**Wastewater Treatment and Related Modeling Workshop
Participants from the US Environmental Protection Agency**

Christopher A. Impellitteri, Branch Chief, Water Quality Management, National Risk Management Research Laboratory

Chris Impellitteri currently serves as Branch Chief for the Water Quality Management Branch in US EPA's National Risk Management Research Laboratory in Cincinnati, OH. His research focuses on issues involving contaminant chemical speciation in the environment and the removal of contaminants from water. He is currently working on research involving the fate and transport of contaminants in hydraulic fracturing wastewater and the formation of brominated disinfection by-products in drinking water treatment plants. He received his BA in Biology from Virginia Polytechnic Institute and State University, MS in Geology from the Old Dominion University and PhD in Civil and Environmental Engineering from the University of Delaware.

Glenn Paulson, Science Advisor

Glenn Paulson is the Science Advisor to the Acting EPA Administrator. Among his responsibilities at US EPA, he is an E*x Officio* Member of the Steering Committee for the Federal Multiagency Collaboration on Unconventional Oil and Gas Research and Co-Chairman of the Committee on Environment, Natural Resources and Sustainability of the National Science and Technology Council. He has over 40 years experience in environmental science, technology and policy issues in the public, private and academic sectors. He has directly managed emergency response, site assessment and/or cleanup at over 100 Superfund sites and Resource Conservation and Recovery Act facilities as well as spills of oil, hazardous chemicals and radioactive materials. He has been a member of many federal government advisory committees, including being a Charter Member of the US Secretary of Energy's Advisory Board, as well as serving on advisory bodies at US EPA and other federal agencies. Prior to his appointment at US EPA, he was Associate Dean for Research and Professor of Occupational and Environmental Health at the University of Medicine and Dentistry of New Jersey's School of Public Health. He has also served as the first Assistant Commissioner for Science at the State of New Jersey's Department of Environmental Protection. While Senior Vice President of the National Audubon Society, he was responsible for approving and guiding exploration for and production of natural gas on Audubon's largest wildlife sanctuary, located on the Gulf Coast of Louisiana. He has an Honorary Doctor of Science degree from Long Island University and is a Fellow of both the American Association for the Advancement of Science and the American Institute of Chemists. He earned his PhD in Environmental Sciences and Ecology from The Rockefeller University in New York, New York, and a BS in Chemistry from Northwestern University.

Cynthia Sonich-Mullin, Director, National Risk Management Research Laboratory

Cynthia Sonich-Mullin is the Director of US EPA's National Risk Management Research Laboratory (NRMRL) in Cincinnati, OH. She is responsible for leading the application of engineering and environmental technology research to support the US EPA in the development of policy, regulations and guidance to further environmental protection in the US. This includes air pollution prevention and control, sustainable technologies, land remediation and pollution control, water supply and water resources and groundwater and ecosystems restoration research. Included in this research agenda are significant efforts on hydraulic fracturing. Her career has been devoted to public service and environmental science. She has over 30 years of experience within US EPA's Office of Research and Development (ORD) and has served in numerous management and leadership positions. In addition to her research within ORD, Ms. Sonich-Mullin served a three-year detail to the World Health Organization in Geneva, Switzerland, to initiate and implement a program to globally harmonize approaches to the assessment of risk from exposure to chemicals. More recently she was detailed to a leadership position within the Office of Solid Waste and Emergency Response in Washington, DC, and lead ORD's contributions to the response to the Deepwater Horizon Incident. Before joining NRMRL, Sonich-Mullin served as the Acting Director of the National Homeland Security Research Center. The focus of her research and experience has been on environmental health and epidemiology and more specifically on risk assessment of exposure to environmental stressors in all media. She has worked on the development of human health criteria and action levels for chronic low level exposures as well as acute, short term exposures and including threat and consequence assessment of chemical, biological and radiologic contaminants to increase the capability of US EPA to carry out its homeland security responsibilities. She received a BA from Western College, in Oxford, OH, and a MS in Environmental Sciences with an emphasis on human health from Miami University.

E. Ramona Trovato, Associate Assistant Administrator, Office of Research and Development

Ramona Trovato is the Associate Assistant Administrator for US EPA's Office of Research and Development (ORD). She provides executive leadership on US EPA's hydraulic fracturing research. During her distinguished 33 year career at US EPA, Trovato has served in numerous leadership positions in the Office of the Administrator, Office of Water, Office of Enforcement and Compliance Assurance, Office of Air and Radiation, Office of Environmental Information and Office of Solid Waste and Emergency Response, as well as her present leadership position in ORD. She has successfully led many implementation initiatives focused on improving operational performance, and building efficiency into environmental protection efforts. Some notable examples include her work in protecting and promoting children's health; developing and implementing the Comprehensive State Ground Water Protection Program; working with the private sector and states to make the best and highest use of properties cleaned up under the Superfund program; and, developing and implementing the National Environmental Laboratory Accreditation Program. Among the many awards received during government service, she was recognized with the Distinguished Career Award in recognition of

extraordinary leadership and exceptional dedication in serving the American people, and the President's Meritorious Executive Rank Award for building strong coalitions and partnerships to achieve environmental and public health goals. She has a BS in Zoology from the University of Maryland at College Park and has undertaken additional studies in chemistry, facilitation, negotiation, information technology management, management and leadership throughout her career.