



NJDEP
2023 Virtual HAB Summit
Speaker Bios





Kati Angarone

**Assistant Commissioner
Watershed and Land Management
NJDEP**

Kati Angarone is the Assistant Commissioner for Watershed and Land Management. Kati has worked at DEP for more than 25 years. Before becoming an Assistant Commissioner, Kati served as Associate Commissioner for Science & Policy, where she managed science, environmental health and economic analysis programs, while developing policy protective of New Jersey's environment and public health. She was responsible for ensuring policy cohesion across DEP to further its priorities, including climate, water and environmental health. Kati also launched the NJDEP Harmful Algal Bloom Task Force, which she continues to lead; coordinated efforts to address PFAS contamination across multiple media; facilitated the development of New Jersey's forthcoming Natural and Working Lands Strategy; and served as a steering committee member on the Offshore Wind Research and Monitoring Initiative, a role in which she continues to serve.

Earlier in her career, Kati spent several years focused on water policy, including the adoption of new drinking water standards, which involved first-in-the-nation PFAS standards and water supply emergency response. More than half of her DEP career was spent assisting with the development of New Jersey's state land use policies, including stormwater management, habitat protection, flood hazard area controls and protection of the Highlands region. As Assistant Commissioner for Watershed and Land Management, she has returned to this work.

Kati focuses on advancing watershed initiatives, including integration of New Jersey-specific climate change science into watershed policy; building local government capacity to manage watersheds through education; and the development of resources and tools; and working to ensure that watershed management efforts across DEP and the state are coordinated. A passionate advocate of the environment, Kati is dedicated to DEP's mission to protect the environment and public health in service to the people of New Jersey.



Chelsea Brook

**Executive Assistant
Water Resource Management
NJDEP**

Chelsea Brook advises and assists Water Resource Management (WRM) Assistant Commissioner Patricia Gardner on matters of policy and operations. Specifically, she oversees and coordinates cross-program issues pertaining to WRM's four divisions: Division of Water Supply & Geoscience (DWSG), Division of Water Quality, Division of Water Monitoring, Standards, and Pesticide Control, and Division of Water Enforcement. She is also an essential member of the Department's Harmful Algal Bloom (HAB) Task Force, ensuring that New Jersey is prepared to address HAB related issues in drinking water. In this capacity, she has played a key role in the development and implementation of Department's HABs in drinking water planning and response program. Chelsea started her NJDEP career in 2004, after working for several years in environmental consulting. She spent several years as an environmental specialist in the DWSG's Bureau of Water Allocation & Well Permitting. She later joined the Division's Director's office assisting with critical issues such as drought planning and emergency response before joining the Assistant Commissioner's office. Chelsea has a bachelor's degree in environmental health from Salisbury University and a master's degree in environmental science from Rutgers University.



Vic Poretti

**Bureau Chief
Freshwater and Biological Monitoring
NJDEP**

Vic Poretti is the Bureau Chief of the Bureau of Freshwater and Biological Monitoring within the Department's Water Resources Management program. Manages the sampling and analysis of freshwater monitoring throughout the State. The Bureau provides data and information to serve as a sound scientific foundation for water resource management and to meet federal Clean Water Act requirements. The Bureau also performs all aspects of Cyanobacterial Harmful Algal Blooms (HABs) Freshwater Response including strategy development, sampling and analysis, and communicating data and alerts to the public.



John Abatemarco
Environmental Specialist 2
Freshwater and Biological Monitoring
NJDEP

John Abatemarco is an Environmental Specialist 2 within the Water Resource Management's Bureau of Freshwater and Biological Monitoring. John serves as the Field Lead on the Harmful Algal Bloom Continuous Monitoring program and Hycat Autonomous Surface Vehicle project.



Fred S. Lubnow, Ph.D.

**Senior Director, Ecological Services
Princeton Hydro**

Dr. Fred S. Lubnow is the Senior Director of the Ecological Services at Princeton Hydro, and the office manager of the Exton, Pennsylvania office. Dr. Lubnow received his Bachelors of Science in Biology from Susquehanna University (1988), his Master's degree in Environmental Sciences (1992) from the University of California Davis and his Ph.D. in Limnology (1994) from the University of California Davis. Dr. Lubnow has been an environmental consultant for 30 years and has worked on a variety of ecosystems throughout the Mid-Atlantic States. His areas of expertise include the identification of algae and zooplankton, the management of Harmful Algal Blooms (HABs) and their associated cyanotoxins, the design and implementation of in-lake management strategies and the development of watershed-based management plans that focus on non-point source pollution. Dr. Lubnow was the Region III Director of the North American Lake Management Society and the Treasurer for the Pennsylvania Lake Management Society. Dr. Lubnow is also an adjunct professor at Delaware Valley University, Doylestown, PA where he teaches a course and laboratory on Watershed Management. Dr. Lubnow will also be teaching a class in freshwater ecology at Villanova University, PA during the summer semester of 2023.

In addition, Dr. Lubnow developed a professionally-credited course on the Management and Monitoring of HABs and Cyanotoxins in Raw Water Supplies. This course has been taught throughout Pennsylvania in conjunction with Pennsylvania Department of Environmental Protection and the PA American Water Works Association. Finally, Dr. Lubnow is one of the members of New Jersey's HAB Expert Team who are conducting data reviews and assessments on the scientific literature on HABs in order to develop strategies on how to holistically address such conditions in freshwater systems in New Jersey.



Mike Pisauero, Esq.

The Watershed Institute

Mike Pisauero is a practicing attorney with over 25 years of experience. As the Advocacy Director for The Watershed Institute, Mike engages with state and local officials to improve and protect New Jersey's watersheds. Along with helping state officials update New Jersey's stormwater management rules, he wrote The Watershed Institute's enhanced model stormwater ordinance. This effort helped guide municipalities in better protecting local communities from flooding and improve water quality. In past years, he has worked on a campaign to overturn the Christie administration's weakening of the Flood Hazard Rules as well as efforts leading to the enactment of New Jersey's Clean Stormwater and Flood Reduction Act. He appears regularly before zoning and planning boards to comment on development applications.

Prior to joining the Watershed, he ran his private practice concentrating on environmental work for citizen and environmental organizations. He was a lobbyist for the New Jersey Environmental Lobby for nine years. Mike has served on the Hopewell Valley Green Team and was an appointed board member for the New Jersey Licensed Site Remediation Board. Mike received his B.S. in Economics from James Madison University and a J.D. from the University of Richmond.



Kate Douthat, Ph.D.

Senior Research Specialist
Rutgers University

Kate Douthat works at Rutgers in the Center for Remote Sensing and Spatial Analysis. She is a Senior Research Specialist working closely with NJDEP to develop the Watershed Restoration and Adaptation Planning Application (NJWRAP). NJWRAP is a project to bring the information and tools necessary for watershed planning on to one digital platform to improve the planning process and outcomes. Within NJWRAP, Kate focuses on GIS, data, and connecting data to user needs. She is also working on statewide maps of riparian area, wetland functions, and the regulatory buffers of streams and wetlands.

In 2022, Kate received her PhD in the Rutgers program of Ecology and Evolution. Her research focused on plant biodiversity and invasive species in artificial stormwater wetlands in New Jersey. The research goals were to understand how plant communities change after initial planting in order to improve stormwater BMP planting design and practices; and to increase our understanding of how stormwater BMPs contribute to or detract from native biodiversity. Through this work she is familiar with stormwater infrastructure and best management practices and how they work on the ground.

Before her graduate work at Rutgers, Kate pursued a Master of Architecture in 2010. With a sustainable built environment in mind, she worked as a residential landscape designer and ran a small native plants landscaping practice.



Bob Schuster

**Bureau Chief
Marine Water Monitoring
NJDEP**

Bob Schuster is the Bureau Chief at the New Jersey Department of Environmental Protection's (NJDEP) Bureau of Marine Water Monitoring which has the responsibility for oversight of all NJDEP Marine Water Quality Monitoring, including sample collection, laboratory analysis, and data assessment. He has over 30 years in sample collection; and chemical, biological, and microbial analysis, as well as data assessment of Marine waters. This includes Shellfish Classification for the National Shellfish Sanitation Program, as well as for ambient nutrient monitoring, real-time continuous monitoring, beach testing, and NJDEP special projects (storm water monitoring and microbial source tracking) and the EPA National Coastal Condition Assessment.



Gabriel Mahon, P.E.

Manager

**NJPDES Stormwater Permitting and
Water Quality Management**

NJDEP

Gabriel Mahon, P.E. graduated from Lafayette College in 2004 with a B.S. in Chemical Engineering and he is currently a licensed professional engineer in both Pennsylvania and Delaware. He spent the first 12 years of his professional career working in the NJDEP Division of Land Use Regulation as an environmental engineer responsible for reviewing the engineering aspects of Land Use Regulation applications to ensure compliance with the Flood Hazard Area Control Act Rules, Coastal Zone Management Rules, Stormwater Management rules, and Freshwater Wetlands Protection Act Rules. He spent the next 4 years, working in the NJDEP Division of Water Quality, where he eventually became the Bureau Chief of the Bureau of Nonpoint Pollution Control (BNPC). With the Department's watershed based re-imagining, he now works as the Bureau Chief of the Bureau of NJPDES Stormwater Permitting and Water Quality Management in the newly created Division of Watershed Protection and Restoration, where he is responsible for managing the Water Quality Management Planning Program, the NJPDES Industrial Stormwater Permitting Program, the Municipal Stormwater Regulation Program, which includes the Stormwater Management rules (N.J.A.C. 7:8) and the NJPDES Municipal Separate Storm Sewer System (MS4) Permitting Program.



Paul Hauch

Bureau Chief

**Construction, Payments, and Administration
NJDEP**

Paul Hauch is a Bureau Chief in Water Resource Management's Division of Water Quality Bureau of Construction, Payments, and Administration. The Bureau manages the implementation of the NJ Water Bank financing program and the construction phase oversight of funded projects. The Bureau is responsible for the preparation of the State Revolving Fund (SRF) Capitalization Grant applications and SRF Annual Reports, preparation of financing program rule proposals/adoption, and development of the Water Bank's Clean Water Priority System, Intended Use Plan and Project Priority List. The Bureau also conducts the Clean Watersheds Needs Survey (CWNS) for the State of New Jersey that collects wastewater and storm water infrastructure improvement needs and needs for the non-point source pollution control projects in the state and report to the EPA national database.



Jason Earl Adolf, Ph.D.
Professor of Marine Science
Monmouth University

Jason Earl Adolf, Endowed Professor of Marine Science, Biology Dept. and Urban Coast Institute, Monmouth University. BS, Roger Williams University; MS, University of Hawaii Manoa; PhD, University of Maryland College Park. Dr. Adolf's research interests include phytoplankton ecology and physiology, Harmful Algal Blooms (HABs), real-time continuous water quality monitoring, and eDNA approaches to aquatic community analyses. Dr. Adolf's research uses combined field and laboratory approaches to address the impacts of environmental variability, including climate change, on ecosystems. He currently teaches within the Monmouth University B.S. program in Marine and Environmental Biology and Policy and highly values the inclusion of undergraduate students in his research.



Heather Desko

**Senior Watershed Protection Specialist
New Jersey Water Supply Authority**

Heather Desko is a Senior Watershed Protection Specialist for the New Jersey Water Supply Authority. She joined the Authority in 2009, after serving as an AmeriCorps NJ Watershed Ambassador. Heather manages the Authority's water monitoring programs, aquatic invasive species and harmful algal bloom projects, and River-Friendly Business and School certification programs. She is a member of the North American Lake Management Society (NALMS), the Mid-Atlantic Panel on Aquatic Invasive Species (MAPAIS), the Northeast Aquatic Plant Management Society (NEAPMS), and the New Jersey Water Monitoring Council, where she serves as the co-chair of the Decontamination Protocols Workgroup. Heather received both her BA in Environmental Science and MA in Energy and Environmental Analysis from Boston University.



Sarah Mahmoud

NJ Department of Agriculture

Sarah Mahmoud is responsible for the management of program initiatives guided by the “NJ One Health Task Force,” established by the New Jersey Legislator under P.L. 2021, Chapter 117. It is the first state legislation of its kind in the United States aimed to prevent, monitor, and address human, animal, and environmental health issues and calls for an interdisciplinary, collaborative approach. Sarah also serves as a liaison to the Mid-Atlantic Regional Consortium for One Health and a liaison to the Passaic County Board of Agriculture.



Christine Hernandez, Ph.D.

**Eagleton Institute of Politics,
Science & Policy Fellow
NJ Department of Agriculture**

Christina M. Hernandez received a Doctor of Philosophy in Biomedical Sciences with a focus on immunology and infectious diseases from Rutgers School of Graduate Studies- Newark. Upon completion of her degree, she enthusiastically pivoted into science policy. She is currently an Eagleton Science and Politics Fellow working within the N.J. Department of Agriculture where she facilitates communication between the scientific community, policy makers, and reaching the general public to increase transparency and trust. She currently leads projects in topics that address human health, environmental policy, minority advocacy, and food security.



Patricia Gardner

**Assistant Commissioner
Water Resource Management
NJDEP**

Pat Gardner serves as the Assistant Commissioner of Water Resource Management, overseeing Water Monitoring and Standards, Water Quality, Water Compliance, Enforcement, and Water Supply And Geoscience. She has worked in environmental protection for more than 30 years, starting her career with the DEP in the Radiation programs. She joined the Water Resource Management program six years ago. In Water Resource Management, Pat served as Director of the Division of Water Supply & Geoscience for 4½ years and Director of the Division of Water Monitoring & Standards for 1½ years. Her efforts in Water Resource Management have focused on the revision of the long-term monitoring strategy; restoration grant program; assessment of the implementation of the Safe Drinking Water regulations, with an emphasis on the Lead and Copper Rule; emergency response; water supply planning; water infrastructure; and the development of maximum contaminant levels. She has served on various councils and boards, including the Delaware River Basin Commission, the New Jersey Water Supply Authority, and the Drinking Water Quality Institute. As a career DEP employee, Pat has a strong belief in public service and the protection of public health, safety, and the environment.