About the Contributors

**A. Elaine McKeown** is a registered nurse with a bachelor’s degree in nursing from William Jewell College in Liberty, Missouri and a master’s in nursing from the University of Michigan, Ann Arbor, Michigan. Her nursing career spans over thirty years which includes working in emergency, cardiac care and community health. Ms. McKeown taught medical-surgical nursing for ten years at Washtenaw College in Ann Arbor, Michigan. Following fulltime service in nursing, Ms. McKeown has served as an educational docent at the North Carolina Aquarium on Roanoke Island. The aquarium is part of the larger state of North Carolina’s (NC) aquarium system and holds an accreditation with the Association of Zoos and Aquariums. Inspiring appreciation and conservation of NC’s aquatic environment is the organization’s mission. Ms. McKeown is also a member of the Marine Mammal Standing Network and Network for Endangered Sea Turtles (NEST). She takes part with injured sea turtle rehabilitation, responds to marine mammal standings and assists with autopsies on non-viable finds. She is a current candidate for the State of North Carolina’s Environmental Educator Certificate. Ms. McKeown takes part in multiple overseas trips to volunteer nursing services in South America and Africa, working as part of a clean water instillation team.

**George Bugyi** is an Emeritus Executive Secretary from Pennsylvania State University (PSU), where he served as a Professor in the College of Health and Human Development. Dr. Bugyi also served as a coach and administrator for thirty-seven years. He is best known as a humanitarian, having been the only individual which PSU bestowed both its humanitarian awards. He has received the McKay Donkin Award for Service to the Faculty and the Barash Award for Human Service. The first is an award for his contributions to the economic, physical, and mental welfare of the faculty of the university, and the second for human causes, public service and the welfare of society. He has also held national posts including the President’s Community College Study Committee. Dr. Bugyi earned his Bachelors in Health and Physical Education, his Masters in Physiology and his Doctorate in Exercise Physiology, all from the University of Maryland.

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**Julie A. Becker** is a specialist in environmental health and has taught in many public health and nursing programs throughout the region. Her research interests include pharmaceuticals in the environment and evaluations of community-based participatory research efforts, with publications in both areas as well as other public health issues including youth violence prevention. Dr. Becker has established three non-profits and is still affiliated with the award winning, Women’s Health and Environmental Network,
(WHEN) which champions our health through environmental action. She founded her own public health consulting firm, specializing in evaluation and assessment, with the emphasis of “putting research into practice” by using the tenets of community-based participatory research (CBPR). Dr. Becker is spearheading the Philadelphia Partnership for Pharmaceutical Pollution Prevention (P5), a collaborative group of federal, state, and local governments, non-profits, and academics that utilize research to develop better practices in pharmaceutical waste management. She is currently developing international efforts on reducing and mitigating pharmaceutical waste. She completed a fellowship with the CDC Environmental Public Health Leadership Institute.

**Sanford R. Bender** is a registered architect, certified floodplain manager, and hazard mitigation specialist. Other credentials include the Society of American Registered Architects, CFM, and Certified Sustainable Building Advisor as well as having special expertise in environmentally concerned construction as a LEED Accredited Professional. In addition, Mr. Bender has a BFA in Art from Syracuse University, MA in Art and Music from New York University and BArch in Architecture from Drexel University.

**Benjamin E. Cuker** earned his BS (1976) and MS (1978) degrees from the University of Michigan, School of Natural Resources, and his Ph.D. from North Carolina State University, Department of Zoology (1981). His work includes studies of Arctic lakes, the effects of suspended clay on lake community structure in reservoirs, the ecology of plankton in the Chesapeake Bay, and eutrophication in estuaries. He pioneered several programs to increase the diversity of students in the aquatic sciences. In 1999 Dr. Cuker was named a Pew Fellow in Marine conservation in recognition of his diversity work. He is the recipient of numerous grants from the National Science Foundation and National Oceanic and Atmospheric Administration. He received the Distinguished Service Award (1993) and the Education Award (2009) from the American Society of Limnology and Oceanography.

**Karyn Georges** is an environmental professional based at Imperial College London. She has extensive experience in the field of environmental policy related to chemicals in the aquatic environment.

**Manuel Rafael Vitor Isidro** holds a PhD from Aachen University, Germany. He is an associate professor in the Department of Geology at the University of Zimbabwe. He has more than 25 years of experience in: Geology of mineral deposits, Exploration of ore deposits, Mining geology, Environmental geology, Environmental management, environmental impact assessment, Environmental Education, Groundwater and superficial water quality, Disaster risk reduction, and general disaster management, leadership and management of projects.

**Bernard Keraita** is an irrigation and water engineer with over 12 years of research experience on water, health, sanitation and environment in low-income countries. He worked as a researcher with the International Water Management Institute (IWMI-CGIAR) from 2002-2011 in its Africa Office in Ghana. His research focused on safe wastewater use in agriculture. He also worked for IWMI on agricultural water management research in Tanzania and Ghana. Since 2011, still based in Africa, he works as an International Researcher with the International Health Unit, University of Copenhagen. His current core tasks are research, research capacity strengthening and curriculum development in Ghana and Tanzania/Zanzibar. Bernard is a regular reviewer in leading environmental health journals, frequent external examiner for graduate schools and has more than 70 scientific publications.
About the Contributors

Steve A. MacDonald, MBA Florida Institute of Technology, 1987, Bachelor of Science, Old Dominion University, 1982, AAS Cum Laud, Bio-Medical Electronics, Tidewater Community College, 1980, United States National Board Certified Teacher, Science Technology Engineering and Math Teacher Dare County Schools, North Carolina, USA. Leamis International Water Purification Project installs onsite safe water systems in Kenya, Africa. North Carolina Teaching Certificates: Technology Education, Electronics, Business Education, Middle School Math. Mr. MacDonald teaches in the public schools in Dare County, North Carolina in the Career and Technical Education/Workforce Development Department and has been the adviser of student associations. Mr. MacDonald was an adjunct professor of Business Education at the Dare Co. Campus of the College of the Albemarle. Mr. MacDonald was president of MacDonald’s Photo Services, Inc. and Co-General Manager of Lenscape Photos and The Fotoman’s Portrait Studio. Mr. MacDonald had more than six years of experience as an Electronics Engineer and four years of experience as a Section Head and Branch Manager in the Fleet Systems Engineering (FSE) Branch of the IFF Department, Tracor Applied Sciences, a United States Department of Defense services contracting company. He has also been an electronics technician responsible for scheduled safety testing of laboratory diagnostic and patient monitoring equipment, a service technician with a medical equipment repair company, and he served in the U.S. Air Force, both overseas and in the United States of America.

Rebecca Meuninck coordinates environmental health policy, education, and outreach campaigns for the Ecology Center and the Michigan Network for Children’s Environmental Health. She has worked on various environmental health and environmental justice campaigns for over a decade. She serves on the steering committees of several coalitions focused on toxic chemicals and health including SAFER States, and Safer Chemicals Healthy Families. In addition to her work at the Ecology Center, she is pursuing a PhD in Sociocultural Anthropology at Michigan State University. She has lived and studied throughout Latin America and speaks Portuguese and Spanish. Ms. Meuninck holds a Masters of Arts in Anthropology, and graduate specialization in Gender, Justice, and Environmental Change from Michigan State University, and a BS in Environmental Anthropology from the School of Natural Resources and Environment, University of Michigan.

Zakaria Mohamed earned his B.Sc. and M.Sc. in Assiut University, Egypt, and received his Ph.D. from Wright State University, Ohio, USA. He worked as assistant and associate professor in Assiut University in the Botany Department during 1998-2003, and from 2003-2008. He held a position as a visiting professor for teaching and research at King Khalid University, Saudi Arabia, from 2003-2011. Currently, he is a professor of Phycology/phycotoxins in the Botany Department, Faculty of Science, Sohag University, Egypt. He serves as a reviewer for various Elsevier, Springer, and Wiley & Sons Journals. He was an invited speaker at 1st International Conference on Toxins in Desert Environments, Weill Cornell Medical College in Qatar (2013). His research interests focus on: (a) Toxin production in cyanobacteria and microalgae (b) Effect of these algal toxins on aquatic and terrestrial environments.

Never Mujere is a lecturer and DPhil candidate in the Department of Geography and Environmental Science at the University of Zimbabwe (UZ). Since joining the University in 2006 as a staff member, he has been involved in teaching, research and consultancy services. He teaches undergraduate and post-graduate courses in water resources, waste management, research methods, disaster management, climate change and environmental issues. He has also been involved in teaching courses on (1) Watershed
Management to MSc. Soil Science students (2) Disaster Risk Management, Climate Change, Vulnerability and Adaptation, WASH, Project Planning, Monitoring and Evaluation courses to UZ certificate students and Bindura University post graduate Diploma students (3) Water, Sanitation and Hygiene (WASH) to UZ-African Virtual University Diploma students. He has done a lot of consultancy work in and outside the country. He also has extensive expertise in research (field data collection, analysis and production of research reports). Among the consultancy assignments he undertook include baseline evaluation, mid-term and end of project. To date he has authored and published more than 10 scholarly articles (conference papers and journal articles). He is an early career scientist and researcher who is a team player, highly versatile, creative and results-oriented.

**P. A. Obeng** holds a Master of Science in Water Supply and Environmental Sanitation and a Bachelor of Science in Civil Engineering, both obtained from the Kwame Nkrumah University of Science and Technology (KNUST). He is employed as a lecturer in the Water and Sanitation Unit of the Department of Chemistry, University of Cape Coast, Ghana. His current research under the Sustainable Sanitation (SUSA) Ghana research program, involving the KNUST and the University of Copenhagen, focuses on improving sanitation facilities in low-income peri-urban communities. His teaching interests include Environmental Sanitation Systems, Urban Drainage and Community Participation in Sanitation Service Delivery.

**Sampson Oduro-Kwarteng** is a Senior Lecturer at Civil Engineering Department of Kwame Nkrumah University of Science and Technology (KNUST). Teaching and research areas of interest to him include Environmental Sanitation, Waste Management, Water Supply, Project/Construction Management and Estimating of Civil Works in the field of Water and Environmental Engineering and Management.

**Rhana Paris** has enjoyed sharing the diversity of life in a wide range of environments to groups of all ages over the past 30 years. She holds master’s degrees in science education (LSU) and in environmental science (SUNY-ESF) as well as current certifications from the National Association for Interpretation (Certified Interpretive Guide, Certified Interpretive Trainer, Certified Interpretive Host Trainer) and from the State of North Carolina (Certified Environmental Educator).

**M. Chad Smith** is a Ph.D. Candidate in the Coastal Resources Management Program within the Institute for Coastal Science and Policy at East Carolina University with dissertation focus on citizen science. Specifically, he investigated the integrity of volunteer-collected data from a long-term citizens’ water quality monitoring program in the Albemarle-Pamlico estuary. Survey research was also conducted to better understand what different interest groups know about water quality. Results are being used to improve data collection techniques and education campaigns for similar citizen science projects. Research aside, Chad enjoys teaching introductory courses in Biology and Physical Science with the Department of Natural Sciences and Mathematics at Shaw University. He also has experience in leading education campaigns with diverse audiences in water quality awareness for the Albemarle-Pamlico National Estuary Partnership, North Carolina, USA.
Alexandros I. Stefanakis is an Environmental Engineer, with Diploma and Doctoral degrees from the Department of Environmental Engineering, Democritus University of Thrace, Greece. He also holds a M.Sc. degree in the field of Hydraulic Engineering from the Department of Civil Engineering of the same university. He has almost 10 years of experience in the fields of advanced water treatment and of natural systems for wastewater treatment with emphasis on constructed wetlands and water resources engineering. His Diploma thesis investigated the use of ultrafiltration membranes and activated carbon filters as advanced stage in wastewater treatment chain. His M.Sc. and Ph.D. theses focused on ecological engineering, i.e., ecological treatment of wastewater and sludge dewatering using constructed wetlands. He has published several papers in international high-ranking peer-reviewed journals, papers in conference proceedings, a book on constructed wetlands, book chapters, technical reports and lecture notes on environmental engineering. His research work includes numerous experiments on different treatment methods. He has participated in national and European Union research projects in Greece (Democritus University of Thrace), Portugal (University of Beira Interior) and Germany (Helmholtz Centre for Environmental Research – UFZ). He has taught at the undergraduate level on the topic of environmental protection, delivered seminars in postgraduate studies programs and has been involved in two international IWA conference organizing. He has been awarded twice during his career for his research work. Currently, Dr. Stefanakis is employed as a Lecturer on water/wastewater engineering at the University of Brighton in the UK. He is also a practicing environmental engineer in Greece, dealing with the design of constructed wetlands systems.

Joyce Stein earned her Bachelor of Science in Nursing (1975) from the University of Michigan School of Nursing. Her nursing career has included nursing care, discharge planning and home care of infants from the University of Michigan Neonatal Intensive Care Unit. She has served on the Board of Directors of the Michigan Nurses Association, the Southeastern Michigan Association of Neonatal Nurses and The Alliance of Nurses for Healthy Environments. As a nurse she has advocated that all policies and legislation should consider the health impact on individuals and populations. She has participated in campaigns led by health and environmental groups advocating for toxic chemical reform at the legislative level to protect children and pregnant women from exposure to hazardous chemicals in the environment. She is a 2012 Reach the Decision Makers Fellow of the University of California San Francisco’s Program on Reproductive Health and the Environment. She has published on nursing legislative advocacy and has provided testimony at legislative meetings and press conferences on issues related to the health effects from environmental exposures.

Nikolaos Vouloulis is an international expert in water and environmental management, especially where science and engineering interface with public policy. He is the leading international expert in aquatic pollution by hazardous substances such as biocides, pharmaceuticals and endocrine disrupting chemicals, and associated policy and management issues. He is a Reader in Environmental Technology, Head of the Environmental Quality Research Group at the Centre for Environmental Policy and the Director of the world renowned MSc in Environmental Technology at Imperial College London. Nick has built a dynamic group of research staff and PhD students in the area of environmental quality management, with a focus on environmental systems and processes across many areas and diverse
sectors. His research highlights the need for a renewed focus on re-establishing what the real problems are from a systems perspective, while at the same time demonstrates the change in mind-set required for delivering real benefits across sectors. The underlying principle for his research is the application of science to solve environmental problems and sustainability challenges, by empowering society through knowledge and innovation; in other words technology in its original meaning. He delivers high quality research, published in some of the top journals in the field, and has developed an outstanding academic track record of novel research in the field of environmental management. This has placed him amongst a small number of leading researchers in this field (citation h-index 34: Google Scholar; 27: Web of Science; 28: Scopus).

**Jiayi Angela Wan, RN, BSN** (University of Michigan) is currently pursuing dual graduate degrees from the University of Michigan School of Natural Resources and Environment and the School of Public Health. She has participated in several global projects, including water-borne illness and hand hygiene in rural Ghana’s community clinics; volunteering with community growers on Ecuador’s indigenous farms; and promoting P & G’s Children’s Safe Drinking Water Program in Mexico’s flood-prone areas. Ms. Wan worked as a Dow Sustainability Fellow with the Community Alliance with Family Farmers to promote resiliency within small-scale farmers facing the Californian drought. She is co-director of Nurses for Cool and Healthy Homes, an award-winning program supported by Health Care Without Harm that educates and empowers public health nurses to address risks of extreme heat with home visit clients in California.

**Robert C. Willems** has a Bachelor of Science-Botany September 1965, Fort Hays Kansas State University, Hays, Kansas, Masters of Science-Physical Oceanography June 1972, United States Navy Postgraduate School, Monterey, California. He has work experience: 1960-1962 Migrant farm laborer During summers worked on wheat harvests from Texas to Canada operating combines and driving wheat trucks. 1962-1965 Hadley Memorial Hospital Caregiver. 1966-1986 United States Navy Commissioned Officer (O-4). 1986-1998 University Corporation for Atmospheric Research (Institute for Navy Oceanography, Stennis Space Center) Management of numerical ocean prediction model development, research and development staff. 1998-2003 University of Southern Mississippi Center for Marine Sciences Research and development faculty, development of numerical ocean prediction techniques to maximize oyster harvest production. 1990-2003 Habitat for Humanity Served as construction supervisor for Habitat for Humanity, Mississippi Gulf Coast Affiliate. 1990-present Tennessee Outreach Project (Mountain TOP) As Volunteer/Contractor led volunteer teams on various construction projects for the ministry camps in Grundy and Van Buren counties and families on the Cumberland Plateau. Board Member; Trustee Chair, Volunteer 1999-2004 LEAMIS International Ministries (LEAMIS.org) Participated in short term missions to Costa Rica, Nicaragua, Cuba, Kenya, Liberia, Myanmar, and led a team to Ghana. Developed and deployed an integrated sand filter and chlorination unit design used in Kenya and Liberia. 2010-present Gospel Partners of Tennessee Led a ministry team to Tanuku, India (Brinkley School and Children’s Home).
Rosemary Ziemba, RN, MS, PhD recently retired from full-time nursing education. Her most recent position was Clinical Assistant Professor, at the University of Michigan School of Nursing in Ann Arbor, where she was Community Health Specialty Lead. She currently consults with researchers at the University of Michigan School of Public Health, Department of Environmental Health Sciences to facilitate community engagement in intervention studies to reduce the health effects of air pollution in older adults in urban congregate housing centers. She is also completing a Health Leaders Fellowship, funded by the W.K. Kellogg Foundation and the Kresge Foundation to the Ecology Center, Ann Arbor, Michigan. Dr. Ziemba has 40 years of experience in various health practice settings, from hospitals to home care, and community-based health promotion. She earned a BSN at Wayne State University in Detroit, Michigan (1981), an MS in Health Care Education from University of Detroit, Detroit, Michigan (1986); and a PhD in Nursing from the University of Michigan, Ann Arbor, Michigan (2002).