

## **Constituents of Emerging Concern the State of the Science**

**Abstract:** Issues surrounding constituents of emerging concern including pharmaceuticals and personal care products are becoming increasingly relevant as water reuse becomes more prevalent and as analytical technologies are developed to detect CECs at remarkably low levels. Research in all areas related to CECs has advanced significantly. This presentation will cover topics such as:

- Brief introduction to CECs
- Current state of research and understanding of health impacts
- Sources of CECs in the environment
- Current and anticipated regulations for CECs
- Effectiveness of conventional treatment and advanced treatment technologies
- Communicating to the public regarding CEC issues.

Drinking Water and Wastewater Professional CEUs are available from Idaho Bureau of Occupational Licensing for this session.

**Presenter:**            **Brad Jeppson**  
Title:                    Sr. Project Engineer & Project Manager  
Organization:        Carollo Engineers

Professional Background: Brad Jeppson is a Sr. Project Engineer & Project Manager with Carollo Engineers located in Boise. Brad earned a master's degree in Environmental Engineering from Arizona State University. He has recently relocated his family to Boise after 13 years of living in Phoenix, AZ. Some of his recent work has focused on CEC removals by conventional treatment, CEC impacts on groundwater quality from reclaimed water, groundwater recharge, and communicating CEC issues to the public.

**Presenter:**            **Dr. Tanja Rauch-Williams**  
Title:                    Principal Technologist and Wastewater Innovation Lead  
Organization:        Carollo Engineers

Professional Background: Dr. Tanja Rauch-Williams serves as a Principal Technologist and Wastewater Innovation Lead for Carollo Engineers with more than 15 years of experience in wastewater treatment, water reuse and applied research. Her work has focused on wastewater treatment troubleshooting and optimization for biological nutrient removal, plant capacity assessments, and facility design. Tanja has served as the PI and Co-PI for several national research projects related to the fate of emerging contaminants in engineered and natural treatment systems. Tanja received her Ph.D in 2005 from the Colorado School of Mines and her Master and Bachelor from the University of Berlin in Germany.