



NEWS RELEASE

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ORANGE COUNTY WATER DISTRICT AWARDED GRANTS THAT IMPACT GLOBAL WATER PURIFICATION RESEARCH

FOUNTAIN VALLEY, Calif. (August 14, 2019) — The Orange County Water District (OCWD; the District) has been named as an awardee of four new grants for research and development. These 2019 grants highlight global and national partnerships OCWD has formed with other industry leaders at the forefront of water purification technologies.

“OCWD’s research and development staff are involved with promising new methods and technologies worldwide,” said OCWD President Vicente Sarmiento. “Collaboration with top universities and international experts is important in moving water research forward. We are honored to be awarded this funding that supports advancements in potable reuse.”

The United States Bureau of Reclamation awarded OCWD and partner Stanford University with over \$168,000 in funds. Approximately \$120,000 of the grant is designated specifically for OCWD. The grant proposal was submitted in fall 2018 and the project is entitled “Evaluation of Peroxide Disinfectants for Biofouling Control of UF and RO Membranes as a Non-Toxic Alternative to Chlorine.” Research will determine whether peracetic acid is effective at reducing the formation of toxic disinfection by-products in advanced water treatment facilities generating water for potable reuse. Evoqua Water Technologies is providing ultrafiltration membranes and pilot technical support for the project.

In May, Japan’s Ministry of Economy, Trade, and Industry (METI) awarded a grant to Yokogawa Electric Corporation for the development of a more rapid method for measuring viruses in water. METI named OCWD as a subawardee in the grant, along with the National Water Research Institute (NWRI). The District will receive a \$25,000 portion of the grant to provide a technical review of Yokogawa’s method, including an evaluation of the method’s application in the water reuse industry with regards to membrane integrity. The grant will be used, in part, to bring OCWD research and development staff to the University of Arizona this fall for a demonstration of the new method.

Earlier this year, OCWD received grants from The Water Research Foundation (\$75,000) and the Metropolitan Water District of Southern California Future Supply Actions Funding Program (\$150,000) to evaluate virus log removal in wastewater treatment for potable reuse with study partners Orange County Sanitation District, Michigan State University and NWRI. Demonstrating additional log removal values for virus removal via

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treatment at OCWD's Groundwater Replenishment System (GWRS) would reduce the underground travel time requirements for pathogen control for recycled water. For OCWD, this could mean a possible consideration to increase the number of viable future injection and recharge sites for GWRS water.

Finally, OCWD is a subawardee (\$25,000 portion of grant) on a related award from The Water Research Foundation entitled "New Technologies, Tools, and Validation Protocols for Achieving Log Removal Credit across NF and RO Membranes" that also seeks to demonstrate virus removal. Whereas the previous study will focus on demonstrating virus removal by the wastewater treatment process, this project will evaluate the advanced membrane treatment. The project is led by Carollo Engineers with partners from SPI, Southern Nevada Water Authority and Colorado School of Mines.

OCWD staff research and review promising new technologies to improve water quality and increase the efficiency of OCWD's recycled water treatment, the GWRS, and recharge operations. The GWRS is the largest water recycling project of its kind and serves as a global model. OCWD's projects and programs support its mission to providing reliable, adequate and high-quality water to the region.

District staff will continue to collaborate and lead the way in making advancements that benefit OCWD's service area, as well as the global water industry. To read more about OCWD's work in research and development, please visit <https://www.ocwd.com/what-we-do/research-development/>.

About OCWD

The Orange County Water District, formed in 1933, manages and protects the Orange County Groundwater Basin and operates the world's largest advanced potable reuse project of its kind. The District provides quality and reliable groundwater to the following 19 cities and water agencies in north and central Orange County and their 2.5 million customers: Anaheim, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, La Palma, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda. For more information about OCWD, please visit www.ocwd.com, like @OCWaterDistrict on Facebook, follow @OCWDWaterNews on Twitter, follow @OCWD on Instagram, and follow Orange County Water District on LinkedIn.

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