

Nation's Largest Ion Exchange Plant TO REMOVE PFAS FROM DRINKING WATER

BY ORANGE COUNTY WATER DISTRICT STAFF



THE ORANGE COUNTY WATER DISTRICT and the Yorba Linda Water District (YLWD) began operating the nation's largest ion exchange (IX) treatment plant to remove per- and polyfluoroalkyl substances (PFAS) from local well water. →

In November 2021, Yorba Linda Water District installed the sodium hypochlorite generator at its PFAS Water Treatment Plant. Photo courtesy of Yorba Linda Water District.



YLWD installed the sodium hypochlorite generator at its PFAS Water Treatment Plant in November 2021 and shared this photo and others on Facebook. Photo courtesy of Yorba Linda Water District.

PFAS are a group of thousands of manmade, heat-resistant chemicals that are prevalent in the environment and are commonly used in consumer products to repel water, grease and oil. Due to their prolonged use, PFAS are being detected in water sources throughout the United States, including the Orange County Groundwater Basin, which supplies 77% of the water supply to 2.5 million people in north and central Orange County. Despite playing no role in releasing PFAS into the environment, water providers must find ways to remove it from their local water supplies.

“OCWD and our amazing staff are committed to proactively and swiftly addressing PFAS in the Orange County Groundwater Basin,”



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Photo courtesy of Yorba Linda Water District.

two legacy PFAS compounds no longer produced in the United States.

Located at the existing YLWD headquarters in Placentia, the PFAS Treatment Plant uses an IX treatment system made of highly porous resin that acts like powerful magnets to adsorb and hold onto contaminants. It consists of 11 IX systems (22 IX vessels), a 25 MGD booster pump station and an upgraded onsite chlorine generation system. During treatment, contaminants such as PFAS are removed from the water before they go into the distribution system. Construction began in March 2021; the facility will be capable of treating up to 25 million gallons per day.

“Bringing this treatment facility online is very important for our customers,” said YLWD President Phil Hawkins. “It means YLWD can safely increase its use of local groundwater, which is less expensive and more reliable than imported water.”

The YLWD facility is among 35 PFAS treatment facilities being designed and constructed in Orange County during the next two years. OCWD is funding 100% of design and construction costs and 50% of operation and maintenance costs for its water suppliers like YLWD. YLWD and 10 Orange County public water agencies filed a lawsuit against the manufacturers of PFAS, seeking to protect ratepayers and ensure that the associated costs, including but not limited to treatment and replacement water, are borne by the companies that developed and manufactured PFAS.

Learn more about OCWD’s PFAS response, visit www.ocwd.com/what-we-do/water-quality/pfas.

said OCWD President Steve Sheldon. “We worked closely with YLWD to rapidly construct this treatment facility to remove PFAS from groundwater and ensure that they continue to meet all state and federal drinking water standards. I want to commend our team on a job well done.”

YLWD, one of 19 water providers that pumps water from the groundwater basin, had all 10 of its groundwater wells impacted by perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), prompting it to temporarily shut down wells and transition to purchasing 100%-imported water sourced from the Colorado River and Northern California. These wells were among dozens of wells throughout Orange County that were removed from service in 2020 after California lowered the Response Level advisories of PFOA and PFOS,



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