

# *Record Breaking Recharge Year*

Report on Accomplishments 2023



**San Bernardino Valley  
Water Conservation District**

Helping Nature Store Our Water



# General Manager's Letter

This was a miraculous water year.

But without the ability to reliably capture and safely store that water, it would have been a wasted opportunity. Thanks to well-maintained infrastructure and key collaborations with local, state, and federal partners, the SBWCD outshone our previous 100+ year recharge record to capture 27.79 billion gallons. This water will serve 190,000 households in our region, a high-water mark in which we should all take great pride.

In light of this accomplishment, I acknowledge our hard-working staff for their all-out efforts to recharge every drop of water possible through 2023. In addition, every member of our team contributed to the successful completion of the Mill Creek Diversion and Debris Management Improvement Project, which was finished on-time and under budget after seven years of design and permitting.

The future of water is always on our minds, and our updated strategic plan builds upon existing relationships and long-term partnerships with local agencies, including the Bureau of Land Management, Inland Empire Resources Conservation District, and many others. Our focus remains the stewardship of initiatives related to the Santa Ana River Wash in order to provide a reliable water source to serve our local and regional communities as the backbone of our economy, environment, and culture.

As with any project of this magnitude, the updated strategic plan is the cumulation of many hours of hard work, brainstorming, and research by our board, staff, and strategic partners. We are most appreciative of our board who so freely applied their experience and guidance to this initiative.

We cannot look forward without looking back at those whose legacies guide us. Our sincere thanks go to former General Manager Daniel Cozad who retired in 2022 from his 12 years of leadership through drought and flood. We are grateful for his visionary leadership and honored to build upon his impressive legacy.



Betsy Miller Vixie  
General Manager

## Current Board Members

### Division 1:

Richard Corneille  
Term of office expires:  
December 09, 2024

### Division 2:

David E. Raley  
Term of office expires:  
December 14, 2026

### Division 3:

Robert Stewart  
Vice President  
Term of office expires:  
December 11, 2024

### Division 4:

John Longville  
Term of office expires:  
December 14, 2026

### Division 5:

Melody McDonald  
President  
Term of office expires:  
December 14, 2026

# BLM Grant Awarded

As part of the Biden Administration's Infrastructure Act, the San Bernardino Valley Conservation Trust received a grant from Bureau of Land Management (BLM) to reduce the risk and impact of catastrophic wildfires on San Bernardino Valley Water Conservation District properties. Focusing on risk reduction measures and hazardous fuels management, the grant will build on the current partnerships with the Conservation Trust, Conservation District, and BLM to prevent wildfires while restoring habitat for local endangered species

The five-year project is estimated to cost \$1,044,500, with \$819,500 from BLM and \$225,000 in matching funds and services performed by the District.



In addition to reducing the risk and impact of wildfires, the District is called into service nearly every year to support community fire suppression efforts. Photo Credit: Tommy Purvis.

# District Finalizes Strategic Plan Update

We are excited to announce the completion of the District's strategic planning update process, culminating in a five-year shared vision for the agency, including our mission, vision, values, goals, and objectives. The Strategic Plan 2024–2028 builds upon the District's 115+ years of stewardship of the Upper Santa Ana River Wash and the aquifer beneath it. The new blueprint allows us to meet the increasing complexities of managing extreme drought and flooding to protect the precious resources that we rely upon. It will also help us reach key milestones while remaining flexible enough to leverage new opportunities and manage risks.

Establishing consensus for priorities can be challenging, especially with so many demands upon limited resources. With this in mind, the SBVWCD remains committed to continuing our 115+ years of effective and innovative groundwater recharge while revitalizing the threatened habitat on our working lands.



The District's vision for the future is based on the successes and challenges of our past. In this image from March 1934, a crew of workers dig trenches near Mill Creek. Photo Credit: SBVWCD.

# Completed: Natural Resource Management Plan for the Wash Plan Preserve

2023 saw the completion of the Upper Santa Ana River Wash Habitat Conservation Plan Preserve's Natural Resources Management Plan (NRMP). The NRMP fulfills one of the Habitat Conservation Plan requirements by providing a detailed strategy for improving the natural resource values of more than 1,500 acres conserved by the Habitat Conservation Plan, boosting the populations of species covered by the Plan.

[Read More & Download the NRMP](#)



The Wash Plan requires conservation and management of five endangered species including the San Bernardino kangaroo rat (*Dipodomys merriami parvus*). Photo Credit: Highland News.

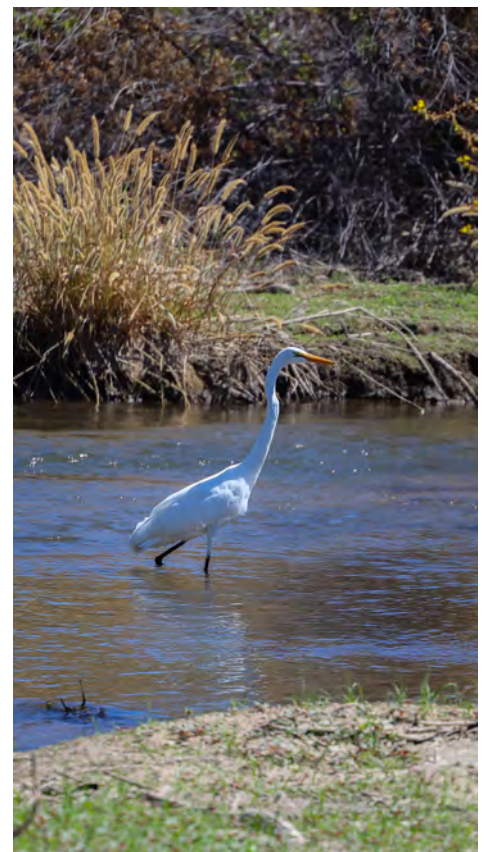
# *100+ Year Recharge Record Broken:* **27.79B Gallons**

Thanks to unprecedented levels of winter rain and snow melt in 2023, the San Bernardino Valley Water Conservation District surpassed its highest water recharge record of all time: 85,302-acre feet of water, or 27,795,778,560 gallons, including in-stream recharge. This record-breaking achievement is due in part to peak levels of rain and snowfall, as well as water imported via the State Water Project under the auspices of the Groundwater Council.

The Conservation District's high-water score compares to when officials began keeping records in 1912. The figure includes in-stream recharge which is water that naturally recharges as it flows through the creeks and rivers locally. In-stream recharge was not included in the Conservation District's previous high total of 80,065-acre feet measured in 1923.

Since 1912, the SBVWCD has conserved more than 1.40-million-acre-feet or 456.71-billion gallons of water by diverting the natural flow of the Santa Ana River and Mill Creek into 71 percolation basins.

A snowy egret wades in the main canal on the Santa Ana River above a groundwater recharge basin.  
Photo Credit: SBVWCD.



# Propagating Threatened & Endangered Species

The District's field staff and environmental consulting team from Dudek spread more than 100,000 seeds of the endangered slender-horned spineflower (*Dodecahema leptoceras*) into areas of the Upper Santa Ana River Wash preserve where the plant does not currently make its home.

A total of 260,000 seeds were initially collected from 418 plants through a labor-intensive seed-bulking process to fulfill requirements of the Upper Santa Ana River Wash Habitat Conservation Plan. The project lays the groundwork for the successful introduction of the slender-horned spineflower in order to establish new populations in the region. Each seeding area contains individual locations, or trial blocks, which are made up of various study and observation plots.

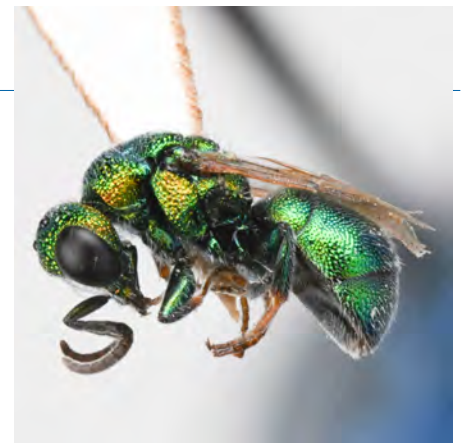
Seeding took place near Plunge Creek and Cone Camp and may be expanded to additional locations that are consistent with the goals of the Santa Ana River Wash Plan.



Seed spreading of slender-horned spineflower (*D. leptoceras*) in the Santa Ana River Wash. Photo Credit: SBVWCD.

## Pollination Partnership

The University of Redlands is partnering with the District to explore relationships between pollinators and endangered plants, such as the slender-horned spineflower. This represents a new discovery about the critical interactions between plants and animals, with potentially significant implications for the long-term management and recovery of native species. The cuckoo wasp (*Chrysididae*), or emerald wasp, is a documented pollinator of the state and federally endangered slender-horned spineflower. Although exceptionally small (approx. 2 mm), the cuckoo wasp plays a critical role in the survival of other native species.



The cuckoo wasp (*Chrysididae*) measures just 2 mm but plays a mighty role as a pollinator of the slender-horned spineflower (*D. leptoceras*). Photo Credit: Dr. Dustin VanOverbeke, Assistant Professor of Biology, University of Redlands.

Another documented pollinator of the state and federally endangered slender-horned spineflower is the square-headed wasp (*Crabronidae*). Photo Credit: Dr. Dustin VanOverbeke, Assistant Professor of Biology, University of Redlands.



# COLLABORATION

## Santa Ana River Symposium - Local Scientists Tour the Wash

Collaboration is at the core of our work. This theme was highlighted at the 2023 Santa Ana River Science and Conservation Symposium hosted by District partner San Bernardino Valley Municipal Water District with supporting sponsorships by the District and other area partners.

The two-day event featured presentations on SBVWCD research impacting the Wash, including ecological sustainability, creating endangered species habitat, and monitoring techniques. It also included a tour of the Santa Ana River and Wash, where participants saw some of the potent work done to protect and preserve local species.

[Read More](#)



Attendees at the Santa Ana River Science and Conservation Symposium on the District's Wash Tour. Photo Credit: SBVWCD.

## University Highlights

Ongoing SBVWCD partnerships with California schools and colleges include:

- CSU San Bernardino – hydrology students toured the Wash's local groundwater recharge facilities and natural resource areas to apply textbook concepts to real life scenarios.
- University of Redlands – collaboration on research projects to support local pollination species including the cuckoo wasp.
- CalPoly Pomona – collaboration on a contract with JLC Engineering to share data science approaches to rainfall predictions to strengthen project cost/benefit analyses.
- CSU Sacramento – collaboration on a U.S. Bureau of Reclamation WaterSmart Applied Science Grant.



## PERC Feasibility Project Underway with CalPoly Pomona

Our partnership with CalPoly Pomona expands work completed for the Plunge and Oak Creek Basins through our Program for the Expansion of Recharge Capacity (PERC). With a data science approach, we are applying high precision tools developed by JLC Engineering to more realistically evaluate the cost/benefit of each project by improving predictions for water capture in stormwater and groundwater recharge facilities. This is especially important in Southern California as well as other climates with uncertain annual and interannual rainfall. This unique approach leverages available scientific data to ensure that selected projects provide the highest possible community benefit. A guide will be prepared and shared with engineers working on similar projects to expand the project's value.

# Mill Creek Diversion and Debris Management Project

By the end of calendar year 2023, construction will be completed for the Mill Creek Diversion and Debris Management Project. This vital project will help maintain water diversion during high flow events while limiting the amount of debris entering District recharge facilities. It will also decrease maintenance costs associated with sediment accumulation. Mill Creek's existing diversion has been replaced with enlarged gates, diverter walls, and a low flow outlet. These critical improvements will improve function of the Mill Creek recharge facility and help return more potential stormwater-carried material back into natural flow paths. Our thanks go to staff for their all-hands-on-deck approach to completing this project on time and under budget.



The Mill Creek Diversion and Debris Management Project complex is a true success due to the collaboration of our staff, board, and construction team, and partners.  
Photo Credit: SBVWCD.



Construction at Mill Creek will allow sediment in diverted water to make its way back into the creek, limiting maintenance needs and returning the area to more natural conditions. Photo Credit: SBVWCD.

## FIRO Moves Forward at Seven Oaks Dam

The District is a member of the Forecast Informed Reservoir Operations Steering Committee (FIRO) for Seven Oaks Dam, a project spearheaded by the San Bernardino Valley Municipal Water District. Built in 2000 to store 145,600 acre feet of storm water, Seven Oaks Dam (in tandem with Prado Dam) prevents flood-related damages from extreme precipitation events in Orange, Riverside, and San Bernardino Counties. These events have typically been driven by strong and long-lasting atmospheric rivers (AR) storms impacting the Santa Ana River.

Recent advances in understanding how ARs work, and how to better predict them, will yield the potential to enhance water supply reliability and balance water needs, boost flood risk management, and improve habitat.

Operations at Seven Oaks Dam and Prado Dam have historically accounted for such storms and could potentially allow water to be held longer and released more slowly to allow for more water to be recharged into the aquifer.

[Read More](#)

# LEADERSHIP, AWARDS, MEDIA

## San Bernardino Valley Conservation Trust Gets New Leadership

Milan J. Mitrovich, PhD, Land Resources Manager at the San Bernardino Valley Water Conservation District is the new Executive Director of the San Bernardino Valley Conservation Trust. The Trust's mission is to directly support the protection and stewardship of lands and endowments protecting natural resources, endangered species habitats, open space and outdoor recreational areas in the San Bernardino Valley through the Wash Plan and other future projects.



Photo Credit: Christel Mitrovich.

## Water Leader Courses

General Manager Betsy Miller Vixie completed the year-long Leadership Essentials for the Water Industry Program offered by the Association of California Water Agencies Joint Powers Insurance Authority (ACWA JPIA) in October 2023. The District's Field Supervisor Manuel Colunga began the ACWA JPIA course this year with other District staff scheduled to attend in the future.



Manuel Colunga, SBVWCD Field Supervisor. Photo Credit: SBVWCD.



[Read More](#)

## Melody McDonald Newly Appointed ACWA JPIA President

Congratulations to SBVWCD Board President Melody McDonald who is the newly elected board president of the Association of California Water Agencies Joint Powers Insurance Authority (ACWA JPIA), a partnership of water agencies dedicated to avoiding the high cost of commercial insurance. She is the first woman to hold this role in the history of ACWA JPIA.



## Financial Analysis Leader Course

General Manager Miller Vixie also completed the Financial Data Analysis for Leaders Program at UC Berkeley Executive Education. The course is a finance program geared towards non-finance managers that demonstrates how to create value in a business through financial analysis, cost management, and profitability ratios.



[Read More](#)



# San Manuel Band of Mission Indians

We are deeply grateful for the engagement of the San Manuel Band of Mission Indians as the District worked to obtain tribal approval of the following Land Acknowledgment Statement in 2023:

## Land Acknowledgment Statement

The San Bernardino Valley Water Conservation District recognizes and respects Indigenous peoples as traditional stewards of the land. We acknowledge the land upon which we currently serve as the custodian is the ancestral and unceded territory of the Maara'yam, commonly referred to as the Serrano people.

We extend our respect and gratitude to the Serrano people who have lived on and cared for this land since time immemorial. We honor the continued legacy of these original conservationists, and their heritage of understanding, caretaking, and upholding the pillars of plant and animal life and respect for natural processes. Our histories and stories are intertwined in this space, and by sharing them in culturally appropriate ways, we hope to honor and celebrate our Indigenous neighbors and partners.

We recognize Indigenous knowledge and seek to provide opportunities for mutual consultation, collaboration, and cooperation in the stewardship of the land. Specifically, through working with the San Manuel Band of Mission Indians, one of two federally-recognized Tribes which represent the Serrano people in the contemporary era, we seek to identify, restore, and enhance traditionally important plant resources in the Upper Santa Ana River Wash, provide access to plant materials for cultural and educational purposes, and ensure the land is managed in a manner that promotes ecosystem health, groundwater sustainability, and creates opportunity for incorporation of traditional tribal management practices.

## SBVWCD 2023 By The Numbers:

**5** Covered Species Protected And Managed

**456.71** Billion Gallons Stored to Date

**71** Mill Creek Percolation Basins

**10** Full-time Staff Members

**4,892** Acres in Wash Plan

**788** Acres in Preserve

**\$5.47M** Annual Budget

**\$8M** Capital Improvement Budget

(\$3M allocated for the upcoming year)

# SBVWCD IN THE NEWS

## IE Community News

### Successful Groundbreaking Ceremony for Santa Ana River Enhanced Recharge Phase 1B Marks Milestone in Water Supply and Environmental Preservation

Over 30 years in the making, regional agencies celebrated the ground-breaking of the latest water infrastructure and environmental preservation project in the San Bernardino Valley. The San Bernardino Valley Municipal Water District, Western Municipal Water District, Riverside Public Utilities, and the San Bernardino Valley Water Conservation District held a joint groundbreaking ceremony on June 2, 2023, for the Santa Ana River Enhanced Recharge Phase 1B project. This momentous occasion represents a significant milestone in the collaborative efforts to enhance regional water supply reliability while simultaneously preserving and enhancing habitat for multiple endangered species. [Read More](#)



Photo Credit: IE Community News.

## Record Gazette

### Homeless Count is a Regional, Statewide Effort

The annual, Point-in Time count held in January since 2012, helps determine funding from the state and federal government. Step Up Coordinator Crystal Cherpin, Case Manager Teresa Disarufino and Mike Guizar, team leader, field operations specialist for the San Bernardino Valley Water Conservation District, which stores groundwater in the Bunker Hill Basin, make up the team that searched the Santa Ana River Wash starting at 6 a.m. off Interstate 215 off Orange Street from the Redlands Community Center. Strategizing in a 1999 Suburban, the team pulled into the wash from a gated entrance off Orange Street in search of homeless people waking up. [Read More](#)



Michael Brian Ladner (under the blanket) in his encampment partially constructed inside a city drainpipe, discovered during the county's latest Point-in-Time survey. Photo Credit: Redlands Community News.

## Street Insider

### San Bernardino Valley Water Conservation District Joins the California Purchasing Group for Tracking Bid Distribution

The San Bernardino Valley Water Conservation District has joined the California Purchasing Group, an e-procurement system from Bidnet Direct that provides over 50 local government agencies throughout California a solution for bid and vendor management. The San Bernardino Valley Water Conservation District invites all potential vendors to register online with <http://www.bidnetdirect.com/california/sbvwcd> to access its upcoming solicitations.

The San Bernardino Valley Water Conservation District can publish all bid opportunities on the California Purchasing Group site, by doing this they will be able to track every step of the process and have a more transparent bid process. Participating government agencies utilizing the California Purchasing Group can track vendors interested in a specific bid, as well as finding out which ones download the documents.

[Read More](#)

# SBVWCD – OUR VALUES

**We embody integrity** through fiscal responsibility in public service by holding ourselves accountable to our partners and community at large.

**We continue to build our community** of employees, partners, businesses, and neighbors who drive our mission. Our success depends on responsive collaboration and transparent communication.

**We are stewards of the water, land, and environment** and are committed to sustainable practices that will ensure a resilient future.

**We are ethical** and respect both people and the environment to serve our community's diverse values.

**We balance innovation and time-tested pragmatism** to advance professional excellence, continually improving to meet the evolving priorities of today and a changing world tomorrow.

**We are resilient.** We adapt to address future climate impacts and ensure the District's next 100 years with our continued humble, flexible, and curious approach to water and the natural world.

## *Summary of Fiscal Stewardship*

- Received a clean financial audit for Fiscal Year 2022-23, the eleventh year with no management recommendations.
- Approved a balanced budget for FY 2022-23, including capital projects funded under multi-year capital budget. Of the approved \$8M capital improvement budget, \$3M is expected to be utilized.
- Contributed operations savings and aggregate management funding to reserves.
- Funded all District Reserves under 2023 Reserve Policy.
- Fully funded annual OPEB (retiree health benefit) Trust and CalPERS actuarial liability for District staff pension.

# What Drives Us...and Why

## MISSION

As one of California's first sustainable groundwater replenishment agencies, the District proactively recharges water, improving supply for the benefit of water users, local businesses, and native flora and fauna in a financially responsible way.

The District leverages our unparalleled expertise as stewards of the water and land, responsibly innovating in water and habitat conservation, harmonizing and enhancing working landscapes, and enriching open space as a community asset.



Bald Eagle, Mountaintop Ranger District,  
San Bernardino National Forest.  
Photo Credit US Forest Service



## San Bernardino Valley Water Conservation District

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