



The 2nd Annual New Jersey Watershed Conference

The Watershed Center | November 2nd, 2018

Presentation Descriptions

10:15-11:15 AM

Session One Presentations

Groundwater Withdrawals Are an Environmental Issue | *Laboratory*

This session will focus on the State's water allocation process and how groundwater withdrawals from public water supplies, golf courses, and agriculture can impact surface waters such as streams, rivers, and wetlands. Headwater streams will be given special attention. Discussion topics will include geology, groundwater hydrology, regulatory framework, examples of impacts from water withdrawals, and public engagement.

Richard G. Bizub, Director for Water Programs, Pinelands Preservation Alliance

Using Drones to Monitor River Restoration | *Conference Room*

This presentation will examine the scientific needs and uses of drones in monitoring river projects, using an ongoing Nature Conservancy dam removal project as an example. Currently, the use of drones is limited to collecting before and after images and to monitoring the progress of projects. We will discuss using drones to more precisely capture these before and after images, using programmed flights to ensure reproducible images and using software for quantitative measurements. We will also discuss pulling together a well trained Drone Team.

Beth Styler Barry, River Restoration Manager, The Nature Conservancy

David Zuckerman, Volunteer Licensed Drone Pilot

Chuck Gullage, Volunteer Licensed Drone Pilot

Water, Watersheds, Urban Revitalization and the State Plan – Revising Our Approaches | *Johnson Learning Center*

New Jersey's watershed organizations have historically protected water resources by limiting development and mitigating impacts such as flooding and site contamination. The State Development and Redevelopment Plan offered a supportive state policy tool by providing a blueprint for growth focused in existing cities and towns and away from natural areas. More recently, market forces have dramatically reduced the pace of greenfield development and

spurred redevelopment in walkable communities. In the meantime, the emerging national “One Water” approach has focused on the importance of water infrastructure upgrades and on the notion that all water has value. Now, can our new gubernatorial administration take a fresh look and meld the goals of watershed management, One Water, and state planning so that our already-developed areas grow in a way that dramatically improves ecological integrity, water quality, and public enjoyment of our waterways? This session will invite the audience to participate in blue sky (or blue water?) thinking.

Chris Sturm, Managing Director for Policy and Water, New Jersey Future
Dan Van Abs, Ph.D., PP/AICP, Associate Professor, School of Environmental and Biological Sciences, Rutgers, The State University of New Jersey

11:15 AM -12:15 PM

Session Two Presentations

Green Amendments | *Conference Room*

For decades, activists have relied on federal and state legislation to fight for a cleaner environment. And for decades, they’ve been fighting a losing battle. The sad truth is, our laws are designed to accommodate pollution rather than prevent it. It’s no wonder people feel powerless when it comes to preserving the quality of their water, air, public parks, and special natural spaces.

But there is a solution, argues veteran environmentalist Maya K. van Rossum: bypass the laws and turn to the ultimate authority — our state and federal constitutions.

In this session, van Rossum will lay out an inspiring new agenda for environmental advocacy, one that will finally empower people, level the playing field, and provide real hope for communities everywhere. Participants will discover:

- How legislative environmentalism has failed communities across America,
- The transformational difference environmental constitutionalism can make,
- The economic imperative of environmental constitutionalism, and
- How to take action in their communities.

We all have the right to pure water, clean air, and a healthy environment. It’s time to claim that right — for our own sake and that of future generations.

Maya K. van Rossum, Delaware Riverkeeper

Legislative Update on Watershed Issues | *Johnson Learning Center*

New Jersey has been at the forefront of environmental protection. Learn from New Jersey’s environmental legislators what issues we can expect the legislature to address in the current session.

Assemblywoman Nancy J. Pinkin

Watershed Management Area Recommendations for NJ Water Policy | *Laboratory*

This session will examine the history of the creation of New Jersey's Watershed Management Areas (WMAs), including the establishment of the Water Regions, the 20 WMAs, and the Hydrologic Unit Code (HUC) system. We will review how the WMAs affect state water policy decisions and watershed management, as well as the highlights of the recently released Water Supply Plan update at the HUC 11 level. There will be a special focus on the importance of using NJ's subwatersheds to advocate for better water quality and water supply policies statewide.

Fred Akers, Administrator, Great Egg Harbor Watershed Association

Bill Kibler, Director of Policy and Science, Raritan Headwaters Association

Bob Kecskes, Freelance Environmental Consultant

1:30 -2:15 PM

Session Three Presentations

Community-Based Monitoring in New Jersey: A Mutualistic Relationship Between Volunteers and the State | *Laboratory*

The New Jersey Department of Environmental Protection (NJDEP) has funded the first three years of a new community-based water monitoring network to establish strong relationships with existing volunteer programs, build capacity for additional volunteers and an expanded geographic scope, and provide resources for groups to upgrade their data quality.

In a state focused on "home rule", New Jersey volunteer programs remain independent and subject to their own sampling plans and protocols for data management and sharing. The new network brings a measure of cohesion to this methodology, offering a standardized study design and QAPP approval process depending on the intended data quality and use. Training and one-on-one assistance is provided for each community-based program, including guidance on developing new regional monitoring programs, lab and in-situ parameter certification, and data submission through WQX Web. Now in the early stages of this new program, the focus is on communicating directly with volunteers to understand what their needs are and to clarify what is required to produce data of sufficient quality for inclusion in the Integrated Report.

NJDEP has invested in its monitoring infrastructure by recognizing the value of volunteers and bringing them to the table, resulting in high quality data with which to develop well-informed assessments. Other states can follow this model to leverage their own citizen scientists to help reduce their own data gaps.

Erin Stretz, Assistant Science Director, The Watershed Institute

How to Use Social Media to Be a Champion for Your Watershed | *Johnson Learning Center*

Marketing Coordinator, Kelsey Mattison, will present on ways to punch up your social media presence. Designed for social media beginners and experts alike, Kelsey will explain cross-channel techniques to help increase engagement, event attendance, and social buzz around issues in your watershed. Kelsey will make recommendations on thorough, but free social media management tools, and explore how to get the most out of those tools. Led by a young professional that "speaks social," this workshop will cover easy apps you can use to create polished graphics and content for social media, strategies to curate content from your supporters and volunteers, and the no-hassle way to add social media takeovers to your communications calendar.

Kelsey Mattison, Marketing Coordinator, Princeton Hydro

2:15 - 3:15 PM

Session Four Presentations

After the Dust Settles, We Still Need Implementation: Achieving Reductions in the Raritan Basin | *Conference Room*

Considerable monitoring and modeling assisted with the development of the Total Maximum Daily Load (TMDL) Report For the Non-Tidal Raritan River Basin Addressing Total Phosphorus, Dissolved Oxygen, pH and Total Suspended Solids Impairments. Implementation of this TMDL will require significant reductions in Total Phosphorus (TP) and Total Suspended Solids (TSS) throughout the Raritan Basin.

Some reductions are mandated of point source dischargers, but much of the reductions will of necessity be required of non-point sources both in agriculture and urban sources. The urban sources will be stormwater driven. Voluntary measures for stormwater reduction for homes still requires adoption of a practice on a homeowners property. How do we entice homeowners to voluntarily come to desire these practices on their own property? Can we increase the adoption of residential stormwater practices? What increases adoption and what are the barriers to adoption? This presentation discusses residential rain garden implementation in the Raritan Basin and the data that has come out of a program to increase homeowner adoption of rain gardens.

Tobiah Horton, Assistant Professor in Landscape Architecture, Department of Landscape Architecture, Rutgers, The State University of New Jersey

Christopher C. Obropta, Ph.D., P.E., Extension Specialist in Water Resources, Rutgers Cooperative Extension; Professor, School of Environmental and Biological Sciences, Rutgers, The State University of New Jersey

Pat Rector, County Agent II, Cooperative Extension of Somerset County, Rutgers New Jersey Agricultural Experiment Station

How Green Infrastructure Manages Stormwater and Waves Naturally – The Law, the Science, the Landscape and the Shoreline | *Laboratory*

This lightning round session will highlight Green Infrastructure (GI) using Living Shorelines from New York City that would be useful at the Jersey Shore and any other waterfront. GI looks at nature to replicate natural constructs that capture and infiltrate rain water, filter it in the soil, and then direct it as base flow to the local waterbody. Standard practices cause stormwater to be routed to the bottom of the hill, discharged over land into waterbodies along with garbage and other pollutants, completely eliminating infiltration, filtration, and other good ecosystem services that promote sustainable clean air and water. Topics will include impacts and effectiveness, laws and regulations, and long-term outlooks.

The session will be moderated by Karen Argenti, Board Member of Save Barnegat Bay (NJ) and Bronx Council of Environmental Quality (NY). The session will have one power point, and features four speakers, including Michele Langa, Staff Attorney for the NY/NJ Baykeeper; Dr. Paul Mankiewicz of the Gaia Institute of NY; Joshua Price, landscape architect for DLandStudios of NY; and Dr. Louise Wootton of Georgian Court University, NJ. A short Q &A period will follow each 10-12 min presentation.

Moderator:

Karen Argenti, Board Member, Save Barnegat Bay

Panelists:

Michele Langa, Staff Attorney, Hackensack Riverkeeper and NY/NJ Baykeeper

Paul Mankiewicz, Ph.D., Executive Director, Gaia Institute

Josh Price, ASLA, Landscape Architect, Dlandstudio

Louise Wootton, Ph.D., Full Professor and Director of Sustainability, School of Science and Mathematics, Georgian Court University

Stormwater Utilities Overview | *Johnson Learning Center*

New Jersey has a stormwater problem affecting water quality and causing flooding in many areas of the state. Stormwater Utilities is a well-recognized tool throughout the country to help address the problem. The New Jersey Senate has already approved a bill that would allow the creation of stormwater utilities in New Jersey. The bill is still pending in the Assembly. Learn more about the pending legislation and what a stormwater utility is and how they can help communities.

Mike Pisauro, Policy Director, The Watershed Institute

Bill Kibler, Director of Policy and Science, Raritan Headwaters Association