

INNOVATION, LOCAL WATER AND ECOSYSTEM PROTECTION



PURE WATER PROJECT LAS VIRGENES-TRIUNFO

Bringing Our Water Full Circle

Locally-Sourced Water for Our Communities

The Las Virgenes-Triunfo Joint Powers Authority (JPA) serves the communities of Westlake Village, Agoura Hills, Calabasas, Hidden Hills and unincorporated areas of Western Los Angeles County and Eastern Ventura County. The JPA is implementing a visionary project to enhance local water supply reliability and drought resilience while eliminating discharges to Malibu Creek.

The Pure Water Project utilizes “potable reuse”, a water supply strategy, now adopted by many cities and water agencies in California and across the United States, to provide local, reliable water supplies.

The project begins with the installation of the infrastructure needed to deliver recycled water to the proposed advanced water treatment facility where proven state-of-the-art technology will be used to further purify the water.

The project eliminates the discharging of recycled water into Malibu Creek and instead becomes a viable source for potable, locally-produced water. The Pure Water Project creates an affordable and reliable local water supply that will be cost-competitive with imported water, stabilize water rates, safeguard the local economy and significantly reduce the uncertainty of water supply associated with importing water due to climate change, natural disasters such as earthquakes and long-term drought conditions.

This critical reliability improvement project will require public participation and support, regional leadership, and funding to move from concept to reality.



Las Virgenes Reservoir

By eliminating recycled water discharges into Malibu Creek, the Pure Water Project Las Virgenes - Triunfo will enhance in-stream habitat by reducing nutrients and algae while also providing a local and reliable water source for the community.

Infrastructure for Potable Reuse

The Pure Water Project will use proven technology to provide safe, clean, pure water through the construction of an advanced water purification plant that will thoroughly treat recycled water from the JPA's Tapia Water Reclamation Facility.

The purified water will be distributed through a newly-constructed pipeline to Las Virgenes Reservoir where it will blend with the existing imported water already in storage.

All reservoir water will be retreated to drinking water standards at the Westlake Filtration Plant before it is safely delivered to homes and businesses and will include a method for brine disposal.

Tapia Water Reclamation Facility



Built in 1965, the Tapia Water Reclamation Facility treats upwards of nine million gallons of wastewater to Title 22-Tertiary Treated Recycled Water standards every day. The water is currently used for irrigation purposes or is released into Malibu Creek.

Long-Term Effort to Bring Our Water Full Circle

Years 1 - 5

- ▶ Demonstration Project (start-up in 2019)
- ▶ Regulatory/Environmental Compliance
- ▶ Financing and Funding
- ▶ Pre-Design
- ▶ Land Acquisition
- ▶ Public Outreach



Years 6 - 8

- ▶ Final Design (begin by 2021)
- ▶ Construction Permitting
- ▶ Equipment Procurement
- ▶ Public Outreach

A Collaborative Approach

The proposed project was formed through the recommendations of a stakeholder group which explored options to maximize the beneficial use of the region's recycled water.

The stakeholders, representing various interested parties in the watershed, conducted an intensive 18-month collaborative process to evaluate the political, economic, social, technical, legal and environmental aspects of a number of alternatives. Of the two options recommended by the stakeholder group, the JPA selected **ADVANCED WATER TREATMENT** for potable reuse over the Encino Reservoir Seasonal Storage alternative.



Stakeholder group touring an Advanced Water Treatment facility.

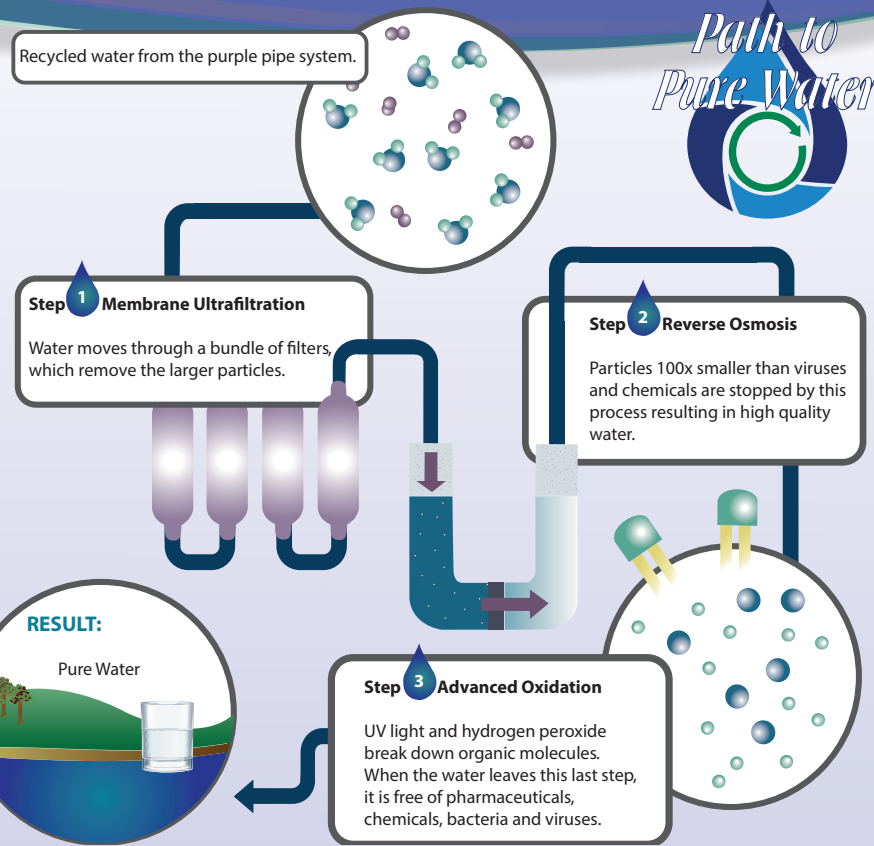


Advantages

- Reduces the need for imported potable water
- Makes use of an underutilized local resource
- Maximizes the use of existing infrastructure
- Is a multi-agency and multi-county collaborative project
- Provides long-term cost benefits
- Safeguards the local economy from drought conditions

Challenges

- Brine disposal
- Project cost: \$100 million
- Public acceptance
- Pipeline installation in urbanized areas

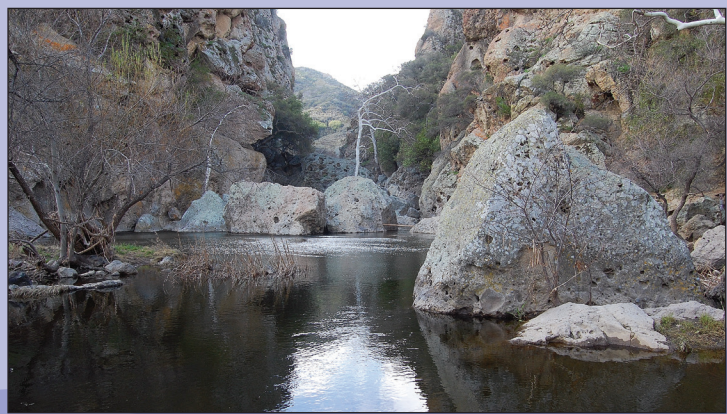


Years 9 - 11

- Construction of Pipelines and Advanced Water Treatment Facility (begin by 2025)
- Public Outreach

Years 11 - 13 1/2

- Project Start-Up (by 2030)
- Regulatory Compliance
- Public Outreach

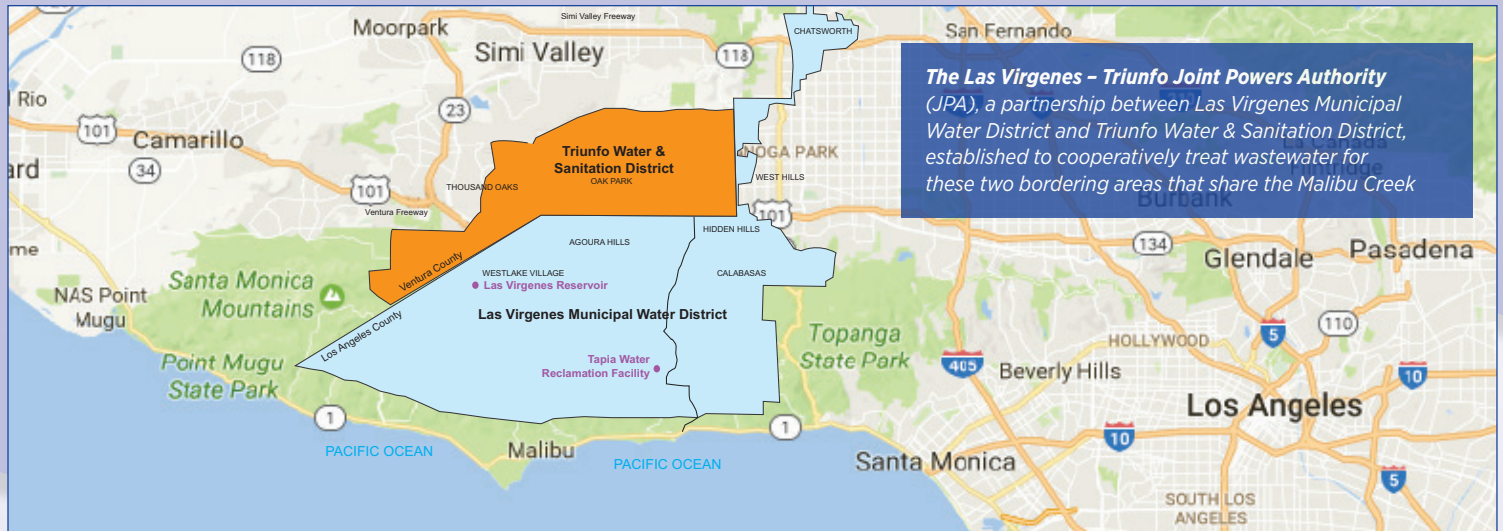


The biologically diverse Malibu Creek.



Stakeholder group meeting at LVMWD headquarters.

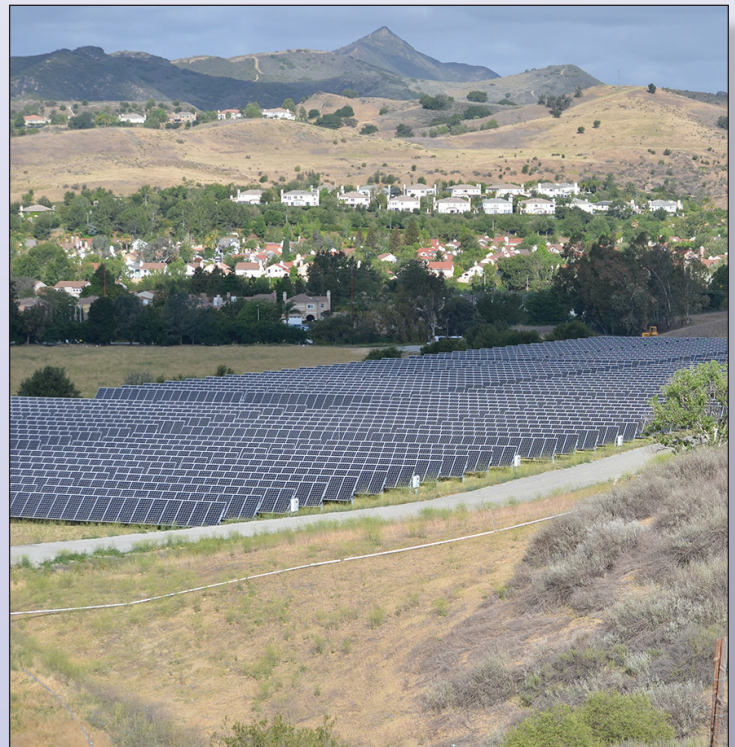
Serving Southern California



JPA's Environmental Stewardship

The Las Virgenes - Triunfo JPA continues to demonstrate its long-term commitment to ecosystem protection throughout the Malibu Creek Watershed by:

- ▶ Being a proven leader in developing recycled water to use as a resource.
- ▶ Building a \$50 million composting facility to eliminate land application of biosolids and improve the health of the watershed.
- ▶ Ensuring adequate stream flow for endangered species protection.
- ▶ Investing over \$12 million in nutrient reduction facilities.
- ▶ Avoiding creek discharges for seven months each year at an annual cost of \$1 million.
- ▶ Contracting for 20 years of solar power to pump recycled water and reduce greenhouse gases.
- ▶ Funding water quality monitoring and the compilation of 40 years of water quality data for Malibu Creek.
- ▶ Partnering with the Santa Monica Bay Restoration Commission.
- ▶ Conducting tours and educational programs for elected officials, residents and students on their respective roles in taking ownership and improving the health of the watershed.



One megawatt solar power facility used to pump recycled water in Calabasas, CA.

For More Information

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