



The SER Mid-Atlantic Chapter presents

**PIECES OF THE PUZZLE:
From Backyard Habitat to Landscape Scale**

Thursday, March 28 – Saturday, March 30, 2013
Riggs Alumni Center, University of Maryland, College Park

THREE-DAY OVERVIEW (*Details on following pages*)

THURSDAY, MARCH 28 – Pre-Conference Workshops

Option 1) NOAA Restoration Planning Framework: Project Design & Evaluation

9:00 am - 5:00 pm
(Additional fee; limit 35 attendees)

Option 2) How to Assess, Amend, Manage, and Restore Soils on Restoration Sites

8:30 am - 5:00 pm
(Additional fee; limit 50 attendees)

FRIDAY, MARCH 29 – Main Conference Day

8:00 am - 6:30 pm

Conference Sessions and Poster Pub

SATURDAY, MARCH 30 – Field Trips

9:15 am - 3:45 pm

(Additional fee; choose one trip)

- ✓ **Habitat Creation within Transportation and Transmission Corridors – Unexpected Partnerships**
- ✓ **Three Urban Oases within Washington DC**
- ✓ **Ecology-Based Stormwater Improvement Projects – Greater DC Area**
- ✓ **Pontoon Boat Tour – Upper Anacostia River Launching from Bladensburg Waterfront Park**

(Check www.ser.org/midatl for updates)

This year's conference is hosted by [the Department of Plant Science and Landscape Architecture, University of Maryland, College Park](#)



Pre-Conference Workshop Option #1

THURSDAY, MARCH 28, 2013

9:00 am - 5:00 pm

NOAA Restoration Planning Framework: Project Design & Evaluation

Note: Space limited to 35 participants, on a first-come first-served basis. See registration form for fee, which includes continental breakfast and lunch. Workshop to be held in Riggs Alumni Center.

Have you ever implemented a restoration project that didn't quite meet its intended outcomes? (Be honest!) This interactive, full-day workshop offers restoration professionals valuable knowledge, skills, and tools to help you design targeted, successful projects. You'll learn to use a "logic model" planning framework which can be applied to virtually any restoration setting – helping you avoid some of the pitfalls that practitioners often encounter during project implementation.

By the end of the workshop, participants will be able to:

- **Explain** how restoration project design and evaluation can support agency and organization missions, strategic plans, and established program niches.
- **Demonstrate** how logic models can be applied to restoration project design and evaluation.
- **Identify** and communicate measurable project outcomes.
- **Define** meaningful performance indicators as part of project evaluation.
- **Assess** types and levels of evaluation that can be applied to restoration projects.

Workshop presenters: Experienced NOAA Coastal Services Center staff, led by Pam Kylstra, will conduct the workshop. Veteran coastal habitat restoration practitioners will assist with the training to make it "field tested," relevant, and meaningful for attendees. (For more information, visit www.csc.noaa.gov)

The training will be hosted in partnership with the Chesapeake Bay National Estuarine Research Reserves–Maryland (CBNERR-MD) Coastal Training Program. (For more information about CBNERR-MD, visit www.dnr.state.md.us/waters/CBNERR/)



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Pre-Conference Workshop Option #2

THURSDAY, MARCH 28, 2013

8:30 am - 5:00 pm

How to Assess, Amend, Manage, and Restore Soils on Restoration Sites

Note: Space limited to 50 participants, on a first-come first-served basis. See registration form for fee, which includes continental breakfast and lunch. Workshop to be held in Riggs Alumni Center.

Restoration project designs are all too often prepared and approved without fair consideration of soils. Restorationists know that when soils are substandard, then the success of the project is uncertain. Inappropriate soils can lead to increased invasive plants, poor growth and development of plants or root systems, increased plant mortality, decreased seed germination, decreased spread of ground cover, and erosion. In short, inappropriate soils can undermine the restoration project goals.

This workshop will provide ecological restoration professionals:

- **Tools** to gather information and make decisions about soils for restoration projects.
- **Skills and Knowledge** to prepare soils specifications and to make informed choices about engineered soils.

The workshop program will cover the following topics:

- An Introduction to Soil Ecosystem Services
- Creating the Soil Ecosystem Services Using Amended Soils
- Using Soil Amendments to Restore Soil on Disturbed Land – Wetlands, Highway/Utility Easement Corridors, Dredge Spoils, and Mined Land
- Real-World Applications and Conflicts – Creating Soil Specifications and Addressing Conflicts with Soil Screening Levels
- Putting It All to Use – Reviewing Participant Case Studies

This workshop includes audience participation. Participants are encouraged to read the USDA Urban Soils Primer/Chapter 2 (<http://soils.usda.gov/use/urban/primer.html>) before attending the workshop. During the last hour of the class, the Workshop Team will discuss and problem-solve the soils issues of a “real world project” selected from case studies submitted in advance by workshop participants.

Workshop presenters: Featuring W. Lee Daniels, PhD-Virginia Tech; Greg Evanylo, PhD-Virginia Tech; and Michele Mahoney-USEPA; with additional presentations by Bill Young, PWS, RLA-Young Environmental, LLC; and Patti Burns, MS-WET, Inc.

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FRIDAY, MARCH 29, 2013

8:00 am – 6:30 pm

**PIECES OF THE PUZZLE:
From Backyard Habitat to Landscape Scale**

Conference & Poster Pub

Note: See registration form for fees, which include breakfast, lunch, and Poster Pub. Conference to be held in Riggs Alumni Center.

8:00 Registration and Continental Breakfast

8:45 Welcome

9:00 Session I – Backyard and Beyond

One Good Garden Changes Everything: Building Public and Ecological Resiliency

Karen Kelly Mullin, Principal Consultant, Willow Oak Group LLC, Annapolis MD

Rehabilitation of Drastically Disturbed Soils

W. Lee Daniels, Thomas B. Hutcheson, Jr. Professor of Environmental Soil Science, Virginia Tech

Novel Ecosystems: Backyard to Landscape

Marilyn J. Jordan, Ph.D., Senior Conservation Scientist, The Nature Conservancy on Long Island

10:45 Break and Displays

11:05 Session II – Looking to the Landscape

Making Urban Landscapes Work for Local Waterbodies and Wildlife

Peter Hill, Planning and Restoration Branch Chief, Watershed Protection Division, District Dept of the Environment, Washington DC

Daylighting the Dell: Making a Working Landscape a Beautiful Landscape

Warren T. Byrd Jr., Founding Principal, Nelson Byrd Woltz Landscape Architects, Charlottesville VA

12:15 Lunch and SER-MA Chapter Meeting (*open to all*)

1:15 Session III – Concurrent Contributed Papers on Assorted Topics

Room A: Looking to the Landscapes

1:15 *From Corn to Crake: Vertebrate Faunal Response to a Landscape Scale Restoration Project in Seneca Falls, NY – 5 Years Post Baseline*

Michael McGraw, Wildlife Biologist/Ecologist, Applied Ecological Services, Inc.

1:35 *Restoring the Piedmont Prairie in Virginia: Using Site Fire Management Planning and Prescribed Fire to Achieve Restoration at the Landscape Level*

James Remuzzi, President, Sustainable Solutions, LLC

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- 1:55 *Ecological Monitoring and Adaptive Management of the Lehigh Gap Wildlife Refuge Palmerton Superfund Site***
 Dan Kunkle, Executive Director, Lehigh Gap Nature Center, PA
- 2:15 *Climate-Induced Changes in Habitat and Community Compositions: How Do We Begin to Adapt the Fields of Ecology and Restoration?***
 Diane Husic, Ph.D., Professor and Chair, Department of Biological Sciences, Moravian College
- Room B: See the Trees for the Forests**
- 1:15 *The Influence of New York City Urban Soils on Native Tree Seedling Growth and Survival***
 Clara Pregitzer, NYC Parks & Recreation, Natural Resources Group
- 1:35 *Forest Restoration in New York City – 28 Years of Lessons Learned***
 Katerli Bounds, Director of Forest Restoration, NYC Parks & Recreation
- 1:55 *Creating Diverse and Structurally Complex Forest Interior Habitat on the Urban Fringe***
 James F. Thorne, Ph.D., Senior Director of Science and Stewardship, Natural Lands Trust
- 2:15 *Comprehensive Assessment of the Benefits of Ecosystem Restoration with Data-Driven Analytical Software (i-Tree)***
 Jason Henning, The Davey Institute and USFS Northern Research Station – Philadelphia Field Station
- Room C: Aquatic Systems**
- 1:15 *Strawberry Run Stream Restoration: The Good, Bad, and Downright Ugly***
 Claudia Hamblin-Katnik, Ph.D., Watershed Program Administrator, City of Alexandria, VA
- 1:35 *Establishing Goals and Success Criteria in Urban Stream Restoration***
 Joe Berg, Biohabitats Inc.
- 1:55 *Facing the Storms: Ecological Mitigation Techniques***
 Gene McColligan, Environmental Connection, LLC, and Bill Young, Young Environmental, LLC
- 2:15 *Effects of Integrated Stormwater Management and Stream Engineering on Nitrogen Uptake and Denitrification in Streams***
 Tamara Newcomer, University of Maryland
- 2:35 Break and Displays**
- 2:55 Session IV – Restoration at Every Scale**
- Environmental Restoration for People and Nature: Coastal Restoration in Cape May NJ***
 Robert Allen, Director of Conservation, The Nature Conservancy, New Jersey
- Enhancing and Harnessing Nature for Climate Resilience in the Delaware Estuary***
 Danielle Kreeger, Ph.D., Science Director, Partnership for the Delaware Estuary; Functional Ecologist, Drexel University
- Developing Synergy by Combining Mitigation with Stewardship***
 Robert E. Shreeve, Deputy Director, Office of the Intercounty Connector, State Highway Administration, Baltimore MD
- 4:45 Poster Pub – Research Posters and Wine & Cheese Networking Reception**
- 6:30 Adjourn**

Field Trips

SATURDAY, MARCH 30, 2013

9:15 am – 3:45 pm

Note: See registration form for field trips fee, which includes lunch and bus/van transport. When registering, please indicate your first choice and also a second and third choice in case space fills. All trips will leave from UWM Riggs Alumni Center, except for the Pontoon Boat Tour (see Field Trip #4 below).

Field Trip # 1 Habitat Creation within Transportation and Transmission Corridors – Unexpected Partnerships

The construction of highways and utility corridors can result in ecological impacts to flora and fauna due to reduced habitat area, species isolation, or increased habitat edges. Invasive plants thrive within the corridors. Efforts to restore the impacted and fragmented habitats have resulted in some unexpected partnerships.



This field trip will visit a **Habitat Restoration Site at the Patuxent National Wildlife Refuge in Laurel, MD**. PEPCO and the US Fish and Wildlife Service are collaborating on habitat restoration projects under transmission lines within the reserve. Field trip hosts **Sandy Spencer, Chief Forester, US FWS; Cristina Frank, Senior Environmental Specialist, PEPCO;** and **Dave Paduda, Forester, PEPCO** will lead the tour to the restoration areas and discuss the restoration policy, habitat restoration projects, and site challenges, such as invasive plants.

Compensatory mitigation was conducted to address impacts to important natural resources that were affected by the construction of the **Maryland State Highway Department Intercounty Connection (ICC)**. Mitigations, ranging from “backyard to landscape scale,” included more than 83 acres of wetlands, 1500 acres of parks and forests, and 42,000 linear feet of streams and fish passages, as well as several wildlife crossings. With **Rob Shreeve, ICC Deputy Director**, as host, participants will tour a reforestation and wetlands creation, biotrench for water quality treatment, stream and vernal habitat restoration, and the wildlife culvert under the highway, and more.



Field Trip # 2 Three Urban Oases within Washington DC

Cities that increase tree canopies, manage stormwater runoff, create open space, and install green roofs enhance the environment and lifestyles for residents. This trip will visit three restored “urban oases” in the Greater DC area.



The Yards is a 42-acre, mixed-use redevelopment project, located along the banks of the Anacostia River. The Yards’ streets are designed to capture, detain, and filter street and sidewalk runoff as a first line of defense for the Anacostia River. The streetscapes incorporate permeable pedestrian



pavements and tree wells designed as bioretention gardens.

The tree wells accept the first flush runoff from the street, filter it through grasses and engineered soils, and then store it in aggregate reservoirs below the sidewalk. Field trip host **Ryan Bouma of AECOM** will present

the site history, restoration planning process, construction challenges and resolutions, and the overall project status.



The field trip will include a stop at **Jones Point Park, Alexandria, VA**, a 65-acre urban park operated by the National Park Service that has undergone improvements as part of the compensatory mitigation for reconstruction of the Woodrow Wilson Bridge. Park improvements include the removal of invasive species, reforestation of strategic openings of tree cover, establishment of meadow plantings, renovation to recreational facilities, and preservation of two community gardens. Field trip host: **Mike Arnold, PLA-AECOM**.

The **Roof Top Gardens of the World Wildlife Fund's Washington, DC Headquarters** will be the final stop. This is the third largest roof-top garden in the US! The 27,750 square foot planted roof uses local plants to reduce runoff to city sewers and nearby watersheds, to improve heating/cooling and noise insulation, and to provide habitat. Field trip host: **Jeanette Ankoma Sey, PLA-AECOM and GWU Professor of Landscape Design Program**.



Field Trip # 3 Ecology-Based Stormwater Improvement Projects – Greater DC Area

Uncontrolled urban stormwater runoff impacts public health, infrastructure, and natural resources. It pollutes streams, causes sedimentation of waterways, scours beds and banks of tributaries, and contributes to flash flooding. This field trip will visit projects where state-of-the-art methods were used to address urban streams that are dominated by stormwater and stormwater engineering practices to protect waterways. The **Strawberry Run Stream Restoration** is a partnership between a residential developer and the City of Alexandria. The stream restoration included removal of a pedestrian bridge, restoration of a streambank and



12-foot-deep eroded channel, and replacement of the bridge. The developer of an adjacent residential community that abuts a Resource Protected Area (RPA) used pervious materials for patios, stairs, and drives. **Claudia Hamblin-Katnik, PhD, City of Alexandria Watershed Program Administrator**, managed the project for the City and will share the



project history, restoration process, challenges presented after a significant storm following construction, and the on-going efforts to address invasive plants. The field trip will stop at the Strawberry Run restoration and adjacent homes.

Biohabitats, Inc. uses **regenerative stormwater conveyance (RSC)** approaches and other methods to address stormwater dominated streams in order to re-establish ecological functions. The field trip will include stops at three project sites within Washington, DC parks. The restorations improved flow paths, water quality, in-



stream habitat and riparian habitats, and/or re-connections of streams with floodplains using cost effective, ecologically sound, and aesthetic solutions. A variety of engineered systems were introduced such as installation of sand and wood-chips filled gullies with a series of riffles and pools, raised channel beds and invert, and construction of channels to reduced water volume. Field trip hosts: **Joe Berg, Biohabitats**



Senior Ecologist, and Chris Streb, Biohabitats Ecological Engineer.

Field Trip # 4 Pontoon Boat Tour – Upper Anacostia River Launching from Bladensburg Waterfront Park



At the Bladensburg Waterfront Park, **Lee Cains, Director of Education for the Anacostia Watershed Society**, will present a background of Anacostia Watershed, including human impacts, restoration, community engagement, and public policy. Restoration practices range from wetland creation and enhancement to Low Impact Development in the built environment. Then, participants will enjoy a 3½-hour pontoon boat ride through the upper Anacostia River, with a special stop at the Kenilworth Marsh and Aquatic Gardens and the National Arboretum. Participants will view this urban river in its surprisingly natural setting with forest buffers, wetlands, and wildlife such as Bald Eagle, Great Blue Heron, osprey, fox, and beaver.

At the Aquatic Gardens participants will observe undisturbed tidal wetlands as well as constructed wetlands and techniques of wetland restoration. **For this field trip only: Participants will meet at the Bladensburg Waterfront Park, Bladensburg, MD.** Detailed directions and instructions for meeting will be provided after registration by email to the registered participants and/or at the Conference. Carpooling is encouraged.

