

CALIFORNIA

WATER

INLAND EMPIRE 2021

Rebuild SoCal Needles: On the Brink of Water Disaster

IEUA Taps into Recycled Water

Western MWD Connecting the Drops

Eastern MWD Welcomes New GM

San Bernardino Valley MWD Looks Ahead

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Framework for the Future

Welcome to the second issue of the Southern California Water Coalition's partnership with the publishers of **California Water Inland Empire**. This special magazine focuses on the good work being done by water agencies and others throughout Riverside and San Bernardino counties – from new projects designed to increase water reuse to plans to improve groundwater supplies and more. I'm sure you'll agree that this work toward a water resilient future for Southern California is important, one that we often take for granted.



Charley Wilson

In addition to reports from Chino Basin Water Conservation District, East Valley Municipal Water District and Rebuild SoCal Partnership, this issue features stories about the efforts of agencies such as Eastern Municipal Water District, Inland Empire Utilities Agency, Western Municipal Water District, Rancho California Water District and San Bernardino Valley Municipal Water District as they invest in projects to expand regional supply, groundwater recharge, recycled water supplies and use, and more.

In preparing this issue, I have been amazed by the forward-thinking "all-of-the-above" approach taken by so many community and water leaders in the Inland Empire. They understand that there is no one-size-fits-all solution to our water supply issues but that all must be considered together. Thanks to them, our region is on the forefront of important efforts to secure water supply resiliency from the impacts of earthquake, droughts, aging infrastructure and more. Their investments in water supply reliability ensure a bright future for generations to come.

I hope you enjoy this look at what's happening with the Inland Empire's water supply today and continue to join us in our efforts to address California's water issues. Feel free to send us feedback at info@socalwater.org.

Charley Wilson
Executive Director

The Southern California Water Coalition, a nonprofit, nonpartisan public education partnership is dedicated to informing Southern Californians about our water needs and our state's water resources.



Longtime Metropolitan General Manager Retiring

Jeffrey Kightlinger Hopes his Leadership Legacy is Seen as Effective, Collaborative and Decisive

After serving 15 years as general manager at the Metropolitan Water District of Southern California, Jeffrey Kightlinger will be stepping down later this year. Kightlinger, who also served 10 years as Metropolitan's general counsel, announced last March he would retire after the board finds a replacement. Though he says he doesn't know his next move, he will continue to work after a little time off. "I felt it was time for someone new at Metropolitan. I always told myself that I wasn't going to overstep. I believe that in this kind of position, you can't be effective forever. I thought 15 years was around the right amount of time and I feel like I'm going out on top." Kightlinger recently reflected on his 25 years with Metropolitan as well as the future of the water industry.

Q: You've been part of many significant milestones in Metropolitan's and Southern California's water history. Is there one accomplishment that is particularly meaningful for you? Why?

A: The quantification settlement agreement on the Colorado River in 2003 was very significant. We had been battling over everybody's water supply on the Colorado River for decades. We were able to put together a truce among seven states, two countries and 10 Native American tribes to work together to help manage the Colorado River for the benefit of all of us and we've been able to do that for the last 20 years.

Q: What do you see as Southern California's greatest water challenges and opportunities in the coming decades?

A: Climate change is going to pose an incredible challenge for us. Particularly, we are seeing that the Rocky Mountain region is very vulnerable and we know we're going to lose a big part of our supply through higher temperatures, greater evaporation and all the effects of climate change on the Rocky Mountains. Because Colorado River water is shared by those seven states, two countries and the many tribes, we're going to have to bring all

Publisher Sean Fitzgerald
Editor Elizabeth Smilor
Art Director Christie Robinson
Contributors Elizabeth Smilor

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For comments or questions, email Sean Fitzgerald at sean@agndm.com.

Cover Photo: Diamond Valley Lake in Hemet, California



Metropolitan General Manager Jeffrey Kightlinger, opposite, speaks at the Regional Recycled Water Advanced Purification Center grand opening in October 2019. Kightlinger described the construction of Diamond Valley Lake and its feeder pipelines in the 1990s, shown above, as one of the most challenging projects in his time at Metropolitan. He said the opening of that reservoir, at right, also was one the most memorable moments of his career. He is pictured below at Diamond Valley Lake, the largest drinking water reservoir in Southern California.

those parties together and come up with a plan to deal with a reduced supply but still supply adequate water across all those state lines. It will take a lot of negotiation and smart thinking by 2026 when the current operating guidelines will expire.

The Delta Conveyance tunnel project is a plan to modernize our current system. (The Metropolitan Board voted in December 2020 to fund its share of the environmental planning and preconstruction costs of the Delta Conveyance Project, a single-tunnel fix for the State Water Project.) The challenge with the Colorado River supply is that climate change is reducing the overall amount of water available to us and shrinking the snowpack. In California, the challenge climate change is bringing to us is that it's making our weather even more volatile with longer, hotter, dryer droughts and bigger, larger, flashier storms. We need better infrastructure to capture the water from those big storms and move it quickly into storage so we have it for those long, dry years.



Regional Recycled Water Project being developed in partnership with the Sanitation Districts of Los Angeles County. It's a large-scale, very expensive regional water recycling project that we intend to develop to get an even more drought-proof supply.

Q: You've spoken frequently about the importance of collaboration in the water sector, are there partnerships that you never would have thought Metropolitan would be able to form?

A: When I came to Metropolitan, we had a history of battling with agricultural districts and battling with other states on the Colorado River and I see us now as never having worked better with the agricultural districts and partners along the Colorado River. We're not engaged in litigation, we're involved in collaboration. I have seen us really focus on how we all can collaborate and work together and how we can develop reliability so that we are not so much independent of each other but that we are interdependent. To create a situation where we are all making each other stronger and more reliable.

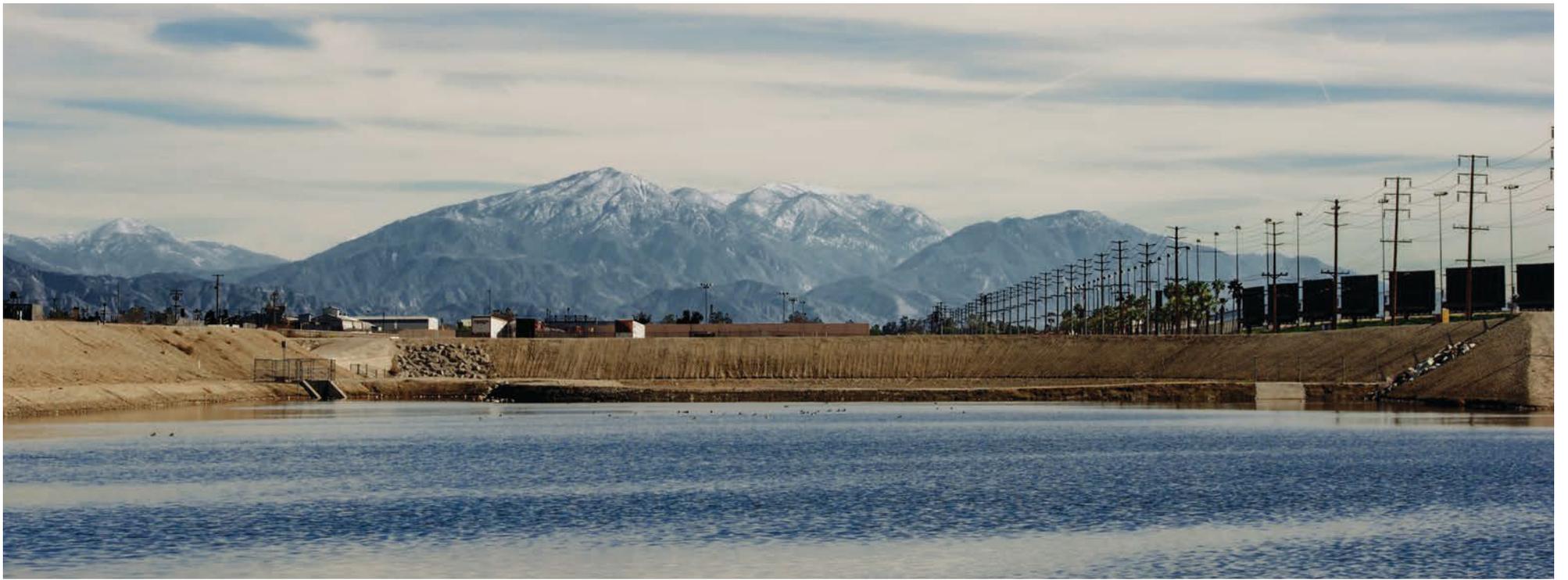
It has been a real revelation to see the water industry move to that. The old adage "whiskey is for drinking and water is for fighting" is not true anymore. It's now about working together to ensure reliability for everyone. That has become the ethic of the water industry.

Q: What words of wisdom would you pass on to your successor?

A: Originally my thinking was that Metropolitan could go it alone on many of these issues. That we were big enough and strong enough to do that. I've learned that we really need those partnerships and collaboration with other water agencies and interests around the state to be successful. I would tell my successor that the collaboration and partnerships we've developed are really important and need to be nurtured and maintained because we're going to get through our crises by improving everyone's reliability and developing that interdependence. ○

Q: In the past quarter century, Metropolitan has undertaken two very different types of public works projects – Diamond Valley Lake (a reservoir in the Inland Empire) and the Regional Recycled Water Project. How has Metropolitan evolved during your tenure to meet the needs of Southern California?

A: In beginning of my tenure 25 years ago, we were in the process of building the Diamond Valley Lake and Inland feeder project, to capture water in wet years and use it during droughts. It has worked exactly like we planned. We drained Diamond Valley Lake twice, once in 2007-08 and again in 2015 and then filled it rapidly in the wet years that followed. That has really been an insurance buffer for Southern California. That ability to capture and store water has enabled us to deal with the impacts of climate change. But we still need to develop alternative supplies that will be available to us in even dry years. ... That's how we see the



IEUA: Leading the Way and Thinking in Terms of Tomorrow Agency is Expanding Recycled Water Capacity for Long-term Resiliency

By Elizabeth Smilor
Special Sections Writer



“As a result of the Chino Basin’s rapidly growing population and expected increase in demand for water, the Agency continues to improve and evolve to meet the changing needs of the region.”

**– Shivaji Deshmukh, P.E.
IEUA General Manager**

A reliable, high-quality water supply is an essential resource that must be maintained, sustained and protected. The Inland Empire Utilities Agency (IEUA/Agency) is investing in water infrastructure today to secure a resilient supply for future generations.

The Inland Empire Utilities Agency is a regional wastewater treatment agency and wholesale distributor of imported water. The Agency is responsible for serving approximately 875,000 people over 242 square miles in western San Bernardino County.

“As a result of the Chino Basin’s rapidly growing population and expected increase in demand for water, the Agency continues to improve and evolve to meet the changing needs of the region,” said IEUA General Manager Shivaji Deshmukh, P.E. “From IEUA’s formation on June 6, 1950 (previously known as Chino Basin Municipal Water District), the Agency has transformed from a supplemental provider of imported water to producing highly treated wastewater, developing a recycled water program with approximately 155 miles of pipeline across western San Bernardino County, converting biosolids and waste products into a high-quality compost made from recycled materials, utilizing innovative renewable energy programs to minimize costs and environmental impact, and promoting public awareness of the importance of environmental stewardship.”

Approximately 70 percent of the region’s water supplies are local and continue to be developed in order to increase regional drought resiliency. Examples of local supplies include groundwater recharge, recycled water and water-use efficiency efforts.

“Maintaining a diverse water portfolio is imperative to upholding the Agency’s mission of maintaining a high-quality, reliable water supply. With multiple options for local water supplies, the Agency is able to balance demands while taking into account current environmental conditions,” said Deshmukh.

Groundwater Recharge

Located throughout IEUA’s service area are 18 recharge sites designed to capture runoff from storms, imported water from the State Water Project and high-quality recycled water from IEUA’s distribution system. These sites help replenish the area’s underground aquifers while improving the reliability of the local groundwater supply for a growing population.



Recycled Water

Water recycling is a critical component of the water resources management strategy for IEUA and the Chino Basin. The State has determined the reuse of highly treated recycled water is the only new major source of water available to meet Southern California's growing water demand.

IEUA currently receives over 50 million gallons per day of wastewater from its regional water recycling treatment plants. This water is treated to Title 22 regulations set forth by the State Water Resources Control Board and distributed throughout the service area. IEUA delivers the recycled water to be used for agriculture, municipal irrigation, industrial uses, and for groundwater replenishment.

"The use of recycled water presents multiple advantages to the region: it is a significant high-quality water supply that can be used for multiple purposes; it is reliable during drought and climate change conditions; and it requires significantly less energy than imported water for deliveries, thus reducing greenhouse gas emissions," said Deshmukh.



Looking to the Future

In addition to securing local water supplies, IEUA is investing in critical infrastructure to improve resiliency while at the same time staying committed to minimizing rate increases and keeping costs low. IEUA has successfully applied for and received hundreds of millions in grants and low-interest loans for capital improvements.

Most recently, IEUA was selected by the U.S. Environmental Protection Agency (EPA) as one of 55 project applicants across 20 states invited to apply for a low-interest Water Infrastructure Finance and Innovation Act (WIFIA) loan. The Agency is applying for \$94 million to subsidize its Regional Wastewater System Improvements Program, a combination of infrastructure projects across IEUA facilities that aid in safeguarding public health and improving water quality.

IEUA has already received a \$196 million WIFIA loan for the Regional Water Recycling Plant No. 5 (RP-5) Expansion Project. The project, which is expected to be completed by 2025, will expand RP-5's liquids treatment capacity and construct a new solids handling facility to support expected service area growth. The project will expand the liquids treatment to 22.5 million gallons per day and include infrastructure for RP-5's ultimate buildout to treat an average flow of 30 million gallons per day and a peak flow of 60 million gallons per day.

"This essential project is innovative and necessary in addressing regional growth and water reliability. IEUA's Board of Directors have guided the Agency with a vision of innovation while being pioneers in water management and environmental stewardship in order to enhance and preserve the quality of life throughout the region," said Deshmukh. "Their leadership has enabled us to lead the way and think in terms of tomorrow."

Learn more about the
RP-5 Expansion Project.
Scan code to visit
project information hub.



IEUA offers multiple water-saving and outreach programs for residential and commercial customers, including water-use efficiency and rebate programs as well as free K-12 education programs. Visit ieua.org to learn more.





Completed in early 2021, the Victoria Recharge Basin is a strategic part of Western's plan to develop local, reliable water supplied for the region and is designed to capture stormwater runoff to allow it to seep into the groundwater aquifer below.

Connecting Drops of Local Water

Western Municipal Water District

Invests in Projects to Connect, Expand Regional Supply

By Elizabeth Smilor
Special Sections Writer



"With service excellence top of mind, Western is dedicated to securing and providing safe, reliable, high-quality water for our customers now, and for future generations"

- Craig Miller, Western Municipal Water District General Manager

Western Municipal Water District (Western) is connecting the drops across the region to bring more local water to its customers in western Riverside County.

"In our drought-prone region, we have a tremendous need for more local, reliable water sources," said Western's General Manager Craig Miller. "We are developing a local supply network to reduce our dependence on costly imported water."

Western is one of the largest public agencies in Riverside County providing water, wastewater (sewer), and recycled water services to nearly 1 million people, both wholesale and retail customers, across 527 square miles in western Riverside County. This regional area includes the cities of Corona, Norco and Riverside and the water agencies serving Box Springs, Eagle Valley, Lake Elsinore, Temescal Valley and Temecula. Western also merged with Murrieta County Water District in 2005 to serve a 6.5-square-mile section of western Murrieta.

Just five years ago, Western and its Riverside customers were 100 percent dependent upon water imported by the Metropolitan Water District of Southern California through the State Water Project and Colorado River Aqueduct. Today, that dependence is down to about 60 percent.

"We've reduced the amount of water we import and diversified our portfolio through local partnerships and projects," Miller said. "This local supply stabilizes our costs and increases reliability for our customers, especially in the event of an emergency."

Western is on the heels of completing an interconnected system to capture stormwater, recharge groundwater basins and deliver safe, clean water to Western's wholesale, residential and business customers. These local projects represent a \$94-million investment, \$43 million of which was supported by grants and appropriations from the California State Bond Proceeds, Federal Bureau of Reclamation, California Revolving Fund Loan, California Water Resources Control Board, U.S. Environmental Protection Agency, and Riverside Flood Control and Conservation Water District.

The Victoria Recharge Basin, completed in early 2021, is a 10-acre site in Riverside that captures stormwater, which would otherwise be lost to runoff, and recharges underground water sources. This



The Sterling Pump Station and Reservoir project (pictured above and top right) is a component of Western's La Sierra Pipeline project that will connect the water produced at the Arlington (pictured right) and Chino Desalters to customers throughout Western's service area.

basin can recharge up to 1,800 acre-feet per year or enough to supply water to about 3,600 homes each year.

The water from the Victoria Recharge Basin recharges water into the Arlington Groundwater Basin, which is then extracted at Western's Arlington Desalter, providing billions of gallons of drinking water for the cities of Norco and Corona, and Jurupa Community Services District. The Arlington Desalter along with the Chino Desalter in Jurupa Valley treat groundwater through reverse osmosis to remove salt and other impurities to create clean, local drinking water.

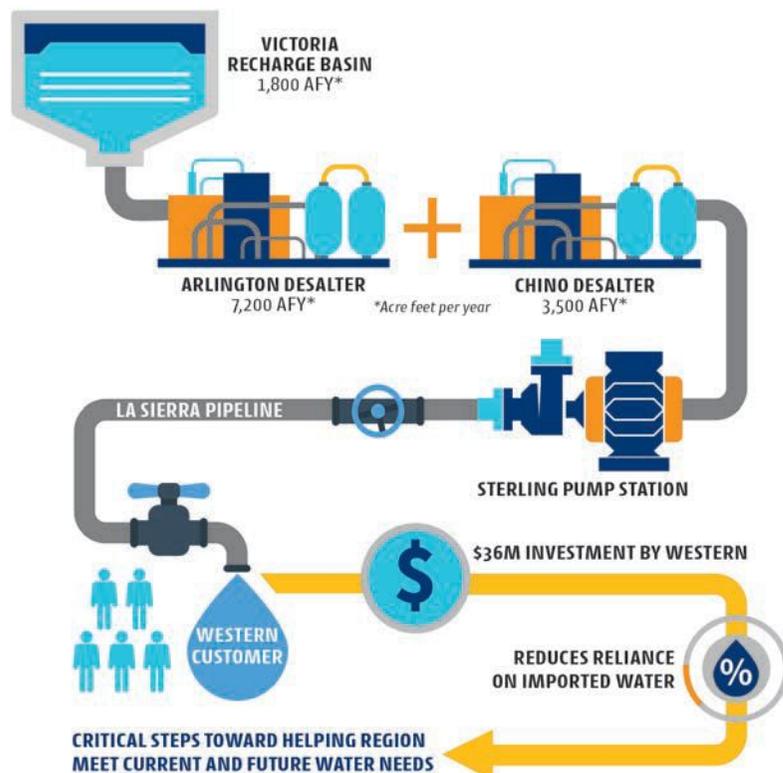
The next step is to move the treated water to customers. The Sterling Reservoir and Pump Station, expected to go online this year, will pump water from the desalters uphill through La Sierra Pipeline. Western recently invested \$36 million into the La Sierra Pipeline, a five-mile long, 30-inch pipe that will deliver water to customers.



using water efficiently, but we are constantly planning to meet the growing needs of the communities we serve."

In January, the Alliance for Water Efficiency (AWE) recognized Western for its exemplary water-use efficiency programs. It is one of only seven utilities in North America to receive the AWE Platinum level designation. Western participates in indoor and outdoor rebate programs, offers drought-tolerant garden tips and tools, and educational outreach programs.

"With service excellence top of mind, Western is dedicated to securing and providing safe, reliable, high-quality water for our customers now, and for future generations," said Miller. ○



To better serve its Murrieta customers, Western rehabilitated the North Well. North Well has the capacity to produce 750 gallons of water per minute or 1.08 million gallons per day – almost enough water to fill two Olympic-sized swimming pools.

All this treated local water is blended with imported water and is collectively tested more than 30,000 times per year at more than 175 testing sites throughout Western's service area.

"Our top priority is to make sure that your water quality exceeds state and federal standards, and we stay ahead of any changes to those standards," Miller said. "Our customers have done an amazing job





Eastern Municipal Water District's *New General Manager Looks Ahead* *Board Named Longtime EMWD Leader Joe Mouawad to Top Post*



"EMWD's board and staff remain committed to quality, value and reliability, and we will continue to put our customers at the forefront of every decision we make."

- Joe Mouawad
EMWD General Manager

Eastern Municipal Water District (EMWD) named Joe Mouawad as the agency's general manager in a unanimous vote and his tenure began this month. Mouawad has served in various leadership roles with EMWD for the past 15 years, most recently as assistant general manager of planning, engineering and construction, where he was responsible for overseeing EMWD's \$100 million annual Capital Improvement Program. He is the eighth general manager in the district's 71-year history, succeeding Paul D. Jones, II, who retired after 10 years in the position.

"Joe has been a respected leader at EMWD and has displayed the type of vision, leadership and collaboration that will continue EMWD's tradition of providing exemplary services to our customers as well as advancing EMWD's role in the water industry," said EMWD Board President Phil Paule.

Mouawad recently discussed the past, present and future of EMWD, a water, wastewater service and recycled water provider to more than 850,000 people within a 555-square-mile service area in western Riverside County.

How will you carry out the strategic priorities of the agency?

EMWD's Board of Directors has always provided a clear vision for our organization. More importantly the board has always supported staff and provided the resources needed to turn that vision into reality. EMWD's culture of collaboration and continuous improvement has been the key to our success, establishing EMWD as a statewide and national leader in the industry. My focus is on continuing the work that we have long established with our board and our staff to carry out the initiatives, programs and projects necessary to provide our communities with safe, reliable, economical and environmentally sustainable water, wastewater and recycled water services.

How do you envision EMWD growing and changing?

Currently, our service area is only 40 percent built out. So, we have a significant amount of growth yet to occur. Our board and our team understand that we must make decisions today to accommodate the growth

that will take place in the future. It's important to note that we work with developers to cover the cost of new infrastructure so we don't burden our existing customers with those costs. Looking to the future, we will continue to proactively invest in facilities that will meet the projected demands of the next generation, while also pursuing grants and low-interest loans to provide the greatest value for all our customers and stakeholders.

Why is EMWD's local water supply important especially as we face another dry year?

Local water supply is important because it is more reliable, especially during drought conditions and imported water restrictions. Also, often it is less expensive than imported supplies. For those reasons, EMWD focuses on helping customers to use water resources as efficiently as possible. As a result, our customers have been able to reduce the per capita usage within our service area significantly over the last 15 years. I think that's a reflection of the great work by our customers and their awareness of water supply issues and the importance of water resiliency. We're truly appreciative of the support we get from our communities.

EMWD also focuses on maximizing local water supplies to enhance our protections against dry years. One of EMWD's current initiatives, Groundwater Reliability Plus, reflects that commitment. This initiative includes expanding our local groundwater desalination facilities which we have been operating since the early 2000s. We also have a water banking program under construction, and our nationally recognized recycled water program. The success of our recycled water program is a direct result of our Board of Directors' strategic goal to use 100 percent of the recycled water produced within our service area. Today, recycled water constitutes about a third of our total customer demand. The program benefits not only our potable (drinking) water customers, but also our agricultural community.

What are some key projects (ongoing and planned) in EMWD's service area?

On average, EMWD invests approximately \$100 million per year in our water, wastewater, and recycled water infrastructure. This investment ensures that our community has safe and reliable water and recycled water, not just today, but well into the future. Our latest addition to our desalination program is the Perris II Desalter, which will be completed later this year. That facility will increase the capacity of the desalination program by treating brackish (salty) groundwater to produce an additional 5 million gallons per day of drinking water.

Another project, the Perris North Groundwater Program will help us remediate and contain groundwater contaminants within the north Perris and Moreno Valley area. It will make groundwater levels in that area more sustainable and provide beneficial use of what is currently unusable groundwater. Ultimately, it will produce water for up to 15,000 households per year.

How will you continue high-quality water, wastewater and recycled service at a competitive cost for your customers?

EMWD's board and staff remain committed to quality, value and reliability, and we will continue to put our customers at the forefront of every decision we make. That means being responsible stewards of ratepayer funds by leveraging workforce, technology and best practices to minimize costs. This includes aggressively pursuing outside funding to reduce the financial burden to EMWD's customers. As a result, over the past decade, we have received more than half a billion dollars in grants and low-interest loans from various funding agencies, local, state, and federal agencies. For example, EMWD secured nearly \$50 million dollars in external funding from state and federal agencies for the construction of the Perris II Desalter. We also recently received \$44.9 million in grant funding through Proposition 1 from the California Water Resources Control Board in support of the Perris North Groundwater Program, which is the largest ever single grant in EMWD's history. All of these efforts help keep costs lower for our customers. ○





Above: The Upper Valle de Los Caballos recharge ponds and pumping station facility span Pauba Valley. Top right Water pours into the spreading basin at the Upper Valle de Los Caballos recharging facility in Pauba Valley. Lower right: The Vail Dam acts as a retainer for up to 14.7 billion gallons of water held in Vail Lake, east of Temecula.

Rancho California Water District Focuses on Water Supply Resiliency

The Rancho California Water District’s (Rancho Water) customers have come to expect that when they turn on their faucets, hoses, or showers they will enjoy reliable, high-quality water. Rancho Water’s mission is to provide water service in a prudent and sustainable manner without the customer ever having to wonder where their next drop of water will come from. With an ongoing drought in California and the need to maintain nearly a thousand miles of pipeline, Rancho Water is constantly finding creative, fiscally prudent solutions for the water supply challenges in the Temecula and Murrieta regions it serves.

Seven of the last 10 years have had below average rainfall, which is reflected in the low levels of water in Rancho Water’s Vail Lake reservoir and substantially lower well production from the local aquifer in order to manage the groundwater resources on a sustainable basis. To support water supply reliability, Rancho Water is developing an enhanced Groundwater Banking Plan to optimize the storage and banking of water. Vail Lake and the groundwater basin are utilized for storage of both local and raw imported water, which is then available for release or extraction during dry weather periods or emergencies.

As part of this plan, new wells, a disinfection facility, and a regional pump station are being constructed at the Upper Valle de Los Caballos (VDC) spreading basin facility in the Pauba Valley. These additional facilities will more than double the amount of water that can be recharged and extracted from the VDC, placing less reliance on distant imported water sources, and more on water stored locally to meet the community’s needs.

“The VDC project will save over \$3.8 million per year when fully implemented by allowing the District to shift to less costly raw imported

water, compared to treated imported water,” says Robert Grantham, Rancho Water General Manager. “As we look to the future, this project is the single largest source of ongoing savings for our customers, and also ensures that water is stored locally to serve our community when we face those all too certain droughts on the horizon.”

Another critical water reliability project is the Vail Dam project east of Temecula. The district will replace the existing dam in order to meet the latest seismic and flood safety standards and to protect the 14.7 billion gallons of water storage capacity in Vail Lake. Originally built in 1947, the dam captures local rainfall, providing a significant portion of the area’s water supply, drought storage capacity, and an emergency water supply. The new dam is expected to be complete in 2025 and will have a renewed lifespan of 75 to 100 years.

In addition, Rancho Water has multiple initiatives in place to maximize additional recycled water supplies in the future including a program to incentivize eligible customers to convert to recycled water. The District is currently using 100 percent of its existing recycled water supply to irrigate areas such as golf courses, large landscaped areas, schools, parks, and greenbelts. Rancho Water also continues to explore advanced treatment options to use highly treated recycled water to potentially help replenish the groundwater basin by up to 180 million gallons per year.

By continuing to improve water supply capabilities with advanced infrastructure and new technologies, Rancho Water ensures that the tap will never run dry for its 150,000 customers. ○





City of Needles in Need of Water Security

Rebuild SoCal Partnership Seeks to Aid Isolated Town with Just One Well

By Elizabeth Smilor
Special Sections Writer

About 4,300 residents of Needles, where thermometers often surpass 100 degrees in summer, are relying on one viable drinking water well that’s pumping 23 hours a day. The city, which sits on the “East Coast of California” near the Colorado River, also has just one day of emergency water storage.

“It’s a scorcher in the summer out here. You can’t live in this climate without water. People will die,” said Needles City Manager Rick Daniels. “Our water infrastructure is eroding out from underneath us. It’s a dire situation.”

Needles, which sits in the Mojave Desert on the eastern California border with Arizona, is a 100-year-old railroad town along historic Route 66 with infrastructure from the 1940s to ’50s. Last year, revised State Water Resources Control Board (SWRCB) regulations for iron and manganese in drinking water forced the Needles Public Utility Authority to stop using water from two of its three wells. Also in 2020, there were 250 leaks in the system and the city’s one pressurized line to its reservoir failed last January, Daniels said.



Rick Daniels

“I’ve been here my whole life, and now I’m raising my kids here. Every day I watch those temperatures go up and I know that well can only run for so long,” said Needles’ Assistant Utility Manager Rainie Torrance. “The water main break was eye opening for everyone out here. You never realize how important something like water is until you don’t have it. If we don’t do something now, will there even be a town of Needles for my kids?”

The state stepped in to help repair the broken pipe under a bridge on Interstate 40 and funded a separate but smaller pressurized line from the well field to the reservoir. Still, the loss of two wells and the burst pipeline served as a wake-up call for Needles’ city officials. They needed help.

“As I work with communities across the country every day, the biggest hurdle for them is to admit when they have a problem,” said consumer advocate Erin Brockovich. “It takes real leadership to understand what your problems are and to seek help.”

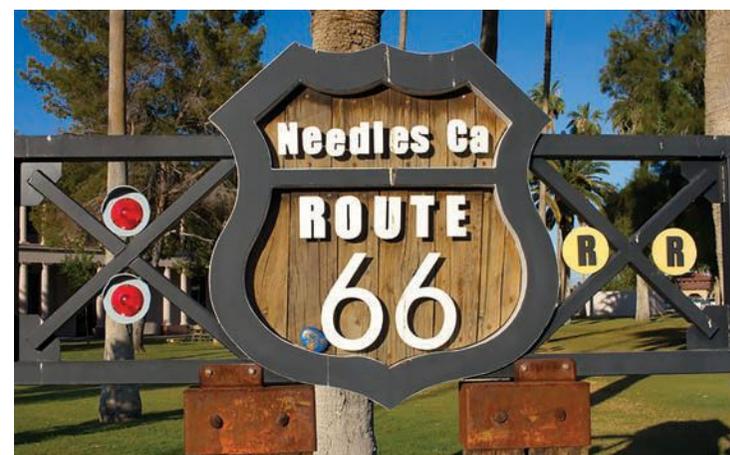
Torrance reached out to Rebuild SoCal Partnership (RSCP) to discuss their vulnerable water system. Her call for help inspired RSCP’s Director of Water and Environmental Relations Marci Stange to act.

“This is very serious in my opinion. A city living with outdated infrastructure as badly as Needles is not something we should be talking about in the 21st Century,” Stange said. RSCP is a nonprofit partnership between organized labor and construction management to advocate for responsible investment projects to help fix our aging infrastructure, while creating jobs and economic growth.

[See CITY OF NEEDLES, Page 12]

“It’s a scorcher in the summer out here. You can’t live in this climate without water. People will die. Our water infrastructure is eroding out from underneath us. It’s a dire situation.”

**– Rick Daniels
Needles City Manager**



Needles, which sits along historic Route 66 on the eastern California border, takes pride in its 100-year history, but the city’s desert isolation presents challenges.



In January 2020, Needles' one pressurized water line to its reservoir burst under an Interstate 40 bridge, as shown above and at far right. Residents were alerted to conserve water and the state stepped in to help with the repair. However, that emergency plus 250 water leaks and the loss of two water wells last year, served as a wake-up call for city officials and residents as to just how dire their aging water infrastructure situation has become.

[CITY OF NEEDLES, Page 11]

Since that call, Stange has been looking for ways to help Needles fund the construction of a new well, an additional reservoir and any necessary pipe upgrades. Stange recently visited Needles to see the situation for herself.

"Rebuild SoCal has been a godsend," said Daniels. "The helping hand they are providing us in trying to find some funding has been amazing. I'm so grateful and thankful. Our residents don't have the ability to pay. They are already stressed."

Needles' Proud History and Bleak Future

Needles is a predominantly low-income community with 57 percent of residents receiving some sort of federal assistance, such as welfare and food stamps. The median household income is \$31,843. It is also an isolated city with primarily travel-related businesses and no large economy of scale.

"As I work with communities across the country every day, the biggest hurdle for them is to admit when they have a problem. It takes real leadership to understand what your problems are and to seek help."

**- Erin Brockovich
Consumer Advocate**

"There's no other public agency or neighboring agency to partner with on anything. That self-sufficiency means we pay full cost for everything," said Daniels.

Most travelers speed by on I-40 on the outskirts of town or might stretch their legs while their Amtrak train crew changes. Few explore the historic "El Garces", the Harvey House built in 1906, or know that Peanuts' creator Charles Schulz lived in Needles for a few years as a boy and drew Snoopy's brother Spike as living in the desert outside Needles.

Daniels is also executive director of the Needles Public Utility Authority, which provides power, water and sewage service. The city also owns the local golf course and cemetery.



Erin Brockovich

The utility authority's monthly expenses are about \$160,000 and at the end of the fiscal year last June there was \$600,000 on hand, which is a two- to three-month reserve, Torrance said.

While residents pay amongst the lowest rates per kilowatt in the region for power because the city is able to buy directly from the federal government, they pay higher water rates than those in surrounding communities. The water rates, which went up last year, only cover the utility's costs and long-term debt payments.

During the heat of summer, when air conditioners are running nonstop and water consumption is up as well, household utility bills can approach \$1,000 per month, Torrance said. For most residential units, the flat monthly rate for water service is \$41.61 and the volumetric consumption rate is \$2.15 per 100 cubic feet. A summer average of 15,000 cubic feet a month, plus the flat rate puts a household water bill at about \$365. With an electric service charge of \$30.60 a month, and consumption of 5,200 kilowatts at 8-9 cents/kilowatt, that household's monthly electric bill in summer would be approximately \$475. Add in trash and sewer charges and it's nearly \$1,000.

"With the low-income nature of our residents, we can't raise rates enough to meet demands," Daniels said. "It takes more than what our people can afford."

Even though the city is only distributing water from the one well, they continue to receive citations, most recently on May 8, from the SWRCB on the other two wells because they are not disconnected from the system. California's maximum contaminant levels (MCLs) for manganese and iron are .05 mg/L and .3 mg/L, respectively. One well exceeds both those levels and the other exceeds the MCL

for iron only. The elevated levels of these naturally occurring minerals are not a health concern, but cause discoloration of the water and possible staining of clothes and other surfaces. Researchers at UC Riverside are currently studying possible health effects, mostly on childhood development, of manganese in drinking water. The citations give Needles until the end of 2023 to remedy the problem.

“We have not used them once to pump water into the municipal system, but we’ve left them connected in case of a catastrophic event,” Daniels said. “We would have to notify everyone if we had to use water from those wells.”

Rebuild SoCal Partnership Offers Help

In 2019, RSCP entered a partnership with California Consulting, Inc., the largest grant writing company in the state of California. Through the partnership, RSCP agreed to pay all application fees so disadvantaged communities like Needles can apply for state and federal grants.



Marci Stantage

“Rebuild SoCal Partnership is committed to helping these disadvantaged communities who may not have the funding that it takes to get their aging infrastructure issues resolved,” Stantage said.

The city has identified a site for a new 2,500-gallon-per-minute well on city-owned property with an electric substation. The cost for a well is \$1.5 million. An additional million-gallon reservoir would cost another \$1.5 million, not including any new pipelines, Daniels said.

RSCP and California Consulting initially planned to apply for funds from state Prop. 1, the Water Quality, Supply and Infrastructure Improvement Act of 2014, but the current funding phase is tapped out. Stantage is researching the possibility of funding from the State Water Resources Control Board (SWRCB) 2020-21 Fund Expenditure Plan. Also known as the SAFER Program, this plan was created to prioritize up to \$130 million yearly, to enable SWRCB to help develop and implement sustainable solutions for small systems with drinking water standards violations. This program will fund numerous projects through 2030.

“This is very serious in my opinion. A city living with outdated infrastructure as badly as Needles is not something we should be talking about in the 21st Century.”

**– Marci Stantage
Rebuild SoCal Partnership
Director of Water and
Environmental Relations**

of California alone. Politicians have thrown money at the problem for decades. Unfortunately, the system is gamed to study the problem forever without ever providing actual solutions,” Bowcock said. “The problem in City of Needles is actually not that difficult. The tools have been in our toolbox for many years.”

“All of the criteria for SAFER funding falls in line with the City of Needles’ water issues. My biggest concern is time. From completing the application process, to getting the ‘buy-in’ from the SWRCB district office, this all takes time,” said Stantage. “And this is the one thing Needles has against them.”

Water expert Bob Bowcock, who works alongside Brockovich, is willing to help Needles with a short-term fix, because the big picture is grim.

“There are more than 100 disadvantaged communities in the state



Daniels is not upset with the state regulators, who are doing their job. He is grateful for the outside assistance.

“Small towns like ours certainly don’t have the political clout or knowledge base that SoCal Partnership has. We have a hard time competing with other communities in the state. The big cities have buildings full of people to write grants,” Daniels said. “We have one person who is also our emergency operations manager, so she’s been hit with COVID-19 issues.”

From the Rebuild SoCal Partnership to the Needles’ city staff, no one is giving up yet. They are determined to bring water security to the desert community.

“Necessity has led us to be open in looking for solutions. The public expects that when they turn on the tap there’s water,” said Daniels. “When it gets over 120 degrees, we can’t be without water. This is the worry that keeps me up at night during the summer.” ○

RSCP’s valued partners include the International Union of Operating Engineers Local 12 (IUOE), The Southern California District Council of Laborers (LiUNA), and the Southwest Regional Council of Carpenters, Associated General Contractors (AGC) of California, AGC of San Diego, Engineering Contractors’ Association (ECA), Southern California Contractors Association (SCCA), the Building Industry Association of Southern California (BIA), and United Contractors (UCON).



Learn more about The Rebuild SoCal Partnership at www.rebuildsocal.org

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Chino Basin Water Conservation District

A Hidden Gem in the Inland Empire

Making a difference

Many people recognize the Waterwise Community Center in Montclair, California, as a gathering place to attend workshops, programs and educational activities about using water efficiently indoors and out. Not everyone realizes that the center is a program of the Chino Basin Water Conservation District, a special district formed in 1949 with the purpose to oversee the percolation management of replenishing the 10th largest aquifer in Southern California – The Chino Basin.

During storm events, CBWCD's network of inlets and basins captures the rain to recharge the aquifer for later use. When the weather is dry, CBWCD uses those same basins to replenish groundwater storage with local recycled water and imported water from Northern California.

Groundwater is vital to the Inland Empire

CBWCD serves 850,000 people by managing eight recharge basins whose water services the residents of Rancho Cucamonga, Montclair, Chino, Ontario, Upland, and Chino Hills. Water wholesalers and retailers in the area are dependent upon us to ensure that the basins capture and percolate 1.2 billion gallons annually of stormwater, recycled water, and imported water for domestic use. Making sure our groundwater basin remains full and healthy is a priority for local and regional water agencies to meet our current and future water needs.

Besides keeping the percolation basins maintained and functioning at high levels, CBWCD also provides educational opportunities at our Waterwise Community Center for those that live and work in our communities. Educating the public is key to understanding and learning how to use 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.



Making water conservation easy

Using less water has helped our region weather some significant droughts, such as the state's hottest and longest dry stretch on record that ended in 2016. This year is shaping up to be the state's third-driest year on record, reminding us of the importance of using water wisely once again.

As visitors to the Waterwise Community Center can attest, saving water doesn't have to mean sacrifice. There are plenty of small daily changes and some larger ones, like replacing lawns, that help us use less water. The District's beautiful demonstration garden has reopened and offers various resources to help residents and businesses save water. It includes educational resources to assist with turf replacement, rebate applications, free monthly mulch and compost giveaways, and landscape design assistance from expert horticulturists. If you want to play with various waterwise landscape design concepts, then visit the Inland Valley Garden Planner website that features over 350 plants and a variety of garden styles ranging from a Butterfly & Songbird Garden, or a Colorful Desert Garden, to a simple Mediterranean Garden.

A favorite among patrons of the Waterwise Community Center are the free monthly workshops. The workshops are free to the public and cover several topics related to responsible yard irrigation and transforming high-maintenance lawns into beautiful waterwise gardens. Participants learn regional gardening techniques on mulch and compost use, top plant choices for local gardens, and drip irrigation design and installation. At the start of the COVID-19 pandemic, all Waterwise Community Center's workshops seamlessly transitioned to a Zoom platform, where they continue to run until further notice.



Activities for all ages

In addition to offering assistance on home garden design, the Waterwise Community Center nurtures close ties with local educators. An Educator's Newsletter goes out once per month to local teachers containing updates on the Waterwise Community Center programs of interest to schools and classrooms. The Waterwise Community Center hosts field trips, summer camps, youth outreach programs, and unique resources for educators looking to integrate local environmentally conscious learning into their curriculum.

The District also offers programs for local businesses and landscape professionals. We host EPA WaterSense Certified Qualified Water Efficient Landscaper training programs through which landscape professionals can become certified to provide irrigation system audits, controller

programming, and more. Professional landscaping programs such as these encourage business and commercial properties to save water.

The communities flourishing at the base of Mount Baldy all rely on the Chino Basin Aquifer for water. Let's work together to protect and conserve the precious resource beneath our feet! If you want to learn how to save water in your home and help beautify your community at the same time, please visit CBWCD.org and sign up to receive our monthly newsletter to stay up to date on all new program offerings. ○



Join Us for our Upcoming Workshops!

Visit CBWCD.org to register.

California Native Garden Design Online Workshop

Saturday, June 12, 9 a.m. - Noon

Gardens using California native plants can be gorgeous, easy to maintain, full of color and habitat for birds and pollinators, and often only require water once a month once established. Come learn why native gardens are a great choice and the basics of designing your own.

Landscape Transformation Basics Online Workshop

Thursday, June 17, 6 p.m. - 8:30 p.m.

Whether you are starting with a lawn, a "lawn," dirt, or a patch of weeds, in this workshop we will teach you the basics you need to know to start planning your landscape transformation! Attendance at this class is required before participants can sign up for the Residential Landscape Design Assistance program.

Learn how to properly design and install highly efficient drip irrigation systems for your home landscape - Online Workshop

Saturday, July 10, 9 a.m. - Noon

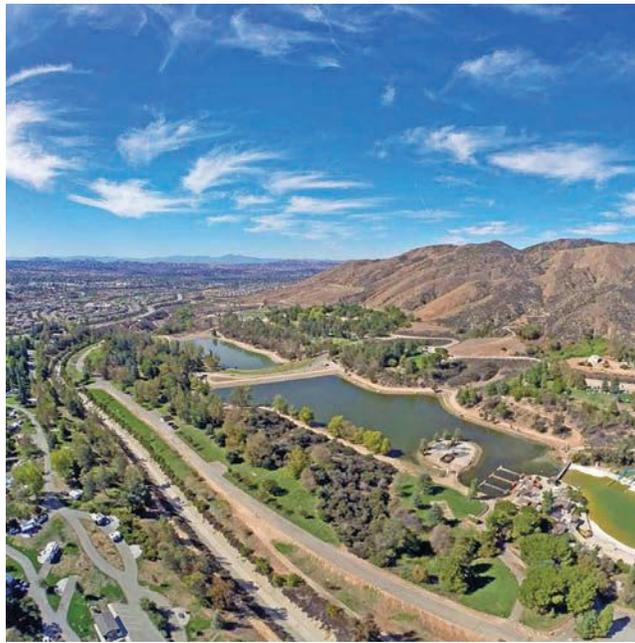
Drip irrigation is a great way to help make your landscape water efficient, but where do you start? This workshop will provide the principles and know-how to help you succeed with drip irrigation. Whether you are new to drip irrigation or a seasoned professional, this workshop has something for everyone.





The San Bernardino Valley Municipal Water District

A History of Success; a Spirit of Collaboration



Who is Valley District?

Over the past 67 years, the San Bernardino Valley Municipal Water District (Valley District) has evolved into a regional leader and collaborator; managing groundwater storage, identifying and securing new water resources for the future, and partnering with surrounding agencies to ensure a reliable water supply throughout the watershed. Its focus is simple yet challenging: to ensure a sustainable and resilient water supply for the diverse and evolving needs of the region while also protecting the habitat and the ecological function of the Santa Ana River.

Who does Valley District serve?

Valley District is a wholesale water provider and State Water Contractor. It provides supplemental water to 15 retail water providers in a 325-square mile service area. This includes the cities of Colton, Loma Linda, Redlands, Rialto, and San Bernardino; and the following water providers: East Valley Water District, Fontana Water Company, Marygold Mutual Water Company, Riverside Highland Water Company, South Mesa Water District, Terrace Water Company, West Valley Water District, Western Heights Water Company, Muscoy Mutual Water Company, and Yucaipa Valley Water District.

What is the District's current priority?

Valley District's current priority is to enhance water supply reliability and promote resource stewardship through a number of initiatives.



Local Reliability

A component of local water supply reliability is water use efficiency programs that maximize reductions in water use across all sectors. Additionally, development of local supplies through stormwater capture and sustainable groundwater management is essential to long-term reliable supply.

Recycled water is the only drought-proof water supply found in the world today. By treating wastewater to high-quality levels, it can be reused in a number of ways in our local communities. Valley District has committed funding to two significant recycled water projects in the Valley: the Sterling Natural Resource Center (led by East Valley Water District) and the Clean Water Factory (led by the San Bernardino Municipal Water Department). Once complete, these two projects will create nearly 16,000 acre feet of local water, every single year. This reliable water source will be used to recharge our groundwater basin, augmenting the local supply captured from rainfall.

Water Use Efficiency

In order to ensure the region has the water supply for the future, water use efficiency programs are a big factor for Valley District. The District just completed a Water Use Efficiency Assessment that included a Demand Management Program to provide a framework for demand-side programming for Valley District. This program will guide water use efficiency efforts for the District into the future.



Gil Botello, Director
Priorities include creating water industry career pathways, water use efficiency and affordability, and local, regional and statewide water conveyance infrastructure projects.



Environmental Considerations

Valley District is leading the effort, along with ten water agency partners and state and federal wildlife agencies, to develop the Upper Santa Ana River Habitat Conservation Plan (HCP). The HCP – among the most complex in the country – provides environmental permits for water supply projects that agencies plan to build in the San Bernardino Valley over the next 50 years. As part of the HCP, the agencies commit to providing habitat protection and implementing recovery actions for 22 threatened and endangered species native to the Santa Ana River watershed. The HCP provides a platform for regional cooperation to promote natural resource stewardship and watershed protection.



T. Milford Harrison, Director
Priorities include Habitat Conservation Planning, statewide initiatives, such as Sites Reservoir Project and Delta Conveyance, and local civic engagement.



Collaborative Planning

Valley District serves a diverse population, with varying needs and priorities among the people that we serve. Valley District has found that taking a collaborative approach to solving complex problems results in the best outcomes. One successful example is the establishment of the Groundwater Council in 2018. Twelve agencies banded together to voluntarily form a coalition in order to proactively recharge the groundwater basin for long-term sustainability. The Groundwater Council enables agencies to collectively purchase additional water imports for groundwater recharge during wet years



when water is least expensive. This leads to greater local supplies being available during the inevitable dry years.

June Hayes, Vice President
Priorities include regional collaboration, groundwater recharge, and habitat conservation and stewardship.



Statewide Reliability

Statewide, Valley District is investing in Sites Reservoir Project and Delta Conveyance, along with other State Water Contractor initiatives. The Sites Reservoir Project is a 1.5-million-acre-foot reservoir that will be built near the Sacramento River. It will capture and store water in wet years and release it in dry years to water agencies and other investors throughout the state of California. Sites Reservoir will benefit the entire state and many user groups including agriculture, urban areas, and the environment. Delta Conveyance is a proposed tunnel that will carry State Water Project water underneath the Sacramento-San Joaquin Delta, the most vulnerable segment of the State Water Project. The tunnel will avoid the risks posed by the aging levees and protect precious State Water Project supplies from saltwater intrusion due to earthquakes and rising sea levels, while also minimizing impacts to important fisheries and other environmental resources.



Paul Kielhold, President
Priorities include statewide reliability, regional collaboration, long-term strategic planning.



Climate Resilience Planning

The District is launching its first ever Climate Adaptation and Resilience Plan (Plan) to identify priorities, vulnerability, and key preparations to address uncertainties related to climate change. As the climate continues to change over time it drives weather patterns, which in turn affect water supplies and infrastructure vulnerabilities. The Plan will address those potential impacts, vulnerabilities, mitigation measures, and adaptation strategies throughout Valley District operations. The Plan should help the District and its stakeholders understand climate risks; engage stakeholders and communicate progress on adaptation and mitigation activities; and obtain external funding.



Susan Longville, Director
Priorities include climate resilience, water use efficiency, and management for healthy headwaters.



Leadership

Valley District has positioned itself as a regional leader over the last decade. The District has brought many agencies around the table to solve complex problems and has developed better outcomes than any one agency could achieve on its own. In an environment where agencies are highly connected and interdependent, leadership requires commitment to the principles of mutual respect, honest dialogue, creativity, and steadfast resolve to find win-win solutions.



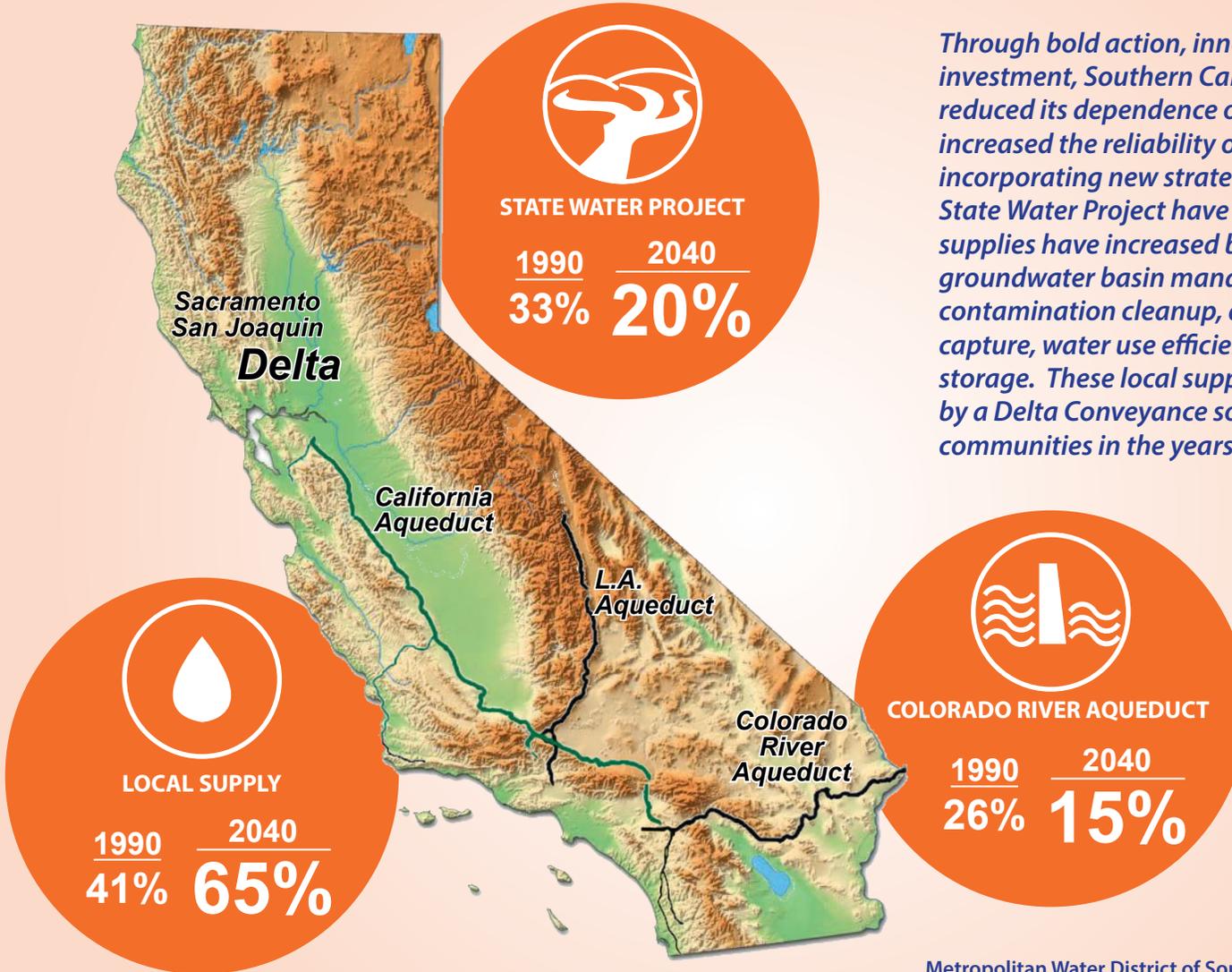
Heather Dyer, CEO/General Manager
Priorities include leadership, public service, complex problem solving, water supply reliability, climate resilience, and outstanding workforce and culture.





FORGING SOUTHERN CALIFORNIA'S WATER RESILIENCY

THREE DECADES AND COUNTING



Through bold action, innovation and significant investment, Southern California has dramatically reduced its dependence on imported water and increased the reliability of its local supplies. By incorporating new strategies, imports from the State Water Project have reduced while local water supplies have increased by way of recycled water, groundwater basin management, groundwater contamination cleanup, desalination, stormwater capture, water use efficiency, and increased water storage. These local supply projects, anchored by a Delta Conveyance solution, will support our communities in the years ahead.

Metropolitan Water District of Southern California, "Update on 2020 Integrated Resources Plan Process" presentation, February 25, 2020

Our "All Of The Above" Approach

We know from decades of experience that there is no one solution to Southern California's water supply resilience. We recognize that a combination of all of these efforts make up our regional supply:

www.socalwater.org

-  • Recycled Water
-  • Groundwater Basin Management
-  • Groundwater Contamination Clean-Up
-  • Desalination
-  • Stormwater Capture
-  • Water Use Efficiency
-  • Increased Water Storage
-  • Modernized State Water Delivery System



East Valley Water District Making Every Source a Resource

Sterling Natural Resource Center Will Enrich the Environment and Community

By Elizabeth Smilor
Special Sections Writer



Striving to make every source a resource, East Valley Water District (EVWD) designed the Sterling Natural Resource Center (SNRC) to not only create a new source of water, but also provide renewable electricity. The SNRC will recycle water to recharge the groundwater basin, generate electricity through a process called co-digestion, and include a space for the community.

EVWD, which provides water service to the city of Highland and portions of the city and county of San Bernardino, broke ground on the SNRC in October 2018. The SNRC, which sits on 16 acres located at Del Rosa Drive between East 5th Street and 6th Street in Highland, will be capable of recycling up to 8 million gallons of water per day to recharge the Bunker Hill Groundwater Basin and will be fully operational in 2022.

“The SNRC will allow East Valley Water District to help replenish our region’s groundwater aquifer with a new source of water and create a drought proof supply of water,” said EVWD General Manager/CEO John Mura.

To help power the facility, the SNRC will transform 130,000 gallons of imported organic waste into three megawatts of renewable power. Two digesters located on the site will convert food waste into methane gas used to generate electricity. “Not only is the co-digester going to reduce food waste that would have been routed to a landfill, but it will offset the site’s electric costs, allowing us to add energy to the power grid,” said Mura. “This is just one example of our team’s innovative approach to identify additional benefits during the development of the project.”

The facility has been designed to enhance the neighborhood with special spaces to invite the community to learn and grow. The finished site will include a demonstration garden, picnic area and locations for workshops and special events.

In conjunction with the development of the SNRC, the District launched a Water and Resource Management Career Pathway

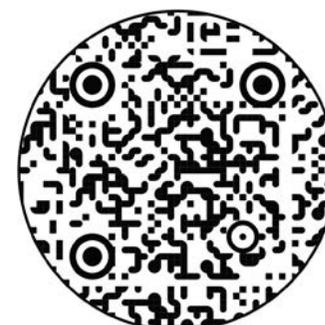


Top, EVWD General Manager/CEO John Mura looks over construction of the Sterling Natural Resource Center in Highland, which will open in 2022. The SNRC, as shown in the rendering above, will include a wastewater recycling facility as well as co-digesters that will convert organic waste into electricity.

in 2020 with the San Bernardino City Unified School District. The program will train high school juniors and seniors in the unique skillset of water and wastewater management. There will be hands-on training and engagement opportunities at the SNRC.

“East Valley Water District has a history of forward thinking and innovation,” said Mura. “As we construct the SNRC, the team is looking to develop a pipeline of individuals with the skills needed to enter the water industry.” ○

Learn more about the Sterling Natural Resource Center. Scan code to visit EastValley.org/SNRC.





We're Prepared for This Drought *What About the Next One?*

By Charles Wilson
SCWC Executive Director

The drought has returned to California. In just a few short weeks, the drought emergency declared by Governor Newsom in two Northern California counties has been broadened to include the Klamath River, Sacramento-San Joaquin Delta and Tulare Lake watershed counties — expanding to a total of 41 out of 58 counties.

The drought emergency declaration comes a mere five years after the end of the state's longest, hottest stretch. Department of Water Resources Director Karla Nemeth recently commented on how thinking has shifted among water leaders: "It's time that Californians plan to move away from drought emergencies and get to drought management." In other words, recurring cycles of drought are commonplace not rare. California must work toward a resilient water supply tailored for warmer temperatures, more intense droughts and winters that bring more rain and less snow.



Gavin Newsom

Newsom has launched efforts to respond to the latest drought emergencies. While the reemergence of drought conditions may not come as a surprise to many Californians, the state as a whole, and Southern California, specifically, is better prepared to handle this drought than ever before. The reason: collective long-term sustainability efforts underway for the past 10 years.

However, the work is not done. While we can be sure that there will be a drought after this one, we cannot be sure that we will be prepared for it unless we act now. In order to build greater sustainability, many of the continuous efforts being built upon in our state are converging as part of the vision for meeting water supply challenges like droughts, earthquakes, and aging infrastructure through the Governor's Water Resilience Portfolio.

Fortunately, the federal and state governments are funding water infrastructure like never before. These fiscal contributions help to support lasting sustainability projects, but they must be spent wisely across multiple efforts to build lasting water supply resilience in the face of future climate change impacts. A number of sustainability projects must be counted on to support the resiliency of California's water supply. Through hard work and critical foresight, many of these projects are already underway.



Some of California’s water supply is stored in these three reservoirs, which were all captured by drone photography earlier this year. All the reservoir levels are low. At left, San Luis Reservoir is the nation’s largest off-stream reservoir with water diverted from the Sacramento-San Joaquin Delta. Lake Oroville, above left, is formed by the Oroville Dam in Butte County. Above right, a view of Lake Shasta at the Bridge Bay Marina in Shasta County.

Photos courtesy of State of California Department of Water Resources



We know from decades of experience that there is no one solution to regional water supply resilience. All solutions must be considered together in what we often call the “all-of-the-above” approach to water supply for the state – one that includes conservation, local supply development, storage, conveyance improvements, watershed management and groundwater management. We elaborate on a few key approaches below.

Delta Conveyance

The Delta Conveyance project, a key aspect of the Water Resilience Portfolio, seeks to modernize aging infrastructure to include a single-tunnel conveyance through the Delta that will correct the current system’s vulnerabilities. A Notice of Preparation of the Environmental Impact Report for the Delta Conveyance project was announced in 2020, which marked progress of project advancement, but it is critical to realize the project’s overall development. The Delta Conveyance is a linchpin to statewide resource reliability and environmental benefit. The modernization of this critical piece of the water management puzzle will prove to be a key feature in of our future resilience. Staying up to date on its developments and supporting each step in its progress will help to realize this infrastructure update in a timely manner.

Water Reuse

Recycled water is also key. Southern California leads the nation in recycled water efforts, regularly decreasing imported water usage. This is because the southern counties invest in water reuse treatment centers that perform state-of-the-art water treatment technologies to ensure that every drop of water we have, is used multiple times. Some water purveyors in Southern California, have a goal of recycling 100 percent of their wastewater in the next 10 years. With the introduction of wastewater treatment technologies and government funding, ambitions such as these are entirely attainable. Setting high targets for regional recycled water will contribute greatly to preparing for drought conditions.

Stormwater Capture

Southern California is on track to lead the nation in harnessing the power of both its rainstorms and dry weather runoff through innovative stormwater capture projects. These projects aim to make the most any rain that does fall in Southern California by capturing, treating and storing it for reuse during dry times.

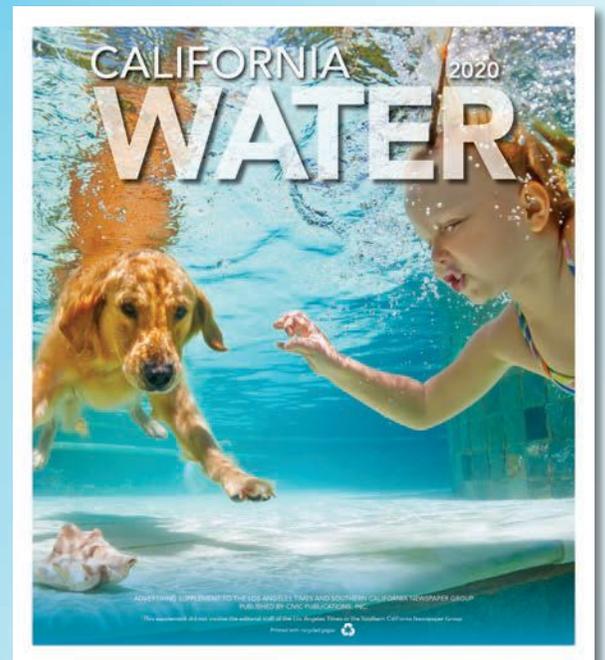
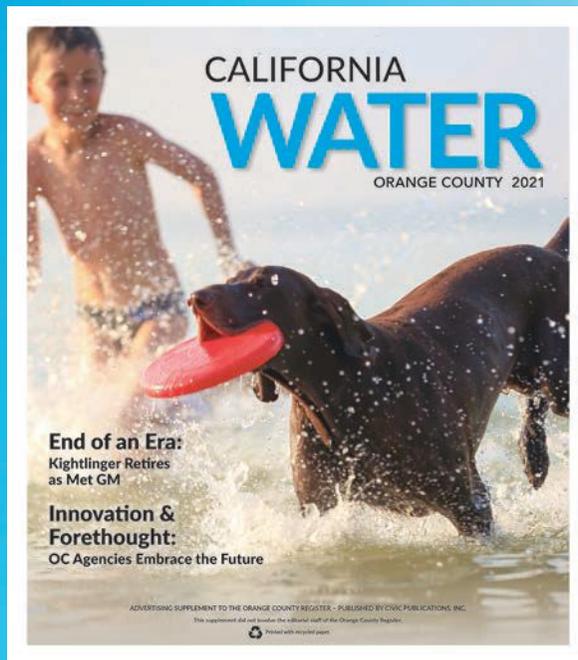
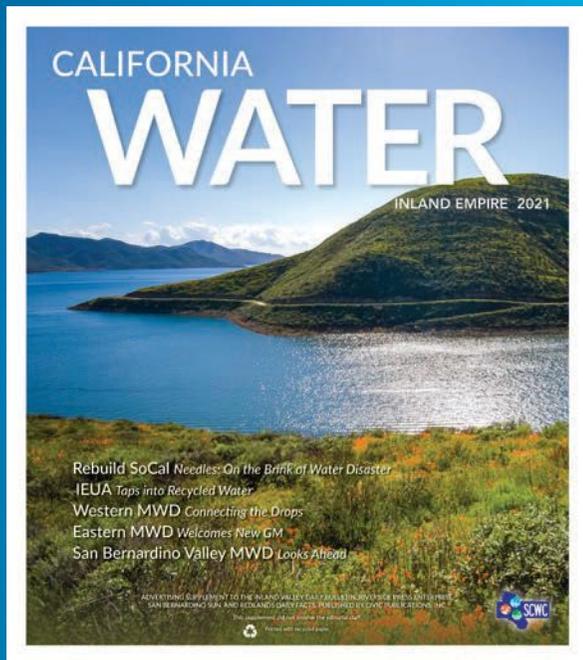
Reducing Water Waste

For Californians, reducing the amount of water we waste is key. In fact, the cheapest water is always the water not used. This is done through measures such as using low-flow showerheads and waterwise landscapes instead of thirsty lawns. Using water efficiently doesn’t have to mean sacrifice, as many in Southern California know. Since 1990, despite continuous population growth, Southern California manages to steadily decrease water use per person. Pinpointing these successes and implementing them statewide could prove to be beneficial. Governor Newsom has reported that the state has seen a 16 percent decrease in urban water usage since the conclusion of the last drought in 2016, relating it to Californians’ water use efficiency mind-set. Californians care about using water wisely, recycling and the environment more than ever. It’s a mindset that will help us cope with the impacts of climate change. After all, we are all in this together.

It’s our responsibility to prepare California for inevitable drier conditions to come. Water use efficiency management can be achieved through the compilation of multiple efforts to secure statewide water resiliency. This kind of portfolio investment makes us both resilient and affordable to meet future demands and customer needs. Collaboration in sustainability efforts will be key in ensuring that drought conditions do not cause a state of emergency. ○



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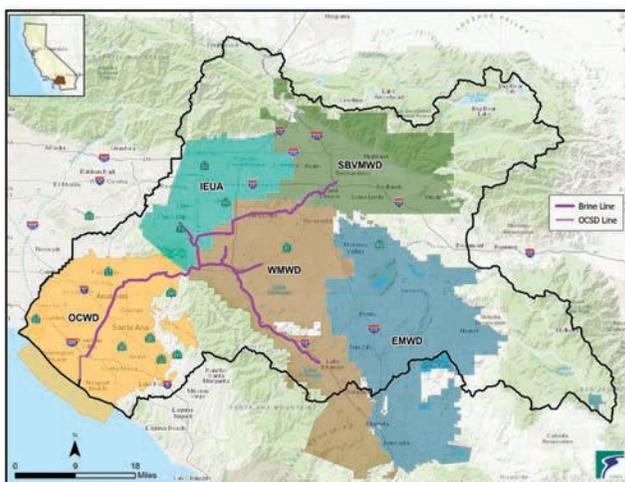
Santa Ana Watershed Project Authority

Addressing Regional Water Issues and Promoting Watershed Sustainability since 1972

The Santa Ana Watershed Project Authority (SAWPA) is a Joint Powers Authority (government agency) serving the Santa Ana River Watershed (Watershed), a 2,840 square-mile region that is home to over 6 million residents in portions of San Bernardino, Riverside, and Orange Counties, and a small portion of Los Angeles County. Established in 1972, SAWPA provides a unified voice for the water management needs within the Watershed. Its mission is to make the Watershed more sustainable through fact-based planning and informed decision-making, regional and multi-jurisdictional coordination, and the innovative development of policies, programs, and projects. SAWPA is composed of five member agencies that provide water services covering the Watershed.

- ~ Eastern Municipal Water District
- ~ Western Municipal Water District
- ~ Inland Empire Utilities Agency
- ~ San Bernardino Valley Municipal Water District
- ~ Orange County Water District

SAWPA partners with agencies across the region and has facilitates regional interagency agreements allowing agencies to address problems on a watershed-wide level. A number of projects increasing water supply and improving water quality within the Watershed have been constructed under SAWPA's administration based on the award of over \$400 million in grant funding from State Water Bonds over the past 20 years.



SAWPA manages the 93-mile Brine Line to manage salinity in the Watershed.

as total dissolved solids (TDS), in regional wastewater treatment plants, many industries are prevented from discharging their wastewater to the municipal sewer. With the Brine Line, a variety of water-intensive businesses can now dispose of salty wastewater locally at a substantial cost savings. To dispose of their

wastewater to the Brine Line, Inland Empire businesses can use Trucked Disposal to a collection station or Direct Disposal, a direct connection to the Brine Line. The Brine Line conveys salty wastewater from the Watershed to a wastewater treatment plant operated by the Orange County Sanitation District (OC San). After treatment, the water is then safely discharged into the Pacific Ocean.

Partnering businesses are able to discharge their brines and salty wastewater at approximately \$0.05 per gallon. Compared to salty wastewater disposal rates of up to \$0.25 per gallon elsewhere in the LA basin, Inland Empire customers often realize up to a 500 percent reduction in brine disposal costs by using the regional Brine Line.

One Water One Watershed

One Water One Watershed (OWOW) is SAWPA's watershed-wide Integrated Regional Water Management plan that envisions a sustainable Watershed that is drought proof, salt balanced, and supports social, economic, and environmental vitality by the year 2040. The OWOW plan was written by over 100 authors from water agencies, non-profits, and other stakeholders in the Watershed to analyze, develop, and describe new integrated solutions. Through OWOW, the Watershed has been able to reduce water demands by 18,000 Acre-Feet Per Year (AFY) representing 36,000 households and recharge 180,000 Acre-Feet (AF) of additional imported water.



Roundtables

The SAWPA Roundtables, also known as Task Forces, provide a forum for joint water resource management efforts to address watershed issues and regulatory compliance. The Roundtables administered by SAWPA staff create value among regulators and the regulated community by facilitating stakeholder processes for collaboration and producing significant cost savings through joint efforts to address water management issues. The Roundtables have a track record of partnerships with organizations that have shared interests in pursuing overall watershed sustainability. The SAWPA Roundtables have addressed the cleanup of surface water and the restoration of natural systems while mitigating potential conflicts in the Watershed. To learn more, visit sawpa.org.



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**CALIFORNIA DESERVES A CLEAN, AFFORDABLE,
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WE ARE DELIVERING THAT FUTURE.

*To learn more about our Clean Energy projects,
visit [SoCalGas.com/clean-energy](https://www.socalgas.com/clean-energy)*