

GERALD E. GALLOWAY, JR., PE, PhD



Gerry Galloway is a Glenn L. Martin Institute Professor of Engineering, Department of Civil and Environmental Engineering and an Affiliate Professor, School of Public Policy, University of Maryland, College Park, Maryland, where his teaching and research focus is on water resources management, climate change and adaptation in the water sector, and water, risk and natural disaster policy. He currently serves as a consultant to several federal and state and non-governmental agencies on water resources policy development and flood risk management. He is a consultant to the Natural Heritage Institute on its USAID sponsored study of Climate Change Impacts in the Mekong Basin, to the Nature Conservancy on its Yangtze River Program and, in cooperation with the China Ministry of Water Resources, to the WWF's Flood Risk Management Program.

In April 2010, he was named by Secretary of State Hillary Clinton as an Energy and Climate Partnership of the Americas (ECPA) Fellow in support of technical exchange on climate and water issues. In 2008, he was appointed by the Governor of Louisiana to his Advisory Commission on Coastal Protection, Restoration and Conservation. He served as co-chair of the Experts Group on Policy for the 2009 UN Third World Water Development Report and is assisting with the development of the fourth report. He is a member of the US National Academies Disaster Roundtable

From 2006-2008 he advised the California Department of Water Resources on flooding and led an expert panel in assessing *A California Challenge— Flooding in the Central Valley*. From 2004-2007, he served as a senior consultant for Michael Baker for the Flood Map Modernization Program, and led an Interagency Task Force in preparing a report for FEMA, *The National Levee Challenge: Levees and the FEMA Flood Map Modernization Initiative*. From 2004-2006, he led a University of Maryland Study for FEMA, *Assessing the Adequacy of the National Flood Insurance Program's 1 Percent Flood Standard*. From 2004-2009, he served as a Visiting Scholar (Maas-White Scholar 2007-2008) at the US Army Corps of Engineers Institute for Water Resources. As part of US National Academy teams, he has worked with scientists in Finland, Iran and the Ukraine on climate change impacts on water systems. Prior to joining the University of Maryland in 2004, he was Vice President, Geospatial Strategies, for the ES3 Sector, Titan Corporation. From 1998-2003, he served as Secretary of the United States Section of the International Joint Commission (IJC), Washington, DC, an independent bi-national organization charged with preventing and resolving transboundary air and water quality issues disputes between the US and Canada under the Boundary Waters Treaty of 1909.

A civil engineer, public administrator, soldier, educator, and geographer, he has led and managed large organizations in successfully executing a variety of important activities. He has broad experience in dealing with water management and geospatial issues both within the United States and internationally. He has served as a consultant to the Executive Office of the President, and has assisted the US Water Resources Council, the World Bank, the Organization of American States, TVA, the Corps of Engineers, several states, and various other organizations in water resources related activities. In 1988 he was appointed by President Reagan to the seven member Mississippi River Commission and served on the Commission until 1995. From December 1993 to July 1994 he was assigned to the White House to lead the Interagency Floodplain Management Review Committee in assessing the causes of the 1993 Mississippi River floods and in proposing a long-term approach to floodplain management. In 1998, he was appointed by the President to serve as a member of the American Heritage Rivers Advisory Committee. As a member of the IJC staff, he was part of teams that prepared the Commission's reports on

the disastrous flooding in the Red River of the North in 1997 and the IJC's report, *Protection of the Waters of the Great Lakes*, addressing principles to govern management of potential withdrawals of water from the Great Lakes. He was a member of a special working group that produced *A New Framework for Planning the Future of Coastal Louisiana after the Hurricanes of 2005*, was the principal consultant to the American Society of Civil Engineers for its report *Restoring Coastal Louisiana: Enhancing the Role of Engineering and Science in the Restoration Program* and was a member of the Louisiana Science and Engineering Review Team for Coastal Protection and Restoration. He served on the US National Research Council's Water Science and Technology Board from 2004-2007 and 2008-2011.

He has been a member of ten National Academies committees studying complex water resources and geospatial management issues including U.S. ocean research science and technology priorities, river science activities of the US Geological Survey, FEMA Flood Maps and was chair of a National Academies committee studying logistics support for the future US Army. He has served on panels of the National Academy of Public Administration studying Joint Land Use at/near military installations and formation of a national Climate service within NOAA. He has been a member of the Military Advisory Board of the CAN and participated in studies of *Powering America's Economy: Energy Innovation at the Crossroads of National Security Challenges*, and *National Security and Alternative Fuels*. He is a past member of the Board the Hudson River Environmental Society and of the Hudson River Foundation for Science and Technology. A Distinguished Member of the American Society of Civil Engineers (ASCE), he is currently a vice-chair of a task group reviewing educational requirements for professional practice and a member of ASCE's Strategic Planning Committee and a member of the ASCE Post-Hurricane Katrina Critical Infrastructure Guidance Task Force. He has served on the ASCE Committee on Standards of Practice, the Task Force on first professional degree, was chair of the ASCE Committee on Engineering Responsibility, and a member of the 1985 ASCE Task Force on Federal Water Policy. He was general chair of the 2001 ASCE Environment and Water Resources Institute Conference on Integrated Trans-boundary Water Management. He has been North Atlantic Regional Vice President for the Society of American Military Engineers (SAME) and Chair of SAME's Professional Development and Education Committee and was elected a Fellow in 1996. From 1989 to 1990 he was President of the Universities Council on Water Resources, an association of nearly 100 universities and colleges active in water resources research and education. From 1990 to 1996, he was a Councilor of the American Geographical Society. He is member of the Association of American Geographers, where he was Co-Founder and Chair of its Water Resources Specialty Group, the American Water Resources Association (AWRA), serving as General Chair of its 2002, 2005, 2007 and 2008 National Water Policy Dialogues and, in 2007 as President. He was co-organizer of the 2004 and 2007 Gilbert White Forums of the ASFP Foundation. He is also a trustee of the Natural Heritage Institute. He has testified before committees of the US Congress, and state legislatures, appeared on national television and radio and has spoken to numerous organizations in the US and abroad. He has lectured and written extensively on the management of water resources and public involvement in water resources decision making.

He graduated from the US Military Academy with a Bachelor of Science degree and was commissioned into the Army as a second lieutenant in the Corps of Engineers. During a 38-year career in the military he served in various command and staff assignments in Germany, Southeast Asia and the United States. From 1974 to 1977, he commanded the Army Corps of Engineers District in Vicksburg, Mississippi, managing a multi-state water resources development program that included the operation of 7 large dams and the construction of two locks and dams. He has also been a member of the faculty of the US Military Academy at West Point, serving successively as Professor of Geography and Computer Science, and Professor and founding Head of the Department of Geography and Environmental Engineering. In 1990 he was promoted to the grade of brigadier general and appointed the ninth Dean of the Academic Board (Chief Academic Officer) of the Military Academy. He retired from active duty in 1995. From 1995

to 1998, he served as Dean of the faculty and Academic programs at the Industrial College of the Armed Forces, National Defense University, Washington, DC.

He holds a Master's degree in Engineering from Princeton; a Master's in Public Administration from Penn State (Capitol Campus), a Master's in Military Art and Science from the US Army Command and General Staff College and a Ph.D. in Geography (Water Resources) from the University of North Carolina (Chapel Hill). He is also a graduate of the Army War College, the Army Command and General Staff College; the Army's Engineer School, and the Ranger and Airborne courses of the Army Infantry School. He has been awarded the Army Distinguished Service Medal, the Legion of Merit with four oak leaf clusters, the Bronze Star, the Air Medal with oak leaf cluster, the Meritorious Service Medal with one oak leaf cluster, and several other medals and campaign ribbons. He has also received the Secretary of State's Career Achievement Award.

In 1991, he was presented the SAME Bliss Medal for contributions to engineering education and, in 1995, the Silver DeFleury Medal by the Army Engineer Association. In 1998, he was given the Association of State Flood Managers' Goddard-White Award. In 2001, ASCE named him the Civil Government Engineer of the year. In 2002, ASCE presented him the Presidents' Award for service to the country. In 2004 he received the US Geological Survey's John Wesley Powell Award, the Golden Eagle Award from the SAME Academy of Fellows, and the Julian Hinds Award from the Environmental and Water Resources Institute of ASCE. In 2005 he was elected to the grade of Honorary Diplomate by the American Academy of Water Resource Engineers. In 2008, he received the OPAL Award for lifetime achievement from ASCE, the Norm Augustine Award for Outstanding Achievement in Engineering Communications from the American Association of Engineering Societies (AAES) and the President's Outstanding Service Award from the American Water Resources Association. In 2009 he was awarded the Warren Hall Medal by the Universities Council on Water Resources, in 2010, the Distinguished Career Award in Water Resources by the Water Resources Specialty Group, Association of American Geographers, and in the 2011, the President's Medal by the American Society of Civil Engineers. He is a member of Phi Kappa Phi, national academic honor society, and has been elected to the National Academy of Engineering and the National Academy of Public Administration.

He is married to the former Diane Messinger and they have six children: Laura Chadwell; Colonel Gerald E. Galloway III, US Army (Retired); Colonel Kevin T. Galloway, US Army; Hillary Davis, Esq.; John, and Gregory; and 14 grandchildren.

Recent Articles and Book Chapters

"If Stationarity Is Dead, What Do We Do Now?" *Journal of the American Water Resources Association*. Volume 47, Issue 3, pages 563–570, June 2011 (DOI: 10.1111/j.1752-1688.2011.00550.x)

"Goals, Institutions, and Governance: the US Experience." *Flood Risk Science and Management*. Gareth Pender and Hazel Faulkner, eds. Oxford: Wiley – Blackwell. 2011

"The Great Flood of 1993: Did We Learn Any Lessons? A": *A Watershed Year: Anatomy of the Iowa Floods of 2008*. CF Mutel, ed. Iowa City: University of Iowa Press. 2010

"Making the Transition: Moving Water Resources Planning and Management into the 21st Century." *The Evolution of Water Resource Planning and Decision Making*. Clifford Russell and Duane Baumann, eds. Northampton: Edward Elgar Publishing. 2009

Jeffrey J. Opperman, Gerald E. Galloway, Joseph Fargione, Jeffrey F. Mount, Brian D. Richter, and Silvia Secchi. "Sustainable Floodplains Through Large-Scale Reconnection to Rivers." *Science* 11 December 2009 326: 1487-1488 [DOI: 10.1126/science.1178256]

Galloway, G.E, D. F. Boesch and R. R. Twilley. "Restoring and Protecting Coastal Louisiana. Issues in Science and Technology". XXV:2: Winter 2009, 29-38. 2009.

Tinker, Tim L and G.E. Galloway. "How do you effectively communicate flood risks?" Journal of Business Continuity and Emergency Planning, 3:3. 2009

Martin W. Doyle, Emily H. Stanley, David G. Havlick, Mark J. Kaiser, George Steinbach, William L. Graf, Gerald E. Galloway, J. Adam Riggsbee "Aging Infrastructure and Ecosystem Restoration." Science. Vol. 319. no. 5861, pp. 286-297. 18 January 2008.

"Flood risk management in the United States and the impact of Hurricane Katrina." International Journal of River Basin Management, 4:6 303-306. 2008.

Galloway, GE and Ari M. Michelsen. 2008. "New Directions in Water Policy: WRDA 2007" *Southwest Hydrology*. May/June 2008.

C. Mark Dunning and Gerald E. Galloway; "The Second National Water Policy Dialogue: Muddling Through to Better Water Policy" Journal Of Contemporary Water Research And Education *Issue No. 134: July 2006*

"Who is Watching our Infrastructure,' *Southwest Hydrology*; Mar/Apr 2006, Volume 5 No. 2

"Restoring Coastal Louisiana: Doing Comprehensive Planning without National Water Policy." *The Bridge*. National Academy of Engineering. Volume 36, Number 1 - Spring 2006