diverted to historic channels as planned for important habitat restoration, and significant enhancement of natural groundwater recharge.



Engineer Katelyn Scholte and Assistant General Manager Betsy Miller-Vixie review engineering plans for the Plunge Creek project.

Ten-Fold.

Protecting Threatened and Endangered Species

The District's Wash Plan Preserve and neighboring habitats within the Upper Santa Ana River Wash are one of only three remaining populations of San Bernardino kangaroo rat in the world, and the Wash population is the largest of the three.

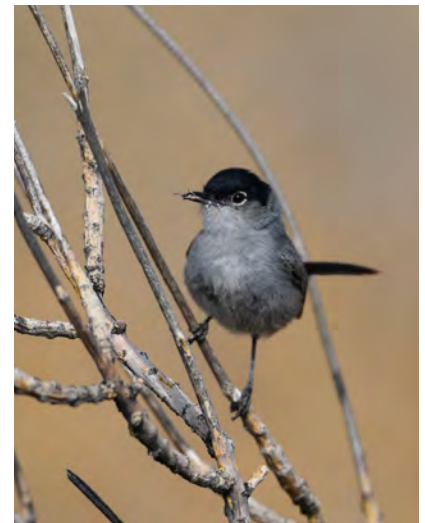
Habitat established there last year is showing significant promise, as early findings show that the San Bernardino kangaroo rat is making its home in over half of lands within the Wash Plan Preserve. The monitoring protocol for the project was prepared by USGS Biological Resource Division scientists.

Meanwhile, California gnatcatcher surveys, conducted this year as part of the Wash Plan monitoring program, also reflect positive outcomes for this tiny, endangered scrub-dwelling bird. At least eight nesting pairs were documented, and prior to monitoring it was unclear if this species nested in the Wash Plan Preserve at all.

These are exciting victories for both species and for the field of habitat conservation. This work will establish new practices and protocols to create groundbreaking new models for protecting sensitive species.



A kangaroo rat wearing its monitoring transmitter after release back into its habitat. Photo credit: Stephen Readmond.



Male California gnatcatcher found in field survey. Photo credit Mike Romich.

Resources Conservation District Assists with Plant Work

The success of the Wash Plan and Plunge Creek Conservation programs hinges on the work of many specialized experts, including biologists and regulatory agencies. One key partner is the Inland Empire Resources Conservation District, which has been contracted to assist with the treatment of invasive weeds among populations of the endangered slender-horned spineflower, studying regeneration of native plants within burn areas, and completing post-construction restoration and monitoring for the Plunge Creek Conservation Project as required by state and federal permits.



The endangered slender-horned spineflower is very tiny and hard to spot. Photo Credit Daniel Cozad, SBVWCD.

COLLABORATION

Advocating for Support of Local Projects

The District worked with the San Bernardino Valley Municipal Water District and other agencies to advocate for projects being planned to further our ability to store water for the future. As a part of this outreach, a field representative of Sen. Dianne Feinstein toured recent progress made on the Wash Plan, and reviewed Valley District's proposal to use Seven Oaks Dam to benefit water conservation projects locally and downstream. The Senator was a sponsor of legislation to enact the Wash Plan, and is supportive of the proposal for Seven Oaks Dam.



Krystian Lahage, Field Representative for Dianne Feinstein (second from left) toured the Wash with SBVWCD General Manager Daniel Cozad, Valley District General Manager Heather Dyer and SBVWCD Senior Project Manager Mike Esquer. Photo Credit SBVMWD

COMMUNITY

Homeless Partnership Demonstrates Success

A two-year partnership between the District and Steps4Life Community Services is showing a 75% success rate in helping people get back on their feet after experiencing homelessness.

The District in 2019 entered into a mutually beneficial partnership to provide a house for the nonprofit's transitional programming in exchange for help establishing a homeless policy and training for District employees.

To date, 25 people have successfully graduated from the program, with many enjoying self-sufficiency and employment with local businesses. Eight participants have either left the program or been transferred to higher levels of care.

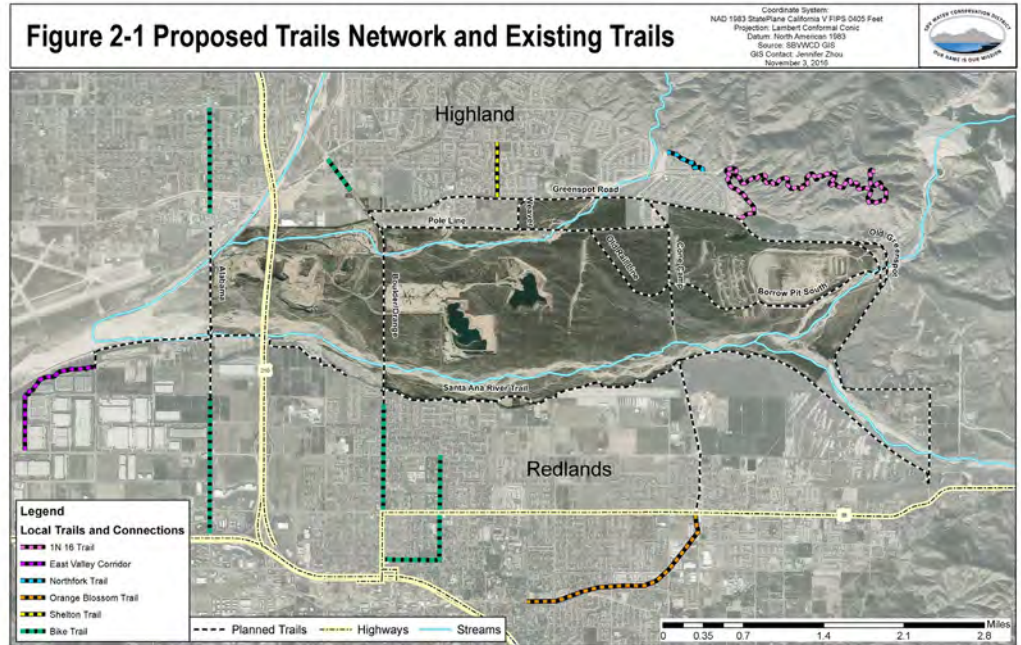


Cynthia McGuigan, executive director of Steps4Life, speaks with Sandra Emerson of SCNG about its partnership with SBVWCD. Photo Credit Kimberli Munkres.

Trails System Planning Underway

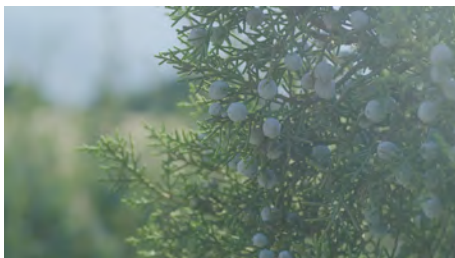
A provisional part of the Wash Plan includes a Trail Master Plan. Adopted in 2016, the Trails Master Plan includes 13 trail segments, from paved bike lanes to “wildland” trails within the Wash Plan Preserve. Part of this plan includes the completion of a vital link completing a 110-mile course for the Santa Ana River Trail from the beaches to the mountains.

Staff has been working with area partners on the early phases of this plan. There’s still a lot of work to do, but once finished, it will provide plenty of opportunity for residents to escape and enjoy the beauty of the Wash.



San Manuel Band Collects Cultural Plants in the Wash

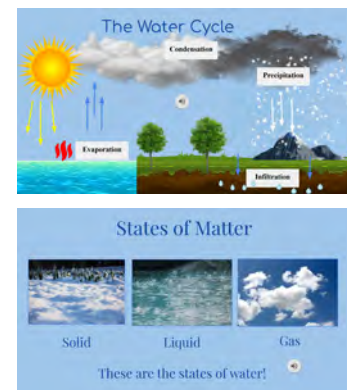
A mutual agreement between the San Manuel Band of Mission Indians and the District promotes a cooperative stewardship and shared alliance to preserve the natural environment and traditional uses of the Wash. The tribe harvests yucca in spring, and other plants such as white sage, dog bane, acorn, cactus, pinyon, and juniper berry are also cultivated at various times and locations to celebrate and continue the tribe’s culture, tradition and harmony with the Earth.



Juniper berries ripening in August. Photo credit Stephen Readmond.

Partnering in Water Education

The San Bernardino Valley Water Conservation District enjoys a longstanding partnership with the Inland Empire Resources Conservation District to provide local students with science-based activities and education that in 2021 proved to be easily adaptable to at-home education settings. Through this initiative, students learn about the Upper Santa Ana River Wash ecosystem, how to build an aquifer, the water cycle, and more.



Slides from water conservation educational presentation for 2nd and 3rd grade levels

LEADERSHIP, AWARDS, MEDIA

President Melody Henriques-McDonald Celebrates 30 Years on the Board

San Bernardino Valley Water Conservation District President Melody Henriques-McDonald marked her 30th year on the Board of Directors with a celebration of her leadership in shaping the District and building collaboration among agencies to improve local water storage and resilience.

General Manager Daniel Cozad called Henriques-McDonald a member of a pioneering “first generation” of water women – a trailblazer with extensive leadership and experience in the industry – applying her knowledge to help guide District and regional projects in terms of management, collaboration with other agencies, public outreach, and perception.

“The world is made of peacemakers and communicators and people who are willing to go that extra mile to make sure things work out,” Cozad said. “We’re glad she’s one of them.”



Wash Plan, Plunge Creek Projects Win Government, Planning Awards

The Upper Santa Ana River Wash Habitat Conservation Plan received two prestigious awards in 2021: the Southern California Association of Governments Green Region Initiative Award for Resource Conservation and Climate Action, and the Inland Empire Section of the American Planning Association’s “Hard Won Victories” award.

The Plunge Creek Conservation Project was honored by the American Public Works Association Inland Empire Chapter with the organization’s Water Supply Protection and Enhancement Project of the Year Award.



The Association of California Water Agencies presented the District with the President’s Special Recognition Award: an honor bestowed on the District for low loss claims in liability, property, and workers’ compensation.



District Hires In-House Counsel

Longtime legal adviser David B. Cosgrove was hired to serve as in-house counsel to the San Bernardino Valley Water Conservation District and the San Bernardino Valley Conservation Trust. He has spent an impressive legal career specializing in water law and land use issues for several cities and water agencies. His areas of expertise include groundwater adjudication issues, real estate law, compliance with the California Environmental Quality Act, endangered species, and general public entity issues. The SBWCD Board and all of our staff are grateful and excited to have David aboard.



SBWCD 2021 By The Numbers:

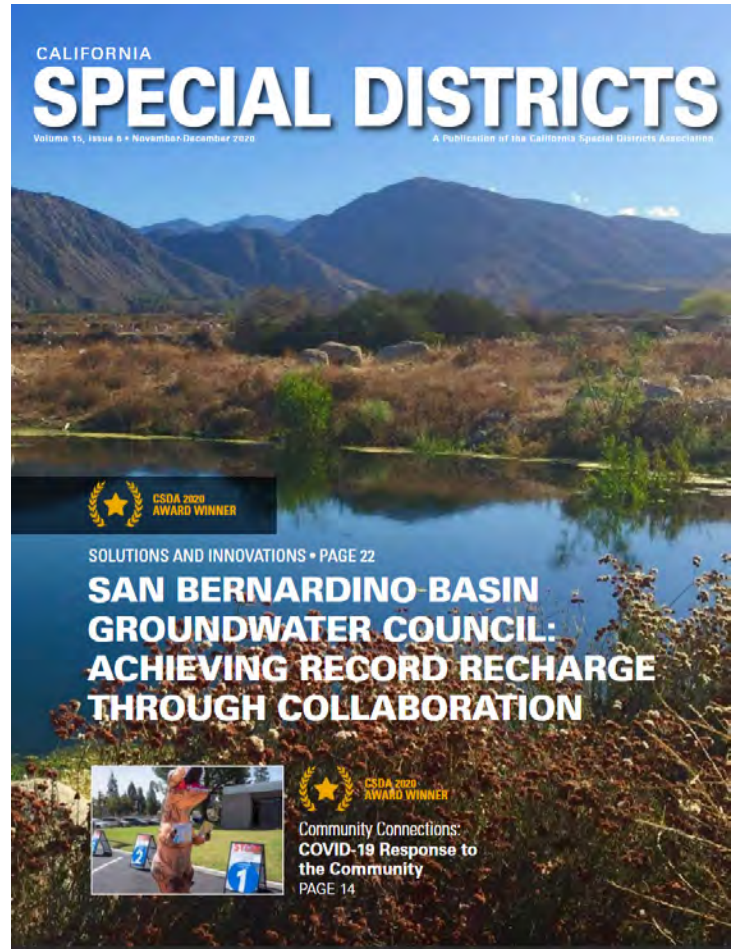
- 3 Awards Won in the Past Year
- 5 Covered Species Protected And Managed
- 2.4 Billion Gallons Stored This Year
- 417 Billion Gallons Stored to Date
- 57 Mill Creek Percolation Basins
- 10 Employees
- 4,892 Acres in Wash Plan
- 778 Acres in Preserve
- \$36 Million in Local Mining Annual Payroll

SBVWCD IN THE NEWS

California Special Districts Association Magazine

Groundwater Council: Achieving Record Recharge Through Collaboration

The California Special Districts Association featured the San Bernardino Basin Groundwater Council as its cover story for its magazine. Winner of the CSDA 2020 Award for Innovative Project of the Year, the Groundwater Council is an innovative, voluntary partnership among area water agencies and cities to work together to enhance local water storage in the region. Record levels of water were captured and stored in the San Bernardino Basin in 2019, due in large part to the collaboration of the group. The ongoing collaboration of the council ensures continued recharge successes long into the future.



Redlands Community News

Plunge Creek Project Recharges Groundwater and Creates a New Home for the Kangaroo Rat

The San Bernardino kangaroo rat and the Santa Ana River woolly star thrive in areas with frequent flooding. But decades of mining — and the construction of ditches, pipeline crossings, levees and a bridge — had cut off water flow and made their environment unlivable.

[Read More](#)



The 200-acre Plunge Creek area.
Photo Credit Stephen Readmond

Redlands Community News

Local Water Storage Totals are Excellent for a Drought Year

Planning for that not-so-rainy day has helped replenish the Bunker Hill Basin with above-average levels of groundwater storage when compared to other recent periods of drought.

[Read More](#)

Highland Community News

Plunge Creek Project Expands Water Recharge, Habitat

After the completion of its Plunge Creek Conservation Project, San Bernardino Valley Water Conservation District (SBVWCD) recently reported that its efforts to return water flow to historic channels are successfully restoring natural habitat for endangered species and increasing the area's natural groundwater recharging capabilities.

[Read More](#)

Summary of Fiscal Stewardship

- Received a clean financial audit for Fiscal Year 2020-21, the ninth year with no management recommendations.
- Approved a balanced budget for FY 2020-21, including capital projects funded under multi-year capital budget.
- Contributed operations savings and aggregate management funding to reserves.
- Funded all District Reserves under 2019 Reserve Policy.
- Fully funded annual OPEB (retiree health benefit) Trust and CalPERS actuarial liability for District staff pension.

What Drives Us...and Why

For more than a century, we have cultivated our relationship to the community, to one another, and to the land itself. We are stewards of the San Bernardino Valley water basin and the native species of the wash above it. We protect the land that cradles our region's water by being proudly scrappy and fearlessly creative. We take a fiscally prudent, pragmatic approach towards fulfilling our mission so that the water supply and the environment it depends upon will be forever protected and available for the community's use.



San Bernardino Valley Water Conservation District

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