

**Invitation for Public Comment on the List of Candidates for the
EPA Chartered Science Advisory Board
Drinking Water Committee**

September 18, 2017

The U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) Staff Office announced in a Federal Register Notice on June 27, 2017 (Vol. 82, No. 122, 29077 - 29079) that it was inviting nominations of experts to be considered for the Administrator's appointment to the SAB Drinking Water Committee. The SAB and its standing committees are scientific, technical advisory committee. The objective of the Drinking Water Committee is to provide independent advice and peer review on the scientific and technical aspects of environmental issues to the EPA's Administrator under the auspices of the chartered SAB. The *FR* Notice sought nominations of experts with experience on drinking water issues in one or more of the following disciplines: experts in the following disciplines for the Drinking Water Committee: environmental engineering; epidemiology; microbiology; public health; uncertainty analysis; and risk assessment. The SAB Staff Office identified 18 candidates based on their expertise and willingness to serve. We hereby invite public comments on the attached List of Candidates under consideration for appointment to the Drinking Water Committee. Comments should be submitted by email to Mr. Thomas Carpenter, Designated Federal Officer no later than October 9, 2017, at carpenter.thomas@epa.gov. Please be advised that public comments are subject to release under the Freedom of Information Act.

**2017 Candidates for the EPA Science Advisory Board
Drinking Water Committee**

Anderson, Anita

Minnesota Department of Health

Anita Anderson is a principal engineer with the Minnesota Department of Health, whose mission is to protect, maintain and improve the health of all Minnesotans. She has expertise in surface water treatment, focusing on small systems, and has conducted several innovative technology verification studies in partnership with researchers from EPA's Testing and Evaluation Facility in Cincinnati and with a certified field testing organization under the EPA Environmental Technology Verification program. Ms. Anderson is responsible for developing and implementing department policy regarding Safe Drinking Water Act regulations in relation to alternate treatment technologies. She is currently leading two projects funded by Minnesota's Clean Water, Land and Legacy Amendment. The first project is a study of viruses in Minnesota's groundwater, and includes elements related to occurrence, fate and transport, and risk evaluation. The second project is a comprehensive study of regulatory and non-regulatory approaches to water reuse for use in the development of policy related to reuse in Minnesota. This project also includes risk assessment, especially evaluating risks related to microbial contaminants in reuse water through quantitative microbial risk assessment (QMRA). Ms. Anderson currently serves on the Drinking Water Treatment Units Joint Committee for NSF International, and on the National Blue Ribbon Commission for Onsite Non-potable Reuse. She is the Chair of the Regulatory Requirements Committee for the American Water Works Association (AWWA) Innovation Initiative. Ms. Anderson has a Bachelor's degree in Mathematics from Gustavus Adolphus College, and an M.S. in Environmental Engineering from the University of Minnesota. She is a registered Professional Engineer in Minnesota.

Belzer, Richard

Independent consultant

Since 2001, Dr. Richard Belzer has been an independent consultant in regulation, risk, economics and information quality. Previously he was a visiting professor of public policy at Washington University in St. Louis and staff economist in the Office of Information and Regulatory Affairs in the Office of Management and Budget. He received his Ph.D. in public policy from Harvard University (1989), Master's in Public Policy (MPP) from the John F. Kennedy School of Government (now Harvard Kennedy School) (1982), and MS and BS degrees in agricultural economics from the University of California at Davis (1979, 1980). Current original research areas include the analysis of variability in pulmonary function testing; the development of objective economic indicators to identify adverse human health effects; the improved use of human health risk assessments into benefit-cost analysis; the analysis of environmental justice ranking schemes; the analysis of patent law and examination practices; estimation of potential cost reductions state Medicaid programs from the substitution of electronic for tobacco cigarettes; and the economic value of subjective quality information in U.S. wine markets. Recent consulting projects have included benefit-cost analyses of California's proposed drinking water standards for hexavalent chromium and 1, 2, 3-trichloropropane; and the critique of predicted human health impacts and monetized risks attributable to air emissions from new facilities designed to achieve federal regulatory standards. Dr. Belzer is a regular contributor to scholarly professions through journal peer review and service to professional societies. He was elected Treasurer of the Society for Risk Analysis (1998, 2000) and elected Secretary-Treasurer of the Society for Benefit-Cost Analysis (2008, 2010). He earned multiple awards for exemplary performance at OMB, given the SRA's Distinguished Service Award (2003), and named a Fellow of the Cecil and Ida Green Center for the Study of Science and Society (1995). He has not received any grants from EPA, any other government agency, or any private entity. He has conducted independent research on behalf of clients or through self-funding. Some projects are jointly funded. His clients include: Council of Producers & Distributors of Biotechnology, R Street Institute, Exxon Mobil Biomedical Sciences, Inc., American Chemistry Council and the California Manufacturing Technology Association.

Carrera, Jennifer

Michigan State University

Dr. Jennifer S. Carrera is Assistant Professor of Sociology at Michigan State University (MSU) and holds an additional appointment in the Environmental Science & Policy Program. Dr. Carrera received her B.A. in Biology from Boston University. Her research uses an environmental justice perspective to examine differential access to environmental resources and its impact on the wellbeing of individuals in marginalized communities. She holds two master's degrees: an M.S. in Biostatistics from Emory University's Rollins School of Public Health and an M.S. in Environmental Engineering from the University of Illinois at Urbana-Champaign. Her engineering thesis examined the ways in which the sanitation needs of users can be incorporated into design processes towards the goals of adoption, sustainability, and improving livelihoods. Her Ph.D. is in Sociology, from the University of Illinois at Urbana-Champaign, with her doctoral research focusing on processes affecting water and sanitation access in low-income communities of color in the United States. Dr. Carrera's postdoctoral work, under the direction of Phil Brown at Northeastern University, focused on social science considerations in environmental health research. Through community based participatory (CBPR) and citizen science methods, her current work aims to assess the impact of co-developed, low-cost technologies for water quality monitoring on environmental health literacy and community-efficacy to protect public health. She has received funding from MSU to support a research CBPR project using citizen science methods to study water quality in low-income households in Detroit; funding from the Humanities Without Walls Consortium to study water quality and access in the Great Lakes Region; and funding from Unitarian Universalist Service Committee to study the context and distribution of water shutoffs in the United States. She currently serves on the Committee on Racial Equity in the Environmental Sociology section of the American Sociological Association.

Dorman, David

North Carolina State University

Dr. David Dorman is a professor of toxicology in the Department of Molecular Biosciences of North Carolina State University. Dr. Dorman completed a B.A. in Chemistry at the University of San Diego, a D.V.M. degree at Colorado State University, and a combined Ph.D. and residency program in toxicology at the University of Illinois at Urbana-Champaign. Dr. Dorman is a diplomate of the American Board of Veterinary Toxicology and the American Board of Toxicology. He has chaired or served on numerous National Research Council (NRC) committees and is a National Associate of the National Academies. He has served on advisory boards

for the US Navy, the National Aeronautics and Space Administration, the US Department of Agriculture, and is a former member of the National Toxicology Program (NTP) Board of Scientific Counselors. Dr. Dorman is a recipient of the Society of Toxicology Achievement Award, the Zoetis Award for Veterinary Research Excellence, and is a fellow of both the Academy of Toxicological Sciences and the American Association for the Advancement of Sciences. Dr. Dorman's research interests include neurotoxicology, nasal toxicology, pharmacokinetics, and cognition and olfaction in animals. He has published over 160 peer-reviewed papers and 50 book chapters. In the past two years, he was the principal investigator on an Office of Naval Research grant evaluating environmental modifications to improve olfactory learning and memory for ammonium nitrate explosives detection. He has also been a co-investigator on grants from the US Department of Defense examining the efficacy of tranexamic acid (TXA) following severe trauma in the dog and the Morris Animal Foundation evaluating the use of thromboelastography in the treatment of canine immune-mediated hemolytic anemia.

Dotson, Aaron

University of Alaska Anchorage

Dr. Aaron D. Dotson is an Associate Professor of Civil Engineering at the University of Alaska Anchorage and is the Environmental Engineering Laboratory manager. He also holds an Affiliate Professor at the Institute of Northern Engineering Water, Environment Research Center at the University of Alaska Fairbanks. He is a licensed professional engineer in Arizona. He received a BS in Civil Engineering from the University of Arizona and MSE and PhD in Civil and Environmental Engineering from Arizona State University. Post-doctoral study was performed at the University of Colorado at Boulder in chemical interactions of chlorine and ultraviolet light during drinking water disinfection. His research has focused on implementation of appropriate water and wastewater technologies in small and remote communities with a focus on cold regions. Funding for his research program has originated the City of Anchorage municipal utilities, State of Alaska Department of Environmental Conservation and directly or indirectly from United States Environmental Protection Agency, National Institutes of Health and National Science Foundation. He teaches graduate level courses in environmental engineering with a focus on drinking water and wastewater treatment and conveyance as well as cold regions utilities. He is also currently leading the revision of the Cold Regions Utilities Monograph, a text widely used Alaska and Canada for design and planning of small community utility services. Dr. Dotson serves on two local municipal utilities board of directors, as Vice-Chair of the American Water Works Association Organic Contaminants Research Committee and as Chair of the American Society of Civil Engineering Cold Regions Engineering Environmental & Public Health Committee. He currently serves on editorial board for Environmental Technology and regularly reviews submissions, articles and proposals, for science journals and government agencies in the United States and Canada.

Goeden, Helen

Minnesota Department of Health

Dr. Helen Goeden is a senior toxicologist and human health risk researcher for the Health Risk Assessment Unit at the Minnesota Department of Health (MDH). She received her Ph.D. degree in Environmental Health/Toxicology from the University of Cincinnati. Dr. Goeden led MDH's effort to revise methods to incorporate multiple exposure durations into the derivation of health-based water guidance, as well as the effort to create the Drinking Water Contaminants of Emerging Concern program within the Health Risk Assessment Unit. Currently, her specific responsibilities include: toxicological assessment of a wide range of environmental contaminants (e.g., industrial, agricultural, pharmaceutical, consumer product); development of state-wide health-based criteria for groundwater and drinking water; leadership role in state and federal workgroups regarding the development, improvement, and integration of risk assessment methods and public health policies that are protective of sensitive or more highly exposed populations (e.g., infants and children); and case-by-case health risk assessments (e.g., perfluorochemicals) or research projects specific to emerging environmental health threats (e.g., alternative methods for providing risk context to chemicals with little toxicity information). Prior to coming to MDH in 2002, Dr. Goeden worked for nine years at the Minnesota Pollution Control Agency, where she supported the work of several remediation programs and led an effort to develop a standardized risk-based site evaluation process. Dr. Goeden has served as a member of the EPA Chemical Assessment Advisory Committee (CAAC), several EPA chemical review SABs, and currently serves as a member of the NSF International Health Advisory Board. She has lectured on toxicology and risk assessment at the University of Minnesota School of Public Health. She is a member of the Society of Toxicology (SOT), past-president of the Northland Regional SOT chapter, and was a founding member of the national Dose-Response Specialty section of the Society for Risk Analysis.

Howe, Kerry

University of New Mexico

Kerry J. Howe, Ph.D., P.E., BCEE is a Professor in environmental engineering and the Director of the Center for Water and the Environment at the University of New Mexico. His degrees in civil and environmental engineering include a BS from the University of Wisconsin-Madison, an MS from the University of Texas, and a Ph.D. from the University of Illinois. He has extensive experience in drinking water treatment that includes both academic and professional experience. Dr. Howe's academic research has involved a wide variety of water treatment processes with a focus on membrane processes. His research has investigated the fouling of microfiltration, ultrafiltration, and reverse osmosis membranes, selective recovery and beneficial use of minerals from desalination concentrate, and removal of emerging contaminants using reverse osmosis and ozone/biofiltration for potable reuse. His professional engineering background includes process design experience in coagulation, flocculation, sedimentation, granular media filtration, countercurrent packed tower aeration, membrane processes, chemical feed systems, and pumping systems. He holds a patent on a process to selectively recover minerals from reverse osmosis concentrate and has authored more than 140 conference presentations and peer-reviewed journal articles. He is the lead author of the textbook "Principles of Water Treatment" and a co-author of "MWH's Water Treatment: Principles and Design, 3rd ed." In the last two years, Dr. Howe has received research funding from the National Science Foundation, the WaterReuse Research Foundation, Sandia National Laboratories, and a local water utility. He has served on the Membrane Process Committee and the Membrane Technology Research Committee of the American Water Works Association, is a member of a local water protection advisory board, and has served on numerous technical advisory committees and proposal review committees for federal and national research foundations. He is a registered professional engineer and board certified by the American Academy of Environmental Engineers.

Hughes, Brian

NSF International

Dr. Brian Hughes is a Senior Principal Toxicologist at NSF International working in the area of human health risk assessments with emphasis on drinking water contaminants. Formerly, he has conducted public health risk assessments for hazardous waste sites under a cooperative agreement with the Agency for Toxic Substances and Disease Registry and more recently provided environmental health and safety consulting to businesses involved in the production of industrial chemicals used as food additives, pharmaceutical excipients, electronic materials, amines, oxygenated solvents and intermediates. He has assisted businesses in fulfilling regulatory requirements for EPA, FDA, EU REACH, as well as geographies via coordination of studies and other resources. Publications are in the areas of pesticide worker exposure, public health risk assessment and modes of actions. Dr. Hughes has served on a number of American Chemistry Council panels for various chemicals such as ketones, amines, alkanolamines, oxygenated solvents, and the Ethyleneamines Product Stewardship Discussion Group managed by Bergeson and Campbell PC. Dr. Hughes has also worked on pesticide and worker protection issues in the Michigan Department of Agriculture. Formerly, he served as the Director, Risk Assessment and Toxicology Section in the Alabama Department of Public Health. Dr. Hughes earned a Ph.D. in toxicology at Utah State University and an MPH in Epidemiology at the University of Alabama at Birmingham. He also earned an M.S. in Animal Science from Michigan State University. Dr. Hughes is certified by the American Board of Toxicology, a member of the Society of Toxicology, formerly served on a FIFRA Scientific Advisory Panel on "Worker Exposure Assessment Methods" and is an adjunct professor at Michigan State University. For the past 2 years, his sole source of funding has been from the American Chemistry Council, Washington, DC.

Lall, Upmanu

Columbia University

Dr. Upmanu Lall is the Director of the Columbia Water Center and the Alan and Carol Silberstein Professor of Engineering at Columbia University. He has broad interests in hydrology, climate dynamics, water resource systems analysis, risk management and sustainability. He is motivated by challenging questions at the intersection of these fields, especially where they have relevance to societal outcomes or to the advancement of science towards innovative application. His current research covers 3 major initiatives that are developed through the Columbia Water Center. The Global Water Sustainability Initiative is focused on an assessment of global water scarcity and risk. The Global Flood Initiative is motivated by the desire to predict and manage floods at a global scale recognizing their climate drivers, and supply chain impacts. America's Water is driven by the goal of developing sustainable water management and infrastructure design paradigms for the 21st century recognizing the linkages between urban functioning, food, water,

energy and climate. These programmatic initiatives are backed by research on systems level modeling of hydrology, climate, agronomy and economics. Dr. Lall has pioneered the application of techniques from (a) nonlinear dynamical systems, (b) nonparametric methods of function estimation and their application to spatio-temporal dynamical systems, (c) Hierarchical Bayesian models, (d) systems optimization and simulation and (e) the study of multi-scale climate variability and change as an integral component of hydrologic systems. He has published in journals that focus on hydrology, water resources, climate, physics, applied mathematics and statistics, development, policy and management science. He has been engaged in high level public and scientific discussion through the media, the World Economic Forum, and with governments, foundations, development banks, and corporations interested in sustainability. He has served on several national and international panels. He was one of the originators of the Consortium of Universities for the Advancement of Hydrologic Science, and is currently the President of the Natural Hazards Focus Group of the American Geophysical Union.

LeChevallier, Mark

American Water

Dr. Mark LeChevallier is currently a Vice President and Chief Science Advisor for American Water, a water and wastewater utility operating in 40 states, and Canada; serving 15 million people. He received his Bachelor of Science and Masters degrees in Microbiology from Oregon State University and his Ph.D. in Microbiology from Montana State University. He has worked for American Water since 1985 in various capacities as Research Microbiologist, Research Director, Chief Scientist, and Chief Environmental Officer and involved in research and development, innovation, and environmental compliance and stewardship program for the company. Research areas have included bacterial regrowth, disinfection of biofilms, corrosion, bacterial nutrients, AOC measurement techniques, biological treatment, *Mycobacterium*, *Legionella*, microbial recovery and identification, modeling and impact of pressure transients on water quality, and detection, treatment and survival of *Giardia* and *Cryptosporidium*. He has authored or coauthored over 300 papers and book chapters. Dr. LeChevallier has been the principal investigator, co-investigator, or participant on over 100 research grants totaling over \$43 million from the US Environmental Protection Agency, American Water Works Association, the Water Research Foundation, WaterReuse Research Foundation, Water Environment Research Foundation, and various State agencies. Dr. LeChevallier currently serves as a member of the Water Science Technology Board of the National Academy of Science and the Water Environment & Reuse Foundation Research Advisory Council. He was past chair of the *Journal of the American Water Works Association* editorial advisory board. He participated on the USEPA Federal Advisory Committee for revisions to the Total Coliform Rule and served on the Research and Information Collection Partnership panel. He was a member of the Distribution System Committee for the National Academy of Science.

Mirlohi, Susan

Independent Consultant

Dr. Susan Mirlohi is currently an independent consultant and environmental science, engineering, and public health scientist/educator with over 25 years of combined, continuous experience in industry, academia/research, and regulatory sectors. She holds a Doctoral degree in civil engineering/environmental and water resources engineering, and a Master of Science degree in environmental sciences and engineering from Virginia Tech. Most recently, she served as an assistant professor of environmental health in the Department of Epidemiology and Biostatistics, College of Public Health at Temple University and a visiting assistant professor of environmental sciences and engineering at Wilkes University. Her professional industry experiences include serving as a division director, senior environmental scientist, and aquatic toxicologist, at a private environmental consulting firm. She was also the co-founder and vice president of a private, Virginia state-certified laboratory, operating under the federal Safe Drinking Water Act. Within the government sector, she served as a senior scientist and training coordinator at the State Public Health Laboratory for the Commonwealth of Virginia, where she developed various training programs for the state public health laboratory staff, such as ethics, data integrity, and chemical and biological safety. Dr. Mirlohi's wide range of expertise includes environmental/aquatic toxicology, environmental engineering applications for drinking water and wastewater treatment, environmental policy/regulations, biological and chemical toxicity assessment for industry funded research projects aimed at solving water quality issues associated with production of safe drinking water and clean non-potable water for large and small municipal and industrial entities within the United States. She was a research fellow in the interdisciplinary graduate doctoral education program (IGEP) that studied public perception, risks, chemistry, and health aspects of water under the theme of "Water for Health" at Virginia Tech; she also served as a regular guest lecturer for a graduate course in environmental toxicology, covering topics of aquatic toxicology and whole effluent toxicity monitoring for ecological risk assessment studies. Dr. Mirlohi's research interests and expertise are in

contaminants exposure studies, including ecological and human toxicity/health effects assessment; drinking water quality (including taste/odor properties); water/wastewater quality/treatment; environmental health; and educational outreach to promote nutritional, safety, and health aspects of drinking water. Dr. Mirlohi has published her academic research work in peer-reviewed journals and has presented at 22 regional, national, and international conferences. She has written numerous technical reports, issued to private and/or governmental organizations for the purpose of research or regulatory compliance with the federal Clean Water Act and Safe Drinking Water Act. Dr. Mirlohi has served as a peer reviewer for multiple journal publications, including Journal of Environmental and Occupational Health, Journal of Water Supply: Research and Technology – AQUA; Journal of Water; Journal of American Water Works Association, and the International Journal of Environmental Research and Public Health. She has also served on the Laboratory Practices Committee with the Virginia chapter of the American Water Works Association and has been a contributing author to a chlorine disinfection manual for waterworks operators. Dr. Mirlohi has no external sources of research funding.

Naidenko, Olga

Environmental Working Group

Dr. Olga Naidenko is a Senior Science Advisor for Children's Environmental Health with Environmental Working Group, a nonprofit research and advocacy organization headquartered in Washington, DC. She holds a B.A. in Molecular Biology from Colgate University and a Ph.D. in Molecular Biology, with specialization in Immunology, from the University of California, Los Angeles. Dr. Naidenko primary professional interests and areas of expertise are in children's health protection, toxicology, and human health risk assessment for drinking water contaminants. In her role at Environmental Working Group, she leads an investigative team responsible for the development of human health benchmarks for environmental contaminants in different media. She serves on the U.S. Environmental Protection Agency Children's Health Protection Advisory Committee and is currently a workgroup chair within this advisory committee. Dr. Naidenko receives no outside research funding separate from her position at Environmental Working Group. As a nonprofit organization, Environmental Working Group is supported by private foundations, individuals, online donors and socially responsible companies. Prior to her current position, Dr. Naidenko worked at the U.S. Environmental Protection Agency Office of Water, Office of Science and Technology, as a fellow in the American Association for the Advancement of Science policy fellowship program.

Nieminski, Eva

Utah Division of Drinking Water

Dr. Eva C. Nieminski works for the Utah Department of Environmental Quality where she manages technical assistance to water utilities and conducts research projects on water quality and treatment. As part of her employment with the State of Utah, Dr. Nieminski serves as an Adjunct Associate Professor at Department of Civil and Environmental Engineering at Utah State University. She received Masters degrees from Warsaw Technical University and the University of Notre Dame and Ph.D. from the Utah State University - all in environmental engineering. Dr. Nieminski's expertise includes many aspects of water quality and treatment, as well as familiarity with small systems. She has organized the Utah Water Quality Alliance that created a venue for a 20+ year cooperation between the utilities in Utah and direct application of project findings to improve water treatment plants performance. She has directed several studies on treatability of emerging contaminants and feasibility of new treatment technologies, conducted research projects for the EPA and Water Research Foundation, and published 100 articles. She has served as a reviewer for several scientific journals and as advisor of multiple research projects funded by the Water Research Foundation. Dr. Nieminski is an active member of American Water Works Association (AWWA); has served on the Board of Directors and chaired the Water Quality and Technology Division. She chairs the Utility Quality Management Committee, is a member of several committees and the AWWA Microbial and Disinfection By-Products Technical Advisory Workgroup. She serves on the Board of Directors of the International UV Association. She has served as a member of the US National Research Council of the National Academies on the Committee on Public Water Supply Distribution Systems and as a peer reviewer for EPA's STAR - Center for Innovation in Small Drinking Water Systems. Dr. Nieminski is the recipient of the AWWA Water Quality Best Paper Award, AWWA Service to the Industry Award, AWWA Fuller Award, EPA's Environmental Achievement Award, and the Utah Governor's medal in Science and Technology. In 2010, the AWWA Water Quality and Technology Division established and funded the "Eva Nieminski Honorary Scholarship for Graduate Science and Engineering" in the Intermountain Section; since 2012 the scholarship is sponsored by Dr. Nieminski and offered annually.

Paustenbach, Dennis

Chemrisk LLC

Dr. Dennis Paustenbach is a board-certified toxicologist and industrial hygienist with nearly 30 years of experience in ecological and human health risk assessment, environmental engineering, industrial and environmental toxicology, and occupational health. He currently is the President of ChemRisk, LLC, a consulting firm of about 70 professionals specializing in human and ecological risk assessment and risk analysis of consumer products, contaminated sites, pharmaceuticals, and medical devices. Dr. Paustenbach earned a Ph.D. in Environmental Toxicology from Purdue University, an M.S. in Industrial Hygiene from the University of Michigan, and a B.S. in chemical engineering; as well as two honorary doctoral degrees (one from Purdue University and the other from the Rose-Hulman Institute of Technology). He has held numerous positions in the American Industrial Hygiene Association, Society of Toxicology, Society of Risk Analysis, American Conference of Industrial Hygienists, Society of Environmental Toxicology and Chemistry, International Society of Exposure Assessment, and other professional organizations, many of which have presented him with various national awards and honors. He has served on a variety of Science Advisory Panels, including the EPA's Board of Scientific Counselors Executive committee from 2008-2011, National Institute of Occupational Safety Health's Epidemiology, Exposure Assessment and Lab Medicine Methods in Occupational Health panel in 2007, the CDC's Advisory Committee to the Director, National Center for Environmental Health from 2002-2006, the Vietnam-United States Scientific Delegation on Human Health and Environmental Effects of Agent Orange/Dioxin in 2002, and the EPA-sponsored Science Advisory Panel to address the risks of dusts in buildings (asbestos and dioxins) near the World Trade Center in 2002. He does not have any recent sources of grants.

Sager, Allana

Dexter ATC Field Services, Inc.

Mrs. Allana Sager is an Environmental Engineer for Dexter ATC Field Services, providing onsite support for the Water and Wastewater Treatment program at the Total Petrochemicals and Refining Facility in Port Arthur, TX. She received a Bachelor of Science in Biology and Biochemistry from Texas A&M University. She continued her studies and received a Master of Science in Civil Engineering with a specialty focus in Environmental Engineering, and a Business Certificate from the Mays School of Business at Texas A&M University. Allana was awarded a graduate research assistantship by the Texas Engineering Experiment Station at Texas A&M University where she conducted research in the Global Petroleum Research Institute regarding the stability of hydraulic fracturing waters and methods to monitor microbial activity in these waters. Her work was published and presented to the Society of Petroleum Engineer's Industry Board at the Unconventional Resource Technology Conference where she was commended for bringing a revolutionary topic forward for industry wide discussion. Post publication, her work was also featured in the Journal of Petroleum Technology as a feature story detailing the best available technology and practices identified by her team's research. Her technical background also includes biotechnology, biopolymers, wastewater treatment, stormwater management, water reuse, membrane technology, industrial water storage and containment. In addition, she has also developed an expertise in the implementation and maintenance of federal and state water and air quality standards covering the discharge of treated process water, facility stormwater, particulate matter, volatile organics, benzene waste operations, and national emissions standards for hazardous air pollutants. She is recognized as an effective communicator of science and engineering to both technical and non-technical audiences. Since Allana has joined industry, she has received the Engineer-In-Training (EIT) certification from the Texas Board of Professional Engineers, and is currently working towards her Professional Engineering (PE) License. She actively works to give back to her community by being an active member of Engineers without Borders, the American Society of Civil Engineers, the American Chemical Society, and the American Water Works Association. She is not currently a recipient of any research grants or federal funding, but she did receive funding from a private sector environmental consulting firm (GSI Environmental) during her research.

Shea, Damian

Statera Environmental, Inc.

Dr. Damian Shea is a Professor of Environmental Chemistry and Toxicology at North Carolina State University and President and Founder of Statera Environmental, Inc., an environmental technology and consulting company. He received his Ph.D. in Environmental Chemistry from the University of Maryland in 1985 and was awarded a National Research Council Post-Doctoral Fellowship at the National Institute of Standards and Technology (1985-1987). In 1987, he was awarded an American Association for the Advancement of Science Environmental Science and Engineering Fellowship to work at the U.S. Environmental Protection Agency. From 2001 to 2011 he served as Head of the Department of Environmental and Molecular Toxicology and

Department of Biology and also was the Founding University Director of the U.S. Department of the Interior Southeast Climate Science Center and the Program Director for the Howard Hughes Medical Institute Undergraduate Science Education Program. Dr. Shea has been studying the sources, fate, and effects of chemicals in the environment for over 30 years. His research and teaching is highly interdisciplinary and applied to solving real-world environmental problems. By combining his knowledge and experience in chemistry, toxicology, risk assessment, and the social sciences his ultimate goal is to improve our ability to assess, communicate, and mitigate the risks of chemicals to human and ecological health. He is a member of the American Chemical Society, Society for Environmental Toxicology and Chemistry, and International Society of Exposure Science and previously a member of the Society of Toxicology, American Geophysical Union, among others. He also provides scientific leadership to a startup company focusing on environmental technologies. Dr. Shea receives research funding from National Institute of Environmental Health Sciences, U.S. Department of Agriculture, U.S. Geological Survey, and U.S. Fish and Wildlife Service.

Summers, R. Scott

University of Colorado

Dr. Summers is currently a professor of environmental engineering at the University of Colorado – Boulder and the director of the environmental engineering program, which is amongst the largest in the U.S. Prior to that he was a professor at the University of Cincinnati and a research associate at the German water works research institute. He holds BS and MS degrees from the University of Cincinnati and a PhD from Stanford University in Civil and Environmental Engineering. He has over 30 years of drinking water research experience and has served as a consultant on over 60 treatment studies for drinking water utilities. His area of focus is drinking water quality and treatment, with special interest in natural organic matter, disinfection by-products, trace organic contaminants and taste & odor as related to activated carbon adsorption, biological treatment, coagulation, filtration, membrane processes, disinfectant behavior and distribution systems. Dr. Summers served as the technical director of Summers & Hooper, Inc. (1995-2000) and oversaw 20 bench and pilot scale treatment studies. He was a founding member of the Front Range (CO) Drinking Water Consortium; a group of 15 utilities and three universities working in collaboration for best practices in drinking water. He has served as the research advisor for over 25 PhD and 50 MS students and has co-authored over 250 publications and 150 presentations. He received the 2013 A.P. Black Award for drinking water research from American Water Works Association. In the last two years he has received funding from the USEPA, Water Research Foundation, Corona Consulting, Hazen and Sawyer, Southern Nevada Water Authority, NSF and US Forest Service. In the last two years he has not served on any national advisory committees.

Synatschk, Joni

Florida Department of Environmental Protection

Joni Synatschk has over 25 years of experience in water supply and laboratory testing, leading all aspects of laboratory analysis and epidemiological research, including testing in accordance with state and national regulations, assurance of public safety, and data analysis and reporting for a broad range of stakeholders. She has demonstrated expertise in leading cross-functional analytical teams and interdepartmental projects to implement data analysis systems and streamline processes for increased efficiency.