



World's Largest Water Recycling Facility Found Right Here in Orange County

Orange County is home to wonderful attractions, schools, restaurants, shops, beaches and oceanfront views, nature and wildlife, and so much more. Sustaining these elements and our economy is water. Water plays a critical role in our everyday lives and just as important is the infrastructure that supports the development of new water supplies, provides storage, and delivers water to our homes.

In north and central Orange County, there is a vast groundwater basin, managed by the Orange County Water District (OCWD) that provides 85% of the drinking water supply for 2.5 million people, including residents in Fullerton. The basin stores a variety of water 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, which accounts for nearly 35% of local water demands. Located in Fountain Valley (approximately 20 miles from Fullerton City Hall), the GWRS is the world's largest water recycling facility, and it was recently expanded to its full capacity to produce 130 million gallons of water a day, which is enough water to serve nearly one million people. I had the honor, as a director of both the OCWD and Orange County Sanitation District (OC San), to join officials to dedicate the completion of the GWRS on April 14, 2023.



This state-of-the-art facility takes treated wastewater from OC San, purifies it into high-quality drinking water, and creates a new, local water supply. We have been recycling wastewater at GWRS since 2008, when the facility first came online. Since then, it has produced more than 400 billion gallons, and counting.

Recycling water has been a part of our history for some time now, dating back to the 1970s. Paving the way for the GWRS was Water Factory 21 (WF21), an advanced wastewater reclamation plant and desalter that produced 15 million gallons of water a day and operated from 1975 – 2004. It was here where OCWD first tested reverse osmosis technology on municipal wastewater, a technology that is still used today and serves as the workhorse of the GWRS.

Discussions about building the GWRS took place in 1997 when OCWD approached OC San about a joint project that would solve significant issues for each agency. OC San was facing the prospect of having to develop another ocean outfall to deal with increasing wastewater flows and OCWD was looking for a new source of water to expand our seawater barrier that protects our groundwater basin. Shortly after, a joint board committee was formed to discuss the preparation of required environmental impact studies, governance issues and public outreach. In 2001, OCWD and OC San approved design and construction for the GWRS, and construction began in 2004.

Today, water created from the GWRS is pumped to recharge facilities in nearby Anaheim where it naturally percolates into the Orange County Groundwater Basin and eventually becomes part of our drinking water supply. This water is also sent to injection wells located along Orange County's coast to create a seawater intrusion barrier that protects groundwater supplies from saltwater contamination.

With the final expansion now complete, even more local wastewater is recycled and supplemented as part of our water supply. Our residents should be proud to know that 100% of the wastewater generated in their homes is being recycled by the GWRS.

We invite the public to sign up for a tour and learn more about this amazing facility that is right here in Orange County. Please visit www.ocwd.com/gwrs for more information.

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