

Achieving Optimal Removal of Trace Organic Compounds and Nutrients

Abstract: The occurrence of trace organic compounds (TOrcs) in wastewater effluent is well documented. In response, regulatory agencies are actively studying potential environmental and human health impacts of TOrcs to assess the need for future regulations to control their discharge in wastewater effluent. The Sacramento Regional County Sanitation District (SRCSD), with support from the Water Environment Research Foundation (WERF) took a proactive approach on TOrcs as part of the planning for new treatment plant upgrades. Assessment of TOrc treatability was incorporated into treatment process selection and was actively studied in treatment processes pilot studies. The fate and transport of 12 TOrc indicator compounds were measured through secondary and tertiary pilot treatment processes. Those results were correlated with surrogate parameter measurements in an attempt to identify inexpensive and readily available instrumentation to indicate TOrc treatment effectiveness. Results from the pilot study will be reported in this presentation.

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

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Professional Background: Rion Merlo is a Senior Associate for Brown and Caldwell in the Walnut Creek, California office. He has expertise in municipal wastewater process engineering including nutrient removal and recycled water. Rion holds a B.S. in Microbiology from the University of California at Santa Barbara, a M.S. in Civil and Environmental Engineering from University of California at Los Angeles and a Ph.D. in Civil and Environmental Engineering from University of California at Berkeley. Rion is a registered civil engineer in California.