



# Professional Profile

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## Professional Experience

Dr. Markwiese has broad experience in the environmental sciences with expertise in toxicology, ecology, microbiology, and chemistry. He studied at the National Science Foundation's Center for Microbial Ecology (Michigan State) on an NSF fellowship, and his doctoral research received the outstanding dissertation award from both the University of Wyoming and the Society of Environmental Toxicology and Chemistry.

He was the quality assurance (QA) officer of a firm specializing in QA support to the federal government. His 14 years of experience involved reviewing research project planning and conducting audits for the United States Environmental Protection Agency (US EPA), particularly the US EPA Quality Staff and the Office of Research and Development. Dr. Markwiese used his auditing experience for drafting the EPA ORD's Policy and Procedure for conducting laboratory competency audits. Other major clients included the Department of Defense and Department of Energy. Dr. Markwiese has completed ecological risk assessments for various high-profile DOE projects and has focused on improving the practice through tailoring tools to be more site-specific and ecologically relevant (e.g., adapting mesic-biased toxicity tests to xeric conditions in the western United States). He is an author or co-author of a dozen peer-reviewed publications.

Dr. Markwiese reviews data quality and planning activities and conducts laboratory audits for client-managed ecological toxicity testing programs to help clients minimize environmental liabilities. For example, the National Pollutant Discharge Elimination System (NPDES) Permit Program controls water pollution by regulating point sources that discharge effluent into waters of the United States. He assesses laboratories providing whole effluent toxicity test for clients that discharge under the National Pollutant Discharge Elimination System (NPDES) to ensure meeting their permit requirements with high-quality, defensible data.

## Memberships

Dr. Markwiese is a member of the Society of Environmental Toxicology and Chemistry (1996-current) and the Association of Official Analytical Chemists (2012-current), President, Desert Southwest Chapter of SETAC (2004-2010).

## Education

Dr. Markwiese holds a Ph.D. in Zoology and Physiology from the University of Wyoming, an M.S. in Biology from the University of New Mexico, and B.S. degrees in Environmental Biology and Zoology from Eastern Illinois University.

