

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

2018
ANNUAL
REPORT



BOARD OF DIRECTORS



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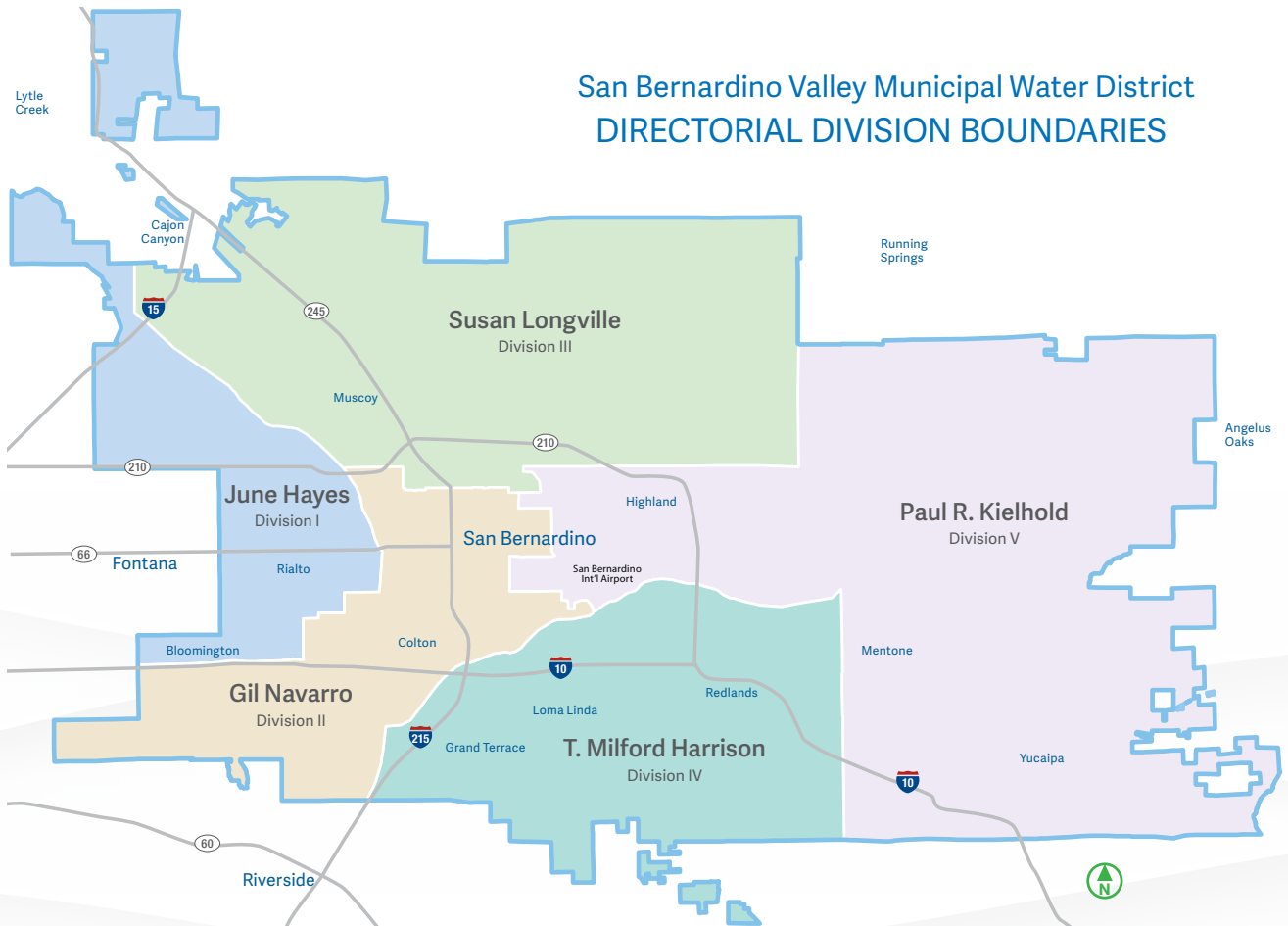


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A WORD FROM THE GENERAL MANAGER

“The San Bernardino Valley Municipal Water District is committed to investing in the infrastructure and water resources necessary to provide for the long-term water needs throughout our service area. As we approach our 65th year of serving the region, the District continues to focus on planning for the water future of a growing region.

In 2018, Valley District accomplished significant results. We completed major projects that contribute to groundwater replenishment and made major progress on projects like the Upper Santa Ana River Habitat Conservation Plan. Another highlight was the establishment of the San Bernardino Basin Groundwater Council. This collaborative approach to water management recognizes the value of partnerships to ensure a reliable water future.

Our big focus for 2019 and years ahead is the Upper Santa Ana River Habitat Conservation Plan. Many of Valley District’s water supply projects, and those of surrounding cities and water agencies, rely on the completion of this collaborative approach to managing sensitive habitat.

In 2019, Valley District will continue to promote the value of off-stream storage, like the Sites Reservoir Project, as well as the Delta Conveyance Project to ensure our region’s vital supply of imported water is protected and enhanced. We look forward to continued partnerships with our retailers in order to support their enhanced use of recycled water and water use efficiency programs throughout our service area.

I want to thank the Valley District Board of Directors and Staff for their dedication and commitment to serving our region by ensuring a reliable water supply. Here’s to another successful year.”



Douglas D. Headrick



HISTORY

The San Bernardino Valley Municipal Water District (Valley District) was formed in 1954 to find and deliver water to supplement the local surface water and groundwater supplies in the most densely populated areas of San Bernardino County. The region was experiencing drought and was in the midst of a lawsuit that threatened to take some of the local water supply resources.

As a State Water Contractor, Valley District works with the California Department of Water Resources and 28 other contractors to reliably manage the State Water Project. The State Water Project meets the water needs of nearly 27 million Californians and 750,000 acres of agriculture. The District signed a contract with the state Department of Water Resources in 1960 to purchase water from the Feather River, which became the State Water Project. For Valley District, the State Water Project provides a supplemental water supply to our retail water agencies, enhancing and ensuring the water supplies throughout the region even during drought.

325
sq. miles



700K
people

The 325 square-mile Valley District service area transitioned from agriculture into a growing community of residents and the businesses and industry to support it. Today, the region

includes an airport, a state university, two community college campuses, hundreds of primary and secondary schools, and nearly 700,000 people.

Valley District is a wholesale water agency, so its customers are the retail water agencies that serve the cities and communities of Bloomington, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Mentone, Redlands, Rialto, San Bernardino, and Yucaipa.

1892 photo of Bear Valley Mutual Water Company Highline Canal crossing Greenspot Road area. | Photo courtesy of A.K. Smiley Public Library

Looking down the flume of Bear Valley Water Company, 1890s. | Photo courtesy of A.K. Smiley Public Library



VITAL FACTORS

In 2015, the District identified what was most important, or vital, to our long-term success. This process resulted in the following Vital Factors:



Improve Water Supply Reliability - Improve water supply reliability to meet demands in an extended drought, through water banking, stormwater, new imported water sources, recycled water, and water conservation.



Improve Water Quality - Avoid impacts to contamination plumes and help retail water agencies address water quality challenges.



Improve Habitat and Open Space - Take a leadership role in obtaining permits to build water supply projects through the development of the Upper Santa Ana River Habitat Conservation Plan.



Customer Satisfaction - Create customer satisfaction by adding value and creating a spirit of cooperation and collaborating with its retailers.



Public Safety - Minimize or eliminate damage caused by emergencies and strive to reduce the risk of liquefaction through good basin management.



Stewardship - Maximize the use of State Water Project water supply, reduce costs, identify alternative revenue sources, and seek a reasonable return on its investments.

2018 AT A GLANCE



WATER USE EFFICIENCY PROGRAM



Device Rebates
\$47,000



Turf Removal Rebates
\$178,000



Smart Irrigation Controller
\$90,000



EDUCATION PROGRAM

\$28,000 Invested



Classroom Presentations
120 Programs
3,600 Participants



Workshops and Garden Tours
9 Programs
180 Participants

State Water Project Allocation in 2018 was

35% or

35,910

acre feet or nearly
11 billion gallons



A **100% allocation**
=102,600
acre feet or
nearly **33 billion**
gallons



Groundwater storage in 2018 was down

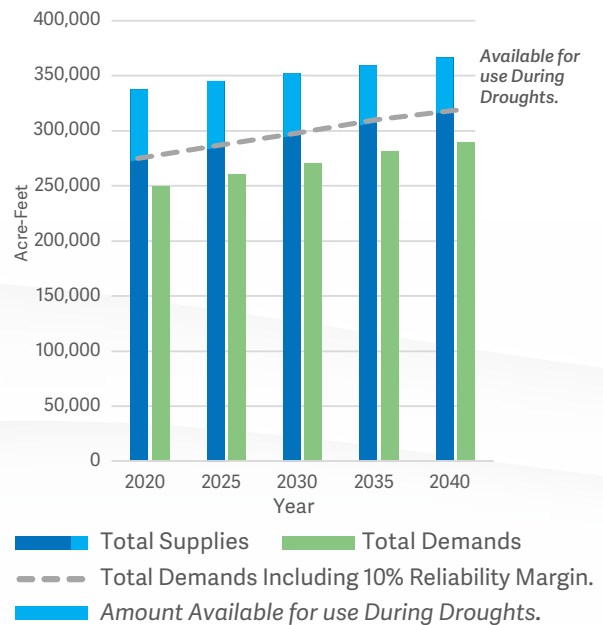
40,905 acre feet

compared to the previous year.

(Groundwater levels have been below base year averages for many years due to the ongoing drought.)



A Look at our Future Water Supplies



2018 SIGNIFICANT EVENTS

Water agencies from Yucaipa to Fontana collectively depend on Valley District to provide them with roughly 25% of the region's water needs for their businesses and residential customers. But Valley District does much more than simply import water from Northern California. From planning and research to implementation of groundwater recharge projects, Valley District completed significant work in 2018.

Valley District provides roughly **25%** of the region's water needs



Crafton Reservoir

In addition to developing and implementing long-range water acquisition strategies that benefit water agencies, residents and businesses throughout the service area, Valley District has designed and built a state-of-the-art network of pipelines, pump stations, reservoirs, and canals that efficiently deliver water throughout the San Bernardino and Yucaipa Valleys for groundwater recharge as well as direct use by other water agencies.

*Left to Right:
Enhanced Recharge Project*

In 2018, Valley District was engaged in settling disputes with the Fontana Union Water Company relating to the Rialto and Lytle Basins. The District continued its support of partnerships through its ongoing leadership of the Upper Santa Ana River Habitat Conservation Plan, which is needed to obtain permits for water supply projects.

Baseline Feeder South Ext Pipe

Waterman Turnout

Valley District hired the RAND Corporation (RAND) to perform an independent analysis of the water demands and supplies in the San Bernardino Valley Regional Urban Water Management Plan (RUWMP). In 2018, RAND completed their analysis of demands which is published in the study *Estimating Water Demands in the San Bernardino Valley Municipal Water District*. The RAND study found that future demand could be higher than estimated if temperature and population increase more than projected, or water use efficiency is less than expected. Valley District is committed to investing in strategies that will help increase water use efficiency throughout our region. RAND's evaluation of supplies will be completed in 2020.

Left to Right:

City Creek Crossing

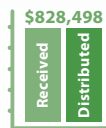
Citrus Pump Station



TURF REMOVAL GRANT



Total grant received (and distributed) was **\$828,498**



Valley District **Matched** the grant amount



58 Institutional Projects Completed





PROJECTS & PROGRAMS

Enhanced Recharge Project on the Santa Ana River: Phase 1A



The Enhanced Recharge Project Phase 1a is the first set of improvements to capture and use Santa Ana River water diverted by Valley District and Western Municipal Water District (Western) under two Water Rights Permits. When complete, these facilities will enable the diversion of up to 500 cubic feet of water per second (cfs) and recharge up to 80,000 acre-feet of water in a single year.

The intent of the Project is to put to beneficial use stormwater captured behind the Seven Oaks Dam by diverting flow from the Santa Ana River to spreading basins and pipeline deliveries to local agencies throughout the valley. Phase 1a consisted of intake improvements, a sedimentation basin, a canal extension, recharge basins and the connection of the sedimentation basin to the existing Foothill Pipeline through the new Plunge Pool Pipeline.

Local Resources Investment Program



In 2018, the Board of Directors developed the Local Resources Investment Program (LRIP) that offers a financial incentive to local retailers that construct projects that provide a new source of supplemental water to the Valley District service area, such as recycled water or stormwater capture. The LRIP



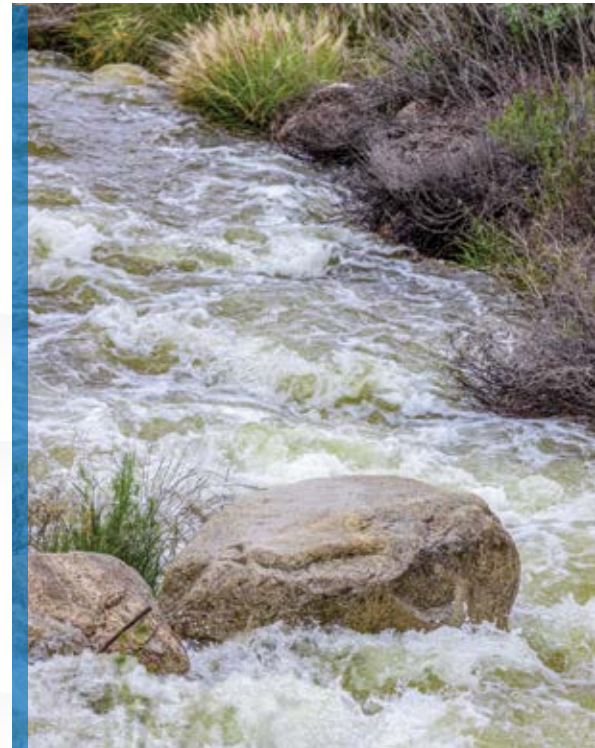
has a program goal of securing an additional 15,000 acre feet of supplemental water each year. This investment in local water resources helps the Board achieve one of its vital factors - Improving Water Supply Reliability.

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Valley District also continues to look for other strategies that will help provide a more robust, long-term portfolio of reliable water supplies for our region. The Santa Ana River Conservation and Conjunctive Use Program, Bunker Hill Basin Conjunctive Use Project, the Enhanced Stormwater Capture/Recharge Project, and the water use efficiency program are some of the ways that Valley District is working to improve water supply reliability.

The first project to take advantage of the LRIP is the Sterling Natural Resources Center, being constructed by East Valley Water District. Once complete, this project will produce up to 11,000-acre feet of recycled water.

This water will be recharged into the San Bernardino Basin Area and offset the need to import State Water Project water. Valley District will provide East Valley with approximately \$2 million per year for twenty (20) years.



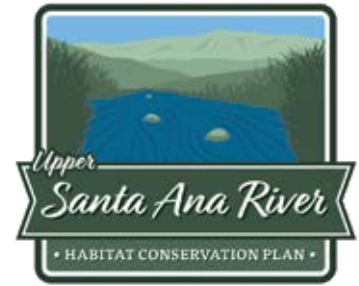


STEWARDSHIP & SUSTAINABILITY



Upper Santa Ana River Habitat Conservation Plan

One of the most significant projects in Valley District's recent history is the development of the Upper Santa Ana River Habitat Conservation Plan (HCP). On behalf of 13 signatory agencies, Valley District is leading the development of a comprehensive environmental compliance program, which is creating a framework to acquire all necessary permits authorizing the construction, operation, and maintenance of water supply projects. These projects have been identified as cost-effective alternatives to increase the water supply reliability of the region by approximately 70,000 acre feet per year, especially during droughts.



Upper Santa Ana River Habitat Conservation Plan Highlights

Specific 2018 Accomplishments

- Completed construction of captive breeding raceways where Santa Ana sucker will be propagated and cared for, prior to translocation to upper watershed streams.
- Secured \$1 million for an integrated model that follows water flow throughout the watershed.
- Completed Phase 1 of Seven Oaks Dam high flow study and developed the San Bernardino kangaroo rat habitat sustainability model.
- Secured a long-term lease from the Riverside County Parks and Open Space District of the Louis Rubidoux Nature Center and management of 40-acres that will be used for multiple benefits, including Santa Ana sucker habitat.

Top Row: Seven Oaks Dam. Middle Row, Left to Right: Santa Ana sucker, Least Bell's vireo chicks, Least Bell's vireo Adult
Bottom Row, Left to Right: Burrowing Owl, Mountain Yellow-legged Frog, Los Angeles Pocket Mouse

Fontana Settlement



In September 2018, after five years of litigation and negotiations, Valley District settled with Fontana Water Company regarding groundwater extraction rights. Groundwater pumping rights in the Rialto Basin were established by means of a 1961 court decree called the Rialto Decree, which remains in effect to this day. Unfortunately, the legal description of the boundaries of the Rialto Decree failed to include a 1,600-foot wide sliver of land west of the Rialto Basin, called “No-Man’s Land,” which shares the same groundwater resources.



Valley District took the lead in a lawsuit in 2013 and was pleased to see it come to resolution in 2018. The final settlement specified and required, among other things, that all parties commit to

groundwater management principles and to implement specific sustainable groundwater practices.

Valley District continued to work with other non-settling parties after the September 2018 decision and reached a global settlement with all parties involved in early 2019.

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GROUNDWATER COUNCIL

Establishment of the Groundwater Council for the San Bernardino Basin Area



In January 2018, more than a dozen cities and water districts voted to participate in the Groundwater Council (GC), a 21st-century model for cooperation to achieve sustainable levels of water storage in the San Bernardino groundwater basin. An equitable cost allocation methodology was developed to share the cost of supplemental water for the long-term sustainability of the San Bernardino Basin Area (SBBA).



The goal of the SBBA GC is to plan and sustainably manage the local groundwater basin. Knowing that the region will experience additional droughts in the future, it is imperative that all parties work together to manage the groundwater resources.



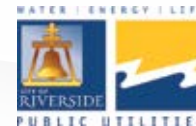
The local groundwater basin storage levels are at an all-time low, causing the need to develop a long-term sustainability plan that meets future water demands.

The goal of the SBBA GC is to plan and sustainably manage the local groundwater basin.

In its first year alone, the SBBA purchased and delivered 18,000-acre feet of water to the basin.

Participating agencies will contribute funding to purchase imported water. Members of the council are groundwater producers, including East Valley Water District; the cities of Colton, Loma Linda and Rialto; Riverside Public Utilities; San Bernardino Municipal Water Department; Riverside Highland Water Company; Fontana Water Company; San Bernardino Valley Municipal Water District; San Bernardino Valley Water Conservation District; Western Municipal Water District; Bear Valley Mutual Water Company; and Yucaipa Valley Water District.

BEAR VALLEY
Mutual Water Company



SIGNIFICANT PROJECTS

Hydroelectric Facilities

As water moves through the Valley District service area and is recharged into the local basins, hydroelectric power can be generated. The District has been able to

As water moves through the Valley District service area and is recharged into the local basins, hydroelectric power can be generated.

take advantage of this

clean energy source at a number of facilities throughout the service area, including the Lytle Turnout and Roemer Facility, the Waterman Turnout and the City Creek Turnout. Valley District has partnered with its retailers on these projects, including the San Bernardino Municipal Water Department for the Waterman Turnout Hydroelectric Generation project, East Valley Water District for the City Creek Turnout and West Valley Water District for the Roemer Hydroelectric Station.

Yucaipa Basin Infiltration Testing

As part of the Yucaipa Basin Groundwater Sustainability Plan, water recharge testing was completed at twelve different sites to identify the water recharge rate. This project aligns with the District's integrated regional water management plan objectives of water supply reliability and water quality protection, by determining the most effective areas of groundwater recharge within the groundwater basins.





Foothill Project Relocation

The District worked with the San Manuel Band of Mission Indians (SMBI) to relocate a portion of the 78-inch Foothill Pipeline, which traversed in front of the Casino building. The location of the pipeline had long raised concerns by SMBI of constrained access and live loading conditions over the pipeline. The District replaced approximately 1,400 feet of existing pipeline with 1,850 feet of new pipeline behind the Casino building.

An agreement between SMBI and Valley District included establishing the cost allocation for each party for construction. The District relinquished the existing easement once construction was completed and a new easement was granted.

Over the course of construction, the scope of work was expanded to include replacing a substandard water main, improvements to fire service laterals and removal/abandonment of a portion of the existing Foothill pipeline.

The first phase of the project was completed in November 2018. The total cost for the project was \$12.7 million of which SMBI reimbursed the District for 80%.

IMPORTED WATER RELIABILITY



The State Water Project carries water throughout California, delivering it to homes, businesses, and the agricultural community. About 30% of the water that flows into Southern California comes from Northern California. In order to ensure a reliable water supply for the future, state and federal agencies want to modernize the State Water Project system by building new intakes in the northern Delta, along with a tunnel to convey water to the existing aqueduct system in the southern Delta. A long-term solution for the Bay-Delta region is necessary for the reliability of the state's water system.

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Valley District, like other State Water Contractors, has concerns about the water supply that flows through the Delta. The risk for potential disasters that could cause a collapse in Delta levees would render the State Water Project water supply unusable for years due to saltwater intrusion. Identifying a long-term plan for this water source is part of the State's overall water management portfolio, which includes water conservation, water management, recycling, ecosystem protection, and more.



30%

of the water that flows in Southern California comes from Northern California via the Sacramento-San Joaquin Delta.





Sites Project

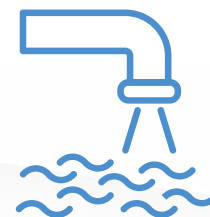


As a result of a series of endangered species protection decisions in the Sacramento-San Joaquin Delta, the average water supply reliability of the State Water Project has been reduced by approximately 20% (20,000 acre feet per year reduction for Valley District) since 2007, with possible future reductions. Valley District Staff continues to investigate replacement water supplies both locally and in other parts of the State to ensure that we can reliably meet supplemental water demands into the future. This is why Valley District is investing in the Sites Reservoir Project. The Project will help Valley District mitigate the risk of further cutbacks on the State Water Project and prepare for droughts.

The Sites Project has been anticipated for more than 50 years and was originally envisioned as part of the State Water Project. It is an off-stream



reservoir with 1.3 to 1.8 million acre feet of storage capacity that would be filled from diversions off the Sacramento River. The water supply benefits, which have been studied for years, are estimated at between 400,000 and 500,000 acre feet per year, enough water to serve 3.7 million people.



Enough water to
serve **3.7 million**
people



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