

# Environmental Engineering Seminar

---

*The Astani Department of Civil & Environmental Engineering presents*



**Dr. Megan Plumlee**  
**Director of Research and Development**  
**Orange County Water District**

Date: February 16<sup>th</sup>, 2018

Time: 3 – 4 p

Place: RRI 101

## **Applied Research at Orange County Water District on Potable Reuse**

This presentation will provide background on the Orange County Water District (OCWD), OCWD's recycled water facility, and highlight several current R&D projects ranging from water quality of potable reuse, pilot-scale treatment technology testing, and groundwater recharge. Formed in 1933, OCWD (Fountain Valley, California) manages and replenishes the local Orange County groundwater basin, ensuring water reliability and quality and preventing seawater intrusion. The groundwater basin is the region's major drinking water supply. As part of its mission, OCWD owns and operates the Groundwater Replenishment System (GWRS), which is the largest potable reuse facility in the world. This advanced treated water is used, among other water sources, to recharge the groundwater aquifer via percolation and injection. Committed to sharing information, OCWD has influenced the creation of water recycling projects around the globe and maintains an active Research & Development Department. Current research projects support the recycled water facility and the groundwater recharge operations at OCWD.

### **About the Speaker**

Dr. Megan Plumlee is the Director of Research and Development (R&D) for the Orange County Water District. She oversees a team of scientists and researchers who coordinate and conduct applied physical, chemical and biological research that supports and enhances the District's core operational needs; research and review promising new technologies to improve water quality and increase the efficiency of OCWD's recycled water treatment and groundwater recharge operations; and participate in scientific advisory panels, research advisory boards and project advisory committees to help guide external research efforts related to District activities.

Dr. Plumlee previously served as the manager of the applied research group at Kennedy/Jenks Consultants and as a senior scientist at Exponent, Inc. In addition to applied research, she has worked on projects for municipal and industrial clients spanning a wide range of topics including non-potable and potable water reuse, contaminants of emerging concern, costs for advanced treatment, tracer studies, groundwater resources, constructed wetlands, bench testing form water/wastewater treatment studies and much more. Dr. Plumlee has also authored and contributed to several peer-reviewed publications. Dr. Plumlee holds Doctorate and Master of Science degrees in Environmental Engineering and Science from Stanford University and a Bachelor's degree in Chemistry with a minor in Physics from Pacific University. She is a registered Professional Civil Engineer in the State of California.