

Integrating Dam and Levee Safety and Community Resilience

Committee

John J. Boland

Chair

JOHN J. BOLAND is a professor emeritus in the Department of Geography and Environmental Engineering at Johns Hopkins University. His fields of research include water and energy resources, environmental economics, and public utility management. Dr. Boland has studied resource problems in more than 20 countries, has published more than 200 papers and reports, and has coauthored two books on water demand management and three others on environmental management issues. Dr. Boland is a registered professional engineer. He has served on several NRC committees and boards, most recently the Committee on Louisiana Coastal Protection and Restoration, and was a founding member and past chair of the Water Science and Technology Board. He is a life member of the American Water Works Association and past chairman of its Economic Research Committee. Dr. Boland received his Ph.D. degree in environmental economics from Johns Hopkins University.

Tony Bennett

Member

TONY BENNETT is the Director of Dam Safety and Emergency Preparedness for Ontario Power Generation and serves on a number of committee and panels in Canada related to dam safety. His expertise is in the area of dams and reservoir operations. He is the President of the Engineering Institute of Canada, Chair of the International Commission on Large Dams, Committee on Public Safety around Dams, and of the Canadian Dam Association Working Group on Public Safety around Dams. He is a member of the Government of Ontario advisory panel developing regulations and technical guidelines for dam safety. Mr. Bennett recently completed an 8-year term with the Canadian Dam association and served as its president during 2006-2008. Mr. Bennett graduated with an Honours Bachelor of Applied Science in Civil Engineering degree and is a registered professional engineer in Ontario, Canada.

Raymond J. Burby

Member

RAYMOND J. BURBY is a professor emeritus in the Department of City and Regional Planning at the University of North Carolina at Chapel Hill. Dr. Burby is a fellow of the American Institute of Certified Planners. He has been an author or editor on 14 books and published extensively in planning and policy journals including, among others, Journal of the American Planning Association, Journal of Planning Education and Research, Journal of Policy Analysis and Management, and Journal of Environmental Planning and Management. He was recently the principal investigator on a study of urban growth boundaries funded by the National Science Foundation and P.I. on another NSF-funded project designed to improve the quality of applied research on disasters and mitigation of natural and technological hazards. He received his Ph.D. degree in planning from the University of North Carolina-Chapel Hill.

Stephen J. Burges

Member

STEPHEN J. (Steve) BURGES is professor emeritus of civil and environmental engineering at the University of Washington, Seattle. Dr. Burges' research interests are in surface water hydrology; urban hydrology; water supply engineering; the application of stochastic methods in water resources engineering; water resources systems, design, analysis, and operation; water resources aspects of civil engineering; and ground water hydrology. He is a fellow of the American Society of Civil Engineers, the American Association for the Advancement of Science, and the American Geophysical Union. He is a past president (1994-1996) of the hydrology section of the American Geophysical Union. Dr. Burges was a member of the Water Science and Technology Board from 1985 to 1989. Dr. Burges received a B.Sc. in physics and mathematics and a B.E.(Hons I) in civil engineering from the University of Newcastle, Australia, in 1967. He received an M.S. in 1968 and a Ph.D. in 1970 in civil engineering from Stanford University.

Rita E. Cestti

Member

RITA E. CESTTI is currently a Senior Rural Development Specialist in the Quality Assurance and Compliance Unit at the World Bank. She has managed the identification, preparation and supervision of a number of water-related, natural resources, environmental and disaster management projects in several countries and has led the preparation of several pieces of economic sector work and implementation of technical assistance activities. She has conducted extensive economic studies in the context of sector work and project analysis as well as in-depth research in the areas of economics of water resources management and development, demand management, water allocation, water pricing, water pollution control and integrated planning. She holds a Bachelor of Science degree and Professional Degree in Civil Engineering from the Pontificia Universidad Católica, Peru; a Master of Science Degree in Engineering Administration from the George Washington University; and a Master of Arts Degree in Economics from the George Washington University. She is a registered Professional Civil Engineer in Peru.

Ross B. Corotis

Member

ROSS B. COROTIS (NAE), Denver Business Challenge Professor of Engineering at the University of Colorado at Boulder, has research interests in the application of probabilistic concepts and decision perceptions for civil engineering problems, and in particular to societal tradeoffs for hazards in the built infrastructure. His current research emphasizes the coordinated roles of engineering and social science with respect to framing and communicating societal investments for long-term risks and resiliency. He was on the faculty at Northwestern University for 11 years, established the Department of Civil Engineering at The Johns Hopkins University—where he was also Associate Dean of Engineering—and was Dean of the College of Engineering and Applied Science in Boulder. He has numerous research, teaching and service awards, chaired several committees on structural safety for ASCE and ACI, was Editor of the international journal Structural Safety and the ASCE Journal of Engineering Mechanics, and chaired the Executive Committee of the International Association for Structural Safety and Reliability. He has served on the National Academies Building Research Board, the steering committee of the Disasters Roundtable, and chaired the Assessment Panel for the NIST Building and Fire Research Laboratory. He is currently the founding chair of the Committee on NIST Technical Programs, and Chair of the Civil Engineering Section of the National Academy of Engineering. He is the author of more than 200 publications. Dr. Corotis received his S.B., S.M., and Ph.D. (in civil engineering) from the Massachusetts Institute of Technology.

Clive Q. Goodwin

Member

CLIVE Q. GOODWIN is assistant vice president and manager, flood and wind peril underwriting, for FM Global, one of the world's largest business property insurers. In this position, Goodwin manages worldwide underwriting of wind, flood, and collapse perils. Prior to his current appointment in 2007, Goodwin served as assistant vice president and manager of natural hazards engineering. Goodwin has held several engineering positions in the U.K., the Netherlands, and the USA, since joining FM Global in 1988 as a field engineer. He has been the leader of FM Global's efforts to collaborate with the U.S. Army Corps of Engineers, Federal Emergency Management Agency, and other agencies to highlight the concerns regarding the aging inventory of levees while supporting their efforts to change U.S. national policy concerning the levee risk. He was instrumental in forming the Flood Risk Education Alliance to address public and private sector concerns. Mr. Goodwin is a Chartered Engineer and holds an Honours degree in Mechanical Engineering and Metallurgy from Manchester University, England.

Roger E. Kasperson

Member

ROGER E. KASPERSON (NAS), is research professor and distinguished scientist at the George Perkins Marsh Institute at Clark University. He has taught at Clark University, the University of Connecticut, and Michigan State University. His expertise is in risk analysis, global environmental change, and environmental policy. Dr. Kasperson is a Fellow of the American Association for the Advancement of Science and the Society for Risk Analysis. He has served on numerous committees of the U.S. National Research Council. He chaired the International Geographical Commission on Critical Situations/Regions in Global Environmental Change and has served on EPA's Science Advisory Board. He now serves on the Executive Steering Committee of the START Programme of the IGBH. He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. He has authored or co-edited 22 books and monographs and more than 143 articles or chapters in scholarly journals or books and has served on numerous editorial boards for scholarly journals. From 2000 to 2004, Kasperson was Executive Director of the Stockholm Environment Institute in Sweden. He was a coordinating lead author of the vulnerability and synthesis chapters of the Conditions and Trends volume of the Millennium Ecosystems Assessment and a member of the core writing team for the Synthesis of the overall assessment. Kasperson has been honored by the Association of American Geographers for his hazards research and in 2006 he was the recipient of the Distinguished Achievement Award of the Society for Risk Analysis. In 2007, he was appointed as Associate Scientist at the National Center for Atmospheric Research in the United States. He received his Ph.D. from the University of Chicago.

Shirley Laska

Member

SHIRLEY LASKA is professor emerita of sociology and past director of the Center for Hazards Assessment, Response and Technology at the University of New Orleans (UNO-CHART). She has been conducting applied research on the social/environmental interface, natural & technological hazards, and disaster response for 25 years. Her work includes studies on residential flood mitigation, hurricane response, coastal land loss effects, coastal fisheries, community risk assessment and risk management for coastal hazards, use of information technology and GIS as support tools for disaster management, and evacuation of the vulnerable. She has presented her work at National Academies of Science conferences and Congressional committees. Since Katrina her work has been focused specifically on lessons to be learned from the event, especially in the realm of community recovery and hazard resiliency. This work emphasizes Participatory Action Research in both slow onset – coastal land loss and sea level rise --and abrupt major disaster events – hurricane Katrina and the BP oil leak. She is the 2008 recipient of the American Sociological Association's Public Understanding of Sociology Award for her continuous collaboration with physical scientists and her presentations nationwide on Katrina/Rita impacts, and awards from the ASA Environment and Technology Section and the Rural Sociological Society's Natural Resources Research Group. Dr. Laska earned a Ph.D. in sociology from Tulane University.

Lewis E. Link

Member

LEWIS E. (Ed) LINK is a Senior Fellow in the R.H. Smith School of Business and a senior research engineer at the Department of Civil and Environmental Engineering at the University of Maryland. Dr. Link was a senior executive in various research and development positions in the U.S. Army Corps of Engineers from 1986 to 2002, rising to the position of Director of Research and Development. Dr. Link's principal area of work is in water resources management and natural disaster mitigation. He has published numerous papers on water resources related remote sensing and water policy and natural hazard mitigation. Dr. Link served as the director of the Interagency Performance Evaluation Task Force charged with providing scientific and engineering answers to questions about the performance of the New Orleans and Southeast Louisiana Hurricane Protection System during Hurricane Katrina, and was the recipient of the McGraw Hill Engineering News Record Award of Excellence in 2006 for leading the forensic analysis of hurricane Katrina. Dr. Link received his B.S. in Geological Engineering from North Carolina State University, his M.S. in Civil Engineering from Mississippi State University, and his Ph.D. in Civil Engineering from The Pennsylvania State University.

Martin W. McCann

Member

MARTIN W. MCCANN, JR. is President of Jack R. Benjamin & Associates, Inc. and is a consulting professor of Civil and Environmental Engineering at Stanford University where he is the director of the National Performance of Dams Program (NPDP). His areas of expertise and professional experience includes probabilistic risk analysis for civil infrastructure facilities and, probabilistic hazards analysis, including seismic and hydrologic events, reliability assessment, risk-based decision analysis, systems analysis, and seismic engineering. Currently, Dr. McCann is the project technical manager of the Delta Risk Management Strategy project that is conducting a risk analysis for over 1100 miles of levee in the Sacramento and San Joaquin Delta. He is also a member of the U.S. Army Corps of Engineers' IPET Risk and Reliability team evaluating the risk associated with the New Orleans levee protection system. Dr. McCann received his B.S. in civil engineering from Villanova University in 1975, an M.S. in civil engineering in 1976 from Stanford University, and his Ph.D. in 1980, also from Stanford University.

Hillman Mitchell

Member

HILLMAN MITCHELL was appointed the King County (Washington) Director of Emergency Management in July 2010. In this role, Mr. Mitchell oversees a budget of \$23 million and supervises employees at the Emergency Communications and Coordination Center in King County and the Emergency 9-1-1 office. The Office of Emergency Management works in partnership with cities, counties, state and federal agencies, community and other private organizations to develop a regional approach to disaster mitigation, preparedness, response, and recovery related to hazards including those associated with dam failure (including potential failure of the federally owned Howard Hanson Dam and 86 other dams in the county), flooding, landslides, earthquakes, tsunamis, volcanic eruptions, and other events. Prior to joining King County government, he worked as the City of Tukwila (Washington) Emergency Management Coordinator and was well known to many county employees and regional emergency managers for his outstanding work with Tukwila and in his previous role as Government Liaison Specialist for the American Red Cross. Previously, Mr. Mitchell ran a business as a developer of component software for the digital imaging industry, spent five years as a managing consultant at Microsoft, and provided direct technical management to a more than 40-member team of people worldwide as a senior computer scientist for DuPont Research. Mr. Mitchell earned his bachelor's degree in management science and computer systems from Oklahoma State University and has done postgraduate work at the University of Denver, Colorado University, and Colorado State University in finance, communications, project management, and process management.