

**Invitation for Public Comment on the List of Candidates  
For the Environmental Protection Agency's Science Advisory Board  
Drinking Water Committee  
May 30, 2012**

The U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) Staff Office announced in a *Federal Register* Notice on March 4, 2012 (77 FR 20396-20398) that it was inviting nominations of experts to be considered for the Administrator's appointment to the SAB Drinking Water Committee (DWC). The SAB Drinking Water Committee provides advice to the EPA Administrator, through the chartered SAB, on the technical aspects of EPA's national drinking water standards program. For the DWC, the SAB Staff office sought nominations of experts in drinking water, epidemiology, engineering, microbiology, and public health.

The SAB Staff Office identified 28 candidates based on their expertise and willingness to serve. We hereby invite public comments on the attached List of Candidates for appointment or reappointment for consideration by the SAB Staff Office. Comments should be submitted to Mr. Thomas Carpenter, Designated Federal officer no later than June 20, 2012 at [carpenter.thomas@epa.gov](mailto:carpenter.thomas@epa.gov). E-mail is the preferred mode of receipt. Please be advised that public comments are subject to release under the Freedom of Information Act.

## List of Candidates for the SAB Drinking Water Committee

### Alexeeff, George

#### California Environmental Protection Agency

Dr. George Alexeeff, Ph.D. is Director of the Office of Environmental Health Hazard Assessment in the California Environmental Protection Agency. He provides scientific and policy input on the medical, scientific, and public health risks posed by hazardous substances and act as a scientific expert on health effects of various contaminants. He oversees a staff of 125 including over 80 scientists in multidisciplinary evaluations of the health impacts of pollutants and toxicants in air, water, soil and other media. He is also an adjunct Professor in the Department of Environmental Toxicology at the University of California at Davis. He earned his Ph.D. in Pharmacology and Toxicology from the University of California at Davis and has been certified as a Diplomat of the American Board of Toxicology, Inc. (DABT) since 1986. He has reviewed over 140 documents evaluating human epidemiological or animal toxicological evidence for OEHHA or other agencies such as U.S. EPA. Dr. Alexeeff has recently served on three National Academy of Sciences' Committees, and is a current member of the U.S. EPA Science Advisory Board's Drinking Water Committee, and EPA's Science Advisory Board. Dr. Alexeeff's professional activities include: past President of the Northern California Chapter of the Society of Toxicology, the past President Genetic and Environmental Toxicology Association of Northern California, member of the Society of Toxicology, and charter member of the Society for Risk Analysis.

### Aschengrau, Ann

#### Boston University

Dr. Aschengrau received her doctoral degree in epidemiology from Harvard School of Public Health. Shortly thereafter, she joined the faculty of Boston University School of Public Health where she currently holds professional appointments as Professor and Associate Chairman in the Department of Epidemiology. Dr. Aschengrau has been an environmental epidemiologist for the past 25 years and has focused much of her teaching and research on in this area. In particular, she has authored nearly 100 research publications, book chapters, reports and abstracts that focus mainly on the health effects of environmental pollution, particularly drinking water contaminants. Her most recent research assessed the neurotoxic effects of early life exposure to tetrachloroethylene-contaminated drinking water. Her current research is supported by grants from the National Institute of Environmental Health Sciences. Dr. Aschengrau has also served as a member of several advisory and peer review committees for governmental agencies including expert panels on Assessing Methods and Analyses for Historical Reconstruction of Groundwater Resources and Distribution of Drinking Water at U.S. Marine Corps Base, Camp Lejeune, North Carolina for the Agency for Toxic Substances and Disease Registry, and the relationship between Gulf War and Health for the Institute of Medicine. She also taught award-winning courses in environmental epidemiology and reproductive epidemiology for the past 20 years, and has co-authored the best-selling textbook Essentials of Epidemiology in Public Health.

## List of Candidates for the SAB DWDC Continued

### Benjamin, Mark

#### University of Washington

Dr. Mark M. Benjamin is a Professor in the Environmental Engineering and Science Program of the Department of Civil and Environmental Engineering at the University of Washington, where he has been on the faculty since 1977. He holds a B.S. in Chemical Engineering from Carnegie-Mellon University, an M.S. in Chemical Engineering from Stanford University, and a Ph.D. in Environmental Engineering from Stanford University. Dr. Benjamin is an expert in physical/chemical treatment processes in general, with long-term research interests in the behavior of natural organic matter (NOM) and its removal from potable water sources, and in the development of adsorption-based processes for removal of metals, NOM, and other contaminants from solutions. For the past thirteen years, a major focus of Dr. Benjamin's work has been membrane treatment of drinking water, and in particular, approaches for interfering with membrane fouling by NOM. In addition to the topics noted above, he has published research on conventional coagulation and filtration processes, diffusion dialysis, and mineral dissolution kinetics. Dr. Benjamin's work has been recognized by a Fulbright fellowship and several awards for best publications in various journals, and three of his students have won awards for best doctoral thesis in environmental engineering. In addition to his research activities, he has served on the Board of Directors of the Association of Environmental Engineering and Science Professors, has written a widely adopted graduate-level textbook on Water Chemistry (McGraw-Hill, 2002), and is preparing another text on Physical-Chemical Treatment of Water with Professor Desmond Lawler of the University of Texas. Dr. Benjamin has twice held five-year appointments to endowed Chairs, and was recently selected as the AEESP Distinguished Lecturer for 2009-10. Dr. Benjamin's research has been supported by grants from both government agencies and private companies, with core grant research support primarily being from the federal government (U.S. Environmental Protection Agency and National Science Foundation) and American Water Works Association Research Foundation (AwwaRF), with additional grant support from state and local governments, industry, and foundations.

### Coleman, Nancy

#### Environmental Consultants

Dr. Nancy Coleman is an environmental toxicologist and public health professional with 30 years of experience in risk assessment for environmental media, including groundwater, surface water, and drinking water. Currently, she is the principal for Environmental Consultants in Oklahoma City. Environmental Consultants offers environmental toxicological and risk assessment services to a variety of industrial clients and environmental consulting firms. Dr. Coleman has prepared numerous human health ecological risk assessments for facilities being considered under Brownfields and Voluntary Cleanup Programs as well as the Superfund program. Prior to entering consulting, she was the toxicologist and epidemiologist for the Oklahoma Department of Environmental Quality and its predecessor, the Environmental Division of the Oklahoma State Department of Health. She also has served as a sanitarian and as a laboratory manager for an environmental laboratory. Dr. Coleman's area of research activity includes the potential effects of chemicals utilized in the production of oil and natural gas on surface and groundwater resources, variability of naturally-occurring substances in domestic wells, and risk evaluation of contaminants on potential drinking water supplies. Research

## List of Candidates for the SAB DWDC Continued

funding is supplied through Environmental Consultants. She has served on the Oklahoma Corporation Commission Risk Task Force, Mid-Continent Oil and Gas Association Glycol Dehydration Study Committee, State and Territorial Air Pollution Program Administrators Air Toxics Review Committee, and several committees for the Oklahoma State Department of Education regarding science education. She is a member of the American Conference of Governmental Industrial Hygienists and a diplomat in the American Academy of Sanitarians. She has a degree in environmental health from Old Dominion University and an M.P.H. in Environmental Health and a Ph.D. in Environmental Toxicology from the University of Oklahoma Health Sciences Center.

### Ducoste, Joel

#### North Carolina State University

Dr. Joel Ducoste is a Professor in the Civil, Construction, and Environmental Engineering Department at North Carolina State University. He holds a B.S. (1988) and M.Eng. (1989) in Mechanical Engineering from Rensselaer Polytechnic Institute, and a Ph.D. in Environmental Engineering (1996) from the University of Illinois at Urbana-Champaign. Dr. Ducoste is a national and international recognized expert in modeling water and wastewater treatment processes using Computational Fluid Dynamics (CFD). His current research interests include physico-chemical processes in water treatment, computational fluid dynamics modeling, solid/liquid separation processes, chemical and UV disinfection, advance oxidation, water/wastewater process optimization, and wastewater sewer collection system sustainability. Dr. Ducoste has served on advisory committees such as the American Water Works Association Particulate committee, AWWA project advisor for research projects funded by AWWA, National Science Foundation graduate fellowship awards committee, and International Population Balance Model scientific and organizing committees. Dr. Ducoste's research has been supported by grants from both government agencies and private companies, with core grant research support primarily being from federal and state and local government (National Science Foundation, U.S. Environmental Protection Agency, U.S. Department of Energy), Water Research Foundation, Water Environment Research Foundation, and North Carolina State University Water Resources Research Institute, with additional grant support from state and local governments, industry, and foundations. He has also served on the North Carolina House of Representatives Special Committee on Offshore Energy Exploration Study. Dr. Ducoste currently serves as an Associate Editor for American Association of Civil Engineers (ASCE) Journal of Environmental Engineering and is a board member of the North Carolina Fulbright Association and the U.S. Environmental Protection Agency Science Advisory Board Drinking Water Committee. He also serves on the Water Environment Federation Fats, Oils and Grease Sewer Collection sub-committee. Dr. Ducoste is a member of AWWA, WEF, International Ultraviolet Association, and Association of Environmental Engineering and Science Professors.

### Englehardt, James

#### University of Miami

Dr. Englehardt has a B.S. in Chemistry from the University of Pittsburgh, an M.S. in Agricultural/Environmental Engineering from Colorado State University, and a Ph.D. in Environmental Engineering from the University of California, Davis. His research group develops design concepts for low-energy, low-emissions, net-zero water buildings of the future, including processes for physicochemical treatment of water, energy recovery, and risk detection.

## List of Candidates for the SAB DWDC Continued

In particular, the group is designing and building a low-energy, net-zero water residence hall that will largely eliminate endocrine-disrupting chemical emissions. Methods include salt-free iron-mediated aeration, electrocoagulation-assisted vacuum ultrafiltration, peroxone oxidative mineralization of personal care products and other organics, residuals electrolysis, and real-time risk detection via machine learning and evidence fusion. In parallel work, his group develops methods of assessing risk unconditionally, for regulation and planning. Methods include predictive Bayesian inference of chemical and pathogenic human health risks from available information, based on principles of self-organization and information theory. Other applications include Bayesian models to locate submerged oil following spills, and assessment of health, environmental, and economic risks for environmental planning. Recent sources of research funding include the National Science Foundation, Cruise Line Industry Association, National Oceanographic & Atmospheric Administration, and the U.S. Environmental Protection Agency. Awards include the Science Advisor's Award, U.S. Environmental Protection Agency, National Center for Environmental Assessment, Cincinnati; the Robert C. Barnard Environmental Science & Engineering Award, American Association for the Advancement of Science and EPA; and two University of Miami Eliahu I. Jury Awards for excellence in research.

### **Golub, Mari**

#### **University of California, Davis**

Mari S. Golub, Ph.D. is an adjunct professor in the Department of Environmental Toxicology. She received a M.S. in Pharmacology-Toxicology from University of California Davis and a Ph.D. in Psychopharmacology from the University of Michigan, and is a Diplomat of the American Board of Toxicology. She has conducted biomedical research at UC Davis for over 30 years with support from National Institute of Children's Health and Human Development, National Institute of Environmental Health Sciences, National Institute of General Medical Sciences and U.S. Environmental Protection Agency using animal models including rhesus monkeys, guinea pigs and rodents. Her research in developmental neurobehavioral toxicology has resulted in over 165 peer-reviewed publications and has recently extended to the use of transgenic mouse models. She has served on a number of national advisory committees in the area of neurodevelopment, reproductive and developmental toxicity and behavioral assessment. She is an investigator at the NIH Children's Environmental Health Center, the NIH Mutant Mouse Regional Resource Center. In addition to the Mouse Behavioral Assessment Laboratory, Dr. Golub is director of the Behavior Assessment Core at the California Primate Research Center.

### **Haas, Charles**

#### **Drexel University**

Dr. Charles Haas is the L.D. Betz Professor of Environmental Engineering and Head of the Department of Civil, Architectural & Environmental Engineering at Drexel University. He holds a B.S. (Biology, 1973) from the Illinois Institute of Technology; an M.S. (Environmental Engineering, 1974) from the Illinois Institute of Technology; and a Ph.D. (Environmental Engineering, 1978) from the University of Illinois at Urbana-Champaign. Dr. Haas' research interests center around the assessment of risk from and control of risks (by treatment interventions) from human exposure to infectious agents. He has extensive experience in water and wastewater treatment processes, especially disinfection, and in risk assessment. He also has prior experience with hazardous waste treatment, particularly heavy metals. Dr. Haas has served

## List of Candidates for the SAB DWDC Continued

on a number of National Research Council and World Health Organization committees. He is past chairman of American Water Works Association and Water Environment Federation Disinfection Committees. He is a past member of the National Academies Water Science & Technology Board, and a current member of the U.S. EPA Board of Scientific Counselors Executive Committee. He has served on numerous National Academies committees, including the Committee to Review the New York City Watershed Management Strategy. He is a member of the augmented SAB EPEC Subcommittee reviewing issues concerning Ballast Water Management. He is a fellow of the American Academy of Microbiology, the Society for Risk Analysis, and the American Association for Advancement of Sciences, and is a Board Certified Environmental Engineering Member of the American Academy of Environmental Engineers.

Current research of Professor Haas has been funded by the Philadelphia Water Department, the Department of Homeland Security, US EPA, the Centers for Disease Control and Prevention, and the WateReuse Foundation.

### Hertz, Charles

#### Aqua America, Inc.

Charles D. Hertz is employed as manager of laboratory and research at Aqua Pennsylvania, Inc. (Aqua), Bryn Mawr, Pennsylvania. With more than 25 years experience in the field of water analysis, he directs the efforts of the central laboratory of Aqua America, Inc., a water and wastewater utility serving 3 million people in 10 states. This laboratory analyzes more than 37,000 samples each year for operational and compliance monitoring of water and wastewater (microbiology, inorganic and organic chemistry). From both a laboratory and utility perspective, he has been involved with implementing regulations derived from the Safe Drinking Water Act for over 20 years. He received a B.S. degree in biology from Elizabethtown College, and an M.S. in environmental chemistry and Ph.D. in environmental science from Drexel University. Dr. Hertz joined Aqua in 1990 and was previously a research scientist with the New Jersey Department of Environmental Protection, Division of Science and Research. At NJDEP, he served as a project manager for drinking water research investigating analytical methods, by-products of chlorination and ozonation, and non-standardized methods of monitoring water. Over the years, he has been involved on many committees related to water quality and laboratory issues with the American Water Works Association (AWWA) and the Water Research Foundation. He has served on the Contaminant Candidate List Technical Advisory Workgroup and previously chaired the AWWA Water Quality Laboratory Committee. Dr. Hertz has served on advisory committees for research projects on analytical chemistry (arsenic, chromium, polar organic compounds, and pharmaceuticals), detection and quantification, water quality monitoring, water treatment processes, and epidemiologic studies of disinfection by-products.

### Jones, Kimberly L.

#### Howard University

Dr. Kimberly L. Jones is a professor of Environmental Engineering and Chair of the Department of Civil and Environmental Engineering at Howard University in Washington, DC. She holds a B.S. in Civil Engineering from Howard University, a M.S. in Civil and Environmental Engineering from the University of Illinois in Champaign, IL and a Ph.D. in Environmental Engineering from The Johns Hopkins University. Dr. Jones currently serves on the Water Science and Technology Board of the National Academy of Science and is a member of the

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National Academy of Science Blue Grass Chemical Agent Pilot Plant Water Recovery Committee. She has also served on the NAS Blue Water Navy Vietnam Veterans and Agent Orange Exposure Committee, the NAS Committee to Review Environmental Models in Regulatory Decision Making, the NAS Committee to Advance Desalination Technology, and the NAS Committee to Review the Desalination Roadmap. Dr. Jones' research interests include developing membrane processes for environmental and biomedical applications, physical-chemical processes for water and wastewater treatment and environmental nanotechnology. She served as the Deputy Director of the Keck Center for Nanoscale Materials for Molecular Recognition, one of the first centers to bring nanotechnology research to Howard University. She also serves on the Center Steering Committee of the Center for the Environmental Implications of Nanotechnology (CEINT), a National Environmental Nanotechnology Center. Dr. Jones has received a Top Women in Science Award from the National Technical Association, the Outstanding Young Civil Engineer award from University of Illinois Department of Civil and Environmental Engineering, an Outstanding Leadership and Service award from the College of Engineering, Architecture and Computer Sciences at Howard, Outstanding Faculty Mentor award from the American Society of Civil Engineers HU Student Chapter and Top Women Achievers award from Essence Magazine. She served on the Board of Directors and as Secretary of the Board of the Association of Environmental Engineering and Science Professors and was an associate editor of the Journal of Environmental Engineering (ASCE).

**Korrick, Susan**

**Harvard Medical School**

Dr. Susan Korrick is an Environmental Epidemiologist with particular expertise in studies of the relation of exposure to environmental chemicals (from multiple sources) with cognitive and behavioral function and with reproductive health and development. She is an Assistant Professor of Medicine at the Channing Laboratory, Harvard Medical School, and Assistant Professor in the Department of Environmental Health at the Harvard School of Public Health, Boston, MA. In addition, she is a physician with specialty training in Environmental and Occupational Medicine and an Associate Physician in the Department of Medicine at Brigham and Women's Hospital, Boston, MA. Dr. Korrick holds a B.A. from Harvard University, an M.D. from Yale University School of Medicine, and an M.P.H. from Harvard University School of Public Health. She is responsible for the training and supervision of doctoral students and post-doctoral trainees in environmental and occupational epidemiology and taught for many years as an invited lecturer in public health graduate courses in toxicology and environmental and occupational epidemiology. Her research spans studies of the toxicities of a range of environmental contaminants including metals (lead, mercury, manganese, and arsenic), organochlorine pesticides, PCBs, and dioxins among populations ranging in age from newborns to elderly adults. Dr. Korrick has been an invited speaker or expert panelist in Centers for Disease Control (CDC) / Agency for Toxic Substances and Disease Registry, National Institutes of Environmental Health Sciences and U.S. Environmental Protection Agency-sponsored forums addressing the human health impacts of environmental contaminants. She served on an Institute of Medicine, National Academy of Sciences panel assessing an ATSDR report on contaminants in the Great Lakes, and has served on several EPA Science Advisory Boards including current work on the EPA Clean Air Scientific Advisory Committee Lead Review Panel, the EPA Drinking Water Committee SAB and as an ad hoc member of the EPA SAB Environmental

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Engineering Committee Panel that provided advice to EPA on its draft Hydraulic Fracturing Research Scoping Study Plan. Dr. Korrick's current active and pending research support is largely focused on the relation of environmental contaminants with child neurobehavioral development and includes support primarily from the National Institute of Environmental Health Sciences, National Institute of Health and the U.S. Environmental Protection Agency. In addition, she receives support from the U.S. EPA (see the joint NIEHS/EPA program of Children's Environmental Health Disease and Prevention Research Centers described under NIEHS funding) and an EPA Science to Achieve Results (STAR) grant (Effects-Based Cumulative Risk Assessment in a Low-Income Urban Community Near a Superfund Site).

### Loge, Frank

#### University of California-Davis

Dr. Frank Loge is a Professor in the Department Civil and Environmental Engineering and founding Director of the Water Efficiency Center at the University of California Davis. He holds a Ph.D. in Civil and Environmental Engineering and a Professional Engineering License (P.E.) in California. His research interests lie in the fields of drinking water and wastewater treatment; green engineering and sustainability; risk assessment; environmental microbiology; and exposure and human health. All ongoing research projects encompass teams of highly interdisciplinary individuals with backgrounds in ecotoxicology; biology; epidemiology; ecology; immunology; microbiology; mathematics and biostatistics; engineering; economics; composites; and polymer chemistry. Current research projects encompass green engineering and environmental sustainability with focus on water, waste, energy, and built environment systems and risk analysis of engineered and natural systems with focus on water and health relationships.

Research sponsors include US Dept of Energy, US Environmental Protection Agency, National Science Foundation, US Army Corps of Engineers, US Bureau of Reclamation, and California Dept. Water Resources. Dr. Loge has published over 50 peer-reviewed manuscripts and has been associated with over 70 oral presentations related to research topics of interest. He has served as a technical advisor to the California Interagency Ecological Program; member of the Water Reuse Committee of the Water Environment Federation; member of the Washington State Water Reuse Committee; and technical advisor to the National Oceanic and Atmospheric Administration's Northwest Fisheries Science Center Oceans and Human Health Program

### Mena, Kristina D.

#### University of Texas Health Science Center at Houston

Kristina D. Mena, MSPH, Ph.D. is Associate Professor and Program Head of Environmental and Occupational Health Sciences in the Division of Epidemiology, Human Genetics, and Environmental Sciences at the University of Texas – Houston, School of Public Health (UT-Houston SPH). She earned a MSPH at the University of South Florida, a PhD in environmental microbiology and epidemiology at The University of Arizona, and completed a Post-Doctoral Fellowship in the Food Animal Health and Management Center at Kansas State University. As Program Head, Dr. Mena oversees all environmental faculty at each of the six campuses of UT-Houston SPH, which is part of the largest medical center in the world. Dr. Mena is located at the El Paso Regional Campus of UT-Houston SPH and her research areas include water quality, food safety, and human health risk assessment. Dr. Mena combines human health risk assessment with epidemiological approaches to address infectious disease associated with water and food. Her research expertise is diverse in that she has addressed water quality/quantity

## List of Candidates for the SAB DWDC Continued

issues for a variety of entities throughout the U.S. to develop health risk reduction strategies. In addition, she has applied risk assessment approaches that address water quality for a range of populations - from those living in rural, socially marginalized communities to the flight crew at the International Space Station National Aeronautics and Space Administration. Further, Dr. Mena has served on numerous national/international committees regarding the integration of environmental microbiology and risk assessment, such as for the Water Environment Research Foundation, Water Research Foundation, and The Groundwater Foundation. She was also selected and participated in the American Society for Microbiology sponsored American Academy of Microbiology Colloquium on the advances and applications of quantitative microbial risk assessment.

### **Mitch, William**

#### **Yale University**

Dr. William Mitch is an Associate Professor in the Department of Chemical Engineering at Yale University. He received an A.B. degree in Anthropology (Archaeology) at Harvard University in 1993. After obtaining his M.S. degree in Civil and Environmental Engineering at the University of California at Berkeley in 1996, he worked for several years in environmental engineering consulting and obtained his P.E. license in civil engineering. He received his Ph.D. degree in Civil and Environmental Engineering at the University of California at Berkeley in 2003. He has obtained several awards, including the 2004 Outstanding Doctoral Dissertation Award from the Association of Environmental Engineering and Science Professors and Parsons Engineering, and a National Science Foundation Faculty Early Career Development award in 2008. His research interests include understanding the pathways responsible for the formation of emerging disinfection byproducts, the destruction of persistent organic pollutants in sediments by sulfides catalyzed by black carbons, and the halide-assisted indirect photolysis of contaminants in brackish waters. His current research is supported by the Water Research Foundation, National Science Foundation, U.S. Department of Agriculture, and the Norwegian Government.

### **Murphy, Eileen**

#### **Rutgers University**

Dr. Eileen Murphy is the Director of Research and Grants at the Rutgers University Ernest Mario School of Pharmacy. She holds a B.S. in English with a minor in Biology from the University of Notre Dame, an M.S. in Environmental/Outdoor Education from Northern Illinois University, and a Ph.D. in Environmental Science from Rutgers University. Dr. Murphy coordinates multi-disciplinary research projects among faculty in pharmacology, toxicology, communication, environmental science, engineering and other disciplines. Her research interests include occurrence, fate and transport of pharmaceuticals and other anthropogenically-derived organic chemicals in the environment. Prior to holding this position, Dr. Murphy served as the Director of the New Jersey Department of Environmental Protection (NJDEP) Division of Science, Research and Technology. Before becoming Director in 2004, she served as Assistant Director for four years and as a research scientist for 15 years within the group, developing an expertise in the drinking water field. Dr. Murphy has focused much of her career on drinking water science, including contaminant occurrence and fate & transport. She has been involved in the issue of unregulated contaminants in drinking water and the treatment to remove them from finished water. Dr. Murphy's particular research emphasis is on exposures to toxic substances, fate and transport of toxic substances and assessments of the potential risks to human health and

## List of Candidates for the SAB DWDC Continued

the environment posed by these exposures. Dr. Murphy's research has been conducted without the support of grants from either government agencies or private companies. She is co-author on numerous peer-reviewed scientific papers that have appeared in scholarly journals, including Environmental Science and Technology. Before coming to NJDEP, Dr. Murphy served as Assistant Director for the Douglass Project for Rutgers Women in Math and Science and as a Project Manager for the Center for Math, Science and Computer Education at Rutgers University.

### Ramaley, Brian

#### Newport News Waterworks

Mr. Ramaley has over 35 years' experience in drinking water supply, treatment and distribution systems. Since 1994, he has been director of one of the largest drinking water utilities in Virginia, supplying water to more than 400,000 Virginians. A civil/environmental engineer by training, particular emphases of his work have been in water treatment facilities, alternative water supply/treatment systems, water treatment and distribution technologies and modeling, and water utility operations and management. He has worked in staff, management and leadership positions as a consultant and with large municipal water and wastewater organizations. He has directed raw water source selection studies, water distribution system analyses, water quality studies, rate studies, corrosion control investigations, treatment plant rehabilitation projects, preliminary design, detailed design and construction supervision of water treatment plants, pipelines, and other water supply projects. He has served as a manager with the cities of Newport News, Virginia, and Durham, North Carolina, and in consulting while with the international firm James M. Montgomery, Consulting Engineers, Inc. (now known as MWH) . From 1992 until 2000, he worked with EPA, environmental organizations, state regulators and many others to develop new drinking water regulations, both in a Regulatory Negotiation process and as a member of EPA's Federal Advisory Committee for microbial contaminants and disinfection byproducts. Since January 2001, he has served in a variety of leadership roles related to critical infrastructure for the Nation's water sector, including serving as a member of the WaterISAC Board of Managers, Chairing the CIP Advisory Group, and representing the U.S. water industry at the U.S./Australia Bilateral in 2004. In this role, Mr. Ramaley has helped organize, coordinate and review various programs and projects aimed at making the water supply community more secure from attack. Mr. Ramaley was named Chairperson of EPA's National Drinking Water Advisory Council (NDWAC) in 2004. He has testified to Congress on three occasions on water quality and chemical security issues, and has presented on issues related to climate change and its impacts on water supplies in coastal communities, at international forums. Another area of interest is enhancing organizational performance through organizational development strategies and various benchmarking techniques.

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### Randtke, Stephen

#### University of Kansas

Dr. Steve Randtke is a Professor in the Department of Civil, Environmental, and Architectural Engineering at the University of Kansas in Lawrence, KS. He holds a B.S. degree in Civil Engineering from Loyola University of Los Angeles and M.S. and Ph.D. degrees in Civil & Environmental Engineering from Stanford University. Dr. Randtke is a licensed professional engineer in Kansas and Illinois, and a diplomate in the American Academy of Environmental Engineers. Professor Randtke's teaching and research activities focus primarily on water quality and drinking water treatment. His current sources of research funding are the U.S. EPA and the Water Research Foundation. He is a member of the American Association for the Advancement of Science, the American Water Works Association (AWWA), the Association of Environmental Engineering and Science Professors, the North American Lake Management Society, the Water Environment Federation, and the International Water Association. Dr. Randtke has served as a member of the Research Advisory Council of the AWWA Research Foundation (1986-1988), as President of the Association of Environmental Engineering and Science Professors (1994-95), and as chair of the Research Division of the American Water Works Association (1995-1998). He is currently serving as a technical editor for the 5th edition of Water Treatment Plant Design, a design handbook prepared under the auspices of AWWA and the American Society of Civil Engineers, and as a member of the Drinking Water Committee of the U.S. EPA's Science Advisory Board.

### Roberts, A. Lynn

#### Johns Hopkins University

Dr. A. Lynn Roberts is Professor of Geography and Environmental Engineering at Johns Hopkins University. Dr. Roberts received her B.A. degree in Geology from Pomona College in 1977. She received an MSc. in Contaminant Hydrogeology from the University of Waterloo (Canada) in 1982, and a Ph.D. in Civil Engineering (in the field of environmental chemistry) from the Massachusetts Institute of Technology (MIT) in 1991. She served as a postdoctoral fellow and lecturer at MIT from 1991 to 1993 before accepting a position as Assistant Professor at Johns Hopkins in 1993. Dr. Roberts' research interests center around the occurrence and transformations of organic contaminants in water, with a particular emphasis on their fate both in natural waters and in engineered systems such as during water treatment or in semi-passive subsurface permeable reactive barriers. Current research involves the occurrence and transformations of "emerging contaminants" (pharmaceuticals and personal care products; herbicide degradates; herbicide "safeners"; illicit drugs) in the environment and contaminant transformations during drinking water treatment. She has received several awards, including a National Science Foundation Young Investigator Award in 1994, an Excellence in Review award from Environmental Science and Technology in 2003, and an Undergraduate Student Council Teaching Award from Johns Hopkins in 1999. One of her Ph.D. students, Bill Arnold, received the Association of Environmental Engineering and Science Professors (AEESP) / CH2M Hill Outstanding Doctoral Dissertation Award in 2000. Dr. Roberts has been a member of the Editorial Advisory Board for Environmental Science and Technology since 2004.

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### Scher, Deanna

#### Minnesota Department of Health

Dr. Deanna Scher is an environmental epidemiologist for the Health Risk Assessment Unit at the Minnesota Department of Health (MDH). She has conducted research and published on exposure assessment methods, biomonitoring, and environmental epidemiology. In her current position, Dr. Scher conducts studies, provides exposure and health information to the public, and consults on environmental epidemiology issues. She is the principal investigator of an MDH population-based biomonitoring study of American Indians in Northeastern Minnesota, funded by ATSDR. Deanna is involved in the design, sample collection, and data analysis of a perfluorochemical exposure study (MDH Perfluorochemicals in Homes and Gardens Study). She has also worked in MDH's Environmental Public Health Tracking program, evaluating and creating environmental health indicators and measures as part of a national effort led by CDC. Deanna serves a consultative role on environmental exposure and epidemiology issues with other programs within the Division of Environmental Health, across MDH, and with other state agencies. For example, she is the MDH representative to the Pesticide Management Plan Committee, providing comment to the Commissioner of Agriculture for major water quality evaluation activities and decisions. Prior to coming to MDH in 2007, she served as a Chemical Review Manager for the U.S. Environmental Protection Agency's Office of Pesticide Programs. In this role, she selected appropriate mitigation measures to address dietary, residential, occupational, and ecological risks from pesticides. This involved the resolution of complex environmental and public health risk issues through mediation and multi-party collaborative processes with stakeholders (e.g., chemical companies, grower organizations, public and environmental advocacy groups, and state/regional regulatory agencies). Deanna held this position until 2002, when she decided to pursue an advanced degree in environmental health sciences. Deanna received a Ph.D. in Environmental Health Sciences from the University of Minnesota in 2007. Her dissertation topic was "Integrating biomonitoring and biological plausibility into pesticide risk assessment and epidemiology".

### Skadsen, Janice

#### CDM

Janice Skadsen is currently a Project Manager and Environmental Scientist with CDM Smith. Ms. Skadsen has managed a variety of projects, including nitrification investigations, corrosion control studies, filtration improvements, ozone optimization, lime system improvements, security assessments and master planning. These projects are primarily funded by drinking water utilities. She is retired from the City of Ann Arbor after 25 years of employment where she was the Water Quality Manager. She has a M.S. degree in Natural Resources from the University of Michigan and a B.S. degree in Biology and B.A. degree in Chemistry from Case Western Reserve University. She has specialized in drinking water quality from the source to the tap. She has been an active volunteer with the American Water Works Association (AWWA), including regulatory advisory groups. She is a past-Vice President of the organization. She is also active with the Michigan Section of the AWWA where she has taken a variety of leadership and committee roles. Ms. Skadsen has authored a number of papers, given numerous presentations and is a co-author of the manual "Fundamentals and Control of Nitrification in Chloraminated Drinking Water Distribution Systems." Throughout her career, Ms. Skadsen has been dedicated to protecting public health through the provision of sound science, safe water and public

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engagement. Ms. Skadsen is currently serving on the EPA Science Advisory Board's Drinking Water Committee.

### Snyder, Shane

#### University of Arizona

Dr. Shane Snyder is a Professor in the College of Engineering at the University of Arizona. He is also a joint Professor in the College of Public Health and in the Soil, Water, and Environmental Science Department of the College of Agriculture. He also is the Co-Director of the Arizona Laboratory for Emerging Contaminants. For over 15 years, Dr. Snyder's research has focused on the identification, fate, and health relevance of emerging water pollutants. Professor Snyder's research has been primarily funded by the WateReuse Research Foundation, the Southern California Coastal Research Program, the National Science Foundation, United Water, and Agilent Technologies. Dr. Snyder and his team have published over 100 peer-reviewed manuscripts and book chapters on emerging contaminant analysis, treatment, and toxicology. In April of 2008, Dr. Snyder was one of six experts invited to testify before the U.S. Senate regarding pharmaceuticals in US waters. He has since been invited to brief the U.S. Congress three additional times. Dr. Snyder has served two terms on the federal advisory committee to EPA's Endocrine Disruptor Screening Program and was an invited expert panel member for the development of EPA's CCL3. Dr. Snyder is a member of the National Academy of Science's National Research Council Committee on Water Reuse and has served two appointments on the California Chemicals of Emerging Concern Expert Panels. Dr. Snyder is a member of the King Abdullah University of Science and Technology (KAUST) Science Advisory Board, and Dr. Snyder is a visiting professor at the National University of Singapore where he leads research on water reuse technologies and implications for public health.

### Stanford, Benjamin

#### Hazen and Sawyer, P.C.

Dr. Stanford serves as the Director of Applied Research for Hazen and Sawyer, P.C., where he coordinates company-wide research efforts in water, wastewater, and reuse, and participates in study design, QA/QC, and report writing. Dr. Stanford directs and manages a portfolio of 20 active grant-funded research projects and is currently leading and/or participating in five studies related to emerging contaminants from the WateReuse Research Foundation, Water Research Foundation, and Water Environment Research Foundation (WERF). He is one of the leading experts in the US on perchlorate and chlorate occurrence and management in hypochlorite solutions used in water treatment. He is co-authoring the chapter on emerging contaminants and public health risks for the US EPA 2012 Water Reuse Guidelines and serves as a technical expert on American Water Works Association Contaminant Candidate List Technical Advisory Workgroup. He is also a member of Water Environment Research Foundation Trace Organic Contaminants in Biosolids Exploratory Team and Issue Area Team, serves on the AWWA Trace Organic Contaminants Committee, and has served as a reviewer for the U.S. Environmental Protection Agency Small Business Innovation Research program and the U.S. Department of Agriculture's Agriculture and Food Research Initiative. Finally, Dr. Stanford is the Americas Editor for the IWA Journal AQUA. Dr. Stanford directs a research portfolio of 20 projects funded by the Water Research Foundation, the WateReuse Research Foundation, the Water Environment Research Foundation, the American Water Works Association, and the National Science Foundation. In addition to research efforts, Dr. Stanford supports new and existing

## List of Candidates for the SAB DWDC Continued

design work at Hazen and Sawyer as a technical expert and provides public information support to utilities working to comply with Stage 2 D/DBP Rule compliance. Prior to joining Hazen and Sawyer, Dr. Stanford worked with Shane Snyder at the Southern Nevada Water Authority, where he investigated, among other things, emerging contaminant treatment and a variety of drinking water, wastewater, and water reuse process optimization studies. His diverse responsibilities have included designing and managing studies on chlorine chemistry, perchlorate, and chlorate formation; water reuse; reducing organic fouling in reverse osmosis and nanofiltration membrane systems; fate and transport of micro-pollutants in wastewater and drinking water systems; evaluation of novel pilot-scale water treatment technologies for the removal of emerging contaminants; investigations of climate change on drinking water quality; and in vivo and in vitro toxicology studies.

### VanBrieson, Jeanne M.

#### Carnegie Mellon University

Dr. Jeanne M. VanBriesen is a Professor of Civil and Environmental Engineering and the Director of the Center for Water Quality in Urban Environmental Systems (Water QUEST) at Carnegie Mellon University. Dr. VanBriesen holds a B.S. in Education and a M.S. and Ph.D. in Civil Engineering from Northwestern University. Her research is in environmental systems, including biotransformation of recalcitrant organics, detection of biological agents in drinking water and natural water systems, and speciation-driven biogeochemistry of chelating agents and disinfection by-products. Dr. VanBriesen is currently leading a study of the impacts of hydraulic fracturing produced water on surface water sources of drinking water. In particular, she is examining the potential for increased production of brominated organic compounds in drinking water systems due to increases in bromide concentrations in source water. Dr. VanBriesen is also participating in design and implementation of a real-time water quality monitoring system at drinking water plants in the Monongahela River. She is very active with local and regional watershed groups focused on understanding urban water issues in Pittsburgh and the Ohio River Valley. Dr. VanBriesen has served on the boards of the Association for Environmental Engineering and Science Professors and the Ohio River Basin Consortia for Research and Education. Dr. VanBriesen has received numerous awards, including the Pennsylvania Water Environment Association Professional Research Award in 2007 and the Best Research Paper in the Journal of Water Resources Planning and Management in 2008. Dr. VanBriesen served on the National Research Council's Committee on Water Quality in Southwestern Pennsylvania in 2002-2004. She was a selected presenter at the National Academy of Engineering Indo-US Frontiers of Engineering Symposium on Infrastructure in 2008, and she was the National Academy of Engineering Gilbreth Lecturer in 2011.

### Vieira, Veronica

#### Boston University

Dr. Verónica Vieira is an environmental epidemiologist interested in spatial analysis methods and exposure modeling. She earned a MS in Environmental Engineering from Stanford University and a DSc in Environmental Health from Boston University School of Public Health. Dr. Vieira has an extensive knowledge of GIS, groundwater modeling, cluster detection methods, and on persistent environmental contaminants including tetrachloroethylene (PCE, a dry-cleaning solvent), perfluorooctanoic acid (PFOA, a perfluorinated compound (PFC) involved in the manufacturing of Teflon), and polybrominated diphenyl ethers (PBDEs, a

## List of Candidates for the SAB DWDC Continued

common class of flame retardants). As part of a multi-university community health project, Dr. Vieira collaborates on a large historical reconstruction of PFOA exposures among residents of the mid-Ohio valley to study potential health effects. These communities are located near a large chemical plant that emitted PFOA into the local air and water for several decades. Components of this work include improving methods for geocoding rural addresses using GIS and examining the relationship between PFOA serum levels and drinking water concentrations. This research was funded in part by the C8 class action settlement agreement [Jack W. Leach, et al. v. E.I. du Pont de Nemours & Company (no. 01-C-608 W.Va., Wood County Circuit Court, West Virginia, USA) between DuPont and plaintiffs. Funds were administered by the Garden City Group (Melville, New York) that reports to the court. Dr. Vieira's work also includes method development for spatial epidemiology such as disease mapping, cluster detection, and space-time interactions. Dr. Vieira's other research has been supported by NIEHS/NIH. She is currently an Associate Professor at the University of California, Irvine and collaborates with researchers at BUSPH and Harvard University to apply disease mapping to various health outcomes including cancer, birth outcomes, and rheumatoid arthritis.

### Weisel, Clifford

#### University of Medicine and Dentistry of New Jersey

Clifford P Weisel, Ph.D. received his Ph.D. degree from the University of Rhode Island in 1981 and is currently a professor in the Exposure Science Division of the Department of Environmental and Occupational Medicine of the Robert Wood Johnson Medical School, where he has been on the faculty for more than 20 years. He also holds appointments on the graduate faculty of Environmental Sciences of Rutgers University and the School of Public Health. He is the Deputy Director of the Exposure Science Division of the Environmental and Occupational Health Sciences Institute and Director of the Doctoral Degree Program in Exposure Assessment. Dr. Weisel was the Forchhener Visiting Professor of Genetics at Hebrew University in 2003 and an invited speaker at Gordon Conferences on Disinfectant By-Products in 2006 and 2009. Dr. Weisel has directed research to understand multi-route exposures, developed and applied biomarkers to understanding exposures to environmental contaminants and has conducted large exposure field projects. He has examined the relationship among indoor, outdoor and personal exposure to air pollutants; documented the importance of inhalation and dermal exposure to contaminants, such as disinfection by products in drinking water, to evaluate their health risk; and the role of on air pollution and on asthma and other respiratory and on cardiovascular diseases. He is currently conducting research on exposures to contaminants, such as pesticides, ozone, and fuel oil, within the aircraft cabin of commercial airlines funded by the FAA and Boeing Corporation. He is evaluating real time monitors for particles and air pollutants as part of the National Children's Study funded by the National Institutes of Health (NIH) and for ozone funded by the National Institute of Environmental Health Sciences (NIEHS). He is the PI on an NIEHS training grant for the Graduate Program in Exposure Science. He is the past president of the International Society of Exposure Science and has served on numerous international and national advisory committees, workshops and advisory review panels for EPA, NIEHS, CDC, state government, environmental groups and private industry and was on the National Academy of Sciences committee to review Health Effects in Vietnam Veterans of Exposure to Herbicides in 1992-1993. He has been an associate editor of the Journal of Exposure Science and Environmental Epidemiology since 1995. Dr. Weisel has authored or co-authored more than 90 peer-reviewed publications and book chapters.

## List of Candidates for the SAB DWDC Continued

### Willhite, Calvin

#### Risk Sciences International

Calvin C. Willhite is a Senior Contract Toxicologist with Risk Sciences International, Washington, D.C. where he develops health risk assessments for man-made and naturally-occurring chemicals. Dr. Willhite has published primarily in developmental toxicology, and quantitative structure-activity relationships. His Research is supported by Hoffmann LaRoche, U.S. Department of Agriculture, National Research Council, National Science Foundation, National Institutes of Health, the States of California, Pennsylvania, and Arizona, U.S. Agency for International Development, International Association of Plumbing and Mechanical Officials and the March of Dimes. He serves on the editorial boards of Toxicology & Applied Pharmacology, the Journal of Toxicology and Environmental Health and Toxicology. Dr. Willhite has been a member of the National Academy's Committee on Toxicology, the U.S. EPA's National Advisory Committee, the National Toxicity Program's Scientific Advisory Committee on Alternative Toxicological Methods, International Life Sciences Institute's Structure-Activity Database Project, the National Research Council's Submarine Air Quality and Acute Exposure Guidelines Subcommittees, the National Science Foundation Health Advisory Board, the American Conference of Governmental Industrial Hygienist's Committee on Threshold Limit Values, the International Agency for Research on Cancer Chemoprevention Panel and Cal/Occupational Safety and health Administration's Lead in Construction PEL Committee. He is a member of the Society of Toxicology and his biography appears in Who's Who in America, Who's Who in Science and Engineering and Who's Who in Medicine and Healthcare.

### Yates, Marylynn

#### University of California-Riverside

Dr. Marylynn V. Yates is Professor of Environmental Microbiology and Distinguished Teaching Professor at the University of California, Riverside. She also serves as the Dean of the College of Natural and Agricultural Sciences. Dr. Yates holds a B.S. in Nursing from the University of Wisconsin, Madison, an M.S. in Chemistry from the New Mexico Institute of Mining & Technology, and a Ph.D. in Microbiology from the University of Arizona. Dr. Yates' research interests include characterizing and predicting the fate and transport of human enteric pathogenic microorganisms in soils, water, and wastewater; development of methods for rapid, sensitive detection of infective enteric viruses in water samples; human pathogen considerations associated with wastewater reuse and biosolids application to land; and the use of indicators for predicting pathogen occurrence and behavior in the environment. Dr. Yates serves as an editor for Applied & Environmental Microbiology. Her research is funded by the National Science Foundation, U.S. Deptment of Agriculture, U.S. Environmental Protection Agency, and the State of California Water Resources Control Board. Dr. Yates is currently serving as the interim Director of the University of California Center for Water Resources. She is a fellow of the American Association for the Advancement of Sciences, the American Academy of Microbiology, and a National Associate of the National Academies of Science.

## List of Candidates for the SAB DWDC Continued

**Zeise, Lauren**

**California Environmental Protection Agency**

Dr. Lauren Zeise is Chief, Reproductive and Cancer Hazard Assessment Branch, of the California Environmental Protection Agency's (Cal/EPA) Office of Environmental Health Hazard Assessment. In that role she oversees a variety of scientific activities concerning risk assessment, including chemical hazard and dose response assessment and development of improved methods for risk assessment. As part of Cal/EPA's environmental justice work, her group is also developing the Agency's approach to cumulative impact assessment – for characterizing the impact on communities of multiple sources of pollution and non-chemical stressors in the presence of community vulnerability. Her group works with other departments in California government in operating Biomonitoring California, the state's biomonitoring program. She co-led the team that developed California's Green Chemistry Hazard Trait regulation. Dr. Zeise has served on numerous national and international science advisory committees and boards focusing on environmental public health and improving the way chemicals are tested or evaluated for health risk. She has coauthored a number of National Academy of Science (NAS) reports, including "Science and Decisions: Advancing Risk Assessment" (2009), "Toxicity Testing in the 21st Century: A Vision and Strategy" (2007), "Sustainability and the US EPA" (2011), and "Understanding Risk: Informing Decisions in a Democratic Society" (1996). She is currently a member of the NAS committees including the Committee on Use of Emerging Science for Environmental Health Decisions. Research interests focus on methodology for characterizing interindividual variability and for describing risks of data sparse chemicals. She is member, fellow, former editor and former councilor of the Society of Risk Analysis and was the 2008 recipient of the Society's Outstanding Risk Practitioner Award. She is a lifetime NAS National Associate. She received her doctorate from Harvard University.