11th Annual Sustainable Raritan River Conference and Awards Ceremony

Resilience and the Raritan

Richard Weeks Hall of Engineering
Rutgers, The State University of New Jersey
Busch Campus
500 Bartholomew Road, Piscataway

Friday, June 7, 2019

Participant Biographies

Anthony J. Broccoli, Ph.D., Professor, Department of Environmental Sciences, School of Environmental and Biological Sciences, and co-Director, Rutgers Climate Institute, Rutgers, The State University of New Jersey. Dr. Broccoli is a professor and serves as chair of the Rutgers Department of Environmental Sciences. His research focuses on the dynamics of the climate system, with a specific emphasis on understanding the fundamental mechanisms that are involved in changes in climate, both past and future. The simulation of past climates, such as the climate of the last ice age or the response of climate to changes in the earth's orbit, can lead to a better understanding of the key feedbacks and processes that determine how the climate system responds to external forcing. Similar mechanisms may also be instrumental in potential future changes in climate. Many of the mechanisms of greatest interest involve interactions among the atmosphere, ocean, cryosphere, land, and biosphere.

Thomas N. Farris, Ph.D., Dean, School of Engineering, Rutgers, The State University of New Jersey. Thomas N. Farris was named dean of the Rutgers University School of Engineering July 1, 2009, overseeing the School's seven academic departments including ten undergraduate and ten graduate degree programs, five nationally recognized research centers, and administrative, budget, and student services offices. The School is comprised of 200 full-time and research faculty, 100 full-time and research staff members, 3,950 undergraduates, and 1050 graduate students with an annual budget of $135 million. Richard Weeks Hall of Engineering, part of the School's 375,000 net square feet, opened in 2018 with collaborative space providing a learning and research environment that includes labs, smart classrooms, lecture halls, and touchdown spaces. The transformative project serves as the gateway to the Busch Campus for collaboration with industry and government partners

Prior to Rutgers, Farris joined the Purdue University School of Aeronautics and Astronautics as assistant professor in 1986 and was appointed school head in 1998. His teaching and research interests was in aerospace structures and materials with a focus on tribology, manufacturing processes, and fatigue and fracture and was named the 2008 W.A. Gustafson Outstanding Undergraduate Teacher. Research in fretting fatigue led to computer software used throughout the aircraft engine industry to assess the effect of attachment fatigue on high cycle fatigue of gas turbine engines.

Farris received a B.S.M.E. in 1982 from Rice University and a Ph.D. in Applied Mechanics at Northwestern University in 1986.

Carrie Ferraro, Ph.D., Associate Director, Coastal Climate Risk & Resilience Initiative, Institute of Earth, Ocean & Atmospheric Sciences and Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences, Rutgers, The State University of New Jersey. Carrie received her Ph.D. from Rutgers in Oceanography in 2010, studying the active microbial population in aquatic environments using molecular markers. After graduating, she began working with researchers to communicate their science through the construction and implementation of innovative and effective Broader Impact statements that fulfill National Science Foundation requirements. Through this effort, she created high quality educational materials that fostered connections between students, faculty, K-12 teachers, and researchers. Currently, Carrie works with the Rutgers Raritan River Consortium (R3C) to create opportunities for students and researchers to access and study the evolving status of the Raritan River. She is also the Associate Director for Coastal Climate Risk & Resilience (C2R2), an NSF Research Traineeship (NRT) working to prepare the workforce that will build coastal resilience in the face of climate risks.

Robert M. Goodman, Ph.D., Executive Dean of Agriculture and Natural Resources at Rutgers, The State University of New Jersey. In that capacity, he serves as the executive director of Rutgers New Jersey Agricultural Experiment Station and executive dean of Rutgers School of Environmental and Biological Sciences. Dean Goodman is a plant biologist and virologist by training. In recent years, his work has been in microbiology, specifically on the diversity of soil microorganisms refractory to cultivation, and he co-developed the approach for microbial biology studies now widely called metagenomics. Before coming to Rutgers in June 2005, Dean Goodman was a professor of plant pathology and environmental studies at the University of Wisconsin–Madison, where he also served as chair of the undergraduate major in molecular biology. Dean Goodman has served as senior scholar-in-residence at the National Research Council/National Academy of Sciences, executive vice-president of R&D at Calgene, Inc., and a professor at the University of Illinois Urbana–Champaign. His work has appeared in premier journals, including *Nature*, *Science*, *Virology*, and the *Proceedings of the National Academy of Sciences*. He is a fellow of the American Association for the Advancement of Science (AAAS) and is a past chair of the Agriculture, Food and Renewable Resources section of the AAAS. Dean Goodman is also a fellow of the American Academy of Microbiology and a trustee of the International Maize and Wheat Improvement Center (CIMMYT). He holds a bachelor's degree in plant sciences and a doctorate in plant pathology from Cornell University. His postdoctoral fellowship in plant virology was completed at the John Innes Center in Norwich, England.

Jeanne Herb, Executive Director, Environmental Analysis and Communications Group, Edward J. Bloustein School of Planning and Public Policy, Rutgers University, The State University of New Jersey**.** As the Executive Director of a center of research and practice at Rutgers University Bloustein School, Jeanne leads applied research projects related to environmental sustainability and policy, health equity, and climate change. She works closely with state and local decision-makers, communities, and non-governmental organizations to implement evidence-based best practices. Jeanne co-facilitates several academically hosted multidisciplinary initiatives that are designed to integrate science and evidence-informed best practices into planning, policy and decision-making: the award-winning New Jersey Climate Change Alliance, the Sustainable Raritan River Initiative, the Planning Healthy Communities Initiative, and the Coastal Risk and Resilience Initiative. She is an affiliate in the Rutgers Energy Institute, the Institute of Earth, Oceans and Atmospheric Science, and the Rutgers Climate Institute. Jeanne co-teaches graduate level planning courses including *Communicating Science with Decision-makers* and a terrestrial carbon sequestration graduate planning studio. Jeanne is in the first national cohort of the Robert Wood Johnson Foundation *Culture of Health Leaders* Program and is in the second year of the *Rutgers Leadership Academy*. Prior to joining Rutgers, she spent more than two decades advancing environmental policy at the New Jersey Department of Environmental Protection where, most recently, she served as the Assistant Commissioner for Policy, Planning and Science through which she oversaw

programs related to climate change, coastal management, environmental health, environmental justice and sustainable development. Earlier in her career, Jeanne was the Manager of Public Policy at the Boston-based "think do" tank, Tellus Institute, where she focused on state and federal level environmental policy innovations. Jeanne is a graduate of Rutgers University Cook College and she received a master's degree in Science and Environmental journalism from the New York University.

Laurette Kratina, AICP/PP, Chief of Strategic Planning, Division of Planning, Somerset County, New Jersey. Laurette has with the Somerset County Planning Board for over 30 years. She currently heads the Special Projects and Housing and Demographics Sections of the County Planning Division. She managed the update of the Multi-jurisdictional All Hazard Mitigation Plan (HMP) for Somerset County, completed in 2018. She is the primary author of the draft Flood Resiliency and Energy Resiliency Framework documents that are part of this plan. Among her other activities, Laurette oversees the Division's Wastewater Management Planning (WMP) Project Team and leads the County's WMP activities. She is the principle author of the Somerset County Housing Trends Assessment Report completed in 2016 and is responsible for completion of the updated Housing Element of Somerset County Master Plan adopted in 2017, which integrates sustainability and resiliency goals. She led the development of the County Investment Framework, which was adopted as an element of the County Master Plan in 2014 and has received statewide recognition as a regional planning model. Laurette facilitated the establishment of the Somerset County Green Leadership Hub in 2014, which supports municipal involvement in the Sustainable Jersey certification program. She is the staff liaison to the Somerset County Energy Council and supports implementation of numerous Council initiatives. She earned a Master's Degree in City and Regional Planning at Rutgers University. She is a past president of the NJ County Planners Association, currently co-chairs the Association's Environmental Committee, and is an ex-officio member of the Central Jersey Housing Resource Center.

William Kibler, JD, Director of Policy, Raritan Headwaters. Raritan Headwaters protects water in our rivers, our streams and our homes. Bill was the Executive Director of the South Branch Watershed Association from 2005 until RHA was created in 2011. An attorney (JD, Syracuse University) whose practice focused on environmental law, land use, and corporate sustainability, he served in the Army Corps of Engineers after graduating from the United States Military Academy. Bill serves on the campaign committee for Keep It Green, and the board of trustees of the New Jersey Highlands Coalition. He lives on the South Branch of the Raritan River in Califon and is a past chief of the Califon Fire Company.

Michael Kolber, AICP, Planner, Bureau of Climate Resilience Planning, New Jersey Department of Environmental Protection. Michael Kolber focuses on coastal resilience planning and state plan endorsement. He served overseas as a Peace Corps Volunteer in Burkina Faso and a Monitoring Specialist for the International Rescue Committee in the Democratic Republic of the Congo, and he has worked domestically for the NJ Department of Community Affairs, the United Way of Greater Union County, and the Manhattan Borough President's Office. Michael has a B.A. in Economics from Drew University and an M.S. in Urban Planning from Columbia University. He currently serves as Chair of the American Planning Association International Division.

Walter C. Lane, AICP/PP, Director of Planning, Division of Planning, Somerset County, New Jersey. Walter C. Lane serves as the Director of Planning at the Somerset County Planning Division where he oversees a staff of 19 employees. He is responsible for all of the County's planning efforts, the Office of Solid Waste Management, Agriculture Development Board, the County's Cultural and Heritage Commission, the Regional Center Partnership of Somerset County, the Somerset County Green Leadership Hub and the Somerset County Energy Council. He began serving as the Director of Planning in July of 2014. Previously he had served as a

Supervising Transportation Planner, Principal Planner and Senior Community Planner during his tenure at the County.

He has over twenty-one years of land use, regional planning and transportation planning experience and has managed numerous award winning projects. Walter is a licensed New Jersey Professional Planner and is a member of the American Institute of Certified Planners. He currently serves on the Executive Committee of the NJ County Planners Association and the Somerset County Business Partnership. Walter also serves as the co-chair of the Sustainable Jersey Transportation and Land Use Committee and the Obesity Task Force of Healthier Somerset. He has served on the APA-NJ Executive Committee and is a past chair of the Regional Transportation Advisory Committee at the North Jersey Transportation Planning Authority. He frequently presents on a wide range of planning issues at various statewide conferences, seminars and workshops.

He is a graduate of Cook College, Rutgers University and holds a BS in Environmental Policy.

Richard G. Lathrop, Jr., Ph.D., Professor, Department of Ecology, Evolution & Natural Resources, School of Environmental & Biological Sciences, Rutgers, The State University of New Jersey. Rick co-leads the Sustainable Raritan River Initiative and is the inaugural holder of the Johnson Family Chair in Water Resources and Watershed Ecology. He has also served as Director of the Walton Center for Remote Sensing & Spatial Analysis since 1999. He holds a PhD in Environmental Monitoring and an MS in Forestry from the University of Wisconsin-Madison and a BA in Biology from Dartmouth College.

Ali Maher, Ph.D., Professor, Civil and Environmental Engineering, School of Engineering, and Director, Center for Advanced Infrastructure and Transportation (CAIT), Rutgers, The State University of New Jersey. Under Dr. Maher's leadership CAIT has become one of the leading transportation research and education centers in the country successfully maintain its federal university transportation centers (UTC) status since 1998. The Center is currently the Region-II UTC with Rutgers leading a consortium of 8 leading institutions in NJ, NY and Puerto Rico, a network of internationally recognized research and education organizations that are a vital source for addressing transportation needs now and in the future. Maher's expertise spans the areas of geotechnology, environmental geotechnics, and infrastructure engineering and management. He is a member of the editorial board of ASTM Geotechnical Testing Journal, ISHMII and a number of prestigious international journals. He also received the TRB Executive Committee's K.B. Woods Best Paper Award in 2008 and 2011, and Faculty of the Year Award from the School of Engineering at Rutgers in 2017.

Sara J. Malone, MES, Facilitator, Sustainable Raritan River Initiative, Rutgers, The State University of New Jersey. Sara is a Senior Research Specialist in the Environmental Analysis & Communications (EAC) Group at the Edward J. Bloustein School of Planning and Public Policy where she works with the Sustainable Raritan River Initiative and Rutgers Raritan River Consortium. As part of the EAC Group, Sara has worked with state and local governments on a variety of planning projects including a Brownfield to Greenfield project in Perth Amboy, a statewide climate adaptation/habitat vulnerability assessment project, and a Municipal Public Access Plan and Coastal Vulnerability Assessment for New Brunswick. Sara is a part-time lecturer at Bloustein and has conducted graduate planning studio on wetlands and habitat restoration for a working waterfront in the Raritan Center as well as a studio focused on environmental, design and regulatory aspects of the Raritan River boardwalk and bicycle/pedestrian bridge as proposed in the Rutgers 2030 Master Plan. She holds a Bachelors in Earth Science from the University of Massachusetts/Boston and she received a Master of Environmental Studies from the University of Pennsylvania. Sara serves as Chair of the Franklin Township Shade Tree Commission in Somerset.

Virginia Michelin, CFM, Principal Environmental Planner, Morris County Office of Planning and Preservation. Ms. Michelin runs the Morris County Flood Mitigation Program and coordinates the county CRS

Users Group and Assistance Program. In addition, she manages the county's efforts in wastewater management planning (WMP) and assists in various planning studies and reports and GIS analysis. She serves on numerous boards and committees such as the Picatinny Arsenal Restoration Environmental Advisory Board, Jersey Water Works, NJTPA Passaic River Vulnerability Study Technical Advisory Committee, River Friendly Technical Advisory Committee and the New Jersey Section of the American Water Resources Association (NJ-AWRA). Ms. Michelin is also a Past President of the NJ-AWRA. She received her B.S. in Environmental Planning and Design from Cook College (now S.E.B.S.), Rutgers.

John A. Miller, P.E., CFM, CSM. John joined DHS-FEMA in August 2018 as a Mitigation Liaison for Region II. He is a member of the FEMA-NJOEM Integration Team that embeds FEMA regional staff in states to enhance intergovernmental coordination (Objective 2,2 of the FEMA 2018-2022 Strategic Plan). In May 2018, he completed a Master's in Environmental Studies - Environmental Policy at the University of Pennsylvania under adviser Howard Kunreuther, PhD of the Wharton Risk Center. While a student, he served as a Fellow in Senator Robert Menendez's Office engaged in NFIP reform, and was a summer 2016 intern in the White House Office of Management and Budget working on flood policy and climate adaptation. John is a Past Chair and co-founder of the New Jersey Association for Floodplain Management (NJAFM), a chapter of the Association of State Floodplain Managers (ASFPM) and Legislative Committee Chair from 2007-2018. He served on the ASFPM Board 2006-2009. He is the Vice Chair of the City of Lambertville, New Jersey Planning Board, and a member of the City's Emergency Management Council and was the first City FEMA Community Rating System Coordinator for the Class 7 community.

Greg Remaud, Baykeeper and Chief Executive Officer, NY/NJ Baykeeper. Greg has been an advocate for land preservation and public access to waterfronts in densely developed communities for over 20 years. He has led and partnered in numerous land acquisition, preservation and natural restoration projects throughout the NY-NJ Harbor Estuary Region, including land in the Dismal Swamp, Cheesequake State Park, and along the stream corridors of the Raritan Bayshore. Greg serves on several community Advisory Boards. He was appointed Vice Chair of the Meadowlands Conservation Trust, and is the former President of the Liberty State Park Conservancy. NY/NJ Baykeeper is a leader in the longstanding lawsuit against NL Industries to force this entity to clean sediment it polluted along the Lower Raritan River.

David A. Robinson, Ph.D., Distinguished Professor, Department of Geography, School of Arts and Sciences, and New Jersey State Climatologist, New Jersey Agricultural Experiment Station, Rutgers, The State University of New Jersey. A physical geographer and climatologist, Dr. Robinson's research interests run the spatial gamut from global to local, with an underlying theme being the development of a better understanding of the climate system. The majority of his published research has focused on hemispheric and regional snow cover dynamics and interactions of snow cover with other climate elements. This includes maintaining an internationally-recognized database of Northern Hemisphere snow extent throughout the satellite era; information that is used in his Global Snow Lab's research endeavors, efforts of others, and in contributions to national and international climate assessments.

As the New Jersey State Climatologist, Dr. Robinson conducts research of an applied nature that focuses on the diverse weather and climate of the Garden State. This includes topics such as climate change, drought, flooding, and issues involving agriculture, transportation, public safety and commerce. The Office of the NJ State Climatologist also operates one of the most spatially dense observing networks in the nation. The NJ Weather and Climate Network provides timely information to decision makers, the research community, and the general public. Finally, Dr. Robinson has served on a number of national committees and occasionally publish on issues related to his interest in the collection and archiving of accurate climatic data.

Joseph Ruggeri, P.E., CFM, Supervising Environmental Engineer, State National Flood Insurance Program (NFIP) Coordinator's Office, New Jersey Department of Environmental Protection. For the first 16+ years of his NJDEP career, he was intricately involved in all aspects of dam engineering, construction, permitting, removal, restoration grant and loan processes, and development of related dam operations and maintenance manuals. For the past 14+ years, he has assisted municipalities with participation in the Federal Emergency Management Agency (FEMA) NFIP and the Community Rating System (CRS) program. Other activities include leading the DEP Cooperating Technical Partners (CTP) program in development of FEMA Flood Risk MAP products; providing coordination and assistance to the U.S. Army Corps of Engineers in planning, design and construction of flood mitigation projects; revising and distributing NJ Floodway and Flood Hazard Area Delineation Maps/data; and all work related to flood insurance, flood hazard mitigation, flood risk reduction, floodplain management and floodplain studies. He was highly involved in the development of the NJ Governor Flood Task Force, the Delaware River Flood Mitigation Report (2006), and the Passaic River Basin Flood Advisory Commission and associated Governor's report (2010). He served as chair of the Delaware River Basin (DRB) Interstate Flood Mitigation Task Force's Floodplain Mapping Committee, and was co-chair of the DRB Floodplain Regulations Evaluation Subcommittee. He currently serves on the State Hazard Mitigation Team's technical & planning committees. Joe earned his Bachelor and Master of Science degrees in Civil and Environmental Engineering from Rutgers College of Engineering. He is a Past Chair of the NJ Association for Floodplain Management and current Treasurer of the National Association of State Floodplain Managers.

Christopher Testa, Hazard Mitigation Unit Manager, New Jersey State Police. Christopher Testa is a Supervising Administrative Analyst in the New Jersey Office of Emergency Management. He is the civilian manager of the Hazard Mitigation Unit, which is housed within the Recovery Bureau of the New Jersey State Police. The Unit is currently administering over $500M in FEMA grants distributed across all 21 of NJ's Counties. Chris also coordinates Hazard Mitigation Planning at the local level, supplying technical assistance and reviewing plans prior to submission to FEMA. Mr. Testa was OEM's lead in the development of the 2014 & 2019 NJ State Hazard Mitigation Plans. Chris has a BS in Environmental Studies from Stockton University, and a MS in Environmental Policy Studies from NJIT. Prior to his work with the NJSP he was employed by specialty contractor Henkels and McCoy as an Environmental Manager on PSEG Electrical Transmission projects. Following DR-4021, the remnants of Hurricane Irene, Chris worked as a Community Hazard Mitigation Planner for FEMA. Prior to that, he was Special Projects Coordinator for the Hunterdon County Soil Conservation District.

Nicholas Tufaro, PP, LLA, PARLA, CFM, Principal Planner, Office of Planning, Middlesex County, New Jersey. Nick Tufaro has worked in environmental design and planning in the Mid-Atlantic states for over 40 years, most recently as a Principal Planner at Middlesex County Office of Planning since 2005. He provides both planning and environmental consultation in development of countywide/regional context guidelines and action plans for wastewater/water quality and environmentally responsible land use issues. He also plays a key role in the initiation of watershed protection and restoration plans and assists municipalities and other partners in implementation. He holds a degree in Landscape Architecture and environmental planning analysis from Rutgers University and recently achieved a Certified Floodplain Manager designation. He is coordinator for the Middlesex County CRS/ MS4 User Group providing advice and resources for communities participating in the National Flood Insurance Program Community Rating System that rewards active municipal programs with premium discounts on all flood-insured property owners. Nick also is the Prime project manager for the NJDEP Resilient NJ Middlesex County Raritan River and Bay Resiliency Action Plan, a regional effort to develop effective resiliency measures in the Lower Raritan River Watershed, slated for completion in 2021.