Speakers' Biographies

James K. Andreasen, Ph.D.

Dr. Andreasen is the leader of the Ecological Assessment Team at the National Center for Environmental Assessment within the Office of Research and Development of the U.S. Environmental Protection Agency (EPA). He works in Washington, D.C. Dr. Andreasen received his Ph.D. from the Department of Fisheries and Wildlife at Oregon State University in 1975. Following a short teaching career at the University of Alaska, he secured a position with the Federal Government and has been conducting research on the effects of contaminants and other environmental stressors on ecosystems for the past 20 years. He came to the Office of Research and Development 3 years ago from the Fish and Wildlife Service, where he worked in the environmental contaminants program. Dr. Andreasen is active in the Society of Environmental Toxicology and Chemistry and currently serves as the president of the Chesapeake-Potomac Regional Chapter. During his free time he enjoys genealogy, family history research, and woodworking. His 17 grandchildren enjoy the toys and other creations he makes in his shop. One of his goals in life is to someday return to the wide open spaces of the West.

Lawrence P. Burkhard, Ph.D.

Dr. Burkhard is a research chemist in the Ecological Toxicology Research Branch of EPA's National Health and Environmental Effects Research Laboratory, Mid-Continent Ecology Division, in Duluth, Minnesota. He received his B.S. in Civil Engineering from Pennsylvania State University and his M.S. and Ph.D. in Water Chemistry from the University of Wisconsin-Madison. His research interests include the behavior and effects of bioaccumulative organic contaminants in aquatic ecosystems, analytical methodologies for the detection and quantification of known and unknown organic contaminants in environmental samples, and toxicologically based analytical methodologies for the detection and identification of unknown toxicants in environmental samples.

Peter M. Chapman, Ph.D.

Dr. Chapman is a senior principal at EVS Environment Consultants, North Vancouver, British Columbia. He received his B.Sc. in Marine Biology, his M.Sc. in Biological Oceanography, and his Ph.D. in Benthic Ecology from the University of Victoria (1979). His experience and expertise since graduation have centered on ecotoxicology and aquatic ecology, which he has combined into integrative assessments such as the Sediment Quality Triad. He has published over 90 peer-reviewed journal publications and book chapters and over 200 technical reports on a wide variety of subjects, including sediment bioaccumulation.

David W. Charters, Ph.D.

Dr. Charters is an environmental scientist with EPA's Environmental Response Team located in Edison, New Jersey. He attended undergraduate school at Syracuse University and continued his education at the State University of New York at Binghamton, where he received a Doctorate in Biology specializing in Environmental Pathology. Dr. Charters' dissertation study was conducted at Love Canal, Niagara Falls, New York, and he investigated the demographic structure of the small mammal populations in the area and the histopathological responses of these indigenous mammals. Dr. Charters joined EPA's Environmental Response Team in 1985 and has worked on ecological risk assessment since then in the Superfund program. He has conducted investigations on many of the National Superfund sites and has conducted studies and investigations internationally. He is presently completing Superfund guidance on conducting ecological risk assessments and is involved in the reauthorization of the Superfund law.

John P. Connolly, Ph.D., P.E.

Dr. Connolly is a principal engineer with HydroQual, Inc., in Mahwah, New Jersey. He received his B.E. in Civil Engineering and his M.E. in Environmental Engineering from Manhattan College. His Ph.D. in Environmental Health engineering is from the University of Texas at Austin. Prior to his Ph.D. studies, Dr. Connolly worked for more than 2 years at Manhattan College on the development and application of a model of eutrophication in Lake Erie. His thesis research on the fate of sediment-associated hydrophobic organics was conducted at the U.S. EPA Environmental Research Lab in Gulf Breeze, Florida, where he also was involved in

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microcosm studies of the transport and degradation of toxic organics in sediment. Upon completion of his Ph.D., he accepted a faculty position in the Environmental Engineering and Science Program at Manhattan College. During his 14 years at Manhattan, Dr. Connolly conducted research in several areas, including the development of models of toxic chemical fate and bioaccumulation, eutrophication modeling, and modeling the fate and effects of genetically engineered microorganisms introduced to surface waters. While at Manhattan he consulted with HydroQual, Inc., on a wide range of problems. In June 1994 he left Manhattan to join HydroQual full-time. His recent work has included several bioaccumulation projects. Among these are detailed analysis of bioaccumulation field data for EPA and modeling assessments of DDE bioaccumulation from sediments on the Palos Verdes Shelf and PCB bioaccumulation from sediments in Green Bay.

Philip M. Cook, Ph.D.

Dr. Cook is the Acting Chief of the Ecological Toxicology Branch at the Mid-Continent Ecology Division of EPA's National Health and Environmental Effects Laboratory in Duluth, Minnesota. Dr. Cook received a B.S. in Chemistry from Tufts University, an M.S. in Geochemistry from Colorado School of Mines, and a Ph.D. in Physical Inorganic Chemistry from the University of Wisconsin. Following graduate school in 1972, he accepted a position as a research chemist at the U.S. EPA National Water Quality Laboratory at Duluth, where his initial work involved evaluation of risks associated with mining wastes in Lake Superior. His management positions since then have included Chief of the Hazardous Waste Research Branch and Associate Director for Research Operations. Dr. Cook has diverse research experience that includes effects of fine particles such as asbestos; sediment contaminant bioavailability; ecological risks of organochlorine chemicals, especially PCDDs, PCDFs and PCBs; and methods for ecological risk assessment in the Great Lakes.

Judy L. Crane, Ph.D.

Dr. Crane is the Team Leader of the Toxics Unit in the Division of Water Quality at the Minnesota Pollution Control Agency (MPCA) in St. Paul, Minnesota. She received a B.S. in Animal Ecology from Iowa State University, an M.S. in Ecology and Behavioral Biology from the University of Minnesota-Minneapolis, and a Ph.D. in Water Chemistry from the University of Wisconsin-Madison. Her professional work experience includes contractual work with the U.S. EPA Environmental Research Laboratories in Duluth, Minnesota (1983-1985) and Athens, Georgia (1990-1992), as well as consulting work with EVS Consultants (1992-1995) in Vancouver, British Columbia. Dr. Crane was actively involved in the Great Lakes National Program Office's Assessment and Remediation of Contaminated Sediments (ARCS) Program from 1990 to 1995, where she was responsible for conducting baseline and comparative human health risk assessments for selected Areas of Concern. She has also been involved in developing ecological risk assessment guidance for contaminated sites in Canada and developing interim sediment quality criteria for the Province of British Columbia. Dr. Crane is currently working as a research scientist for the MPCA, where she is leading several federally funded contaminated sediment investigations in the Duluth/Superior Harbor.

Tudor T. Davies, Ph.D.

Dr. Davies joined EPA in 1972, in the Office of Research and Development (ORD). From 1975 to 1979 he was the Deputy Laboratory Director of the ORD Gulf Breeze Environmental Research Laboratory in Gulf Breeze, Florida. He then became the Director of the Narragansett Environmental Research Laboratory from 1979 to 1983; during that time he also served as the director of the EPA Chesapeake Bay Program. Prior to his current position as Director of the Office of Science and Technology, he was the Director for the Office of Water's Office of Marine and Estuarine Protection for 7 years. Dr. Davies attended the University of Wales in Swansea, and he holds a Bachelor of Science and a Doctorate in Geology. He was an Associate Professor of Geology at the University of South Carolina.

Mario P. Del Vicario, M.S.

Mr. Del Vicario serves as the Chief of the Place-Based Protection Branch (PBPB) for Region 2 of the U.S. Environmental Protection Agency. He began his employment at EPA in 1985 as the Assistant Chief of the Marine and Wetlands Protection Branch and was Chief of that branch from 1987 to 1996. Prior to his service with EPA, Mr. Del Vicario was employed by the U.S. Army Corp of Engineers in the New York District from 1975 to 1985, where he served as the Assistant Chief of the Environmental Analysis Branch. He was a microbiologist with the NYC Health Department from 1973 to 1975.

Mr. Del Vicario received a B.A. in biology from Adelphi University in 1971 and an M.S. in Marine Science in 1973. From 1980 to 1986, he was enrolled in a Ph.D. program in Ecology in the City University system.

Dominic M. Di Toro, Ph.D.

Dr. Di Toro is a principal consultant for HydroQual, Inc., in Mahwah, New Jersey. He received his B.E.E. in Electrical Engineering from Manhattan College, and his M.A. and Ph.D. in Electrical Engineering and Civil and Geological Engineering from Princeton University. Dr. Di Toro has specialized in the development and application of mathematical and statistical models to

stream, lake, estuarine, and coastal water quality and sediment problems. He has published over sixty technical papers and has participated as Expert Consultant, Principal Investigator, and Project Manager on numerous water quality studies for industry and governmental agencies. Recently, his work has focused on the development of sediment quality criteria and the development of eutrophication and sediment flux models for nutrients and metals.

L. Jay Field, M.S.

Mr. Field received a bachelor's degree from the University of Michigan and an M.S. in Fisheries from the University of Washington. Since 1986, he has worked as a marine biologist for the National Oceanic and Atmospheric Administration (NOAA), Office of Ocean Resources Conservation and Assessment, Hazardous Materials Response and Assessment Division, Coastal Resources Coordination Branch in Seattle, Washington. His responsibilities include providing technical support to NOAA Coastal Resource Coordinators and EPA in the evaluation of ecological risk to coastal marine resources from hazardous waste sites.

Christopher G. Ingersoll, Ph.D.

Dr. Ingersoll is a fisheries biologist with the U.S. Geological Survey at the Environmental Contaminants Research Center in Columbia, Missouri. He received his bachelor's (1978) and master's (1982) from Miami University in Oxford, Ohio, and his doctorate (1986) from the University of Wyoming in Laramie, Wyoming. His current research is focused on investigating the toxicity and bioavailability of contaminates in sediment. He has coordinated the development of chronic toxicity methods for the amphipod *Hyalella azteca* that have been used to evaluate contaminated sediments in several areas, including the Great Lakes, the upper Mississippi River, and the Clark Fork River in Montana. A second area of research that he has been working on with EPA is developing a sediment bioaccumulation test with the oligochaete *Lumbriculus variegatus*. Dr. Ingersoll also chairs the ASTM Subcommittee E47.03 on Sediment Toxicology. This subcommittee, in coordination with EPA and Environment Canada, has developed a variety of standard methods for evaluating sediment toxicity and bioaccumulation.

Michael J. Kravitz, M.A.

Mr. Kravitz is a biologist in the Standards and Applied Science Division of the Office of Science and Technology at U.S. EPA Headquarters. In this capacity he consults with, coordinates, and provides technical support to EPA personnel and programs related to contaminated sediment issues. As co-chair of EPA's Bioaccumulation Analysis Workgroup, Mr. Kravitz is helping to lead the development of an EPA report on the current status of bioaccumulation testing and interpretation for the purpose of sediment quality assessment. He has been responsible for the development of a number of EPA and EPA/Army Corps of Engineers guidance documents, including the *Draft Inland Testing Manual* and *QA/QC Guidance for Sampling and Analysis of Sediments, Water, and Tissues for Dredged Material Evaluations*. Prior to joining EPA, Mr. Kravitz worked in the field of marine/estuarine benthic ecology at laboratories in New York, Oregon, Florida, Virginia, and Massachusetts. Mr. Kravitz received a B.S. in Biology from the State University of New York at Stony Brook, and an M.A. in Marine Science (major in Biological Oceanography) from the College of William and Mary School of Marine Science in Gloucester Point, Virginia.

Peter F. Landrum, Ph.D.

Dr. Landrum is the head of the Biogeochemical Sciences Division of NOAA's Great Lakes Environmental Research Laboratory in Ann Arbor, Michigan, where he oversees research on aquatic contaminants, biogeochemistry, and ecosystems studies directed to examine the effects of anthropogenic impacts on the Great Lakes as well as the day-to-day administration for the division. He received his B.S. in Chemistry from California State College, San Bernadino, and Ph.D. in Pharmacology and Toxicology from the University of California, Davis. He spent the next 2 years working as a research associate for the University of Georgia at the Savannah River Ecology Laboratory, Aiken, South Carolina. His research focused on the fate, transport, and bioaccumulation of polycyclic aromatic hydrocarbons in freshwater stream systems. He then moved to the Great Lakes Environmental Research Laboratory as a research chemist to conduct research in the bioavailability and bioaccumulation of organic contaminants by aquatic invertebrates with an emphasis on the benthos. Over the last 15 years, his research has examined the role of dissolved organic matter on the bioavailability of waterborne contaminants and the influence of sediment characteristics on sediment-associated contaminants. More recent work has examined the utility of whole-body residue levels to determine the dose required to produce contaminant toxicity. In addition to his research, Dr. Landrum served as a part-time instructor in environmental toxicology at Eastern Michigan University.

Alex Lechich, M.S.

Mr. Lechich has been an environmental scientist with EPA Region 2 since 1988, principally working on ocean disposal, contaminated sediment, and dredging issues. Prior to that, he worked for 3 years with the New York District Corps of Engineers in its regulatory program. Mr. Lechich received a B.S. in Biology from the State University of New York at Stony Brook in 1983 and an M.S. in Marine Environmental Science from Stony

Brook's Marine Sciences Research Center in 1984. He served in the U.S. Army for 3 years in the late 1970s, where he collected and analyzed ambient air samples from nerve gas de-commissioning areas on a base near Denver. Prior to completing his undergraduate and graduate work, Mr. Lechich worked for several industrial chemical companies, mainly doing organic chemistry product development and quality control. Following his graduate work, he worked for the New York Power Authority.

Henry Lee II, Ph.D.

Dr. Lee is with the Pacific Northwest Estuarine Ecosystem Study of the Western Ecology Division of EPA, located at the Newport, Oregon, laboratory. He received his B.S. in Biology from Rollins College and his Ph.D. in Marine Sciences from the University of North Carolina. After a postdoctoral position at the University of Maryland and an NRC postdoctoral position with EPA, Dr. Lee joined the EPA staff at Newport, Oregon. He spent the next decade working on bioaccumulation and contaminated sediments, including investigations on the application of equilibrium partitioning and toxicokinetic models to benthic invertebrates, and the development of bioassay methods. His work on contaminated sediments culminated when Dr. Lee directed an ecological risk assessment of sediment-associated DDT. During this period, Dr. Lee also was the Program Manager for EPA's Marine Stratospheric Ozone Depletion Program. He is presently directing a research program to assess the cumulative effects of chemical and nonchemical (e.g., sedimentation, introduced species) stressors on an ecosystem scale.

Lynn Scott McCarty, Ph.D.

Dr. McCarty operates L.S. McCarty Scientific Research & Consulting, an ecotoxicological consulting business based in Oakville, Ontario, Canada. He received B.S. and M.S. degrees from Brock University and a Ph.D. from the University of Waterloo. He has spent over 18 years examining various aspects of environmental contamination, ecotoxicology, and environmental risk assessment. This included a number of years as an environmental scientist and ecological studies group manager at MacLaren-Plansearch (Lavalin), scientific consultant for the Health Studies Service of the Ontario Ministry of Labour, and senior scientist with CanTox, Inc. He has been involved in a wide variety of projects examining environmental impacts and/or human health effects for an assortment of situations and contaminants/stresses. This included the production or critical review of a number of air and water quality guidelines, as well as risk assessments in Canada and the USA.

Dr. McCarty's scientific interests include Quantitative Structure-Activity Relationships (QSAR), toxicokinetics, mixture toxicity, residue-based potency estimation, and risk assessment. He has been an invited expert dealing with human and environmental health at a number of workshops sponsored by CNTC, SETAC, U.S. EPA, and U.S. Army Corps of Engineers. In addition to reports for clients, he continues to publish in the primary scientific literature, contribute to book chapters, and make presentations at professional scientific meetings, as well as in courts, regulatory hearings, and public meetings.

David R. Mount, Ph.D.

Dr. Mount is a research fishery biologist with EPA's Office of Research and Development, Mid-Continent Ecology Division, Duluth, Minnesota. He received his B.A. in Biology with a statistics concentration from St. Olaf College in Northfield, Minnesota, and his Ph.D. in Zoology and Physiology (emphasis in aquatic toxicology) from the University of Wyoming. After a year of postdoctoral research at the Fish Physiology and Toxicology Laboratory at the University of Wyoming, Dr. Mount worked for 5 years at ENSR Consulting and Engineering as a senior aquatic toxicologist and as the manager of the Environmental Toxicology Department. Dr. Mount joined the federal government in 1993 as the Deputy Chief Biologist at the National Biological Service's National Fisheries Contaminant Research Center, before transferring to his current position with EPA. Dr. Mount's research interests include effluent and sediment toxicology, and the effects of major ions on freshwater organisms. His current research centers on sediments, including the development of Toxicity Identification Evaluation (TIE) procedures and evaluation of the bioavailability of sediment contaminants.

Wayne R. Munns, Jr., Ph.D.

Since 1995, Dr. Munns has been a Research Ecologist (Ecological Risk Assessor) and Leader of the Ecological Significance Team in EPA's National Health and Environmental Effects Research Laboratory, Narragansett, Rhode Island, which is responsible for conducting ecological effects research to reduce the uncertainties associated with risk assessment. He received his B.A. in Biology from the University of Washington and his Ph.D. in Biological Sciences from the University of Rhode Island. In 1983, he joined Science Applications International Corporation, ultimately accepting positions as senior scientist, division manager, and assistant vice president. Over the past 13 years, Dr. Munns has served as principal investigator in a number of marine and estuarine ecological risk assessment case studies involving contaminated sediments,

and has conducted research evaluating the effects of chemical stressors on the population dynamics of aquatic organisms.

Thomas M. Murray, M.S.

Mr. Murray is Chief of the Exposure Assessment Branch in the Office of Pollution Prevention and Toxics at EPA Headquarters. In this capacity, he is responsible for integrating the assessment of total chemical exposure to humans and the environment in support of OPPT's regulatory and nonregulatory program activities; supporting OPPT's testing and existing chemical programs by providing integrated assessments of chemical exposure to humans and the environment; providing scientific assessment of total chemical exposure, including chemical and biological fate; and providing exposure assessment and project management support to various OPPT Design for the Environment and Pollution Prevention Program activities. Mr. Murray has been with the Office of Pollution Prevention and Toxics since 1985. Prior to that he spent 14 years with EPA's Office of Water. He received his B.S. in Biology from Mt. St. Marys' College and an M.S. in Biology from the American University.

Dorothy E. Patton, Ph.D.

Dr. Patton holds several positions at the U.S. Environmental Protection Agency. She is the Executive Director of EPA's Science Policy Council, a new Agency organization established to address significant science policy issues that go beyond program and regional boundaries. She also directs the Office of Science Policy and the Office of Regulatory and Science Integration. From 1985 through July 1994, Dr. Patton was the Executive Director of EPA's Risk Assessment Forum, a standing committee of senior EPA scientists charged with developing Agency-wide guidance on selected risk science issues. She also chaired that group from 1989 to 1995. Dr. Patton began her EPA career in 1976 as an attorney in the Office of General Counsel, where she worked on legal and scientific issues arising under the laws relating to pesticides, toxic substances, and the air program. Before joining EPA, Dr. Patton was an Assistant Professor of Biology in the City University of New York (York College), and she did postdoctoral research in cellular and developmental biology at the Albert Einstein College of Medicine in New York. She has a J.D. from Columbia University School of Law, a Ph.D in developmental biology from the University of Chicago, and a bachelor's degree in chemistry from the University of Wisconsin.

Robert L. Paulson, M.S.

Mr. Paulson is an environmental toxicologist in the Water Quality Modeling Section of the Wisconsin Department of Natural Resources' Bureau of Watershed Management. He received his B.S. in Water Resources from the University of Wisconsin-Stevens Point and his M.S. in Fisheries from the University of Missouri. Mr. Paulson's thesis research focused on field validation and predictability of laboratory methods of assessing the effects of contaminants. Prior to joining WDNR, Mr. Paulson was a staff toxicologist with The Johns Hopkins University, Applied Physics Laboratory, where his work centered on effluent and single-chemical estuarine and freshwater toxicity testing. Mr. Paulson also spent a brief period of time in private consulting. Mr. Paulson joined WDNR as the coordinator of the whole effluent toxicity testing for the point source discharge permit program. His current assignment is to coordinate WDNR's technical staff in conjunction with the efforts of the Fox River Coalition to develop a whole-river sediment strategy.

Amy E. Pelka, M.S.

Ms. Pelka is an environmental health scientist in the Office of Strategic Environmental Analysis in EPA Region 5, Chicago, Illinois. She received her B.S. in Zoology (specialization in cellular biology) from the University of Wisconsin-Madison and her M.S. in Microbiology/Immunology from Northwestern University. After graduate school she began working with Region 5, in the Water Division, on sediments and water quality standards. She has worked for the Water Division and now the Strategic Analysis office for the past 5 years, primarily as a human health risk assessor. She has worked on several Superfund and other enforcement cases, as well as various technical and risk policy issues. Her primary areas of focus have been sediment sites, bioaccumulation, risk assessment policy, and community-based environmental protection.

James F. Pendergast, M.S.

Mr. Pendergast is currently Acting Director of the NPDES Permits Division at U.S. EPA Headquarters. In this capacity, he directs national activities and initiatives for the NPDES permits, pretreatment, and sludge programs. He has worked on reauthorization of the Clean Water Act as a special assistant to EPA's Assistant Administrator for Water and as Chief of the Water Quality and Industrial Permits Branch in the NPDES Permits Division. He has also worked in EPA

Region 6 in the NPDES permit and Superfund programs. Prior to joining EPA, Mr. Pendergast was a project manager at Limno-Tech, Inc., in Michigan, where he developed models of water quality impacts from nonpoint and point sources. He received a B.S. in Environmental Engineering and an M.S. in Water Resources Engineering from the University of Michigan and is a registered engineer.

Richard J. Pruell, Ph.D.

Dr. Pruell is a research chemist at the Atlantic Ecology Division (Narragansett, Rhode Island) of EPA's National Health and Ecological Effects Laboratory. He received a B.A. in Biology from Merrimack College, an M.S. in Marine Biology from Southeastern Massachusetts University, and a Ph.D. in Chemical Oceanography from the Graduate School of Oceanography of the University of Rhode Island. Since receiving his degree in 1984, Dr. Pruell has worked at the Narragansett EPA laboratory on issues related to the biogeochemistry of organic contaminants in marine ecosystems.

Mary C. Reiley, M.S.

Ms. Reiley is the Team Coordinator for the Ecological Criteria Team within the Health and Ecological Criteria Division. She received her B.S. in Biology from the College of William and Mary and her M.S. in Environmental Biology from George Mason University. Ms. Reiley joined the Office of Science and Technology in 1991 to coordinate the sediment quality criteria program. Prior to that she spent 7 years in the Office of Water Enforcement Program, where she was the Team Leader for the Toxics Team and involved in a variety of issues including permitting limits set below detection, whole effluent toxicity, and compliance negotiations. Her current role as Ecological Criteria Team Coordinator maintains her involvement in methodology and criteria development and technical support for aquatic life assessments, sediment quality assessment, and whole effluent toxicity testing. The team works closely with the Surface Water Assessment Team, on which Ms. Reiley serves as the program lead for integrated pathways analysis for criteria development.

Norman I. Rubinstein, M.S.

Mr. Rubinstein is the Acting Division Director for the National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, in Narragansett, Rhode Island. He received his B.S. in Biology from the City College of New York and his M.S. in Marine Science from the University of West Florida. He joined EPA in 1976 as a research aquatic biologist at the Environmental Research Laboratory, Gulf Breeze, Florida. In 1983 Mr. Rubinstein joined the research staff at the Environmental Research Laboratory, Narragansett, Rhode Island where he focused his studies on the bioavailability of contaminants in sediments. He became Chief of the Research Exposure Branch at the Narragansett Laboratory in 1989 and was appointed Deputy Director for Research in 1994. He has been the acting Division Director at Narragansett since the ORD laboratory reorganization in 1995. Mr. Rubinstein has been associated with EPA's research efforts in support of the Ocean Disposal Program since the development of the original dredged material testing manual (the "Green Book") in 1976.

Burt K. Shephard, M.S.

Mr. Shephard is a senior ecotoxicologist with URS Greiner, Inc., in Seattle, Washington. He received his B.S. in Chemistry and M.S. in Environmental Health from Purdue University. He also has completed course work toward a Ph.D. in Fisheries Biology from Iowa State University, where he is a past recipient of the Society of Environmental Toxicology and Chemistry Pre-Doctoral Fellowship Award. Mr. Shephard has nearly 20 years of experience working to evaluate the environmental impacts or ecological risks of metals, nutrients, PCBs, chlorinated insecticides, and PAHs for both environmental consulting firms and EPA. This work has taken him throughout the United States, as well as to several foreign countries. Mr. Shephard's current work involves defining ecological risks to aquatic biota from bioaccumulated chemicals.

Elizabeth Southerland, Ph.D.

Dr. Southerland is Acting Director of the Standards and Applied Science Division in EPA's Office of Water in Washington, D.C. Dr. Southerland received her Ph.D. in Environmental Science and Engineering from Virginia Polytechnic Institute and State University. Over the past 25 years, she has held a variety of positions in state and local government, consulting engineering, and EPA. Dr. Southerland is currently the Acting Director of EPA's Standards and Applied Science Division, which is responsible for the national water quality standards program and environmental assessments in support of water quality- and sediment quality-based controls.

Robert V. Thomann, Ph.D.

Dr. Thomann is Professor of Environmental Engineering at Manhattan College. He received a bachelor's degree in Civil Engineering from Manhattan College in 1956, a master's degree in Civil Engineering from New York University in 1960, and a Ph.D. in Physical Oceanography from New York University in 1963. He spent 10 years with the U.S. Public Health Service from 1956 to 1966, during which time he was Technical Director for the Delaware Estuary Study. Dr. Thomann joined the faculty of Manhattan College in 1966. His work has been in mathematical modeling of water quality and ecosystem

fate, transport, and transformation processes. He has published about 50 papers and two books, has lectured at a variety of institutions, and has received several honors for his research work. Dr. Thomann has worked on many major water bodies in the United States and abroad and is currently doing research on modeling bioaccumulation processes including the transfers of PCBs in the Hudson estuary aquatic food web.

Nelson A. Thomas, B.S.

Mr. Thomas received his B.S. in Natural Resources (fisheries) from the University of Michigan. He was the limnologist for the State of Ohio when Lake Erie was discovered to be greatly affected by eutrophication. He then joined the U.S. EPA and served as chief biologist for the Office of Enforcement and Standards. After 10 years, he assumed a research position to conceive, supervise, and conduct large lakes research. Currently, as senior advisor for national programs with EPA, he develops and coordinates freshwater research for the control of toxic chemicals. His areas of responsibility include water quality criteria, complex effluent toxicity testing, sediment quality criteria, and integrated watershed assessment for ecosystem protection.

Marc L. Tuchman, Ph.D.

Dr. Tuchman received his B.S. in Biology from Colgate University and his Ph.D. in Natural Resources from the University of Michigan. He has been with EPA for the past 12 years, working in the Waste Division and Water Division prior to his current position in the Great Lakes National Program Office (GLNPO). Over the past 10 years, Dr. Tuchman has been involved in a variety of contaminated sediment and dredging issues. For 6 years he was actively involved in EPA's Assessment and Remediation of Contaminated Sediments (ARCS) Program, having served as Program Manager for the latter 2 years of the program. Dr. Tuchman currently serves as team leader of GLNPO's Sediment Assessment and Remediation Team, where he is responsible for coordinating GLNPO's sediment assessment and remediation activities in the Great Lakes basin.

Laura B. Weiss, M.P.H.

Ms. Weiss is a toxicologist who has been the project manager for the development of health-based sediment criteria for the Washington State Department of Ecology in Olympia, Washington, for the past 3 years. She received a B.S. in Human Ecology/Public Policy from Rutgers University and an M.P.H. in Environmental Health from the University of California, Berkeley. Prior to working for the Department of Ecology, Ms. Weiss worked as a pesticide policy specialist and organizer for the environmental and consumer group Public Citizen in Washington, D.C.

Lawrence J. Zaragoza, Ph.D.

Dr. Zaragoza received his doctorate in Environmental Science and Engineering from the University of California at Los Angeles in 1982. He started with EPA in 1979 in the Office of Air Quality Planning and Standards. Today, Dr. Zaragoza works for EPA's Office of Emergency and Remedial Response, which administers the Headquarters component of the Superfund Program. His responsibilities at EPA have included representing the OERR on issues related to contaminated sediments, the identification of research needs for the air and hazardous waste programs, and Project Officer responsibilities for the Interagency Agreements with the Agency for Toxic Substances and Disease Registry (ATSDR) and the National Institute for Environmental Health Statistics (NIEHS). Dr. Zaragoza has experience in drafting of EPA regulations (e.g., National Ambient Air Quality Standards, air toxics, revisions to the Hazard Ranking System) and guidances (e.g., Risk Assessment Guidance for Superfund and Capacity Assurance Guidance).

Maurice Zeeman, Ph.D.

Dr. Zeeman is Chief of the Environmental Effects Branch in the Health and Environmental Review Division of OPPT at EPA Headquarters. He directs 16 professional experts in their assessment of the potential ecological hazards and risks of thousands of new and existing industrial chemicals evaluated under the Toxic Substances Control Act (TSCA). He also teaches a course in environmental toxicology in the Department of Pharmacology and Toxicology for the Graduate School at the National Institutes of Health. Prior to joining EPA, he was an expert toxicologist for the U.S. Food and Drug Administration, where he evaluated the effects of chemicals on humans (under the FD&C Act) and on the environment (under NEPA). Dr. Zeeman received a Master's in Zoology/Ecology from UCLA and a Ph.D. in Biology from Utah State University.

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