

Independent Scientific Review of Everglades Restoration Progress IX

Committee

Denice H. Wardrop

Chair

Denice H. Wardrop, Chair, is Research Professor of Geography at The Pennsylvania State University. Her research focuses on theoretical ecology, anthropogenic disturbance and impacts on aquatic ecosystem function, ecological indicators, and ecosystem condition monitoring and assessment. Dr. Wardrop is the Executive Director of the Chesapeake Research Consortium, an association of seven institutions, each with a long-standing involvement in research on problems affecting the Chesapeake Bay and its watershed. She has served on two previous cycles of CISRERP. She has a B.S. degree in systems engineering from the University of Virginia, an M.S. degree in environmental sciences from the University of Virginia, and a Ph.D. degree in ecology from The Pennsylvania State University.

William G. Boggess

Member

William G. Boggess is professor and executive associate dean of the College of Agricultural Sciences at Oregon State University (OSU). Prior to joining OSU, Dr. Boggess spent 16 years on the faculty at the University of Florida in the Food and Resource Economics Department. His research interests include interactions between agriculture and the environment (e.g., water allocation, groundwater contamination, surface-water pollution, sustainable systems); economic dimensions and indicators of ecosystem health; and applications of real options to environmental and natural resources. Dr. Boggess previously served on the Oregon Governor's Council of Economic Advisors and the Board of Directors of the American Agricultural Economics Association, and he currently serves on the Board of the Oregon Environmental Council. He served on the State of Oregon Environment Report Science Panel and has been active in the design and assessment of the Oregon Conservation Reserve Enhancement Program. Dr. Boggess served as a member of the National Research Council Committee on the Use of Treated Municipal Wastewater Effluents and Sludge in the Production of Crops for Human Consumption, and on the Committee on Independent Scientific Review of Everglades Restoration Progress (since 2008) serving as chair of the fourth and seventh committees. He received his Ph.D. from Iowa State University.

Casey Brown

Member

Casey Brown is professor in the Department of Civil and Environmental Engineering at the University of Massachusetts at Amherst and adjunct associate research scientist at Columbia University. His primary research interest is the development of analytical methods for improving the use of scientific observations and data in decision making, with a focus on climate and water resources, and he has worked extensively on projects around the world in this regard. He chairs the Water and Society Technical Committee of the American Geophysical Union Hydrology Section and the Water Resources Planning under Climate Change Technical Committee of the American Society of Civil Engineers Environmental and Water Resources Institute Systems Committee. He earned his B.S. degree in civil engineering from the University of Notre Dame, his M.S. degree from the University of Massachusetts, Amherst, and his Ph.D. degree in environmental engineering science from Harvard University.

Christopher B. Burke

Member

Christopher Burke, NAE, is the chief executive officer of Christopher B. Burke Engineering, Ltd (CBBEL)., a consulting engineering and surveying firm that he founded in 1986. Over three decades in business, Dr. Burke and CBBEL have solved complex infrastructure problems for hundreds of municipal and private clients. CBBEL's water resources team, guided by Dr. Burke, has completed more than 1,700 water-related projects and have earned the reputation as a leader in water resources engineering. Dr. Burke also serves as a professor of practice at the University of Illinois Chicago, and he was elected to the National Academy of Engineering for his leadership in executing complex water resources projects. He earned B.S. and M.S. degrees in civil engineering and a Ph.D. in hydraulics and hydrology from Purdue University. He also received the Honorary Doctorates in Engineering from Purdue University and the University of Illinois.

Philip M. Dixon

Member

Philip Dixon is University Professor in the Department of Statistics at Iowa State University. His research centers on developing and evaluating statistical methods to answer biological questions, and his research interests include ecological and environmental statistics, mathematical biology, and computational modeling. He previously worked as a biostatistician at the Savannah River Ecology Lab administered by the University of Georgia. He earned his A.B. in biology from the University of California, Berkeley, an M.S. in statistics from Cornell University, and a PhD in ecology and evolutionary biology from Cornell University.

Charles T. Driscoll, Jr.

Member

Charles T. Driscoll (NAE), is University Professor in the Department of Civil and Environmental Engineering at Syracuse University, where he also serves as the director of the Center for Environmental Systems Engineering. His teaching and research interests are in the area of environmental chemistry, biogeochemistry, and environmental quality modeling. A principal research focus has been the response of forest, aquatic, and coastal ecosystems to disturbance, including air pollution, land use change, and elevated inputs of nutrients and mercury. Dr. Driscoll is currently an investigator of the National Science Foundation's Long Term Ecological Research Network's project at the Hubbard Brook Experimental Forest in New Hampshire. He is a member of the National Academy of Engineering and has served on several National Academy committees. He has also served on the Committee on Independent Scientific Review of Everglades Restoration Progress since 2006. He is a fellow of the American Academy for the Advancement of Science. Dr. Driscoll received his B.S. in civil engineering from the University of Maine and his M.S. and Ph.D. in environmental engineering from Cornell University.

K. R. Reddy

Member

K. Ramesh Reddy is graduate research professor and director at the School of Natural Resources and Environment at the University of Florida. His research areas include biogeochemistry, soil and water quality, ecological indicators, and restoration of wetlands, and aquatic systems. Dr. Reddy investigates biogeochemical cycling of macro-nutrients in natural ecosystems, including wetlands, shallow lakes, estuaries, and constructed wetlands, as related to soil and water quality, carbon sequestration, and greenhouse gas emissions. He served as a member of the U.S. National Committee for Soil Sciences in the National Academy's Policy and Global Affairs Division. He served on the U.S. Environmental Protection Agency's Science Advisory Board Panel. Dr. Reddy served as a member of the second and third Committees on Independent Scientific Review of Everglades Restoration Progress. Dr. Reddy earned his Ph.D. in agronomy and soil science from Louisiana State University in 1976.

Denise J. Reed

Member

Denise J. Reed is an expert in coastal marsh sustainability and the role of human activities in modifying coastal systems with over 35 years of experience studying coastal issues in the United States and abroad. Dr. Reed has served as a Distinguished Research Professor in the University of New Orleans' Department of Earth and Environmental Sciences, and spent five years as Chief Scientists at The Water Institute of the Gulf. She has served on numerous boards and panels addressing the effects of human alterations on coastal environments and the role of science in guiding restoration, including the National Research Council Committee on Sustainable Water and Environmental Management in the California Bay-Delta, and has been a member of the U.S. Army Corps of Engineers Environmental Advisory Board and the National Oceanic and Atmospheric Administration Science Advisory Board. Dr. Reed received her B.S. degree in geography from Sidney Sussex College, and her M.A. and Ph.D. degrees from University of Cambridge.

James Saiers

Member

James E. Saiers is the Clifton R. Musser Professor of Hydrology at the Yale School of Forestry and Environmental Studies. Dr. Saiers studies how human activities and natural processes affect the quality of drinking-water resources and alter freshwater flows within aquifers, wetlands, and river basins. His recent research projects address water-quality impacts of fossil-fuel development, carbon and nutrient transport through watersheds, radionuclide migration in groundwater, and climate-change effects on water resources in Africa. Dr. Saiers has served on the Committee on Independent Scientific Review of Everglades Restoration Progress since 2012, and he chaired the Committee to Review the Florida Aquifer Storage and Recovery Regional Study Technical Data Report. Additionally, he served as a member of the Hydraulic Fracturing Research Advisory Panel of the Environmental Protection Agency Science Advisory Board. He earned his B.S. degree in geology from the Indiana University of Pennsylvania and his M.S. and Ph.D. degrees in environmental sciences from the University of Virginia.

Alan Steinman

Member

Alan Steinman is the Allen and Helen Hunting Director and Professor of Water Resources at the Annis Water Resources Institute, Grand Valley State University. Previously, he was director of the Lake Okeechobee Restoration Program at the South Florida Water Management District. Dr. Steinman's research interests include aquatic ecosystem restoration, harmful algal blooms, phosphorus cycling, and water resources policy. He is a fellow of the Society of Freshwater Science. Dr. Steinman was awarded a postdoctoral fellowship from Oak Ridge National Laboratory and earned a Ph.D. in Botany/Aquatic Ecology from Oregon State University, an M.S. in Botany from the University of Rhode Island, and a B.S. in Botany from the University of Vermont.

Martha A. Sutula

Member

Martha A. Sutula is a principal scientist and head of the Biogeochemistry Department of the Southern California Coastal Water Research Project Authority, where she oversees projects related to the effects of climate change and anthropogenic pollution on acidification, hypoxia, harmful algal blooms, and eutrophication. Her research group combines the use of observations, experiments and numerical models to understand drivers and ecological impacts of these phenomena in streams, lakes, estuaries and coastal waters. Beyond her research activities, she focuses on linking science to management. Examples of this include her work as lead scientist to the California State Water Resources Control Board, providing technical support to develop eutrophication water quality objectives for California's waters. She has served on several boards and panels addressing the effects of anthropogenic activities on inland and coastal habitats and the role of science in guiding management actions, including the Southern California Wetland Recovery Project and the Expert Panel on Sediment Diversion Plan to Restore Louisiana Coastal Wetlands. She received her B.S. degree in chemistry from Purdue University, M.S. degree in public health from Tulane University, and Ph.D. degree in coastal oceanography from Louisiana State University.

Jeffrey R. Walters

Member

Jeffrey R. Walters is the Harold Bailey Professor of Biology at Virginia Tech, a position he has held since 1994. His professional experience includes assistant, associate, and full professorships at North Carolina State University from 1980 until 1994. Dr. Walters has done extensive research and published many articles on the red-cockaded woodpeckers in North Carolina and Florida, and he chaired an American Ornithologists' Union Conservation Committee Review that looked at the biology, status, and management of the Cape Sable seaside sparrow, a bird endemic to the Everglades. His research interests are in the behavioral ecology, population biology, and conservation of birds, and his recent work has focused on cooperative breeding, dispersal behavior, and endangered species issues. Dr. Walters served on two panels of the Sustainable Ecosystems Institute that addressed issues with endangered birds in the Everglades restoration in addition to previously serving as a member of the National Academies' Committee on Restoration of the Greater Everglades Ecosystem and five previous terms of the Committee on Independent Scientific Review of Everglades Restoration Progress. He holds a B.A. degree from West Virginia University and a Ph.D. degree from the University of Chicago.

Stephanie E. Johnson

Staff Officer