

# Environmental Engineering Seminar

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*The Department of Civil and Environmental Engineering presents*



**Jason Dadakis**  
**Orange County Water District**

Date: September 25, 2015

Time: noon - 1:00 pm

Place: SGM 101

## **Groundwater Resource Management in California: Or How I Learned to Stop Worrying and Love Drinking Recycled Sewage**

Groundwater overdraft (i.e., unsustainable extraction) has been a long-standing challenge in many parts of California. The recent drought has magnified the associated problems of land subsidence, storage depletion, water quality degradation, increased drilling and pumping costs, and reduced water for the environment via interconnected surface water. In response, the California Legislature passed the Sustainable Groundwater Management Act (SGMA) into law in 2014. During the development of SGMA, the Orange County Water District (OCWD) was held up as model of sustainable groundwater management by a local public agency. Founded in 1933, OCWD has developed a common pool approach to groundwater resource management, in contrast to more strictly adjudicated methodologies. This practice has led to an increase in the local groundwater yield by a factor of three via managed aquifer recharge (MAR), as well as a system by which pumping is controlled through a simple pricing structure. In support of these efforts, planned indirect potable reuse (i.e., the recycling of municipal wastewater for drinking water supply augmentation) has been part of OCWD's supply portfolio since the 1970s; currently, OCWD owns and operates the largest such facility in the world, the 100 million gallon per day (MGD) Groundwater Replenishment System (GWRS). OCWD's experiences can inform communities seeking sustainable groundwater management and the development of potable reuse.

### **About the Speaker**

Jason Dadakis is Director of Health and Regulatory Affairs at the Orange County Water District. He oversees various aspects of project planning, water quality, and regulatory issues. Mr. Dadakis has a BA in Earth Sciences from Dartmouth College and an MS in Hydrology from the University of Arizona. He is licensed as a Professional Geologist and a Certified Hydrogeologist in the State of California.