



Earth Day 2023: Ensuring Water Reliability

During Earth Day on and around April 22, communities around the world are encouraged to take action to help ensure a sustainable future for us all. Water is a precious resource that sustains and thrives our environment, and we work to implement this mission around the clock, every day.

At the Orange County Water District (OCWD), this means managing and protecting a vital water resource, our local groundwater basin. The basin spans more than 300 square miles and typically provides about 85% of the drinking water supply for 19 local water providers, such as the city of Fullerton, who then serve to a combined 2.5 million residents.



Key to maintaining a healthy groundwater basin is tracking pumping and storage levels, protecting water quality, and investing in water supplies. The basin filters and stores water from a variety of sources including Santa Ana River water, rainfall and storm water, imported water from northern California and the Colorado River and recycled water from the Groundwater Replenishment System (GWRS). As water is pumped from the basin, it

is refilled with these sources so that it continues to serve as a reliable drinking water supply for the region.

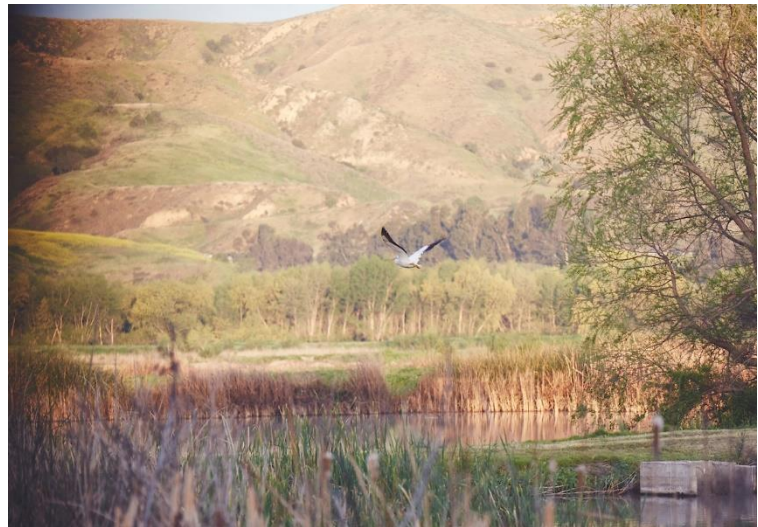
Our most reliable water source comes from the GWRS, located in Fountain Valley, which accounts for nearly 35% of local water demands. The GWRS is the world's largest project of its kind and takes treated wastewater, a once wasted resource that would otherwise be discharged to the ocean, and purifies it using an advanced treatment process. The result is high-quality water that is pumped to recharge facilities in Anaheim where it naturally percolates into the Orange County Groundwater Basin. GWRS water is also sent to injection wells located along Orange County's coast to create a seawater intrusion barrier that protects groundwater supplies.

In 2023, production at the GWRS was increased to 130 million gallons of water per day (MGD), enough to serve nearly one million people. It recycles 100% of Orange County Sanitation District's reclaimable wastewater flows and provides a new, drought-proof supply.

Our residents should be proud to know that 100% of the wastewater generated at their homes is being recycled by the GWRS. Producing GWRS water offers a more cost-effective and energy-efficient strategy than importing water from distant sources and improves the quality of water in the basin.

It is important to balance our vast water operations while also protecting the natural habitat on and around the land where we work. OCWD has dedicated more than 1,100 acres of land for environmental preservation and invested millions of dollars for conservation. The District has made more than 200 acres of its lands available for public trails and recreation, ensuring that the public will continue to enjoy open space in Orange County for years to come.

OCWD also owns approximately 2,150 acres of land in the Prado Basin of Riverside County, which includes more than 400 acres of constructed wetlands. These wetlands are designed to remove nitrogen and other chemicals from the Santa Ana River before the water flows downstream into Orange County. They also provide an opportunity for native habitat to thrive. OCWD monitors more than 350 animal species at Prado, removes non-native invasive species like the *Arundo donax*, and restores habitat for species such as the threatened least Bell's vireo bird and Santa Ana sucker fish.



OCWD's environmental stewardship benefits both nature and water supply. To learn more about our programs and projects, please visit 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 @ BWWhitaker@live.com.