

## BIOGRAPHICAL SUMMARY

### **Todd S. Bridges, Ph.D.**

Senior Research Scientist for Environmental Science  
U.S. Army Engineer Research and Development Center  
Vicksburg, MS



Dr. Bridges is the U.S. Army's Senior Research Scientist for Environmental Science. He became a Senior Professional (ST) within the U.S. Army in 2006, where his responsibilities include leading research, development and environmental initiatives for the U.S. Army and USACE.

His primary areas of research activity at the U.S. Army Engineer Research and Development Center (ERDC) concern 1) the development of risk and decision analysis methods applied to water resources infrastructure and environmental management, 2) assessment and management processes for environmental contaminants and 3) the science and engineering of sediment management. Dr. Bridges research activities include the development of risk and decision models, climate change assessment, analytical methods supporting regulatory decision making, population models as assessment tools, food web modeling, quantitative uncertainty analysis methods, the bioavailability and toxicology of chemical contaminants, and sediment assessment and management technologies. His work has been supported by programs within the USACE; the U.S. Army, Navy, and Department of Defense; the U.S. Environmental Protection Agency; and the private sector. His research activities have been recognized through receipt of several USACE and U.S. Army Research and Development Awards, the Government Service Award from the Society of Environmental Toxicology and Chemistry (2009), and the Outstanding Practitioner Award from the Society for Risk Analysis (2012). In addition to his basic and applied research, Dr. Bridges is also active in providing technical support to field projects in USACE Districts, USEPA Regions and other organizations.

Dr. Bridges is the Director of the Center for Contaminated Sediments (CCS) and the Program Manager for the Dredging Operations Environmental Research (DOER) program, one of the Corps' largest civil works R&D programs, where he directs the execution of more than \$6 million in research annually. He currently leads USACE's Engineering with Nature initiative, which includes a network of research projects, field demonstrations, and communication activities to promote environmentally sustainable infrastructure development. He has chaired international working groups for the London Convention and Protocol which have developed technical guidance for assessing sediments as well as managing risks associated with CO<sub>2</sub> sequestration operations in the oceans. As U.S. representative to the Environmental Commission of the International Navigation Association (PIANC), Dr. Bridges has led efforts to develop new international standards for managing environmental risks, while promoting environmental benefits, related to navigation infrastructure.

He has served on the editorial boards for the journals of *Integrated Environmental Assessment and Management*, *Environmental Toxicology and Chemistry*, and *Dredging Engineering*. He is an active member of the Society for Risk Analysis, The Society of Environmental Toxicology and Chemistry, the Ecological Society of America, and the International Navigation Association.

Over the last 20 years, Dr. Bridges has published more than 60 journal articles and book chapters and numerous technical reports. He received his B.A. (1985) and M.A. (1988) in Biology/Zoology from California State University, Fresno and his Ph.D. (1992) in Biological Oceanography at North Carolina State University.