

WETLANDS 2007



Hosts:

- Virginia Department of Environmental Quality
- Virginia Institute of Marine Science
- Virginia Marine Resources Commission
- Virginia Tech

Sponsors:

- U.S. Environmental Protection Agency, Wetlands Division
- USDA Natural Resources Conservation Service, Resource Inventory and Assessment Division
- Federal Highway Administration
- Virginia Department of Environmental Quality
- U.S. Fish and Wildlife Service
- Conservation Management Institute, Virginia Tech
- Williamsburg Environmental Group, Inc.
- Rinker Stormceptor
- CDM
- Remote Data Systems
- Angler Environmental
- Michael Baker Jr., Inc.
- YSI
- Wetland Studies and Solutions, Inc.
- Pinelands Nursery
- Ernst Conservation Seeds
- Sylva Native Nursery & Seed Company

Cooperating Parties:

- Michigan Department of Environmental Quality
- Tennessee Valley Authority
- Delaware Department of Natural Resources and Environmental Control
- Wetlands Watch
- Center for Coastal Resources Management, Virginia Institute of Marine Science
- Center for Environmental Studies, VCU Life Sciences, Virginia Commonwealth University
- The Louis Berger Group
- U.S. Environmental Protection Agency, Region III
- National Wildlife Federation
- Department of Crop and Soil Environmental Sciences, Virginia Tech
- USDA - Agricultural Research Service, Hydrology and Remote Sensing Lab

DETAILED AGENDA

1:30 p.m.-3:00 p.m.	Global Climate Change I <i>Moderator: Jason Keller, Smithsonian Environmental Research Center</i>	Headwaters Streams I <i>Moderator: Bettina Rayfield, Virginia Department of Environmental Quality</i>	Regulatory Federal Programs <i>Moderator: Brenda Winn, Virginia Department of Environmental Quality</i>	
1:30 p.m.-2:00 p.m.	Climate Change Management Options. Jon Kusler, Association of State Wetland Managers, Inc.	The Importance of Headwater Wetlands and Water Quality in North Carolina. Virginia Baker and Rick Savage, North Carolina Division of Water Quality	Customer Satisfaction High in Corps Permit Program. Kim Diana Connolly, University of South Carolina School of Law	
2:00 p.m.-2:30 p.m.	Future Sea Level Rise and the Meadowlands. Teresa Doss, The Louis Berger Group, Inc.	Similarities and Differences Between Headwater Streams in North Carolina. Larry Eaton, North Carolina Department of Water Quality	The Influence of State Wetland Regulations upon the Section 404 Program. <i>Ryan Taylor, Oregon State University</i>	
2:30 p.m.-3:00 p.m.	A Review of Living Shoreline Initiatives in Norfolk, Virginia. Kevin Du Bois, City of Norfolk Virginia, Bureau of Environmental Services	Mapping Headwater Streams in North Carolina. Periann Russell, North Carolina Division of Water Quality	Policing the Boundaries Between Law and Policy in the Section 404 Program. Doug Williams, Saint Louis University School of Law	
3:00 p.m.-3:30 p.m.	Break			
3:30 p.m.-5:00 p.m.	Wetlands and Natural Hazards I <i>Moderator: John McShane, U.S. Environmental Protection Agency</i>	Global Climate Change II <i>Moderator: Stephen Earsom, Federal Highway Administration, Headquarters</i>	Headwaters Streams II <i>Moderator: Bettina Rayfield, Virginia Department of Environmental Quality</i>	Regulatory Local Programs <i>Tony Cario, Virginia Department of Environmental Quality</i>
3:30 p.m.-4:00 p.m.	Wetlands and Natural Hazards: An Overview. Jon Kusler, Association of State Wetland Managers, Inc	Geo-Enabled Sea Level Rise Model. Bill Wilen, National Wetlands Inventory, U.S. Fish and Wildlife Service	Leaf Fall Distribution for Trees in Wooded Buffers Along Headwater Streams in North Carolina. John Dorney, North Carolina Division of Water Quality	Combining Wetlands Education and Outreach with Regulatory Enforcement for the Improved Overall Effectiveness of a Local Wetlands Program. Kevin Du Bois, City of Norfolk Virginia, Bureau of Environmental Services

4:00 p.m.-4:30 p.m.	National Water Policy: Future Directions. <i>David Conrad, National Wildlife Federation</i>	Are US Flooded Lands and Reservoirs Major Sources of Greenhouse Gases? <i>Clark Row, Row Associates</i>	The Ontario Headwaters Restoration Initiative; Landscape Level Wetland and Riparian Restoration in Southern Ontario, Canada. <i>Kevin Erwin, Kevin L. Erwin Consulting Ecologist, Inc. and Angus Norman, Ontario Ministry of Natural Resource</i>	A Local Ordinance to Protect Wetland Function. <i>Lisa Fraley-McNeal, Center for Watershed Protection</i>
4:30 p.m.-5:00 p.m.	Floodplain Management Protection of Natural and Beneficial Functions. <i>Dave Fowler, Association of State Floodplain Managers</i>	Plant Response to Elevated CO₂ and Nitrogen Drives Soil Accretion in a High Salt Marsh. <i>Jason Keller, Smithsonian Environmental Research Center</i>	New Frontiers in Coastal Plain Headwater Stream Restoration in North Carolina. <i>Tracy Morris and Jessica Kemp, North Carolina Department of Environment and Natural Resources Ecosystem Enhancement Program</i>	Project POWER: Protecting Our Wetlands with Educators and Regulators. <i>Merry! Kafka, New York Aquarium</i>

Wednesday, August 29

8:30 a.m.-10:00 a.m.	Natural Hazards II – Integrating Wetlands into Floodplain Management <i>Moderator: Jon Kusler, Association of State Wetland Managers, Inc.</i>	Remote Sensing Marsh Dieback <i>Moderator: Elijah Ramsey III, U.S. Geological Survey</i>	Monitoring and Assessment Assessing Condition <i>Moderator: Michelle Henicheck, Virginia Department of Environmental Quality</i>	Carabell/ Rapanos and the Courts <i>Moderator: Jan Goldman-Carter, National Wildlife Federation</i>
8:30 a.m.-9:00 a.m.	Integrating Wetlands into a Flood Control Project. <i>Dwight Dunk, CDM</i>	Precision Mapping of Biomass in <i>Spartina Alterniflora</i> Marshes of the Virginia Coast Reserve using Airborne Hyperspectral Imagery. <i>Charles Bachmann, Naval Research Laboratory</i>	Floristic Quality Index (FQI) as an Assessment Tool in Forested Wetlands of the Mid-Atlantic. <i>Douglas DeBerry, Vanasse Hangen Brustlin, Inc.</i>	How have the lower Courts responded to the Carabell/ Rapanos Decision? What are the key questions that will be litigated? <i>Panelist: Stephen Samuels, U.S. Department of Justice</i>

<p>9:00 a.m.-9:30 a.m.</p>	<p>Flood Hazard Mitigation-Using Market-based Solutions to Achieve Conservation Objectives. Kevin Halsey, Parametrix</p>	<p>Linking Multiple Scale Measurements in Virginia Sudden Dieback and Unaffected Marshes. <i>Robert Christian, East Carolina University</i></p>	<p>GIS-Based Landscape-Level Hydrogeomorphic Wetland Classification. David Merkey, Parsons Transportation Group</p>	<p>Significant Confusion: How Should Justice Kennedy's "Significant Nexus" Test be Applied to Protect Waters and are Courts and the Agencies Applying it Correctly? Jim Murphy, National Wildlife Federation</p>
<p>9:30 a.m.-10:00 a.m.</p>	<p>Examining the Landscape-Level Impacts of Hurricanes on Coastal Wetlands: A Focus on Louisiana. <i>Kathryn Smith, U.S. Geological Survey</i></p>	<p>Remote Sensing Methods for Mapping Spartina Alterniflora Marsh Dieback Onset and Progression on the Gulf and Atlantic Coasts. Elijah Ramsey III, U.S. Geological Survey</p>	<p>IBIs and Wetland Quality Standards: Using Empirical Data to Define Tiered Aquatic Life Uses in Pennsylvania Wetlands. Sarah Miller, Penn State Cooperative Wetlands Center</p>	<p>Avoiding the Mud: Seeking Certainty Post-Rapanos. Marina Liacouras Phillips, Kaufman & Canoles</p>
<p>10:00 a.m.-10:30 a.m.</p>	<p>Break</p>			
<p>10:30 a.m.-12:00 noon</p>	<p>Natural Hazards III – Coastal Wetland Effects on Hydraulics of Coastal Storms <i>Moderator: Ty Wamsley, U.S. Army Corps of Engineers</i></p>	<p>Remote Sensing in Wetland Management <i>Moderators: Megan Lang, USDA-ARS and John Galbraith, Virginia Tech</i></p>	<p>Monitoring and Assessment - Assessing Benefits of Farm Bill Wetland Programs <i>Moderator: Regina Poeske, U.S. Environmental Protection Agency</i></p>	<p>Carabell/ Rapanos in the Field <i>Moderator: Jeanne Christie, Association of State Wetland Managers, Inc.</i></p>
<p>10:30 a.m.-11:00 a.m.</p>	<p>Review of Literature on Impact of Wetlands on Coastal Storms. Joseph Suhayda, URS Corp</p>	<p>Assessment of the Condition and Biodiversity Value of Isolated and Headwater Wetlands in the Cumberland Mountains of Tennessee. Jane Awl, Tennessee Valley Authority</p>	<p>Preliminary Findings from Two USDA CEAP-Wetlands Regional Investigations Quantifying Ecosystem Services Provided by Depressional and Riverine Wetlands in Agricultural Landscapes.</p>	<p>Implementing the Carabell/ Rapanos Guidance, Experience to Date. <i>Russell Kaiser, U.S. Army Corps of Engineers and Donna Downing, U.S. Environmental Protection Agency</i></p>

			<i>Diane Eckles, USDA Natural Resources Conservation Service</i>	
11:00 a.m.-11:30 a.m.	Impacts of Wetland Degradation and Restoration on Storm Surge and Waves. <i>Ty Wamsley and Jane Smith, U.S. Army Corps of Engineers</i>	Wetland Protection in Massachusetts – Mapping, Monitoring, Management. Charles Costello, Massachusetts Department of Environmental Protection	Assessment of Wetland Reserve Program Restoration Efforts as Measured by Occupancy of Amphibian Metamorphs. Doreen Mengel, University of Missouri, Columbia, Department of Fisheries and Wildlife Sciences	State Panel. <ul style="list-style-type: none"> • <i>Denise Clearwater, Maryland Department of the Environment</i> • <i>Marty Maupin, Indiana Department of Environmental Management</i> • John Dorney, North Carolina Division of Water Quality
11:30 a.m.-12:00 noon	Facilitated Discussion on Coastal Wetlands Affect on Coastal Storm Hydraulics. <i>Ty Wamsley, U.S. Army Corps of Engineers</i>	Digital Data Analysis of the National Wetlands Inventory (NWI) and Correlation with Wetland Delineation Procedures. Alexis Sandy, Resource International, Ltd.	Using Weather Radar to Assess Bird Use of Wetland Reserve Program Wetlands in the Central Valley of California. <i>Lori Randall, U.S. Geological Survey</i>	Discussion, Questions and Answers.
12:00 noon-1:30 p.m.	Lunch			
1:30 p.m.-3:00 p.m.	Natural Hazards IV – Storm Effects on Coastal and Upstream Wetlands and Implications for Management <i>Moderator: Denise Reed, University of New Orleans</i>	Advances in Remote Sensing <i>Moderator: Victor Klemas, University of Delaware</i>	Regulatory Federal/State Mitigation <i>Moderator: Mark Kalnins, Virginia Department of Environmental Quality</i>	Carabell/Rapanos Using the Best Science <i>Moderator: Jane Awl, Tennessee Valley Authority</i>
1:30 p.m.-2:00 p.m.	Storm Surge Influences on Coastal Wetlands, a Geomorphic Perspective. <i>Denise Reed, University of New Orleans</i>	The Use of Regression Trees and Analysis of ASTER Imagery for Detection of Wetlands in a Virginia	Adaptive Management of Wetland Restoration Using a Simple Bayesian Network. Stephen Earsom, Fedearl Highway Administration,	The Rapanos Interagency Guidance and Tools to Support CWA Jurisdiction after Rapanos. <i>Peter Stokely, U.S. Environmental</i>

		Coastal Plain Study Area. John Galbraith, Virginia Tech	Headquarters	Protection Agency, Office of Civil Enforcement
2:00 p.m.-2:30 p.m.	Importance of Disturbance Regimes in Wetland Systems, Upstream and Coastal. <i>Beth Middleton, U.S. Geological Survey</i>	Remote Sensing of Wetland Changes. Victor Klemas, College of Marine and Earth Studies	Mitigation in Watershed Planning. Dominic Izzo, Exponent, Inc.	Identifying Priority Science Tools Needed to Assess Significant Nexus (i.e., effects on chemical, physical and biological integrity of navigable waters).
2:30 p.m.-3:00 p.m.	Upstream of Coastal Wetlands: Lessons Learned from the 1993 Mississippi Flood. Jerry Rasmussen, U.S. Fish and Wildlife Service	Radar Monitoring of Forested Wetland Hydroperiod to Improve Water Quality Management. Megan Lang, USDA-ARS	Virginia's Compensatory Mitigation Experience. Steve Martin, U.S. Army Corps of Engineers, Norfolk District	Panel Discussion: <ul style="list-style-type: none"> • Peter Stokely, U.S. Environmental Protection Agency, Office of Civil Enforcement • Donna Downing, U.S. Environmental Protection Agency • Russell Kaiser, U.S. Army Corps of Engineers • Kim Diana Connolly, University of South Carolina School of Law • Charles Costello, State of Massachusetts
3:00 p.m.-3:30 p.m.	Break			
3:30 p.m.-5:00 p.m.	Natural Hazards V – Policy Implications of Wetlands and Hazards — Application of New ASCE Policies? <i>Moderator: Dominic Izzo, Exponent, Inc</i>	Remote Sensing and Modeling Wetland Change <i>Moderators: Samuel Walker, Arnold School of Public Health, University of South Carolina and Nate Herold, NOAA Coastal Services Center</i>	Regulatory - Mitigation and Stormwater Management <i>Moderator: Michelle Henicheck, Virginia Department of Environmental Quality</i>	Is a Legislative Remedy Required? Ideas Before Congress to Fix the Clean Water Act <i>Moderator: Jeanne Christie, Association of State Wetland Managers, Inc.</i>

<p>3:30 p.m.-4:00 p.m.</p>	<p>Introduction to Policy Implication. Dominic Izzo, Exponent, Inc.</p> <p>Panel:</p> <ul style="list-style-type: none"> • One State’s View of Wetlands and Coastal Management Jon Porthouse, Louisiana Coastal Protection and Restoration Authority 	<p>Coastal Change Analysis – Completion of a National Baseline. Nate Herold, NOAA Coastal Services Center</p>	<p>Wetland and Stream Ecosystem Restoration Adopted by Anne Arundel County, Maryland Department of Public Works as a Tool to Remediate and Minimize Stormwater Impacts. Joe Berg, Biohabitats, Inc.</p>	<p>Congressional Perspective. <i>Ryan C. Seiger, Staff Director, Subcommittee on Water Resources and Environment, House Transportation and Infrastructure Committee</i></p>
<p>4:00 p.m.-4:30 p.m.</p>	<ul style="list-style-type: none"> • ASCE Policy on Regional Sediment Management <i>Jack Davis, U.S. Army Corps of Engineers, ERDC</i> 	<p>Condition of Tidal Wetlands in Delaware's Inland Bays and the Impacts of Sudden Wetland Dieback. Amy Jacobs, Delaware Department of Natural Resources and Environmental Control</p>	<p>Balancing Wetland Regulation with Stormwater Management on a Watershed-Wide Basis: A Case Study. Andrew Der, Loiederman Soltesz Associates, Inc.</p>	<p>Recommendations from the Clean Water Network. <i>Joan Mulhern, EarthJustice</i></p>
<p>4:30 p.m.-5:00 p.m.</p>	<ul style="list-style-type: none"> • ASCE Policy on Hydrologic Data Collection to Support Modeling and Hazard Prediction. Scott Hagen, University of Central Florida 	<p>An Integrated Approach to Monitoring and Predicting Phragmites australis in a Managed South Carolina Estuary. <i>Samuel Walker, Arnold School of Public Health, University of South Carolina</i></p>	<p>Challenges in Addressing the Gaps - Florida’s Approach to Isolated Wetlands and Stormwater. Jim Stoutamire, Florida Department of Environmental Protection</p>	<p>Recommendations from the Regulated Community. <i>Brent Fewell, Hunton & Williams</i></p>
<p>Thursday, August 30</p>				
<p>8:30 a.m.-12:00 noon</p>	<p>Regulatory - State Mitigation Moderator: <i>Dave Davis, Virginia Department of Environmental Quality</i></p>	<p>Wetland Mapping I Moderator: <i>Heather Preston, South Carolina Dept. of Health and Environmental Control</i></p>	<p>Monitoring and Assessment - Site Specific Moderator: <i>Alan Quackenbush, Vermont Agency of Natural Resources</i></p>	<p>Measuring Wetland Services Moderator: <i>Andrew Pelloso, Association of State Wetland Managers, Inc.</i></p>

8:30 a.m.-9:00 a.m.	Stream Restoration Policy in the Outer Coastal Plain of North Carolina. <i>Tom Walker, U.S. Army Corps of Engineers, Asheville Field Office</i>	The National Wetland Mapping Standard and the 2009 Wetland Mapping Initiative. Jane Awl, Tennessee Valley Authority	Assessing Soil Microbial Community Structures Using LH-PCR Along a Gradient of Microtopography in a Virginia Palustrine Forested Wetland. <i>Changwoo Ahn, George Mason University</i>	Measuring Ecosystem Services, EPA's Proposed Wetlands Research Program Virginia Engle, U.S. Environmental Protection Agency, Office of Research and Development
9:00 a.m.-9:30 a.m.	Economic and Physical Limitations on Wetland Mitigation in North Carolina. Sean Doig, Robert J. Goldstein and Associates	Developing the Wetland Geospatial Layer of the NSDI. Tom Dahl, U.S. Fish and Wildlife Service	Soils, Hydrology, and Grazed Vegetation of Virginia Bog Turtle Habitat. Jeffrey Feaga, Virginia Tech	Progress Toward Developing a National Assessment of Wetland Condition Mike Scozzafava, U.S. Environmental Protection Agency, Wetlands Division
9:30 a.m.-10:00 a.m.	Developing Alternative Forms of Compensatory Mitigation to Address Watershed Needs. Suzanne Klimek, North Carolina Department of Environment and Natural Resources, Ecosystem Enhancement Program	Digital Wetlands: Bringing the Field to the Office. Tim Palmer, Maryland Environmental Service	Use of the Pollen and Plant Fossils for wetland Creation, Restoration and Enhancement. Ben LePage, URS Corporation	Discussion
10:00 a.m.-10:30 a.m.	Break			
10:30 a.m.-12:00 noon	Restoration Case Studies <i>Moderator: Tony Watkinson, Virginia Marine Resources Commission</i>	Wetland Mapping II <i>Moderator: Erin Jones, South Carolina Department of Health and Environmental Control</i>	Monitoring and Assessment – Applications <i>Moderator: Dave Davis, Virginia Department of Environmental Quality</i>	1987 Corps Delineation Manual <i>Moderator: Liz Elverson, Indiana Department of Environmental Management</i>

10:30 a.m.-11:00 a.m.	<p>Tidal Wetland Restoration on the East Branch of the Elizabeth River: Designing Wetland Mitigation that Satisfies Regulatory Requirements and Multiple Public Agency Missions. Charles Benton and Tina Sekula, URS Corporation</p>	<p>Survey Methodology for Assessing Geographically Isolated Wetlands Map Accuracy. Breda Munoz, RTI International</p>	<p>Assessing Wetland Condition Within a Land Cover Context. Dave Goerman, Pennsylvania Department of Environmental Protection</p>	<p>Overview of Regionalization of 1987 Corps Delineation Manual Jeff Lapp, U.S. Environmental Protection Agency, Region III</p>
11:00 a.m.-11:30 p.m.	<p>Development of a Wetland Restoration Targeting Strategy for the Corsica River Watershed. Erin McLaughlin, Maryland Department of Natural Resources</p>	<p>Combining Automated and Manual Techniques for Accurate NWI Mapping. Pamela Swint, Conservation Institute</p>	<p>A Statewide Approach for Identifying Potential Areas for Wetland Restoration and Mitigation Banking in Georgia: An Ecosystem Functional Approach. Liz Kramer, NARSAL Institute of Ecology, University of Georgia</p>	
11:30 a.m.-12:00 noon	<p>Howard's Branch Stream and Wetlands Restoration. Keith Underwood and Erik Michelsen, Underwood & Associates</p>	<p>Expanding National Wetlands Inventory Data to Predict Wetland Functions for Watersheds. Ralph Tiner, U.S. Fish and Wildlife Service</p>	<p>Application of an Ecological Function and Societal Value Assessment Methodology to Derive Monetary Compensation for Wetland Impacts. Bruce Bayne, URS Corporation</p>	
12:00 noon-12:45 p.m.	<p>Final Plenary</p> <p>The World Outside: Issues and Trends in Public Support for Wetlands Conservation. <i>Eric Eckl, Water Words That Work</i></p>			
12:45 p.m.-1:00 p.m.	Wrap-Up			