

# Wetlands & Watersheds Workshop

*Ninth Annual*



Artwork:  
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Holiday Inn on the Boardwalk Atlantic City, NJ  
October 23-26, 2006



Mid-Atlantic Chapter



Wetlands and Watersheds Work Group  
[www.wetlandsworkgroup.org](http://www.wetlandsworkgroup.org)

## Present the 9<sup>th</sup> Annual Wetlands and Watersheds Workshop sponsored by:



Regions 2 & 3



Maryland Department  
of the Environment

## Thanks to the following groups for their support:



The Richard Stockton College  
of New Jersey

# Ninth Annual Wetlands and Watersheds Workshop

Holiday Inn-Boardwalk, Atlantic City, New Jersey  
October 23-26, 2006

## **General Information**

Wetlands and watershed protection and restoration are now more crucial than ever. As part of the EPA's list of priorities, wetlands and watersheds protection and restoration using the watershed approach makes this year's workshop an important venue for all who strive to protect our vital aquatic resources. This workshop will increase dialogue and foster partnerships among federal, state, and local agencies, non-governmental organizations, the scientific community, private industry, and all other stakeholders involved in the management of aquatic resources. The importance of wetlands and watershed protection has never been more visible than when Hurricane Katrina ravaged the Gulf Coast. Since 1930, over one million acres of wetlands have disappeared from the Mississippi Delta Region, coastal marshes, and barrier islands that once protected New Orleans. While this is an extreme example, it focuses on why aquatic systems need to be restored, protected, and managed based on all activities within a watershed and not the typical site by site approach. Sea-level rise, limited funding, population increase, and land use pressure are among other relevant and current issues confronting all natural resource managers, industry, and all others interested in these environments.

This year's workshop will emphasize managing aquatic systems through the watershed approach. This conference gives the scientific community, NGOs and other interest groups a great opportunity to hear knowledgeable speakers and interact with others who have similar responsibilities and duties. We will also be joined by the Mid-Atlantic Chapter of the Society of Wetland Scientists. In wetlands and watershed protection, collaboration at all levels is very important. These workshops provide interested parties with an opportunity to *synergize* their talents. This workshop will address issues such as stormwater management, flood management through watershed protection, water quality and public health as it relates to wetland mitigation, the technical/political consequences of wetlands being 303(d) listed, the fate and transport of contaminants, the use of Best Management Practices to protect existing wetlands.

The workshop will begin on Monday, October 23, 2006 at 10:00 am and continue until Wednesday, October 25, 2006 at 4:30 pm. An optional field trip to the wetlands of the Pine Barrens is scheduled for Thursday, October 26, 2006 for an additional \$55.00. The Workshop will end at different times Monday through Thursday. At the end of each day, a social event is scheduled to enhance camaraderie in a casual atmosphere at the Holiday Inn. On Tuesday at 6:00 pm, all

registrants are invited to attend a Society of Wetland Scientists Mid-Atlantic Chapter business meeting. Afterwards, there will be a dinner social event from 7:00 pm - 11:00 pm at the Holiday Inn as an opportunity for informal exchange.

### **Accommodations**

The Holiday Inn, located at 115 Chelsea Avenue in Atlantic City, New Jersey, 08401, will be providing accommodations for the Workshop. Hotel reservations for rooms must be made directly with the Hotel by calling 609-348-2200. The group name is Wetlands and Watersheds Workshop and the code is (WAT). A Hotel Reservation Form is also included. Since a limited number of rooms are available, please register early. Hotel price includes lunch each day starting the day after you check in.

### **Registration**

On site registration and check-in for the Workshop will begin Monday, October 23, 2006 at 8:00 am. All participants must register upon arrival to the Workshop. To register in advance, please complete the Wetland Registration Form and forward with payment to the address indicated or visit [www.wetlandsworkgroup.org](http://www.wetlandsworkgroup.org). To qualify for the early registration fee, participants must pre-register and send payment by October 2, 2006. The registration fee includes a program and a book of abstracts and entitles the registrant to admission to oral presentations, breaks, and social events.

Upon arrival, participants should register and pick up a Workshop package at the Howard Johnson (next to Holiday Inn). Formal registration periods will be:

Monday, October 23, 2006	8:00 a.m. - 5:00 p.m.
Tuesday, October 24, 2006	8:00 a.m. - 5:00 p.m.
Wednesday, October 25, 2006	8:00 a.m.-12:00 p.m.

### **Travel**

**By Rail:** New Jersey Transit offers service to Atlantic City from Philadelphia's 30th Street Station. AMTRAK connects to the New Jersey Transit at 30<sup>th</sup> Street Station.

**By Air:** Atlantic City is served by some airlines. Easy commuter connections can be made via Philadelphia International, Newark International, New York's LaGuardia and JFK International, Baltimore/Washington International and Washington National. An airport shuttle is offered from Philadelphia & Atlantic City Airports to Atlantic City. For information, please call the Royal Airport Shuttle at 1-888-824-7767.

**By Land:** From the North, major interstate highways connect with the Garden State Parkway South, to Atlantic City Expressway. From the South, I-95 to Delaware Memorial Bridge to Rt. 40 to Rt. 322; or via Lewes, Delaware, take Cape May-Lewes Ferry to Garden State Parkway North, to Atlantic City Expressway. From the West via Philadelphia, take

the Walt Whitman Bridge to North-South Freeway to Atlantic City Expressway. Take Atlantic City Expressway East to Pacific Avenue turn right (South) and proceed to Chelsea Avenue. Turn left toward the Boardwalk and the Holiday Inn is on the left just before the Boardwalk.

For information about Atlantic City call:

*Visitors Information Hotline: 1-888-228-4748*

# ***NEW!!!***

This year the Wetlands and Watersheds Workgroup is offering interactive, mini training seminars pertaining to watershed and wetland protection. The topics are listed below. These seminars will take place on Wednesday afternoon from 1:30-4:30. Please select which of the following you would like to attend and mark it on your registration sheet. (Space is limited).

(These mini training sessions are included in your registration fee price).

1. Identification of *Grasses, Sedges, and Rushes.*
2. Introduction to the National Technical Committee's Hydric Soil Indicators
3. Winter Plant Identification
4. Wetland Restoration Techniques
5. Assessing Wetland Soils Using Indicator of Reduction in Soils (IRIS) Tubes
6. Introduction to Soil Science

# 9<sup>th</sup> Annual Wetlands and Watersheds Workshop

**Monday, October 23, 2006**

## **Session I: Wetland & Aquatic Monitoring Techniques and Strategies**

**Regina Poeske**, U.S. Environmental Protection Agency Region III, *Wetland Monitoring and Assessment in the Mid-Atlantic States*

**Ross M. Feltes**, The New Jersey Meadowlands Commission, *Biological Surveys and Monitoring in the New Jersey Meadowlands*

**Denise Clearwater**, Maryland Department of the Environment, *Wetland Monitoring Strategy Development in Maryland*

## **Session II: Wetland Hydrology and Assessment**

**Stephen Yergeau**, Rutgers University, *Developing a Water Budget for an Urban Marsh*

**Charles Andrew Cole**, Penn State University, *Using Hydrology to Compare a Regional Hydrogeomorphic (HGM) Classification across a Latitudinal Gradient of the Appalachian Mountains*

**Bruce Vasilas**, University of Delaware, *HGM-Functional Assessment*

**Donald Dorfman**, Monmouth University, *Fish Parasites as Indicators of Aquatic Resources*

**David Tilley**, University of Maryland, *Antibiotic Resistant Escherichia coli in Non-tidal Wetlands of Maryland*

## **Session III: Wetland & Aquatic Environmental Assessment Methodologies**

**Francisco Artigas**, The Meadowlands Environmental Research Institute, *The Effect of Salinity and Sediment Contaminants on the Green-up Spectra of (Phragmites australis)*

**Kevin K. Olsen**, Montclair State University, *Multiple Wavelength Ultraviolet Determinations of Nitrate Concentrations, A Demonstration Project From October 2005 to July 2006*

**Joseph K. Shisler**, BBL Sciences, *Ecological Benchmarking Assessment for an Urbanized Estuarine River*

## **Session IV: Wetland Restoration and Creation: Innovative Technologies**

**George Zimmerman**, Richard Stockton College of New Jersey, *Atlantic White-Cedar Wetlands: Research Overview*

**Emile Devito**, New Jersey Conservation Foundation, *The Atlantic White Cedar Forest Restoration in the Modernized Cranberry Bog*

**Charles A. Rhodes, Jr.**, U.S. Environmental Protection Agency Region III, *A Brief Review of the Role of Microtopography and Woody Debris in the Structure and Function of Forested Wetlands with Recommendations to Improve Wetland Restoration*

**Jim M. Eisenhardt**, Duffield Associates Inc., *Ecological Restoration in an Urban Watershed*

**Tuesday, October 24, 2006**

**Session V: Wetland & Aquatic Restoration and Creation: Tracking Trends and Using the Watershed Approach**

**John Hasse**, Rowan University, *Tracking New Jersey's Wetlands Loss*

**Terry Doss**, The Louis Berger Group, *Trends in Restoration Within the Hackensack Meadowlands*

**Frank Lupi**, Michigan State University, *Demand and Economic Values for Great Lakes Wetland Restoration and Preservation Programs*

**Mitch Keiler**, (Invited) Maryland Department of Natural Resources, *Development of a Wetland Restoration Targeting Strategy for the Corsica River Watershed*

**William P. Shadel**, U.S. Army Corps of Engineers New York District, New York, *Watershed-based Plan to Restore the Hackensack Meadowlands*

**Heather Cisar**, LMI Government Consulting, *The U.S. Army and Ducks*

*Unlimited: Partnerships to Protect America's Wetlands*

**Session VI: Hydric Soil Analysis and Identification in Wetland Environments**

**Martin C. Rabenhorst**, University of Maryland, *Anomalous Bright Loamy Soils- Newly Recognized Hydric Soils in the Mid-Atlantic Coastal Plain*

**Rosalynd Orr**, University of Maryland, *Newly Formed Redoximorphic Features in Soils*

**Martin C. Rabenhorst**, University of Maryland, *Documenting Reducing Conditions in Soils*

**Adam Gray**, University of Maryland, *Organic Matter in Wetland Soil Remediation*

**Lenore Vasilas**, U.S. Environmental Protection Agency Region III, *Overview of Websoil Survey*

**Session VII: Human Impacts: Design and Effects on Hydrology and Plant Diversity in Aquatic Environments**

**Keith M. Horner**, Delaware Racing Authority, *CAFO Designs at Delaware Park*

**Kevin Magerr**, U.S. Environmental Protection Agency Region III, *Maintenance Issues Related to Stormwater BMPs*

**Duke Ophori**, Montclair State University, *Simulation of the Effects of Groundwater Pumping on Wet Areas, Passaic River Watershed, New Jersey*

**Ellen Raabe**, U.S. Geological Survey, *Temperature Anomalies and Detection of Floridian Aquifer Discharge, Lower Suwannee River, Florida*

**Andrew Baldwin**, University of Maryland, *Where's the Peak? Observations of Tidal Marsh Plant Diversity along the Patuxent and Nanticoke Rivers*

**Ray Hinkle**, URS, *An Analysis of the Variability in Tidal Marsh Vegetative Cover and Production at Reference Marshes on the Delaware Bay, 1996-2005*

### **Session VIII: Implications of Current Wetlands Policy and Management**

**Ralph Spagnolo**, U.S. Environmental Protection Agency Region III, *Overview of the Regionalization of the 1987 Corps Delineation Wetland Manual*

**Jeffrey Lapp**, U.S. Environmental Protection Agency Region III, *Regulatory Implications Based on the Recent Supreme Court Decision*

**Palmer Hough**, U.S. Environmental Protection Agency Headquarters, *Compensatory Mitigation Rule*

**Michael Kaplowitz**, Michigan State University, *What the Nation's Bankers Think about Wetland Mitigation Banks?*

### **Session IX: Breakout Sessions**

- 1. Ralph Spagnolo**, U.S. Environmental Protection Agency Region III, *The 1987 Wetland Delineation Manual "The Regulatory Process."*
- 2. Jeffrey Lapp**, U.S. Environmental Protection Agency Region III, *Discussion of the Implications of the Recent Supreme Court Decision*
- 3. Palmer Hough**, U.S. Environmental Protection Agency Headquarters, *Discussion of the Recent Isolated Wetland Compensatory Mitigation Ruling*

### **Wednesday, October 25, 2006**

### **Session X: Mountaintop Mining**

**Moderator: John Forren**, U.S. Environmental Protection Agency Region III

*Perspectives and Latest Developments Regarding Mountaintop Mining and Valley Fills Such As Regulatory Aspects; Landscapes and Watersheds; Cumulative Effects; Mitigation; Post-Mining Land Use; and Socioeconomics*

#### **Speakers:**

**Ginger Mullins**, U.S. Army Corps of Engineers, Huntington District, West Virginia

**Dave Hartos**, U.S. Office of Surface Mining, Pittsburgh District, Pennsylvania

**Dave Rider**, U.S. Environmental Protection Agency Region III

**Terry Sammons**, Attorney, Sammons Law Office, Charleston, West Virginia

## **Session XI: Green Initiatives: Partnerships and Technologies**

**Denise Rigney**, U.S. Environmental Protection Agency Region III, *The Green Highways Concept, An Overview*

**Bill Arguto**, U.S. Environmental Protection Agency Region III, *Opportunities for More Effective Conservation and Ecosystem Management: Green Highways Ecosystem Theme Team*

**Patrick Jeffers**, U.S. Environmental Protection Agency Region III/NNEMS Student, Case Western Reserve University, *Promoting Watershed-Based Stormwater Management for Linear Projects through the Green Highways Partnership*

**Christine Conn**, (Invited) Maryland Department of Natural Resources, *Linking Highway Wetland Planning and Mitigation to Maryland's Green Infrastructure Assessment*

## **Poster Session**

**Alice Benzecry**, Farleigh Dickinson University, *Green House Experimental Method toward In-situ Burial and Restoration of Contaminated Sites in Submerged Wetlands*

**Ralph Spagnolo**, U.S. Environmental Protection Agency Region III and  
**Lenore Vasilas**, U.S. Environmental Protection Agency Region III/Natural

Resources Conservation Service, *Mid-Atlantic Hydric Soils Committee: Bridging the Gap Between Soils and Wetland Science*

**Andrew Baldwin, Peter Sharpe, and David R. Tilley**, University of Maryland, *Damage to South Florida Mangrove Forests during the 2005 Hurricane Season*

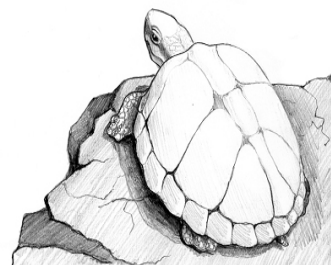
**Michael Lucey, Carol Tutelian, Bryan Schuler**, Water's Edge Environmental LLC, and **Andrew Shawl P.E.**, Atlantic City Electric Company, *The Benefits of Applying Detritus from the Same Watershed for the Purpose of Modifying Soil Organic Content within a Tidal Wetland Creation/Restoration Site (B.L. England Generation Station, Upper Township, Cape May Co., New Jersey)*

**Ellen Hartig and Vivian Gornitz**, Center for Climate Systems Research/ Columbia University and NASA Goddard Institute for Space Studies, *Salt Marsh Submergence in New York and Potential Implications of Sea Level Rise*

**Susan Miller**, Avon ISR, *Backyard Planting to Promote Ecological Diversity*

## **Thursday, October 26, 2006**

We are planning an optional field trip to observe unique wetland systems of the Pine Barrens. We will also visit an Atlantic White Cedar restoration site which was a former cranberry bog.



# 2006 Wetlands and Watersheds Workshop

REGISTRATION FORM

October 23-26, 2006

Holiday Inn Boardwalk, Atlantic City, New Jersey

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

Company/Affiliation \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Country (other than U.S.) \_\_\_\_\_ Phone ( ) \_\_\_\_\_ Fax ( ) \_\_\_\_\_

Email \_\_\_\_\_

Name as you wish to appear on Workshop Badge \_\_\_\_\_

**Registration Fee includes:** Admission to Oral Presentations, Program/Abstract Booklets, Training Seminars, Social Events and Well-Catered Breaks Morning and Afternoon.

**Registration Fees:**

- ~No Hassle Early Registration Fee Special\* (Payment Received in full by October 2, 2006)..... \$235.00 \_\_\_\_\_
- ~ Registration Fee (Paid after October 2, 2006 or any registration using purchase orders or training orders that requires invoicing.)..... \$295.00 \_\_\_\_\_
- ~Student Registration Fee\* (Actual payment must be received prior to October 2, 2006. Students registering after that time will be treated as regular registrants)..... \$85.00 \_\_\_\_\_
- ~Early One Day Registration Fee (Payment received in full by October 2, 2006) ..... \$125.00 \_\_\_\_\_
- ~ Single Day Registration Fee (Payments received after October 2, 2006 or training orders that requires invoicing)..... \$155.00 \_\_\_\_\_
- ~ Half Day Registration Fee..... Same as Full Day
- ~ Field Trip Registration Includes: Coach Transportation, to and from the sites, box lunch, and material..... \$ 55.00 \_\_\_\_\_
- Total: \$ \_\_\_\_\_

\* Note: These rates are available for full, advanced payment by Check, Credit Card or Money Order. Purchase orders, Training orders, and billed purchases are NOT ELIGIBLE for this money-saving option due to the cost of bill preparation. Call Frank Reilly at 540-286-0072 for any further questions regarding registration. Walk-in registration is available at late registration fee price.

**Please mark which training seminar you will be attending:**

- 1. \_\_\_ Identification of Grasses, Sedges, and Rushes
- 2. \_\_\_ Introduction to the National Hydric Soil Committee's Indicators
- 3. \_\_\_ Winter Plant Identification
- 4. \_\_\_ Wetland Restoration Techniques
- 5. \_\_\_ Assessing Wetland Soils using Indicator of Reduction in Soils (IRIS) Tubes
- 6. \_\_\_ Introduction to Soil Science

**CREDIT CARD PAYMENT INFORMATION**

Credit Card # \_\_\_\_\_ Expiration Date \_\_\_\_\_

Name As Appears on Credit Card \_\_\_\_\_

Signature \_\_\_\_\_ Amount \_\_\_\_\_

Security Number that Appears on Back of Credit Card in Signature Box \_\_\_\_\_

Credit Card charges will appear on your statement as The Reilly Group -Wetlands

**Cancellation Policy:** Cancellations received in writing prior to October 2, 2006 will be eligible for a refund less a \$25.00 cancellation fee. No refunds will be issued for cancellations received after October 2, 2006.

Substitutions are welcome, but please let us know in advance so that we can make an appropriate badge.

**Fill out this form and forward it along with payment or payment information to:**

Frank Reilly, Executive Director, Wetlands and Watersheds Work Group, 67 Meyer Lane, Stafford, VA 22556

Or Fax to (540) 286-0073

**2006 Wetlands and Watersheds Workshop  
HOTEL RESERVATION FORM**

October 23-26, 2006

Holiday Inn Boardwalk, Atlantic City, New Jersey

Group Name: **Wetlands and Watersheds Workshop** Code: **WAT**

Last Name \_\_\_\_\_ First Name \_\_\_\_\_  
Company Mailing or Home Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Country (other than U.S.) \_\_\_\_\_ Phone (     ) \_\_\_\_\_  
Arrival Date \_\_\_\_\_ Departure Date \_\_\_\_\_  
Type of Credit Card \_\_\_\_\_  
Credit Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_  
Signature \_\_\_\_\_  
Name on Credit Card \_\_\_\_\_

Please enclose credit card number and authorization or check. Reservations guaranteed by a credit card will be accepted by Fax (609) 348-0168.

**RATES**

Please check accommodations.

Price Per Room Per Day: \_\_\_\_\_ Single: \$118.00  
\_\_\_\_\_ Double: \$154.00 (\$77.00/person), Includes meals  
for two

\* Price Includes: Lodging, & a sit-down Luncheon beginning the day after check in

Rates above are for Sunday through Wednesday nights. Each room must be guaranteed by credit card or check payable to Holiday Inn - Boardwalk in the amount as checked off above. The deposit will be applied to the first night of your reservation request. Check enclosed is \$ \_\_\_\_\_. Reservations must be canceled 72 hours prior to arrival to ensure advance deposit refund. Reservations may be taken by phone at 1-800-548-3030.

If you are mailing your registration, please send this form with check or credit card authorization to:

Holiday Inn - Boardwalk  
Chelsea Ave. & Boardwalk  
Atlantic City, NJ 08401

U.S. Environmental Protection Agency Region III

Attn: Ralph Spagnolo, Mail Code: 3WP10

1650 Arch Street

Philadelphia, PA 19103

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