



*Association of State Wetland Managers*  
**Soils Training Webinar Series**  
**Webinar #1**

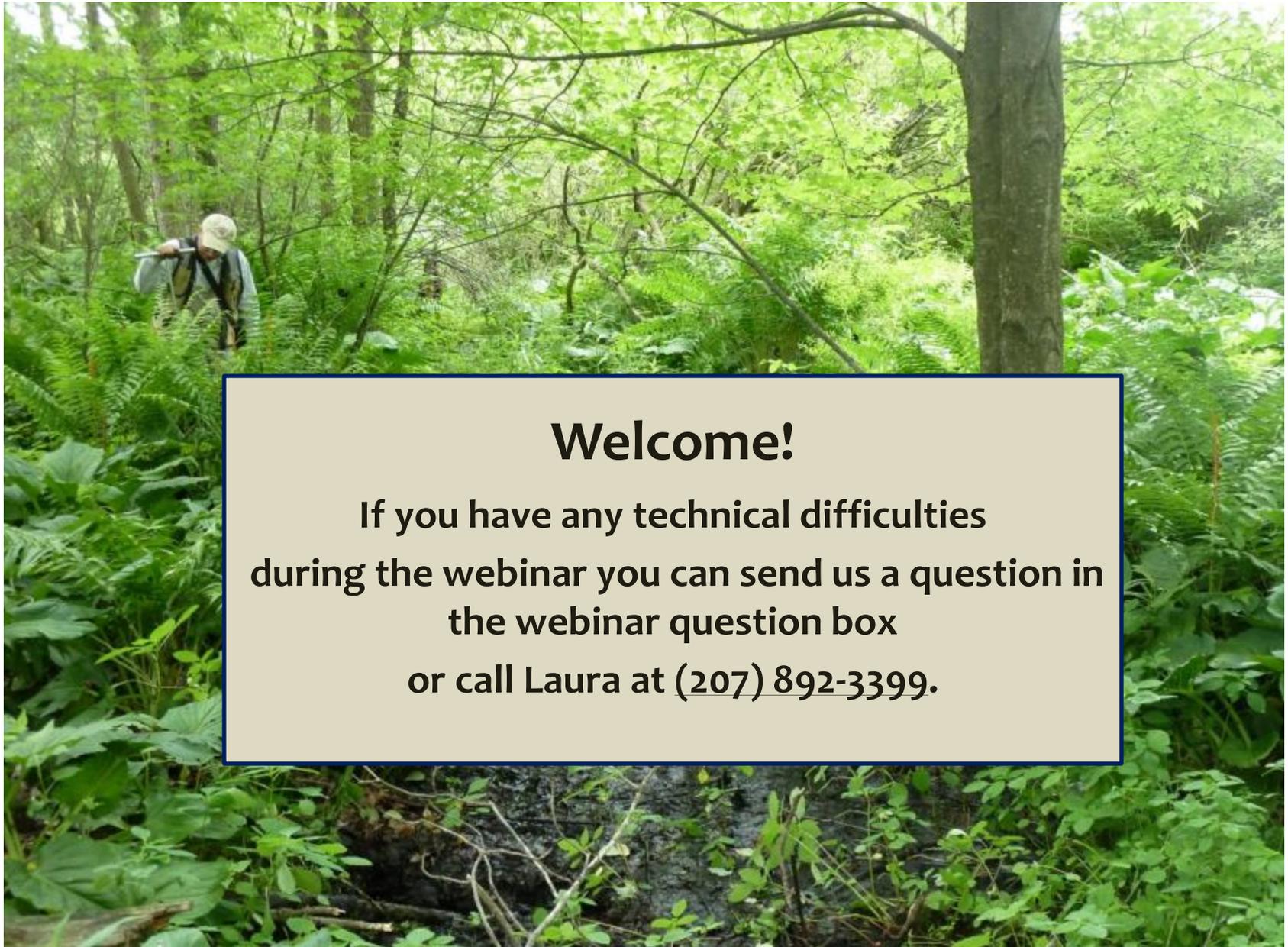
# Basics of Hydric Soils

**July 13, 2016**

3:00 -5:00 pm Eastern

## **Training Presenters**

- Lee Daniels, Virginia Tech
- Anne Rossi, EPA
- Lenore Vasilas, USDA

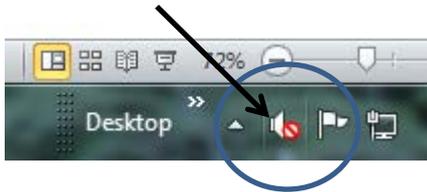


## **Welcome!**

**If you have any technical difficulties during the webinar you can send us a question in the webinar question box or call Laura at (207) 892-3399.**

# Some Tech Guidance for Today's Webinar

If you are using the telephone to listen to the webinar, please mute both your computer's microphone and speakers



To ensure GoToWebinar runs as smoothly as possible, please close any programs you are not using

## ***In case of audio issues:***

Have the .pdf document we sent you prior to the webinar ready to follow; you can still call-in using the telephone using the number and access code

A screenshot of the GoToWebinar interface. The 'Questions' panel is circled in blue. Below it, the 'Chat' panel is visible. A blue arrow points from the text below to the 'Send to All' button in the Questions panel.

+ Dashboard [icon] [x]

+ Attendees: 1 out of 201 [icon] [x]

+ Polls (0/0) [icon] [x]

- Questions [icon] [x]

Show Answered Questions

X	Question	Asker

Send Privately Send to All

- Chat [icon] [x]

[Type message here]

Please submit your questions for the presenters via the question box.

# Training Webinar Agenda

## **Welcome**

(5 minutes)

## **Introduction of ASWM Training Pilot and Voluntary Online Quiz**

(5 minutes)

## **Trainer Introductions**

(5 minutes)

## **Three Training Presentations**

(~75 minutes combined)

## **Q&A**

(30 minutes)



# Webinar Moderator



**Brenda Zollitsch**  
Policy Analyst  
Association of State Wetland Managers

# Introductory Remarks

*Jeanne Christie, ASWM Executive Director*



# ASWM Wetland Training A Work in Progress



- Our grant is allowing us to pilot different training efforts
- Working with a national project workgroup to help guide ASWM efforts
- Hydric soils training in response to ASWM needs assessment and restoration project findings
- Working to find the best methods and tools to deliver trainings
  - E.g. Use of “SurveyMonkey” to deliver quiz is likely to change
- Lots of considerations
- Learning as we go
- **We welcome feedback!**



# Hydric Soils Training Webinar #1



**Based on ASWM project training needs assessment, data from ASWM's recent studies and wetland restoration project findings**

**Soil Webinar Series has been designed to:**

- To meet a clear training need for on-the-ground wetland professionals
- To deliver high quality soils training

**Voluntary Quiz ← Asking all participants to take the quiz**

- To evaluate the quality of ASWM training
- To inform ASWM's larger initiative to improve access to high quality wetland training
- To identify participants who wish to receive *documentation of attendance* in the webinar

## **IMPORTANT**

**To receive documentation of webinar attendance (for CEUs), you must:**

**1) participate in the live webinar presentation and 2) complete the electronic quiz.**

# Webinar #1: Basics of Hydric Soils

## Learning Objectives

*By taking part in this training webinar, participants should be able to:*

- Better understand basics of hydric soils
  - Soil formation
  - Horizonation versus simple processes
  - Soil texture and structure
  - Soil color
- Better understand information collected on hydric soil data sheets
- Better interpret hydric soils information



Photo Courtesy NRCS

# Soils Pilot Training Next Steps

## On-the-Ground Training Recommended

- Soils training needs a field component
- Learning basics today that can be taught remotely
- At the end of the four webinar-series, ASWM encourages you to participate in field training
- ASWM will be providing a draft field training agenda
- Find a local/state/regional entity that can host field training



## Developing Webinars into Series of Online Training Modules

- ASWM will be recording and post-processing the soils training webinar series
- Developing into online training modules
- Each presentation = one module + associated quiz
- Available for anytime access
- Qualified for documentation of participation (for use in obtaining CEUs)

# What's On the Voluntary Quiz?



You will take the quiz on using a website called "Survey Monkey." However, It is a **QUIZ**, NOT a survey

Quiz takes ~10 minutes to complete

- **Basic Information**
  - First and last name
  - Email address
  - Agency/affiliation
  - Documentation of Attendance (for CEUs)
- **Knowledge Questions**
  - Nine soils training questions (three per webinar section)
- **Optional:**
  - Your Work with Wetlands and Hydric Soils*
    - Years of experience (categories)
    - Whether or not you have had training on hydric soils in the past
    - Level of government where you primarily work
    - Whether you expect to use the learning from this webinar in the next year (If you want to share, how plan to use it)

# How to Access the Online Quiz

**A link to the electronic survey will be provided  
at the end of the webinar, before the Q&A Session**

## **Your Options**

**Option A:** Click on the hyperlink provided in the webinar “Comment Box”

**Option B:** Download the document in “handouts” and use the link

**Option C:** Use the hyperlink that will be sent in follow-up GoToWebinar email

*If you cannot access Survey Monkey...*

**Option D:** You may request a PDF copy of the quiz to be emailed to you  
(with directions) by contacting Laura Burchill at [laura@aswm.org](mailto:laura@aswm.org)

# How to Access Information about ASWM Soils Training Webinars and Online Modules

www.aswm.org

Register here for  
Soil Training  
Webinars #2-4

Online Modules  
will also be posted  
on this ASWM  
Soils Page when  
ready for use

The screenshot shows the ASWM website with the following elements:

- Header:** Association of State Wetland Managers - Protecting the Nation's Wetlands.
- Navigation Menu:** Home, ASWM, I Am..., Wetlands, **Soils** (circled), Wetland Programs, Watersheds, Law, News & Jobs, Blog.
- Search:** Search ASWM.
- Main Menu:** Join/Renew, Contact Us, News, Webinars, ASWM Publications, Wetlands One-Stop Mapping, Donate, Volunteer.
- Member's Login:** Username, Password, Remember Me, Log In, Create an account, Forgot your username?, Forgot your password?
- GSA Contract Holder:** 975 Contract 5247P000V.
- Science Menu:** Wetland Science, Wetlands One-Stop, Monitoring & Assessment, National Wetland Condition Assessment (NWCA), Indicators, Wetland Restoration, Planning & Design, Ecosystem Service Valuation, Restoration Costs, Hydrology, Soils, Plants, Monitoring & Performance Standards, Adaptive Management, Invasive Species, Wetlands & Climate Change, Sea Level Rise, Carbon Sequestration, Natural & Green Infrastructure, Climate Change Adaptation, Climate Change Modeling, Climate Change Publications, Other Resources.
- Soils Page Content:**
  - Soils:** All wetlands exist on a substrate of soil, and most have water sources that are affected by movement through adjacent soils. The movement of water through the soil medium, the ability of the soil to store surface and/or groundwater, and the ability of the soil to perform biogeochemical processes is critical to wetland function. In a large sense, differences in wetland types correlate to differences in soil types. For instance, the presence of an intact perching layer may preclude the ability of a particular wetland to store ground water but allow for greater surface water storage. In many cases, a lack of understanding of soil hydrodynamics leads to unexpected outcomes.
  - Failure to fully assess and plan for soils (avoiding compaction, identifying the need for soil amendments, detecting deep impervious or perched layers) can also lead to poor outcomes. While desktop screening for hydric soils, or soils with hydric indicators, is a necessary first step, typically actual sampling including test pits should be conducted to better assess site suitability for wetland restoration and identify potential risks. Excessive excavation and grading activities can significantly disrupt soil profiles. Soil type, treatment, and condition can be a big determinant of success or failure. This can render the top soil layer deficient in organic matter and nutrients that are essential to establishing a healthy plant community. Large scale disturbance to the soil also facilitates the establishment of invasive species and can result in a monoculture of undesirable vegetation.**
  - In some locations, soils also need to be evaluated for the presence of toxics and/or pesticides and risks need to be carefully evaluated. For example, the restoration of pre-existing marshland around Lake Apopka in Florida in the late nineties resulted in a massive bird die-off. When the land was purchased, it was known that it included an unknown quantity of old pesticides that might pose a risk to wildlife. Twenty thousand tons of contaminated soils were removed. However, the environmental risk assessment indicated that some pesticides still remained, including DDT and its metabolites, which were of concern to piscivorous birds. The old farm fields in the North Shore were flooded anyway and the subsequent arrival of birds was seen as a "success." More than 1,000 birds perished, not including the subsequent deaths after migration and due to reproductive damages. The birds were poisoned when they ate fish on former farmlands north of Lake Apopka that had been flooded with lake water (Industrial Economics, 2004).**
- Association of State Wetland Managers Soils Training Webinar Series:** The Association of State Wetland Managers is launching a series of training webinars on hydric soils for wetland professionals and more specifically state and tribal wetland field staff (plus state/tribal wetland managers, local municipal officials, conservation commissions, boards of health and others). This four-part training series is for wetland field practitioners who have expertise in hydric soils and seek to understand how hydric soils are formed and how to recognize and interpret the information they provide when observed in the field. This can also be used as a refresher course for those who have not had soils training in recent years. This soils training webinar series is being developed in partnership with EPA Wetland Program Development Grant-funded project to develop and deliver high quality training for on-the-ground wetland professionals. Each webinar in this soils training series will be accompanied by a short quiz at the end to assess whether participants understand the key concepts of the training. While taking the quiz is voluntary, to receive CEUs for this course (for this soils training webinar series only), participants must complete the assessment quiz. Regardless of whether you seek CEU documentation or not, we hope all participants will complete the quiz at the end of each webinar to help us assess the effectiveness of the presentations and the training series for our grant.
- ASWM HYDRIC SOILS TRAINING SERIES WEBINAR #1:** Association of State Wetland Managers Soils Training Webinar #1 of 4: Basics of Hydric Soils July 13, 2016 at 3 pm Eastern
- Register Now**

# Today's Trainers



**Lee Daniels**  
Professor of  
Environmental  
Soil Science  
Virginia Tech  
Blacksburg, Virginia



**Annie Rossi**  
Soil Scientist  
Wetlands Division  
EPA Headquarters  
Washington, DC



**Lenore Vasilas**  
Soil Scientist  
Technical Soil Services  
Soil Science Division  
USDA NRCS

# Handing Over Controls to Today's First Trainer

