# 1st Annual Water Quality Science Symposium – Speaker Bios

Presented by SWAMP June 29, 2016

**Frank Loge Ph.D. P.E.-Keynote**
Frank Loge is Director of the Center for Water-Energy Efficiency, a professor in the Department of Civil and Environmental Engineering, and the current holder of the Ray B. Krone Endowed Professorship in Environmental Engineering at the University of California, Davis. Dr. Loge holds a Ph.D. in Civil and Environmental Engineering from the UC Davis and is a licensed Professional Engineer in the state of California.

**Greg Gearheart P.E. (ggearheart@waterboards.ca.gov / 916.341.5892)**
Greg is the Deputy Director and chief of the Office of Information Management and Analysis at the California State Water Resources Control Board. Prior to this appointment Greg served as the statewide Storm Water Program Manager for about seven years. In his 23 years at this organization Greg has worked in many different program areas, including wetlands, watershed management, training and enforcement. Greg received a BS in Environmental Resources Engineering from Humboldt State University and also grew up behind the redwood curtain.

**Brian Anderson**
Brian has been a faculty Research Specialist with the University of California since 1985, and works at the Granite Canyon Laboratory on the Big Sur coast. The Granite Canyon research group manages SWAMP's Stream Pollution Trends Monitoring Program (SPoT), and conducts SWAMP regional aquatic toxicology research. His research interests include studies of contaminant impacts on aquatic invertebrate communities, development of methods to identify causes of toxicity to freshwater and marine organisms, and development, implementation and evaluation of practices to reduce contamination in agriculture and stormwater runoff.

**Robert Budd**
Robert Budd received a Master's degree in soil science from the University of Colorado and his Ph.D. in Environmental Science from the University of California at Riverside. He is the lead investigator for the Department of Pesticide Regulations Urban Monitoring Program in southern California.

**Jay Davis**
Dr. Davis received his Ph.D. in Ecology at the University of California, Davis in 1997. Dr. Davis is Lead Scientist of the Regional Monitoring Program for Water Quality in San Francisco Bay, a comprehensive water quality monitoring program. He is also lead scientist for bioaccumulation element of the Surface Water Ambient Monitoring Program, which conducts statewide surveys of contaminants in aquatic food webs. Dr. Davis is also the co-director of SFEI's Clean Water Program. His work primarily focuses on monitoring the accumulation of persistent contaminants in aquatic food webs of the Bay, its watershed, and aquatic ecosystems in California.

**Grant Sharp**
Grant Sharp is the Environmental Monitoring Division Manager at Orange County Public Works where he oversees the acquisition, management, and analysis of hydrologic, water quality, and environmental data. He teaches courses on stormwater management and green infrastructure at Santiago Canyon Community College and previously served as Stormwater Program Manager for the County of Orange for over a decade.

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**Eric Bollens**

Eric Bollens is the Chief Technology Officer at CloudCompli, Inc. Blending a decade of IT executive experience with a passion for the environment, he leads a team developing stormwater protection and compliance software for the modern data-driven "smart" city. CloudCompli's platforms serve construction sites, industrial facilities and MS4s nationwide with mobile data collection, automated change response, actionable analytics, IoT integrations, etc.

**Andrew Rehn**

Andrew Rehn holds a Ph.D. in Entomology from the University of California, Davis in 2000, and has been a biologist with the California Department of Fish and Wildlife for 16 years. He developed or co-developed several of the State's first biological indices for regional use based on benthic macroinvertebrates, and was a co-developer of the first index with statewide applicability (the California Stream Condition Index). Dr. Rehn has led studies on the comparability of different bioassessment methods and has contributed to the development of standardized field and laboratory methods, quality assurance procedures, and data management and reporting infrastructure. As a founding member of the Southwest Association of Freshwater Invertebrate Taxonomists and the California Freshwater Algae Working Group, he played a leading role in establishing the State's taxonomic data quality standards for bioassessment, which have become a model for national programs. He is the lead coordinator of the statewide Perennial Streams Assessment survey and the statewide Reference Condition Monitoring Program on behalf of the Surface Water Ambient Monitoring Program.

**Betty Fetscher**

Betty holds a Ph.D. in Biology from UC San Diego. She has been involved in tool development and research relating to bioassessment of streams and wetlands for over a decade. A key player in the establishment of algae sampling methods for SWAMP, she was also the lead developer of algae-based Indices of Biotic Integrity (IBIs) that are used for assessing stream and wetland condition in California. She is currently a Senior Environmental Scientist at the San Diego Regional Water Quality Control Board, where she also serves as the regional SWAMP coordinator.

**Raphael Mazor**

Raphael D. Mazor is a senior scientist at the Southern California Coastal Water Research Project. He oversees regional stream survey of the Stormwater Monitoring Coalition of Southern California, and has published several papers on the development, use, and interpretation of bioassessment indices, such as the California Stream Condition Index. He started his career in natural resources management with the New York City Parks Department. He received a doctorate in Environmental Science, Policy, and Management from the University of California, Berkeley in 2006, and has been with SCCWRP ever since.

**Karen Worcester**

Karen Worcester is a Senior Environmental Scientist at the Central Coast Water Board. She has been lead staff for design, development and/or management of several major Central Coast programs, including the Central Coast Ambient Monitoring Program, the Morro Bay National Monitoring Program, the Morro Bay National Estuary Program, and the Central Coast Cooperative Monitoring Program for Agriculture. She has a M.S. in fisheries biology and in the past has worked as a fishery biologist for the California Department of Fish and Game. Her Master's Degree involved research on the habitat preferences of a now-endangered lagoon dwelling fish, the tidewater goby.

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**Mike Denison**

Dr. Denison is a Professor in the College of Agriculture & Environmental Science, University of California at Davis, where he teaches courses in Environmental Toxicology and Mechanisms of Toxicity. He is the Assistant Director of the UC Davis Superfund Research Program, the Co-Chair of the International Advisory Board of the International Dioxin Symposium, and was cofounder of Xenobiotic Detection Systems (a small biotechnology company developing and applying bioassay systems for toxicant detection). Dr. Denison's overall research focus for the past 35 years has been directed toward understanding the molecular mechanisms by which the intracellular receptors mediate the biological/toxicological actions of dioxins and related chemicals and well as the actions of endocrine disrupting chemicals. His lab used aspects of these receptor mechanisms to develop sensitive and specific recombinant cell-based bioassays (i.e. the so-called CALUX bioassays) for detection and relative quantitation of dioxin-like chemicals or endocrine active (hormone-like) chemicals. He has more than 200 publications in these areas. His dioxin receptor-based CALUX cell bioassay was approved in 2007 by the US EPA (Method 4435) and the estrogen receptor-based CALUX cell bioassay was adopted in 2012 by the OECD (Method 455/457) and included in the US EPA Endocrine Disruptor Screening Program.

**Randy Turner**

Randy received his Master's in Environmental Science and Management from the Bren School at the University of California Santa Barbara in 2010. He has been working on water quality issues in the Klamath River for nearly 10 years and is the Coordinator for the stakeholder-driven Klamath Basin Monitoring Program. Randy is the Principle Investigator for cyanobacteria projects at SFEI and is leading the effort to understand the status and trends of cyanobacteria and harmful algal blooms in large waterbodies across California.