

Appendices

Appendix 1: Conference Agenda

Appendix 2: Conference Steering Committee Members

Appendix 3: Biographies of Speakers, Moderators, and Steering Committee Members

Appendix 4: Participants

Appendix 5: Slides from Presentations

Appendix 1: Conference Agenda

Sunday October 20

8:30 – 10:00 AM **Registration** in Lobby, Radisson Hotel, Burlington, Vermont

10:00 AM – Noon **Regional Work Groups.**

Moderators:

- Northeast:* Razelle Hoffman-Contois, State of Vermont
Chesapeake Bay and Delaware Estuary: Tom Fikslin, State of Delaware
Southern: Tracy Shelley, State of South Carolina
Great Lakes: Pat McCann, State of Minnesota
Western: Bob Brodberg, State of California

2:00 – 3:30 PM **Topical Discussion Sessions**

A. Contaminants in Stocked Fisheries: Potential for contamination, human exposure, and human health risks.

Moderator: Bob Brodberg, State of California

- *PCBs and Hatchery Trout in Pennsylvania—the Good, the Bad and the Ugly!* John Arway, State of Pennsylvania
- *Regulating Contaminants in Feed for Fish.* Frances Pell, US FDA, Center for Veterinary Medicine
- Round Table Discussion

B. The Use of Composite Samples in the Development of Fish Advisories

Moderator: Razelle Hoffman-Contois, State of Vermont

- *Issues in the Use of Composite Samples for Assessing Risks to Highly Exposed Populations.* John Persell, Minnesota Chippewa Tribe Research Lab
- *Composite Sampling Analysis of Fish.* Henry Kahn, US EPA
- Round Table Discussion

3:45 – 5:15 PM **Topical Discussions**

C. Addressing Multiple Pollutants in Fish

Moderator: Eric Frohberg, State of Maine

- *Current Guidance from EPA on Chemical Mixtures.* Roseanne Lorenzana, US EPA
- *Current Guidance from EPA on Cumulative Risk.* Ed Bender, US EPA
- Round Table Discussion

D. TMDLs (Total Maximum Daily Loads) and the Interplay Between Water Quality Programs and Fish Advisory Programs

Moderator: Randy Manning, State of Georgia

- *TMDLs and Fish Consumption Advisories.* Jim Pendergast, US EPA
- Round Table Discussion

6:00 – 8:00 PM **Displays and Materials from Forum Participants**

Monday October 21

- 8:00 – 8:15 AM **I. Review of Agenda and Introductions** Jeffrey Bigler, US EPA
Welcome: Gus Rassam, Executive Director, American Fisheries Society
- 8:15 – 8:30 AM **II. Opening Address**
- *Trends in Chemical Pollutants in Fish.* Usha Varanasi, NOAA/Northwest Fisheries Science Center
- 8:30 – 9:15 AM **III. Update on Activities Related to the 2001 Forum**
- *New Version of the Risk Communication Guidance.* Barbara Knuth, Cornell University
 - *Relationship of TMDLs to Fish Advisories.* Jim Pendergast, US EPA
- 9:15 – 9:45 AM **IV. Reports from the Weekend Sessions**
- *Medical Workshop Report.* Henry Anderson, State of Wisconsin
 - *Report on mercury advisory worksheets.* Amy D. Kyle, University of California Berkeley
- 10:15 AM –
12:15 PM **V. Advisories for Commercial Fish: Federal, State, and Tribal Approaches**
Moderator: Elaine Krueger, State of Massachusetts
- *Advisory Panel to the Food and Drug Administration on Mercury Advisories.* H. Vasken Aposhian, University of Arizona
 - *FDA National Advisory on Mercury in Commercial Fish.* Phil Spiller, US FDA
 - *State and Tribal Advisories on Contaminants in Commercial Fish.*
 - Henry Anderson, State of Wisconsin
 - Andy Smith, State of Maine
 - Gary Ginsberg, State of Connecticut
- 1:30 – 3:15 PM **VI. Hot Topics—Chemicals of Concern**
Moderator: Luanne Williams, State of North Carolina
- 1:30-2:15 PM **A. Mercury**
 - *Update: On-going Research.* Kate Mahaffey, US EPA
 - *Setting a Reference Dose (RfD) for Adults.* Alan Stern, State of New Jersey
 - 2:15-3:15 PM **B. Brominated Flame Retardants (Polybrominated Diphenyl Ethers or PBDEs)**
 - *Occurrence of PBDEs in Fish.* Rob Hale, Virginia Institute of Marine Science
 - *Toxicity of PBDEs in Fish.* Linda Birnbaum, US EPA
 - *Assessing the Risks of PBDEs.* Khizar Wasti, State of Virginia
- 3:30 – 4:00 PM **C. Dioxins and Coplanar PCBs**
- *Status of the Reassessment.* Dwain Winters, US EPA
- 4:00 – 4:45 PM **D. Lead**
- *The EPA Lead Model.* Lon Kissinger, US EPA
 - *Occurrence of Lead in Fish.* Bob Brodberg, State of California
- 4:45 – 5:15 PM **E. Polycyclic Aromatic Hydrocarbons**
- *Occurrence in Fish.* Usha Varanasi, Director, NOAA/Northwest Fisheries Science Center

Tuesday October 22

8:00 – 10:00 AM

VII. Approaches to State and Tribal Advisories

Moderator: Jeff Bigler, US EPA

- *Statewide Advisories Based on the 95th Percentile of Concentrations in Fish.*
Eric Frohberg, State of Maine
- *The Use of Maine's Statewide Advisory in a Tribal Setting*
Susan Peterson, Aroostook Band of Micmacs
- *Statewide Advisories Based on Average Concentrations in Fish.*
Mike Ell, State of North Dakota
- *Setting Advisories Specific to Named Water bodies Based with a Default Statewide Advisory*
Bob Frey, State of Pennsylvania
Pat McCann, State of Minnesota
- *Regional Advisory for DDT for the Mississippi Delta*
Henry Folmar, State of Mississippi
- *Statewide Advisory Based on 8 Meals per Month*
Joe Beaman, State of Maryland

10:15 – 11:30 AM

VIII. Approaches to Considering Benefits in Advisory Programs

Moderator: Dan Kusnierz, Penobscot Nation

- John Persell, Minnesota Chippewa Tribe Research Lab
- Paul Lumley, Yakima Tribe
- Sue Unger, Aleutian-Pribilof Islands Association

11:30 – 12:30 PM

IX. Current Science on the Benefits of Fish Consumption

Moderator: Andy Smith, State of Maine

- *Overview of Benefits of Fish Consumption.* Judy Sheeshka, University of Guelph
- *Use of Quality-adjusted Life Years to Assess Risks and Benefits of Fish Consumption.*
Rafael Ponce, University of Washington
- Questions and comments from participants

12:30 – 1:00 PM

X. Closing Comments

Appendix 2: Steering Committee Members

- Jeffrey Bigler, US Environmental Protection Agency, co-chair
 - Betsy Fritz, American Fisheries Society, co-chair
 - Robert K. Brodberg, California
 - Eric Frohmberg, Maine
 - Razelle Hoffman-Contois, Vermont
 - Barbara Knuth, Cornell University
 - Jan Lubeck, American Fisheries Society
 - Randy Manning, Georgia
 - Patricia McCann, Minnesota
 - John Persell, Minnesota Chippewa Tribe
 - Andy E. Smith, Maine
-
- Amy D. Kyle, steering committee facilitator

Appendix 3: Biographies of Speakers, Moderators, and Steering Committee Members

Henry A. Anderson, MD

Since 1980 Dr. Anderson has been with the Wisconsin Department of Health and Family Services, division of Public Health as a Chief Medical Officer and State Environmental and Occupational Disease Epidemiologist. He is certified by the American Board of Preventive Medicine with a sub-specialty in occupational and environmental medicine and is a fellow of the American College of Epidemiology. He holds adjunct Professorships at the University of Wisconsin - Madison, Department of Population Health and the UW Institute for Environmental Studies, Center for Human Studies. He has published widely on a broad spectrum of environmental, occupational and public health topics. For the past twenty years he has conducted research on the health impact of contaminants in sport fish and risk communication via fish consumption advisories. He is chair of the Environmental Health Committee of the US EPA Science Advisory Board and serves on the US EPA Science Advisory Board Executive Committee. He is a member of the Director's Advisory Committee, National Center for Environmental Health, Centers for Disease Control and Prevention. He is associate editor of the *American Journal of Industrial Medicine* and serves on the editorial board of *Cancer Prevention International*.

H. Vasken Aposhian, PhD

Dr. Aposhian is Professor of Molecular and Cellular Biology, Professor of Pharmacology and a Member of the Toxicology Center of the University of Arizona. He was a member of the National Academy of Sciences/ National Research Council Committee on Methylmercury Toxicology and its Committee on Arsenic in Drinking Water. His research deals with arsenic metabolism and biotransformation in humans as well as how to remove mercury from the human body. He is very much aware of the problems of the commercial fisherman since he has always spent a month of each year in the town next to Gloucester, Mass, the oldest fishing harbor in the USA.

John Arway

John Arway is a fisheries ecologist and Chief of the Pennsylvania Fish and Boat Commission's Environmental Services Division. John is responsible for the statewide coordination of the Commission's aquatic risk, damage assessment, habitat management and threatened and endangered species programs. He is also the Commission's representative on the Commonwealth's Fish Tissue Contaminants Technical Workgroup. He has worked for over 22 years in the prediction and evaluation of impacts to aquatic resources living in Commonwealth waters.

Edward Bender

Dr. Edward Bender is a Science Administrator on the Science Policy Council staff of the Cross Programs Branch of OSP. Ed supports the meetings and activities of the Science Policy Council of EPA. His current focus is on cumulative and environmental risk assessment, risk management decision making, metals hazard and risk, environmental economics, and foresight analysis. Prior to joining the SPC staff, he served as a Designated Federal Official to several committees of EPA's Science Advisory Board which examined a range of ecological, economic, engineering, and futures issues. He worked as an aquatic biologist and national expert with the Enforcement Division, Office of Water Enforcement and Permits on biological monitoring and water quality assessment for the National Pollutant Discharge Elimination System and Pretreatment Program under the Clean Water Act. He also worked for the U.S. Army to assess the effects of manufacturing and base operations on ecological communities of streams and military lands.

Dr. Bender has more than thirty years experience in environmental monitoring, aquatic ecology and toxicology. His dissertation, entitled "Recovery of a Macroinvertebrate Community from Chronic DDT Contamination," studied the toxic effects of DDT runoff from an abandoned manufacturing facility on fish and aquatic invertebrates in a south-central Arkansas stream. Ed chairs a multi-agency panel that monitors a remedial action on DDT contaminated sediment in Northern Alabama. Ed has a bachelor of science degree in biology from Westminster College, a master of science degree in zoology from the University of Florida, and a doctorate in biology from the Virginia Polytechnic Institute and State University.

Linda S. Birnbaum

Dr. Birnbaum is the Division Director of the Experimental Toxicology Division, National Health and Environmental Effects Laboratory, Office of Research and Development, United States Environmental Protection Agency, in Research Triangle Park, North Carolina.

Dr. Birnbaum received her B.S. in Biology from the University of Rochester, Rochester, New York. She received her M.S. and Ph.D. in Microbiology from the University of Illinois, Urbana, Illinois. After a semester as a Visiting Assistant Professor of Microbiology at the University of Illinois and two years of postdoctoral work at the University of Massachusetts (Amherst), Dr. Birnbaum became an Assistant Professor of Science at Kirkland (Hamilton) College in Clinton, New York. She spent four years at the Masonic Medical Research Laboratory in Utica, New York, first as a Research Associate, then a Research Fellow and a Research Scientist. She next accepted a Senior Staff Fellowship with the National Toxicology Program of the National Institute of Environmental Health Sciences, in Research Triangle Park, North Carolina. Serving next as a Research Microbiologist and then a Supervisory Research Microbiologist, Dr. Birnbaum remained with NIEHS for ten years. After a serving as the Head of the Chemical Disposition Group, NIEHS, she accepted the position of Director, Experimental Toxicology Division with the U.S. EPA, which is responsible for conducting research to determine the health effects of inhaled, ingested, and dermally contacted environmental pollutants, and the cause and effects relationships at pollutant concentrations which mimic those occurring in the environment.

Since going to the EPA, she has served as the Acting Assistant Director for Health for a year and as the Acting Director of the Human Studies Division for another year, returning to her present position.

Dr. Birnbaum is the author of over 600 peer-reviewed publications, book chapters, abstracts, and reports. She is an Adjunct Professor in the Toxicology Curriculum and the Department of Environmental Sciences and Engineering at the University of North Carolina, Chapel Hill, and in the Integrated Toxicology Program at Duke University. She is the former Vice President of the American Aging Association and the Chairperson of the Division of Toxicology of the American Society of Pharmacology and Experimental Therapeutics. She was recently elected to be the Vice President-Elect of the Society of Toxicology and will serve as President in 2004-2005.

Robert K. Brodberg

Dr. Brodberg received a BS from Heidelberg College, and the MS and Ph.D. from Bowling Green State University. Dr. Brodberg is currently a Senior Toxicologist in the Office of Environmental Health Hazard Assessment (OEHHA), which is part of the California Environmental Protection Agency. Dr. Brodberg has worked in the Pesticide and Environmental Toxicology Section of OEHHA since 1992. He is currently the Chief of the Fish and Water Quality Evaluation Unit that is responsible for assessing the potential human health risks of eating chemically contaminated sport fish and seafood and issuing sport fish consumption advisories for California. Dr. Brodberg also consults on projects with units of the State Water Resources Control Board, Regional Water Quality Control Boards, the Department of Fish and Game, and other agencies. He worked on developing sediment quality objectives as part of the Bay Protection and Toxic Clean-up Program and water quality objectives for the Ocean Plan. Dr. Brodberg was awarded a US EPA cooperative agreement to sample and evaluate chemical contamination in fish from two California Lakes. He is a member of the Society of Environmental Toxicology and Chemistry and has authored government reports and journal publications.

Michael J. Ell

I currently administer the Surface Water Quality Management Program in the North Dakota Department of Health's Division of Water Quality. The Surface Water Quality Management Program has responsibility for lake and reservoir, river and stream, and wetlands monitoring and assessment, including the Section 305(b) reporting; Water Quality Standards; the Section 319 Nonpoint Source Management Program; and TMDL development. The program also supports the state's fish consumption advisory program through the collection and interpretation of mercury and other contaminant data in fish throughout the state.

I was first employed by the Department of Health in 1985 where I worked in the Atmospheric Deposition Program (Acid Rain). I have been in the Division of Water Quality since 1987 and in my current position since May 1991. I graduated from North Dakota State University with a BS in Zoology in 1982 and completed my MS degree at NDSU in 1988 where I studied the effects of weed harvesting on the biota of a small lake in north central North Dakota. I am married and have two children, both teenagers.

Henry Folmar

Mr. Folmer serves as Laboratory Director for the Mississippi Department of Environmental Quality in Pearl, MS. He Received B.S. and M.S. in Fisheries Biology from Auburn University. Began working with fish tissue monitoring in 1979. Helped found Mississippi's Fish Advisory Task Force in 1990, and has served as chairperson for the past 10 years. He is a Charter Member of the Southern States Mercury Task Force.

Robert Frey

Bob is a Water Pollution Biologist with the Division of Water Quality Assessment and Standards in the Bureau of Water Supply and Wastewater Management at DEP. He holds a Bachelor of Science in Education from Bloomsburg University of Pennsylvania. Among other duties, Bob is responsible for preparation of the "Pennsylvania Water Quality Assessment" report for submission to EPA every other year as required by the federal Clean Water Act. He also coordinates rulemakings for stream use redesignations, including High Quality and Exceptional Value designations.

Bob has been involved with Pennsylvania's fish tissue sampling and advisory issuance program since 1980. He is responsible for scheduling the annual fish tissue sampling conducted by DEP regional biologists and PFBC Area Fisheries Managers and coordinating laboratory analysis. He currently serves as Chair of the interagency Pennsylvania Fish Consumption Advisory Technical Workgroup. In this capacity he reviews and summarizes the fish tissue data collected each year and formulates advisory recommendations for the interagency workgroup. After the technical workgroup acts on the advisory recommendations, he forwards the revised advisory listing to an interagency policy workgroup for approval. Following this approval, Bob coordinates issuance of needed advisories, publication in the fishing regulations summary booklet, and posting of advisories on the DEP web site.

Eric J. Frohberg

Eric Frohberg is a toxicologist with the Maine Bureau of Health. He has been involved in the development of the fish consumption advisories as well as the Bureau's fish advisory communication program. This has included development of the new brochures, testing efforts with low literacy focus groups, and development of the fish consumption advisory website.

Gary L. Ginsberg

Dr. Ginsberg is currently a toxicologist at the Connecticut Dept. of Public Health within the Division of Environmental Epidemiology and Occupational Health. He has responsibility for human health risk assessments conducted in the state. He is also the project manager for several cooperative agreements with US EPA. One project is researching pharmacokinetic differences between children and adults while the other is exploring the influence of genetic polymorphisms on susceptibility to toxicants and inter-individual variability. Dr. Ginsberg serves as adjunct faculty at the Yale School of Medicine and also at the University of Connecticut School of Public Health. He received a Ph.D. in toxicology from the University of Connecticut (Storrs)

and was a post-doctoral fellow in carcinogenesis/mutagenesis at the Coriell Institute for Medical Research. Dr. Ginsberg's toxicology experience has involved a variety of settings: basic research, teaching, working within the pesticide and consulting industries, and now working in public health. He has published in the areas of toxicology, carcinogenesis, physiologically-based pharmacokinetic modeling, and children's health.

Robert C. Hale

Dr. Hale is Professor, Department of Environmental & Aquatic Animal Health, Virginia Institute of Marine Science, College of William & Mary. He received a B.S. in Biology and a B.A. in Chemistry from Wayne State University (MI) and a Ph.D. from the College of William & Mary (VA) in 1983. He subsequently joined Mobil Corporation's Environmental & Health Sciences Laboratory in Princeton as a Research Environmental Chemist. In 1987 he joined the faculty at VIMS, received tenure in 1993, and was promoted to Professor in 2002. Rob has been involved for over 20 years in research examining the analysis, fate and environmental effects of organic pollutants. During this time his research group has authored more than 120 peer-review articles and scientific presentations. While at VIMS, he has worked with the Virginia Department of Environmental Quality, the U.S. EPA and NOAA on a variety of projects, including efforts to characterize pollutants present in tissues of fish. Dr. Hale is particularly interested in the sources, fate, bioavailability and effects of brominated flame retardants and other emerging contaminants. He has recently published papers describing high concentrations of polybrominated diphenyl ethers in land-applied sewage sludge, World Trade Center dust and U.S. fishes in Nature, Chemosphere, Environmental Health Perspectives and Environmental Science & Technology.

Razelle S. Hoffman-Contois

Razelle Hoffman-Contois is the public health risk assessment specialist for the Office of Environmental Health and Toxicology in the Vermont Department of Health in Burlington. She routinely provides toxicology and risk assessment support for various state entities such as the Department of Environmental Conservation and Department of Fish and Wildlife. Ms. Hoffman-Contois was instrumental in the development of Vermont's mercury based fish consumption advisory. She earned both her B.S. and M.S. at the State University of New York College of Environmental Science and Forestry.

Henry D. Kahn

Senior Statistician, Statistics and Analytical Support Branch

Engineering and Analysis Division, Office of Science and Technology, Office of Water

EPA experience: 28 years

Experience in application of statistics to environmental problems including the design and analysis of studies that involve composite sampling. Received his D.Sc. from George Washington University, M. S. from the University of Miami, and B. E. S. from Johns Hopkins University.

Lon Kissinger

Lon Kissinger joined U.S. EPA Region 10 as a risk assessor in 2000, where his main focus has been on contaminated sediment sites. Lon's interests include subsistence fish and shellfish consumption by tribes and other populations, as well as use of geographic information systems to evaluate sediment contamination. Prior to working with EPA, Lon worked for eleven years with the Washington State Department of Ecology, where he dealt with implementation of the Washington State Superfund Regulation, air toxics, data management issues, and contaminated sediment sites. Lon received his master's degree in environmental toxicology from Cornell University and a bachelor's degree from Millersville University in biology and chemistry.

Barbara Knuth

Dr. Barbara Knuth is a Professor of Natural Resource Policy and Management, and Chair of the Department of Natural Resources at Cornell University. She is a Co-leader of the Human Dimensions Research Unit, specializing in inquiry focused on human attitudes, behaviors, and perceptions related to the environment. Her research program includes a focus on risk perception, communication, and management associated with chemical contaminants in fish. She holds a Ph.D. from Virginia Tech, a Masters of Environmental Science (M.En.) from Miami University (Ohio), and undergraduate degrees in Interdisciplinary Studies and Zoology, also from Miami University. Dr. Knuth has served as the President of the Water Quality Section of the American Fisheries Society (AFS), and is currently 1st Vice President of AFS. She has served on numerous scientific and advisory bodies, including the Great Lakes Science Advisory Board of the International Joint Commission, the Board of Technical Experts of the Great Lakes Fishery Commission, and the National Research Council Committee on Improving the Collection and Use of Fisheries Data. She serves currently on the Institute of Medicine/National Research Council Committee on Implications of Reducing Dioxin in the Food Supply. She authored, under contract to US EPA, the first risk communication guidance document for fish consumption health advisory programs.

Daniel H. Kusnierz

Daniel Kusnierz has been the manager of the Penobscot Indian Nation's Water Resources Program since January 1993. Because the Penobscot Reservation consists of the islands and water of the Penobscot River upstream of Old Town, Maine, clean water is extremely important to the Penobscot tribe. In his capacity as manager of the tribe's water program, Dan Kusnierz oversees many water resource related projects conducted by the tribe including a watershed-wide water quality monitoring program; studies of contaminant levels in fish, aquatic wildlife, and sediments; assessments of water quality using aquatic invertebrates; and studies of cumulative impacts. Working jointly with the tribal health department he is involved with establishing consumption advisories for tribal members. The program also participates in many permitting, licensing, and regulatory proceedings that affect the Penobscot Reservation and its aquatic resources. Dan serves as the tribal coordinator for the model water quality monitoring cooperative agreement between Penobscot Nation and ME DEP.

Dan serves on numerous committees including the Technical Advisory Committee for Maine's Surface Waters Ambient Toxics Program and the Maine Dioxin Monitoring Program, the Maine

Council on Environmental Monitoring and Assessment, and participates on EPA's Regional Tribal Operations Committee. He is the Region I tribal representative to the EPA Tribal Science Council. He is also the chairman of the Penobscot County Soil and Water Conservation District.

Dan earned his B.S. degree in Wildlife Biology from the University of Vermont. He is a M.S. candidate in Wildlife Management at the University of Maine, Orono.

Amy D. Kyle

Amy D. Kyle works on issues at the intersection of environmental health science and public policy and to further the links between the realms of "environment" and those of "health." She holds research and teaching appointments at the University of California Berkeley School of Public Health where her work focuses on children's environmental health, policy for persistent pollutants, development of methods to measure net population burdens of pollution, and air pollution. She is a component director for the Berkeley Center on Environmental Public Health Tracking at Berkeley. She is also one of the authors of a national analysis of measures relevant to children's environmental health produced by the US Environmental Protection Agency. She works with a variety of governmental and non-governmental agencies on a variety of policy issues. Recently, she worked with state health and environment agencies to develop a national strategy to address environmental factors that contribute to asthma in children, a ground-breaking project sponsored by the Environmental Council of the States and the Association of State and Territorial Health Officials. As a Switzer Environmental Leadership Fellow, she is developing human health indicators to accompany a set of indicators of environmental quality for the San Francisco Bay, rivers, and delta watersheds with the Bay Institute. She serves as an advisor and consultant to organizations including California Communities Against Toxics, the Natural Resources Defense Council, the California Air Resources Board, and the California Department of Health Services. She has an extensive background in public policy and public service at the state level, having served for five years as deputy commissioner for the Alaska Department of Environmental Conservation and in a variety of other positions. She obtained her BA at Harvard College and MPH and PhD at the University of California Berkeley.

Roseanne M. Lorenzana

Roseanne has been a toxicologist in the US EPA Region 10 Office of Environmental Assessment for the past ten years. And, in the last year has also become Region 10's science liaison to the Agency's Office of Research and Development. Prior to EPA, she was with the Oregon Health Division and the Washington Department of Health. She has a Doctorate in Veterinary Medicine, a Ph.D. in toxicology from the University of Illinois and research experience in biochemical mechanisms of toxicity from the Environmental Health Sciences Center at Oregon State University.

Roseanne has been a Diplomate of the American Board of Toxicology since 1992. She holds an adjunct faculty position the University of Washington, and has guided a number of students through projects involving priority scientific issues important to regional programs. Roseanne has extensive experience with risk assessment for the Superfund program and Water program. She has taught the Agency's Risk and Decision-Making class a number of times in Region 10 as

well as abroad. Roseanne also spent several months in Australia assisting the development of their national cancer assessment guidelines for contaminated sites.

Some of Roseanne's other recent activities have focused on toxicology and exposure assessment for arsenic, issues related to contaminants in traditionally harvested, subsistence food of Northwest Native Americans and Native Alaskans and environmental exposure issues for Asian Americans and Pacific Islander Americans.

Paul Lumley

Paul Lumley is the Manager of the Watershed Department at the Columbia River Inter-Tribal Fish Commission. The Commission is composed of four tribal nations: the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon and the Confederated Tribes and Bands of the Yakama Nation. Paul Lumley received his Bachelor of Science degree in Mathematics from Western Washington University in 1986. Mr. Lumley is an enrolled member of the Yakama Nation and was born and raised on the reservation. Mr. Lumley has fished throughout the Yakama Reservation, including on the Columbia River.

Paul Lumley has worked for the Commission since 1987. Mr. Lumley worked within the U.S. v. Oregon forums in fisheries management for 12 years and has testified in federal court on behalf of the tribes on numerous issues related to fisheries management and the use of hatcheries as a salmon-rebuilding tool. Beginning in 1999, he expanded his role to include watershed issues, such as habitat protection, habitat restoration and improving water quality for salmon. The project area for the four CRITFC tribes is the entire Columbia River Basin.

Mr. Lumley is active raising funds and assisting in the implementation of projects that are identified in the tribes' salmon restoration plan: *WY-KAN-USH-MI WA-KISH-WIT* (Spirit of the Salmon). As a means to pursue the tribes' goals, Mr. Lumley participates in the following: numerous processes under the Northwest Power Act as related to the Fish and Wildlife program that mitigates for the development of the federal hydrosystem program (Bonneville Power Administration funding), various water quality programs in cooperation with the U.S. Environmental Protection Agency on numerous water quality issues, and promotes and seeks foundation and corporate sponsorships to fund tribal salmon restoration programs.

Kathryn R. Mahaffey

Dr. Mahaffey's professional career is in exposure assessment and toxicology of metals. She has worked extensively in the area of food safety. Following graduate training in nutritional biochemistry and physiology at Rutgers University, she completed post-doctoral training in neuro-endocrinology at the University of North Carolina School of Medicine. Her research has been on susceptibility to lead toxicity with greatest focus on age and nutritional factors resulting in more than 100 publications in this area. During her long career with the United States Government she has been influential in lowering lead exposures for the United States population through actions to remove lead from foods and beverages, and from gasoline additives during the 1970s and 1980s.

In the past decade, Dr. Mahaffey has been actively involved in risk assessments for mercury. She was the author of the NIH Report to Congress on Mercury, and a primary author of US EPA's *Mercury Study Report to Congress*. These reports emphasized risk of developmental deficits caused by methylmercury exposure during development of the nervous system. Dr. Mahaffey was one of the primary developers of US EPA's *Mercury Research Strategy* which was released in late 2000. Along with other team members, she was responsible for the 2001 EPA/FDA national advisory on fish consumption. Dr. Mahaffey was one of a group of three EPA health scientists who revised the basis for EPA's Reference Dose for Methylmercury which was used in developing the Methylmercury Water Quality Human Health Criterion. In 2002 she received EPA's Science Achievement Award in Health Sciences for this work. This is EPA's highest health sciences award and is presented in conjunction with the Society of Toxicology.

Currently Dr. Mahaffey is the Director of the Division of Exposure Assessment, Coordination and Policy within the Office of Science Coordination and Policy of OPPTS, US EPA. This division runs US EPA's Endocrine Disruptor Screening and Validation Program. Dr. Mahaffey remains active in research and developing US EPA's policies on methylmercury.

Randall O. Manning

Dr. Manning is the Coordinator of the Environmental Toxicology Program in the Georgia Department of Natural Resources, Environmental Protection Division. Dr. Manning received his Ph.D. in 1986 from the University of Georgia (UGA), College of Agriculture where he studied the toxicity and metabolism of mycotoxins. Prior to joining the Georgia Environmental Protection Division (GAEPD) in 1991, Dr. Manning was a Postdoctoral Research Associate (1987-88) and an Assistant Research Scientist (1989-90) in the Department of Pharmacology and Toxicology at UGA, studying the toxicity of volatile organic chemicals and the development of physiologically-based pharmacokinetic models for use in risk assessment. As the Coordinator of the Environmental Toxicology Program at GAEPD, Dr. Manning is responsible for providing the Division with support in toxicology and risk assessment. Dr. Manning's research interests relate to the development of risk-based approaches for evaluation of environmental contamination by regulatory agencies. Dr. Manning is a member of the Society of Toxicology, a Diplomate of the American Board of Toxicology, and an Adjunct Assistant Professor in the Department of Pharmaceutical and Biomedical Sciences, College of Pharmacy, University of Georgia and the Department of Environmental and Occupational Health, Rollins School of Public Health, Emory University.

Patricia McCann

Ms. McCann is Program Manager of the Minnesota Fish Consumption Advisory Program at the Minnesota Department of Health. She researches the toxicological characteristics of contaminants in Minnesota fish and wildlife, evaluates environmental and exposure data, and develops fish and wildlife consumption guidelines and communicates them to the public. She holds a M.S. in Environmental Health from the University of Minnesota School of Public Health and a B.S. in Chemical Engineering from the University of Minnesota Institute of Technology.

G. Tracy Mehan III

G. Tracy Mehan, III, was nominated by President George W. Bush to be Assistant Administrator for Water, U.S. Environmental Protection Agency, and confirmed by the U.S. Senate on August 3, 2001. Mehan has responsibility for implementing the nation's Clean Water Act, as well as the Safe Drinking Water Act, along with other environmental statutes, in collaboration with state and tribal partners.

Since February 1993, Mehan has served as Director of Michigan's Office of the Great Lakes and a member of Governor John Engler's Cabinet, coordinating policy on a variety of issues including toxic contamination, aquatic nuisance species (exotics) and water diversions. He represented Michigan on the Great Lakes commission, an interstate compact organization, and its executive committee. He also served on the board of the Great Lakes Protection Fund, a \$140 million endowment established by the governors of the region as well as the Water Quality Board of the International Joint Commission.

Mehan chaired the Michigan Mercury Pollution Prevention Task Force, a public-private body which initiated numerous mercury minimization efforts including the phasing out of 9.8 metric tons, per year, of mercury in convenience light switches previously used by the Big Three auto companies. Mehan was formally Associate Deputy Administrator of the U.S. Environmental Protection Agency (1992), where he coordinated policy issues for the agency and represented the Deputy Administrator in interactions with federal, state, and local agencies.

From 1989 to 1992, he was Director of the Missouri Department of Natural Resources, which included divisions of environmental quality; parks, re-creation and historic preservation; energy; geology; and land survey. He represented the state in the Missouri Basin States Association, the Upper Mississippi River Basin Association, and the Midwest Interstate Low-Level Radioactive Waste Compact Commission.

Mehan holds a Bachelor's Degree in history from St. Louis University, Missouri, and a Juris Doctor from the St. Louis University Law School. He is member of the Missouri Bar Association and the Bar Association of Metropolitan St. Louis. As a practicing attorney for many years, he concentrated in the area of civil litigation.

Mehan was an Adjunct Professor at the Thomas M. Cooley Law School and Michigan State University Detroit College of Law in environmental law. He and his wife, Mary, have seven children.

Fran Pell

Fran graduated with a B.S. from Purdue University in 1982. She started her career with the Federal government in USDA as a food inspector about a year after graduation. Fran transferred to FDA in 1985 as an investigator in Baltimore District Office. She conducted mostly food inspections and tissue residue investigations. She transferred to the Center for Veterinary Medicine in 1988. She issued an information gathering assignment in 1989 to the Field to conduct an inspectional survey of aquaculture producers to determine what their drug use patterns were. This Field assignment spawned an educational campaign from the Center on the regulations of drug use for aquaculture. She transferred to the Tissue Residue Branch in 1994 and maintained her expertise in aquaculture. In 1997, Fran was transferred to the Division of

Compliance she became the Compliance expert in Aquaculture drug use. She handles all regulatory questions related to Aquaculture drug use. She is also the lead for the development of regulations on Import Tolerances.

James F. Pendergast

Jim Pendergast is chief of the Health Protection and Modeling Branch in the Office of Water where he manages EPA's fish and beach advisory programs, and provides technical support for water quality modeling and sediment contamination assessments. He has 26 years of professional experience in environmental engineering, water quality modeling, and regulatory controls. Since moving to EPA Headquarters in 1990, he worked on the revision to the TMDL rule, reauthorization of the Clean Water Act, and as a Section and Branch Chief and later Acting Director of the NPDES Permits Division. He was a principal in leading the Water Protection Task Force where he helped manage EPA's work to support efforts by drinking water and wastewater treatment utilities to understand vulnerable points and to mitigate the threat from terrorist attacks as quickly as possible. He worked for six years in EPA Region 6 in the NPDES permits and Superfund programs. Prior to joining EPA in 1984, he was a project manager at Limno-Tech, Inc., where he developed models of water quality impacts from nonpoint and point sources on rivers, lakes, and estuaries.

Mr. Pendergast received a BS in Environmental Engineering in 1976 and a MS in Water Resources Engineering in 1978, both from the University of Michigan. He is a registered professional engineer. He is a member of the Water Environment Federation, the American Society of Civil Engineers, and the Society of Environmental Toxicology and Chemistry. He has several published papers on water quality modeling in engineering journals and conference proceedings. He is married with one daughter, and spends his non-work time coaching a girls fast pitch softball team and playing golf.

John Persell

John began working for the Minnesota Chippewa Tribe in 1978 as a Water Quality Planner, shortly after graduating from Bemidji State University (Bemidji, MN) with a B.S. in Biology and Chemistry. The Tribe's Water Quality Program grew to become the Tribal Water Research Lab in 1979, achieving Federal drinking water certification in 1987. John has remained Director of the Tribal Government's Lab, which today employs four staff performing drinking water, surface water, and tissue analyses for a wide variety of parameters. John has directed the Tribe's research focus to contaminants in subsistence resources during the last ten years. At the center of this research focus is the St Regis/Wheeler Superfund Site which is located on the Leech Lake Reservation. The toxic cocktail at this former wood preservation company site includes Dioxins and Furans, PCBs, DDT, PAHs, Phenols, Arsenic, Chromium, and Mercury.

John is a six year veteran of the United States Air Force and Army; a father and grandpa, and particularly enjoys family and outdoor activities.

Susan M. Peterson

Susan Peterson is an environmental chemist working for the Aroostook Band of Micmacs for a year and a half. A graduate from the University of Maine at Presque Isle, Susan had a double major receiving a BA in Biology and a BS in Environmental Studies. Since working for the Tribe, she has been exposed to the many environmental issues concerning the Micmacs, such as the substandard Tribal housing units in which members are living in and the various toxics found in natural resources that are utilized by the Tribe for food, medicine, and spiritual purposes. One of her major accomplishments was to finish developing a drinking water laboratory and obtain full certification from the state of Maine for the lab. She is currently working on adding more testing parameters to the lab's certification, developing an arsenic-in-drinking water study with all of the Tribes of Maine, and is taking steps to have the lab NLLAP certified for lead testing.

Rafael Ponce

Rafael's interest in environmental health began during his Master's research investigating methylmercury uptake into rainbow trout. He received his Masters from the School of Fisheries at the University of Washington in 1990, and transferred to the Dept. of Environmental Health where he moved up the food chain to investigate the mechanisms of methylmercury-induced developmental neurotoxicity in rats. Rafael received his doctorate in Environmental Health, Toxicology from the University of Washington in 1995. He moved to Anchorage to work as the toxicologist for the Department of Health and Social Services, conducting health risk assessments and evaluation of subsistence food safety. In 1996, he returned to the University of Washington to perform basic research of heavy metal toxicity and risk assessment. He currently has an affiliate appointment with the University of Washington and works as a toxicologist for a biotechnology company (ZymoGenetics, Inc.) in Seattle, WA.

GUS N. RASSAM

Executive Director and CEO, Treasurer, and Senior Editor (May 1999-present) American Fisheries Society. Staff of 22; annual budget of \$3 million.

Director of Program Development and Publications (July 1998-1999) Optical Society of America, Washington, DC. Staff of 45; annual budget of \$9 million. Previously he served as Executive Director and CEO (acting) (July 1997-July 1998) Optical Society of America. Member of three-person team acting as Executive Director. Report to Executive Committee and Board of Directors. Before that, as Director of Publications (1995-1997) Optical Society of America, Washington, D.C.

Member, Governing Board of the Renewable Natural Resources Foundation , RNRF (1999-present); chair of Finance Committee, RNRF; chair of Awards Jury Committee, RNRF.

Fulbright Scholar

Philip Spiller

Philip Spiller has been with the Food and Drug Administration since 1981. He spent the first nine years in the Office of Legislative Affairs in the Office of the Commissioner, where he

became the Deputy to the Director of that office. He worked on a wide variety of legislative initiatives and helped prepare FDA officials to testify at numerous hearings in both the House of Representatives and the Senate. At one of them, involving the pesticide Alar in apples, he engaged in a 5 second conversation with the actress Meryl Streep, which he regards to this day as the high point of his career. During 1989 through 1991 seafood safety became a major issue in the Congress and Mr. Spiller became familiar with that subject as a consequence. In 1990 Mr. Spiller became a special assistant to the Commissioner on seafood-related matters. When an Office of Seafood was subsequently created in FDA's Center for Food Safety and Applied Nutrition, Mr. Spiller transferred to that Office as Deputy to the first permanent director, Mr. Thomas Billy. His major responsibility during that time was drafting FDA's seafood HACCP regulations. Mr. Spiller became the director of the Office of Seafood in 1994.

Before coming to FDA, Mr. Spiller worked for the Health Resources Administration, which is now part of the agency known as HRSA. Mr. Spiller has a law degree from Boston College and an undergraduate degree from the University of Virginia.

Alan H. Stern

Alan Stern, PhD DABT, received his doctorate in public health from the Columbia University School of Public Health in 1987. He is Chief of the Bureau for Risk Analysis in the Division of Science and Research of the New Jersey Department of Environmental Protection where he specializes in human health risk and exposure assessment. He is board certified in toxicology, and adjunct associate professor in the School of Public Health, and the Department of Environmental and Community Medicine of the University of Medicine and Dentistry of New Jersey. He served as a member of the National Research Council/National Academy of Sciences Committee on the Toxicological Effects of Methylmercury. His current scientific and research interests include assessment of exposure and risk from methylmercury and other heavy metals, biomonitoring, exposure assessment, interindividual variability in dose-response, and probabilistic approaches to risk assessment.

Andrew E. Smith

Andrew Smith, S.M., Sc.D., is the State Toxicologist and Director of the Environmental Toxicology Program within the Bureau of Health, Maine Department of Human Services. Dr. Smith obtained his master's in environmental health management and doctorate in environmental health sciences from the Harvard School of Public Health. He performed post-doctoral studies at Harvard with joint appointments in the Departments of Environmental Health and Biostatistics. As the State Toxicologist and Director of the Toxicology Program, he is responsible for the development health-based drinking water and ambient air guidelines for toxicants, the issuance of fish consumption advisories due to chemical contamination, the design and conduct environmental exposure and epidemiological studies, and management of the Maine Occupational Disease Registry. Dr. Smith has served on U.S. EPA scientific advisory panels to review the Agency's recently revised reference dose for mercury, guidance for evaluating residential exposure to pesticides, and a preliminary evaluation of the non-dietary hazard and exposure to children from contact with CCA pressure-treated wood.

Judy Sheeshka

Judy Sheeshka is a registered dietitian and an Associate Professor in Applied Human Nutrition at the University of Guelph, in Ontario. For the past 8 years she has been interested in comparing the nutritional benefits and the potential risks of eating sport-caught fish from contaminated waters. She was part of a multi-disciplinary team that received Health Canada funding to investigate fish consumption from 5 Great Lakes Areas of Concern. Over 5,000 people fishing along the Canadian shorelines in these Areas of Concern were surveyed and 91 completed dietary records, tape-recorded long interviews, anthropometric measurements, and provided blood and hair samples for laboratory analyses.

Suanne Unger

Suanne Unger received a BS in Education with a major in biology from the University of Wisconsin- Madison in 1998. In 1993, she received an MS in Environmental Studies from the University of Montana- Missoula. After finishing her masters program, Suanne served as a US Peace Corps Volunteer in Botswana from 1993-1995 in the Wildlife/ Environment Program. Suanne has taught high school and middle school science. In Alaska, she has worked for several tribal non-profit organizations developing community-based environmental assessment tools for tribes in Alaska. Currently, she works for the Aleutian/Pribilof Islands Association, Inc., a non-profit tribal organization of the Aleut people in Alaska. This organization services communities on the Aleutian Islands and Pribilof Islands in western Alaska. Suanne is the Environmental Health Research Coordinator on a project entitled *Dietary Benefits and Risks in Alaskan Villages*. This project is funded by the National Institute for Environmental Health Sciences.

Khizar Wasti

Ph.D. Chemistry, 1976, University of Pennsylvania, Philadelphia

M.S. Chemistry, 1972, Marshall University, Huntington, West Virginia

1991-Present: Director, Division of Health Hazards Control, Virginia Department of Health

1978-1991: Toxicologist, Bureau of Toxic Substances, Virginia Department of Health

1976-1978: Project Manager, Toxicology, Franklin Institute, Philadelphia

Luanne Williams

Dr. Luanne Williams is a state toxicologist for North Carolina and a full member of the Society of Toxicology. Dr. Williams' primary responsibilities as a state toxicologist include developing health-protective environmental standards for North Carolina and health risk assessments for contaminated soil, air, water, and fish. She is also the Co-editor and contributing author of the recently published book titled *Environmental Health Secrets*.

Dr. Williams received a doctor of pharmacy degree at Campbell University School of Pharmacy in North Carolina. Dr. Williams also participated in a residency program at the UNC Hospital in Chapel Hill, North Carolina and most of her undergraduate courses were completed at the University of Tennessee in Knoxville, Tennessee.

Appendix 4: Forum Participants

Participants

Last	First	Organization	Address1	Address2	City	St	Zip	Phone	Email
Anderson	Henry A.	Wisconsin Division of Public Health	1 W. Wilson St., Room 150		Madison	WI	53702	608-266-1253	anderha@dhfs.state.wi.us
Aposhian	H. Vasken	University of Arizona	Life Sciences South Bldg.	P.O. Box 210106	Tucson	AZ	85721-0106	520-621-7565	aposhian@u.arizona.edu
Arcand-Hoy	Lisa	BBL Sciences	6723 Towpath Road		Syracuse	NY	13214	315-446-9120	lda@bbl-inc.com
Arnwine	Deborah	Tennessee Dept. of Environment & Conservation	7th Floor, L&C Annex	401 Church Street	Nashville	TN	37243-1534	615-532-0703	debbie.arnwine@state.tn.us
Arway	John	Pennsylvania Fish & Boat Commission	450 Robinson Lane		Bellefonte	PA	16823	814-359-5147	jarway@state.pa.us
Ashizawa	Annette E.	Centers for Disease Control	1600 Clifton Road NE	MS E-29	Atlanta	GA	30333	404-498-0718	ada8@cdc.gov
Austin	Stephen	Navajo Nation Environmental Protection Agency	P.O. Box 1999		Shiprock	NM	87420	505-368-1037	nnepawq@cyberport.com
Axelrad	Donald	Florida Dept. of Environmental Protection	2600 Blair Stone Rd., MS 6540		Tallahassee	FL	32399-2400	850-414-1347	don.axelrad@dep.state.fl.us
Baird	John R.	North Dakota Dept. of Health	600 East Boulevard Avenue		Bismarck	ND	58505-0200	701-328-2372	jbaird@state.nd.us
Ball	Wayne	Utah Department of Health	P.O. Box 142104	288 North 1460 West	Salt Lake City	UT	84114-2104	801-538-6191	wball@utah.gov
Bank	Michael	University of Maine	5722 Deering Hall, Room 202		Orono	ME	04469-5722	207-581-2961	michael_bank@umit.maine.edu
Barber	David	Wyoming Department of Health	c/o University of Illinois	008 West Hazelwood	Urbana	IL	61802	217-244-5835	dabarber@uiuc.edu
Beaman	Joseph	Maryland Department of the Environment	7610 Shady Lane		Boonesboro	MD	21713	410-537-3633	jbeaman@mde.state.md.us
Beckwith	William	US EPA/Region 1	1 Congress Street, Suite 1100	WQ	Boston	MA	02114-2023	617-918-1544	beckwith.william@epa.gov
Bender	Edward S.	US EPA	1200 Pennsylvania Avenue NW		Washington	DC	20460	202-564-6483	bender.ed@epa.gov
Bender	Michael	Mercury Policy Project	1420 North Street		Montpelier	VT	05602	802-223-9000	mercurypolicy@aol.com
Bigler	Jeffrey D.	US EPA	1200 Pennsylvania Avenue NW	Mail Code: 4305T	Washington	DC	20460	202-566-0389	bigler.jeff@epa.gov
Birkholtz	Detlef	Enviro-Test Laboratories	9936 67th Ave.		Edmonton	AB	Canada	780-413-5205	deib@envirotest.com
Birnbaum	Linda S.	US	85 T.W. Alexander Drive	ERC (MD-66)	RTP	NC	27709	919-541-2655	birnbaum.linda@epa.gov

		EPA/ORD/NHEERL							
Blackwell	Steve	ATSDR	1600 Clifton Road, NE, E-33		Atlanta	GA	30333	404-498-0517	sblackwell@cdc.gov
Blake	Laura	New England Interstate Water Pollution Control Com.	Boott Mills South	100 Foot of John St	Lowell	MA	01852- 1124	978-323-7929	lblake@neiwppcc.org
Brodberg	Robert	California EPA	301 Capitol Mall, Room 205		Sacramento	CA	95814- 4327	916-327-7320	rbrodber@oehha.ca.gov
Brooks	Barbara	Hawaii Dept. of Health	919 Ala Moana Blvd., Room 206		Honolulu	HI	96814	808-586-4249	bbrooks@eha.health.state.hi.us
Busshart	Karen	Vermont Dept. of Environmental Conservation	103 South Main Street		Waterbury	VT	05671	802-241-3455	karenbu@dec.anr.state.vt.us
Carlson	Gale M.	Missouri Dept. of Health and Senior Services	P.O. Box 570		Jefferson City	MO	65102	573-751-6102	carlsg@dhss.state.mo.us
Cling	Marvin	Pleasant Point Passamaquoddy Tribe	P.O. Box 343		Perry	ME	04667- 0343	207-853-2600, x-234	marvin@wabanaki.com
Cornelison	Kimberly	Louisiana Dept. of Environmental Quality	7290 Bluebonnet Blvd.		Baton Rouge	LA	70810	225-765-0246	kimberly_c@ldeq.org
Cranmer	Morris	Cranmer and Associates	PO Box 22093		Little Rock	AR	72221	501-224-0240	cranmer1@mindspring.com
Crenson	Sharon	Associated Press	50 Rockefeller Plaza		New York	NY	10020	212-621-1600	pr@ap.org
Crocker	Philip	US EPA/Region 6	1445 Ross Avenue		Dallas	TX	75202- 2733	214-665-6644	crocker.philip@epa.gov
Cunningham	Patricia	Research Triangle Institute	3040 Cornwallis Road		Research Triangle Park	NC	27709	919-316-3722	patc@rti.org
Dabolt	Tod	US EPA	1200 Pennsylvania Avenue NW	Mail Code: 4503T	Washington	DC	20460	202-566-1186	
Day	Jeff	Wampanoag Tribe of Gay Head	20 Black Brook Road		Aquinnah	MA	02535	508-645-9265, x-161	ranger@wampanoagtribe.net
Dickison	Jeff	Squaxin Island Tribe	2952 Old Olympic Hwy.		Shelton	WA	98584	360-432-3815	jdickison@squaxin.nsn.us
Dominguez	James	Colorado Dept of Public Health & Environ.	4300 Cherry Creek Dr S		Denver	CO	80246	303-692-3537	james.dominguez@state.co.us
Dreisig	John	New Hampshire Dept. of Health & Human Services	6 Hazen Drive		Concord	NH	03301	603-271-4664	jdreisig@dhhs.state.nh.us
Ducheneaux	Carlyle	Cheyenne River Sioux Tribe	P.O. Box 590		Eagle Butte	SD	57625	605-964-6568	cducheneaux@crstepd.org
Dyer	Norm	US EPA/Region 6	1445 Ross Avenue, Suite 1200		Dallas	TX	75202- 2733	214-665-8349	dyer.norman@epa.gov
Eisiminger	Eric C.	Kentucky Division of Water	14 Reilly Road		Frankfort	KY	40601	502-564-3410, x-453	eric.eisiminger@mail.state.ky.us
Ell	Michael	North Dakota Department of Health	1200 Missouri Avenue	Room 203	Bismarck	ND	58504- 5264	701-328-5214	mell@state.nd.us

Faulds	Ann M.	Pennsylvania Sea Grant	4601 Market Street, 2nd Floor		Philadelphia	PA	19139	215-471-2216	a.faulds@psu.edu
Fausser	Cora	Vermont Dept. of Health	195 Colchester Avenue		Burlington	VT	05402		cfausser@vdhs.state.vt.us
Ferry	Valerie Bataille	US EPA	1 Congress Street, Suite 11001	Mail Code: C5P	Boston	MA	02114	617-918-1674	bataille.valerie@epa.gov
Fikslin	Thomas	Delaware River Basin Commission	P.O. Box 7360		West Trenton	NJ	08628	609-883-9500	tfikslin@drbc.state.nj.us
Folmar	Henry	Mississippi Dept. of Environmental Quality	1542 Old Whitfield Road		Pearl	MS	39208	601-664-3910	henry_folmar@deq.state.ms.us
Forti	Anthony	New York State Dept. of Health	546 River Street, Rm 330	Flanigan Square	Troy	NY	12180-2216	518-402-7815	ajf01@health.state.ny.us
Frey	Bob	Pennsylvania Dept. of Environmental Protection	P.O. Box 8467		Harrisburg	PA	17105-8467	717-787-9637	rofrey@state.pa.us
Fritz	Betsy	American Fisheries Society	5410 Grosvenor Lane, #110		Bethesda	MD	20814-2199	301-897-8616, x-212	bfritz@fisheries.org
Frohberg	Eric	Maine Bureau of Health	Key Plaza, 8th Floor	11 State House Sta.	Augusta	ME	04333	207-287-8141	eric.frohberg@state.me.us
Gassel	Margy	California EPA	1515 Clay Street, 16th Floor		Oakland	CA	94612	510-622-3166	mgassel@oehha.ca.gov
Gately	Glenn	Jefferson County Conservation District	205 W. Patison Street		Port Hadlock	WA	98339	360-385-4105	glenn-gately@wa.nacdn.net
Gerlach	Robert	Alaska Dept. of Environmental Conservation	555 Cordova St., 5th Floor		Anchorage	AK	99501	907-269-7635	bob_gerlach@envircon.state.ak.us
Ginsberg	Gary	State of Connecticut Dept. of Public Health	410 Capitol Avenue, MS 11CHA	P.O. Box 340308	Hartford	CT	06134	860-509-7742	gary.ginsberg@po.state.ct.us
Gray	Gayla	Seneca Nation Environmental	1508 Rte. 438		Irving	NY	14081	716-532-2546	sniepdl@localnet.com
Greene	Richard	Delaware DNREC	820 Silver Lake Blvd., Suite 220		Dover	DE	19904-2464	302-739-4590, x-116	rgreene@state.de.us
Groetsch	Kory J.	Great Lakes Indian Fish & Wildlife Commission	100 Maple Street		Odanah	WI	54861	715-682-6619, x-189	groetsch@glifwc.org
Gulka	Gary	Vermont Dept. of Environment Conservation	103 South Main Street		Waterbury	VT	05671	802-241-3455	garyg@dec.anr.state.vt.us
Hadden	Karen	SEED Coalition (Sustainable Energy & Economic Dev)	61 S. Congress, Suite 200		Austin	TX	78704	512-479-7744	karen@seedcoalition.org
Haire	David	Wind River Environmental Quality Commission	625 North Bent Street		Powell	WY	82435	307-754-7952	dhaire@tritel.net
Hale	Robert C.	Virginia Institute of Marine Science	P.O. Box 1346	1208 Great Road	Gloucester Pt.	VA	23062	804-684-7228	hale@vims.edu
Hansel	Joel	US EPA/Region 4	61 Forsyth Street, SW		Atlanta	GA	30303	404-562-9274	hansel.joel@epa.gov

Harden	Siegfried B.	Alabama Dept. of Public Health	201 Monroe Street		Montgomery	AL	36104	334-206-5952	sharden@adph.state.al.us
Hellman	Sandy	US EPA/Great Lakes Nat'l Program Office	77 W. Jackson Blvd.		Chicago	IL	60604	312-353-5006	hellman.sandra@epa.gov
Hellyer	Greg	US EPA/New England Regional Lab	11 Technology Drive		North Chelmsford	MA	01863	617-918-8677	hellyer.greg@epa.gov
Henderson	George	Florida Fish & Wildlife Conservation Commission	100 Eighth Avenue, SE		St. Petersburg	FL	33701	727-896-8626	george.henderson@fwc.state.fl.us
Hitzig	Robert	US EPA/Superfund	1200 Pennsylvania Avenue	Mail Code 5204G	Washington	DC	20460	703-603-9047	hitzig.robert@epa.gov
Hochheimer	John	Tetra Tech, Inc.	10306 Eaton Place, Suite 340		Fairfax	VA	22030	703-385-6000, x-351	john.hochheimer@tetratechffx.com
Hoffman-Contois	Razelle S.	Vermont Department of Health	195 Colchester Avenue		Burlington	VT	05402	802-863-7558	rhoffma@vdh.state.vt.us
Hohreiter	David	BBL Sciences	P.O. Box 66		Syracuse	NY	13214	315-446-2570	dh@bbl-inc.com
Holtgren	Marty	Little River Band of Ottawa Indians	375 River St.		Manistee	MI	49660	231-723-1594	mholtgren@lrboi.com
Hornshaw	Thomas C.	Illinois Environmental Protection Agency	P.O. Box 19276		Springfield	IL	62794-9276	217-785-0830	thomas.hornshaw@epa.state.il.us
Huntly	David R.	US Fish & Wildlife Service	6623 Turner Rd		Elmira	MI	49730	231-584-2461	david_huntly@fws.gov
Jernejcic	Frank	West Virginia Division of Natural Resources	1304 Goose Run Road		Fairmont	WV	26554	304-367-2720	jernef@wvnet.edu
Jock	Jessica	St. Regis Mohawk Tribe	412 State Rt. 37		Akwesasne	AK	13655	518-358-5937	earth2-jj@northnet.org
Joseph	Catherine	US EPA	1200 Pennsylvania Avenue, NW		Washington	DC	20460	202-564-8481	joseph.catherine@epa.gov
Kahn	Henry D.	US EPA	1200 Pennsylvania Ave., NW	Mail Code 4303T	Washington	DC	20460	202-566-1030	kahn.henry@epa.gov
Kamman	Neil	Vermont Dept. of Environmental Conservation	103 S. Main, 10 N		Waterbury	VT	05671-0408	802-241-3795	neil.kamman@state.vt.us
Kanetsky	Chuck	US EPA/Region 3	1650 Arch Street (3ES10)		Philadelphia	PA	19103	215-814-2735	kanetsky.charles@epa.gov
Kelly	April	University of Massachusetts	Blaisdell House		Amherst	MA	01003	413-545-2842	geo_april@hotmail.com
Kindt	Trish	SD Dept. of Environment & Natural Resources	523 E. Capitol Avenue		Pierre	SD	57501	605-773-4055	trish.kindt@state.sd.us
Kissinger	Lon	US EPA/Region 10	1200 Sixth Avenue	Mail Stop OEA-095	Seattle	WA	98101	206-553-2115	kissinger.lon@epa.gov
Knuth	Barbara	Cornell University	DNR, 122A Fernow Hall		Ithaca	NY	14853	607-255-2822	bak3@cornell.edu
Kramer	Bill	US EPA	1200 Pennsylvania Ave NW	Mail Code 4305T	Washington	DC	20460	202-566-0385	kramer.bill@epa.gov
Krueger	Elaine T.	Massachusetts Dept. of Public Health	250 Washington Street		Boston	MA	02108	617-624-5757	elaine.krueger@state.ma.us
Kusnierz	Daniel	Penobscot Indian	6 River Road		Indian Island	ME	04468	207-827-7776	pinwater@penobscotnation.org

Kuzmack	Arnold M.	Nation US EPA/Office of Water	MC 4301 T		Washington	DC	20460	202-566-0432	kuzmack.arnold@epa.gov
Kyle	Amy D.	University of California-Berkeley	322 Cortland Ave PMB-226		San Francisco	CA	94110	510 642 8847	adkyle@ix.netcom.com
Landeen	Dan	Nez Perce Tribe	P.O. Box 365		Lapwai	ID	83540	208-843-7375	danl@nezperce.org
Langdon	Rich	Vermont Dept. of Environmental Conservation	103 S. Main Street		Waterbury	VT	05671	802-241-1379	RichL@dec.anr.state.vt.us
Lange	Ted	Florida Fish & Wildlife Conservation Commission	601 West Woodward Avenue		Eustis	FL	32726	352-742-6438	ted.lange@fwc.state.fl.us
Levin	Leonard	EPRI	3412 Hillview Avenue		Palo Alto	CA	94303	650-855-7929	llevin@epri.com
Lightbourn	Alrena	West Virginia Dept. of Health & Human Resources	815 Quarrier St., Suite 418		Charleston	WV	25301	304-345-5012	alrenalightbourn@wvdhhr.org
Lin	Sharon	US EPA/Region 9	75 Hawthorne St. (WTR-2)		San Francisco	CA	94105	415-972-3446	lin.sharon@epa.gov
Lisceck	Bonnie C.	Kansas Dept. of Health & Environment	1000 SW Jackson, Suite 420		Topeka	KS	66612-1367	785-296-8791	blisceck@kdhe.state.ks.us
Llewellyn	Gerald	Delaware Division of Public Health	Cooper Bldg.	P.O. Box 637	Dover	DE	19903	302-744-4540	gllewellyn@state.de.us
Lo	Belinda	Health Canada	1st Floor East, Banting Bldg.	Tunney's Pasture	Ottawa	ONT	K1A 0L2	613-941-6224	belinda.lo@hc-sc.gc.ca
Lombard	David	Houlton Band of Maliseet Indians	88 Bell Rd		Littleton	ME	04730	207-532-4273 ext 220	timber@maliseets.com
Lorenzana	Roseanne	US EPA/Region 10	1200 Sixth Avenue, OEA-095		Seattle	WA	98101	206-553-8002	lorenzana.roseanne@epa.gov
Louis	Shirley	Arkansas Dept. of Health	4815 West Markham St. Mail Slot #32		Little Rock	AR	72205	501-661-2833	slouie@healtharkansas.com
Lowery	Tony	NMFS/NOAA/USDC	705 Convent Street		Pascagoula	MS	39567	228-769-8964	tony.lowery@noaa.gov
Lubeck	Janet E.	American Fisheries Society	5410 Grosvenor Lane, Suite 110		Bethesda	MD	20814	301-897-8616	jlubeck@fisheries.org
Lumley	Paul	Columbia River Inter-Tribal Fish Commission	729 NE Oregon St, Ste 200		Portland	OR	97232	503-238-0667	lump@critfc.org
Lynn	Tracey	Alaska Division of Public Health	3601 C Street, Suite 540		Anchorage	AK	99503	907-269-8045	tracey_lynn@health.state.ak.us
Mahaffey	Kathryn R.	US EPA	1200 Pennsylvania Ave., NW	Mail Code 7201M	Washington	DC	20460	202-564-8440	mahaffey.kate@epa.gov
Maier	Martha	Alta Analytical Laboratory	1104 Windfield Way		El Dorado Hills	CA	95726	916-933-1640	mmaier@altalab.com
Malchoff	Mark	Lake Champlain Sea Grant	Plattsburgh State University	101 Broad Street	Plattsburgh	NY	12901	518-564-3037	mark.malchoff@plattsburgh.edu
Malczewska-Toth	Barbara	New Mexico Dept. of Health	P.O. Box 26110	1190 St. Francis Dr	Santa Fe	NM	87505-6110	505-476-3028	btoth@doh.state.nm.us

Manning	Randall O.	Georgia Dept. of Natural Resources	745 Gaines School Road		Athens	GA	30605	706-369-6376	randy_manning@dnr.state.ga.us
Margillo	Gina	California Department of Health	1515 Clay Street, Suite 1700		Oakland	CA	94612	510-622-4476	gmargill@dhs.ca.gov
Martin	Shawn	St. Regis Mohawk Tribe	412 State Rt. 37		Akwesasne	NY	13655	518-358-5937	earth2-rshawn@northnet.org
Maugle	Paul D.	Monegan Aquaculture LLC	72 Water Street		Stonington	CT	06378	860-961-5607	pmaugle@moheganmail.com
Mayo	Kathleen R.	US EPA/Region 5	Mail Code WQ-165	77 West Jackson Blvd.	Chicago	IL	60604	312-353-5592	mayo.kathleen@epa.gov
McBride	David	Washington State Dept. of Health	P.O. Box 47846		Olympia	WA	98501-7846	360-236-3176	dave.mcbride@doh.wa.gov
McCann	Pat	Minnesota Department of Health	P.O. Box 64975	121 East Seventh Place, Suite 220	St. Paul	MN	55164-0975	651-215-0923	patricia.mccann@health.state.mn.us
McDonough	Margaret	US EPA	One Congress Street		Boston	MA	02114	617-918-1276	mcdonough.margaret@epa.gov
Mensh	Mikhail	Milestone Inc.	160B Shelton Road		Monroe	CT	06468	203-261-6175	mware@milestonesci.com
Moreau	Genevieve	Health Canada	F. Banting Research Centre	Tunney's Pasture	Ottawa	Ont	K1A 0L2	613-952-5986	genevieve_moreau@hc-sc.gc.ca
Morrison	Todd	URS Corporation	1400 Union Meeting Rd., Suite 202		Blue Bell	PA	19422	215-542-3800	todd_morrison@urscorp.com
Mower	Barry	ME Department of Environmental Protection	State House Station #17		Augusta	ME	04333-0017	207-287-777	barry.f.mower@state.me.us
Murphy	Greg	Virginia Tech	100 Cheatham Hall		Blacksburg	VA	24061-0321	540-250-1314	gmurphy@vt.edu
Murray	Michael	National Wildlife Federation	213 West Liberty St., Suite 200		Ann Arbor	MI	48104-1398	734-769-3351	murray@nwf.org
Ogren	Stephanie	Little River Band of Ottawa Indians	375 River St.		Manistee	MI	49660	231-723-1594	sogren@lrboi.com
Olson	John	Iowa Dept. of Natural Resources	Wallace State Office Bldg.	502 East 9th Street	Des Moines	IA	50319-0034	515-281-8905	john.olson@dnr.state.ia.us
Ott	Mary A.	US EPA/Region 8	999 - 18th Street		Denver	CO	80202-2466	303-312-6909	ott.toney@epa.gov
Patrick	Bob	Aleutian/Pribilof Islands Association, Inc.	201 East 3rd Avenue	Metro Park N2	Anchorage	AK	99501	907-276-2700	bobp@apiai.com
Pell	Frances M.	US FDA/Center for Veterinary Medicine	7499 Standish Place, Room E410	Metro Park N3	Rockville	MD	20855	301-827-0188	fpell@cvm.fda.gov
Pendergast	Jim	US EPA	1199 Pennsylvania Avenue, NW	Mail Code 4305T	Washington	DC	20460	202-566-0398	pendergast.jim@epa.gov
Persell	John	Minnesota Chippewa Tribe Research Lab	P.O. Box 217		Cass Lake	MN	56633	218-335-6303	mctwq@paulbunyan.net
Peshut	Peter	American Samoa EPA	P.O. Box PPA		Pago Pago, American Samoa	AS	96799	684-633-2304	
Peterson	Susan	Aroostook Band of Micmaes	8 Northern Road		Presque Isle	ME	04769	207-764-7219	speterson@micmachealth.org
Pitkin	Jay B.	Utah Division of Water Quality	288 North 1460 West		Salt Lake City	UT	84114-4870	801-538-6087	jpitkin@utah.gov

Ponce	Rafael A.	University of Washington	3818 Corliss Avenue		Seattle	WA	98103	206-442-6825	poncer@zgi.com
Rainosek	Alvin P.	NMFS/NOAA/USDC	ILB 325 Univ South Alabama		Mobile	AL	36688	251-460-6754	al.rainosek@noaa.gov
Rassam	Gus	American Fisheries Society	5410 Grosvenor Lane, Suite 110		Bethesda	MD	20814	301-897-8616	grassam@fisheries.org
Ratnapradipa	Dhitinut	Rhode Island Dept. of Health	3 Capitol Hill, Room 201		Providence	RI	02908-5097	401-222-7764	dhitinutr@doh.state.ri.us
Rector	Samuel	Arizona Department of Environmental Quality	1110 W. Washington Street		Phoenix	AZ	85007	602-771-4536	smr@ev.state.az.us
Redmon	Pete	US EPA/Region 5	77 West Jackson Blvd.		Chicago	IL	60604	312-886-6110	redmon.walter@epa.gov
Redmond	Cheryl	Natural Health Magazine	70 Lincoln Street, 5th Floor		Boston	MA	02111	617-753-8900	credmond@weiderpub.com
Rice	Deborah	US EPA/ORD/NCEA	1200 Pennsylvania Avenue, NW	MC 8623D	Washington	DC	20460	202-564-3404	rice.deborah@epa.gov
Round	Margaret	Northeast States for Coordinated Air Use Mgmt.	101 Merrimac Street		Boston	MA	02114	617-367-8540	mround@nescaum.org
Santerre	Charles	Purdue University	700 W. State Street		W. Lafayette	IN	47907-2059	765-496-3443	
Sass	Neil L.	Alabama Dept. of Public Health	The RSA Tower, Suite 1450	201 Monroe Street	Montgomery	AL	36104	334-206-5973	nsass@adph.state.al.us
Schrank	Candy	Wisconsin DNR	101 S. Webster St. (FH/3)		Madison	WI	53707-7921	608-267-7614	candy.schrank@dnr.state.wi.us
Schwartz	Jack	Massachusetts Division of Marine Fisheries	30 Emerson Avenue		Gloucester	MA	01930	978-282-0308, x-122	jack.schwartz@state.ma.us
Sekerke, Jr.	H. Joseph	Florida Dept. of Health	4052 Bald Cypress Way	Bin A00	Tallahassee	FL	32599-1707	850-245-4248	joe_sekerke@doh.state.fl.us
Sharp	Sandra L.	Interstate Shellfish Sanitation Conference	209-2 Dawson Road		Columbia	SC	29223	803-788-7559	issc@issc.org
Shaw-Tulloch	Elke	Idaho Bureau of Environmental Health and Safety	450 West State St., 4th Floor	P.O. Box 83720	Boise	ID	83720-0036	208-334-5950	shawe@idhw.state.id.us
Sheeshka	Judy	University of Guelph			Guelph	Ont	N1G 2W1	519-824-4120, x-4479	jsheeshk@uoguelph.ca
Shelley	Tracy	SC Dept. of Health & Environmental Con	2600 Bull Street		Columbia	SC	29201	803-896-9731	shelletl@columb30.dhec.state.sc.us
Shiedt	Enoch	Manulaq Association			Kotzebue	AK			
Shoven	Heather	US EPA	1200 Pennsylvania Avenue, NW		Washington	DC	20460	202-564-8278	shoven.heather@epa.gov
Skaar	Don	Montana Fish, Wildlife & Parks	1420 East 6th Avenue		Helena	MT	59620	406-444-5686	dskaar@state.mt.us
Skinner	Lawrence C.	New York State Dept. of Environmental Conservation	625 Broadway		Albany	NY	12233-4756	518-402-8969	lxskinne@gw.dec.state.ny.us
Smith	Andrew E.	Maine Bureau of	Key Plaza, 8th Floor	11 State House	Augusta	ME	04333	207-287-5189	andy.e.smith@state.me.us

		Health		Station						
Smithson	Janice	West Virginia Dept. of Environmental Protection	1201 Greenbrier Street		Charleston	WV	25311	304-558-2837	jsmithson@dep.state.wv.us	
Spiller	Philip	US FDA	5100 Point Branch Parkway	Mail Stop HFS-400	College Park	MD	20740	301-436-1428	pspiller@cfsan.fda.gov	
Stahl	Leanne	US EPA	1199 Pennsylvania Avenue, NW	Mail Code 4305T	Washington	DC	20460	202-566-0404	stahl.leanne@epa.gov	
Stanfill	John W.	Nez Perce Tribe/ERWM	P.O. Box 365		Lapwai	ID	83540	208-843-7375, x-2369	johns@nezperce.org	
Starszak	Robert J.	Louisiana Dept. of Health & Hospitals	325 Loyola Avenue, Suite 210		New Orleans	LA	70112-1824	504-568-8537	rstarsza@dhh.state.la.us	
Stern	Alan	New Jersey Dept. of Environmental Protection	P.O. Box 409	401 E. State Street	Trenton	NJ	08625	609-633-2374	astern@dep.state.nj.us	
Stewart	Kenneth Lee	West Virginia University/NRCCE	P.O. Box 6064		Morgantown	WV	26506	304-293-2867, x-5472	ken.stewart@mail.wvu.edu	
Stone	David	Oregon Dept. of Human Services	State Office Bldg., Suite 608	800 NE Oregon Street	Portland	OR	97232	503-731-4012, x-244	dave.stone@state.or.us	
Strom	Stan C.	Montana Dept. of Public Health/Human Services	P.O. Box 202951	1400 Broadway, Suite C-214	Helena	MT	59620-2951	406-444-5306	sstrom@state.mt.us	
Tarbell	Barbara	St. Regis Mohawk Tribe	412 State Route 37		Akwesasne	NY	13655	518-358-5937 ext 23	earth3-nrda@northnet.org	
Truchon	Stephen	BBL Sciences	100 Cummins Center, Suite 322G		Beverly	MA	01915	508-878-7497	spt@bbl-inc.com	
Tunink	Dave	Nebraska Game and Parks Commission	2200 North 33rd Street		Lincoln	NE	68503	402-471-5553	dtunink@ngpc.state.ne.us	
Unger	Suanne	Aleutian/Pribilof Islands Association, Inc.	201 E. 3rd Avenue		Anchorage	AK	99501	907-276-2700	sueu@apiai.com	
Uram	Eric R.	Sierra Club	214 North Henry street, Suite 203		Madison	WI	53703-2200	608-257-4994	eric.uram@sierraclub.org	
Varanasi	Usha	NMFS/NOAA/USDC	2725 Montlake Blvd. E		Seattle	WA	98112-2097	206-860-6795	usha.varanasi@noaa.gov	
Wasti	Khizar	Virginia Dept. of Health	P.O. Box 2448	Room 124	Richmond	VA	23218	804-786-1763	kwasti@vdh.state.va.us	
Wei	Lei	Texas Department of Health	1100 W 49th St		Austin	TX	78756-3160	512-458-7587 ext 2484	lei.wei@tdh.state.tx.us	
Weist	Jeri	US EPA/NE	1 Congress St., Suite 1100		Boston	MA	02114	617-918-1568	weiss.jeri@epa.gov	
Wente	Steve	US Geological Survey	2280 Woodale Drive		Mounds View	MN	55112	763-783-3272	spwente@usgs.gov	
Wiles	Kirk	Texas Department of Health	1100 W. 49th St.		Austin	TX	78756	512-719-0215	kirk.wiles@tdh.state.tx.us	
Wilkinson	Mike	Indiana State Department of Health	2 N.Meridian Street, Section 3-D		Indianapolis	IN	46204	317-233-7055	mwilkins@isdh.state.in.us	
Williams	Luanne K.	North Carolina Division of Public Health	1912 Mail Service Center		Raleigh	NC	27699-1912	919-715-6429	luanne.williams@ncmail.net	

Winters	Dwain	US EPA	1200 Pennsylvania Avenue, NW	Washington	DC	20460	202-566-1977	winters.dwain@epa.gov
Wolff	Steve	Wyoming Game & Fish Department	5400 Bishop Blvd.	Cheyenne	WY	82006	307-777-4559	steve.wolff@wgf.state.wy.us
Wooton	Maureen	Battelle	505 King Avenue	Columbus	OH	43201	614-424-4890	wootonm@battelle.org
Wright	Jay	Oklahoma Dept. of Environmental Quality	P.O. Box 1677	Oklahoma City	OK	73101- 1677	405-702-1039	jay.wright@deq.state.ok.us
Yeaton	Violet	Port Graham Village Council	P.O. Box 5510	Port Graham	AK	99603	907-284-2227	vyeaton@yahoo.com