



90 Years of Groundwater Management in Orange County

Groundwater has played a pivotal role in Orange County's history, long before the county was developed into the booming residential and business hub it is today. In fact, Orange County's groundwater basin, a vast and precious source of water located right beneath our feet, began forming millions of years ago. It developed when mountains eroded and ocean and riverine sediments filled a deep valley, trapping Santa Ana River water within layers of sand and gravel.

The Orange County Water District (OCWD), formed in 1933 to manage the Orange County Groundwater Basin and protect Orange County's rights to Santa Ana River water, has carefully managed the basin over the years and developed new water sources to refill it and protect it from seawater intrusion. Today, the basin spans more than three hundred square miles and provides 85% of the water supply for 19 cities and retail water agencies in north and central Orange County.



June 2023 marked the District's 90th anniversary, honoring our history of innovation and commitment to finding solutions that address current and future challenges. Guided by its commitment to sound planning and investment, high standards for water reliability, exceptional water quality, environmental stewardship, sound financial management, and transparency, OCWD has proactively implemented initiatives to protect and increase local water sources.

As water is pumped from the groundwater basin, it is replenished with recycled water from the Groundwater Replenishment System (GWRS) wastewater recycling facility located in Fountain Valley, Santa Ana River water, stormwater captured behind Prado Dam, rainfall, and a small percentage of water imported from northern California and the Colorado River.

The basin provides a local, affordable water supply, and in times of drought, ensures water reliability that otherwise could be compromised. Responsible management also includes environmental benefits to plants and animals that depend upon rivers, streams, and wetlands, and protecting water quality and quantity—while always maintaining sustainable water levels in the basin.

Highly trained staff measure water elevations and take water samples from 400 monitoring wells throughout the basin to ensure water that is provided to your homes and businesses meets all state and federal water quality standards. OCWD tests water from approximately 1,500 locations throughout the basin, analyzes more than 20,000 samples each year, and reports more than 400,000 results. This extensive testing is conducted at the District's internationally recognized Philip L. Anthony Water Quality Laboratory.



OCWD enters its 90th year committed to ongoing innovation and sustainability. The District continues to invest in research and development, explore emerging technologies and share best practices and lessons learned with others. Through educational and outreach programs, investments in infrastructure, and efficient management strategies, OCWD has emerged as a visionary leader in the industry and continues to ensure water supply reliability for future generations.

We encourage you to explore OCWD's remarkable 90-year history by visiting www.ocwd.com.

In collaboration with Orange County Water District staff, this article was provided by Orange County Water District Director Bruce Whitaker, who represents Division 10, which covers the city of Fullerton. Contact Director Whitaker at BWWhitaker@live.com.