

URBAN WATER INSTITUTE NEWSLETTER



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Thank You To All Who Attended The February 16-17, 2022 Virtual Spring UWI Conference

Art and Science of Water UWI All Virtual Spring Conference

Our virtual conference was a big success. We had over 30 panelist and moderator participants featured in 12 segments.

The next conference is scheduled to be in-person in San Diego August 24-26, 2022.

We would like to thank all of our guests and our sponsors for a terrific two days of conversation.

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In Focus: Las Virgenes Municipal Water District

Addressing Climate Change With Pure Water Project Las Virgenes-Triunfo

Big problems require impactful solutions. Las Virgenes Municipal Water District (LVMWD) has a storied history of addressing its water challenges head-on with sustainability as a mindset. Success has required a combination of planning, investing, innovating, and collaborating. Taking complexity and drilling down to its component parts has helped LVMWD provide clarity on solutions that make sense both economically and environmentally.

California continues to be on the frontline of responding to the effects of a changing ... *(continued to page two)*



In Focus: Las Virgenes Municipal Water District *(continued)*



(from page one) ... climate with infrastructure planning years in the making aimed to mitigate the ever-escalating consequences on resource availability. Water is not just a commodity that provides hydration and meets the needs for cooking, cleaning, bathing, and irrigation. It has many hidden uses that are often taken for granted. Manufacturing one automobile requires 39,000 gallons of water, while just one cell phone requires 240 gallons to produce. The cotton t-shirt on your back took 660 gallons of water to make.

Being the fifth largest economy in the world, California contends with a shrinking water supply that is arguably the foundation of all goods and services produced here. This means that competition for this critical resource will only increase over time to maintain the delicate balance for agricultural, manufacturing, technological, residential, commercial, industrial, and environmental needs.

Erratic weather patterns, inconsistent precipitation, warming temperatures, and rising sea levels are causing concern among all water agencies tasked with ensuring long-term water supply reliability for their customers. While some water providers have a diverse supply portfolio, others like LVMWD are not so fortunate. LVMWD relies 100% on imported supplies from the Sierra Nevada Mountains for its drinking water. The region has very little groundwater, and the sparse supply is loaded with sulfates, manganese, and other naturally-occurring minerals that render it effectively unusable. The low yield and poor quality prevent an economical return on investment for treatment.



LVMWD and 25 other member agencies throughout Southern California rely on the Metropolitan Water District of Southern California (MWD) to supply their imported water needs. MWD receives water from both the State Water Project and the Colorado River. Both aqueduct systems depend on runoff from snowpack and storage in large reservoirs to supply millions of people and businesses with a consistent and reliable water service. As emergency drought conditions again take hold throughout California, we have to ask if we're experiencing a "new normal" that warrants adaptations in how we source our water. ... *(continued to page three)*

In Focus: Las Virgenes Municipal Water District (continued)

(from page two) ...Climate science is our guide to developing resiliency to combat this developing issue. But it's not just the science stating that something is different; many long-lived Californians will tell you that weather patterns have changed, and not for the better. Above average temperatures, below normal precipitation, early snowmelt, reduced runoff, and more frequent wildfires have become a regular occurrence. Addressing this "new normal" from a water agency perspective is not an easy task, and there is no one-size-fits-all solution to water reliability. The responses are best determined locally and will vary across the state.



LVMWD has long partnered with Triunfo Water and Sanitation District to provide sanitation, water recycling, and composting services through the Las Virgenes – Triunfo Joint Powers Authority (JPA). In recent years, and informed by a comprehensive stakeholder-driven process, the JPA decided that the best solution to address its regional water supply reliability challenges was to embark upon a potable reuse project that would beneficially reuse highly treated wastewater for drinking water.

In September 2020, the JPA opened the Pure Water Project Las Virgenes – Triunfo Demonstration Facility (PWDF), an educational resource and pilot project using the former LVMWD headquarters building. By repurposing an existing building to create the demo facility, the JPA minimized the overall cost to customers and showcased its on-going commitment to sustainability. The PWDF will also pave the way for the full-scale Pure Water Project Las Virgenes – Triunfo, which is expected to be among the first potable reuse projects using reservoir water augmentation in California and will source up to 15% of the JPA's water supply locally.

Elected officials, students, business owners, industry personnel, and the general public are among the first to have been welcomed to the facility to learn about the advanced water purification process, concepts of sustainability, and how mother nature has provided the blueprint for the pure water cycle. And, the PWDF is not just about the advanced purification process. With the facility's surrounding sustainability garden, the JPA highlights climate-appropriate landscaping that serves as inspiration for those looking to replace their own lawns with climate appropriate plants. With nearly 70% of water consumption attributed to outdoor watering for thirsty turf, ornamental gardens, or runoff from poorly-maintained irrigation systems, significant water savings can be found outside of your home.

The PWDF and sustainability garden are just a couple ways LVMWD is pushing the envelope to practice and encourage efficient water use. When considering how to improve your own water savings, start with your outdoor watering. LVMWD offers assistance and resources – such as discounted weather-based irrigation controllers – to help you save water and money.

Grim headlines regarding the drought are hard to miss these days – but a collective effort towards better water use habits is key to ensuring a reliable supply for the future for our region. We all share the responsibility to be good stewards of our precious and finite supply of water.



Pure Water Technology like microfiltration or ultrafiltration, reverse osmosis, and ultraviolet light/advanced oxidation are used to further treat recycled water to above drinking water standards. By the end of the decade, our region will receive 15% of its water supply from indirect potable reuse.