



Delineation of Piedmont and Coastal Plain Jurisdictional Wetlands

Atlantic and Coastal Plain Supplement Module

September 28-29, 2009
Hampton Inn, New Bern, NC

General Course Description (revised August 1, 2009)

Participants in this course will utilize the standard methods of wetland determination and delineation described in the Corps of Engineers Wetlands Delineation Manual (1987 Manual), and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Coastal Plain Supplement). The 1987 Manual will continue to apply, in its entirety to the Piedmont and Mountains of the Southeast until adoption of the Mid-Atlantic and Southeast regional supplement, scheduled for 2010.

The course is based on concepts, criteria, guidance, and procedures of the 1987 Manual and Coastal Plain Supplement, additional U.S. Army corps of Engineers (Corps) technical publications, and current policies on waters of the United States jurisdictional determinations published by the U.S. Environmental Protection Agency (USEPA) and the Corps on their respective web pages. Participants should bring copies of these publications, or contact our office to purchase them:

- (1) Field Indicators of Hydric Soils in the United States, Version 6.0
ftp://ftp-fc.sc.egov.usda.gov/NSSC/Hydric_Soils/FieldIndicators_v6_0.pdf
- (2) Errata to Field Indicators of Hydric Soils, version 6.0
ftp://ftp-fc.sc.egov.usda.gov/NSSC/Hydric_Soils/errata.pdf
- (3) Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (October 2008)
<http://el.erdc.usace.army.mil/elpubs/pdf/tre108-30.pdf>

Additional explanatory narrative and discussions, particularly with reference to wetland science, are based on the instructors' tremendous knowledge and experience in the field of wetland science. Field trips in coastal Plain region of the state will visit examples of all inland wetland types of the Southeast and provide participants the opportunity to see examples of all hydrology and hydric soil indicators listed in the 1987 Manual and in the Coastal Plain.

Training Certification and Continuing Education

Participants who successfully complete 1.5 day course will receive a certification of training in wetland delineation and jurisdictional determination from the NC State University Department of Forestry and Environmental Resources. This course has been approved for 11.5 Category 1-CF accreditation from Society of American Foresters. Participants seeking other types of professional accreditation, or continuing education credits should request them at the time of completing the registration form.

Please take note that the U.S. Army Corps of Engineers Wetland Delineator Certification Program (WDCP) does not exist. The proposed rule for the WDCP was published in the federal register on March 14, 1995. A small test of the WDCP was conducted and some individuals who participated in the test program were issued provisional certificates, subject to publication of the final rule. However, the WDCP was summarily terminated in early 1997. The final regulations were never published and there is no proposed date for publication of those regulations. Therefore, there is no effective date of certification.

Suggested Equipment for Wetland Delineation Work

Three equipment items to be used during the field exercises will be provided in limited numbers: spade, soil auger, and Munsell soil color book. Participants may bring their own equipment or share with others. For those who are new to wetland delineation here's some advice on purchasing these items:

(1) Soil Auger: the Dutch auger type with 4-5 ft long handle is recommended. Augers from several different manufacturers are marketed by many different web vendors.

AMS (<http://www.ams-samplers.com/Index.cfm>) and

Eijkelkamp (<http://www.eijkelkamp.com>)

are the long-time traditional manufacturers. A Dutchman named Edelman invented the Dutch auger head design, hence its name. The Eijkelkamp Edelman One-Piece auger is the lightest available. The AMS Dutch auger is designed for removing the head from the handle and is heavier.

(2) Munsell soil color chart book - Developed by the Munsell Company and the U.S.D.A. Soil Conservation Service. The Munsell soil color charts are the field and laboratory standard for classifying the color of soil, rocks, and archaeological specimens and are an essential tool for wetlands delineation. Prices range from \$100 - \$150 from a number of online vendors.

(3) Spade - standard space, blade most commonly 16" in length, available at all hardware and building supply stores.

Note: Mention of brand or company names is provided for information only and does not constitute endorsement by NC State University or Watershed Hydrology Consultants LLC.

Lodging, Lectures, and Tour Locations

Lodging is not included in the registration fee and attendees must make their own lodging arrangements. A block of rooms with special group rates will be held at each of the two hotels under the group name "NCSU Wetlands."

Classroom sessions - Hampton Inn, 200 Hotel Drive, New Bern, NC 28562. The \$89+tax group rate is available for the nights of September 27 and 28, 2009. The half-day classroom session on September 28 will be held at the Hampton Inn. **Field exercises** will take place the afternoon of September 28 and all 8-noon on September 29, 2009. Van transportation to and from field sites is provided.

Instructors

Dr. James D. Gregory, CPSS, PWS is Professor Emeritus in the Department of Forestry & Environmental Resources at NC State University and Principal of Watershed Hydrology Consultants LLC. He has 34 years experience in teaching and research in watershed and wetlands hydrology and has conducted research on all wetlands types in North Carolina except salt marshes. Dr. Gregory has taught wetland delineation multiple times each year for 10 years, both in a NCSU graduate course and in the one-week workshop. He is a recognized expert on Clean Water Act, Section 404 and the federal and state regulations related to Section 404. Dr. Gregory has served several consultancies as an expert witness on wetlands cases, and is a frequent invited speaker on Section 404 at workshops and conferences. A co-chairman of the NC Stream Technical Advisory Committee, Dr. Gregory has worked closely with the NC Division of Water Quality since 1998 in the development of the stream definitions, the riparian buffer rules, the methods for classifying and identifying stream origins in NC, and the stream identification training course. Dr. Gregory has conducted research on the structure and functions of headwaters streams and the hydrologic functions of riparian zones.

Dr. Jon Stucky has been on the North Carolina State University (NCSU) of the Department of Plant Biology (Dept. of Botany) for 34 years. He is a member of the NCSU Academy of Outstanding Teachers and has received the Outstanding Research Award from the Association of Southeastern Biologists. In addition to having taught NCSU field botany classes for over 30 years, Dr. Stucky has taught environmental professionals in wetland plant identification and wetland delineation workshops for 15 years. He has authored and co-authored plant identification resources valuable to wetland professionals including Common, Woody, Piedmont and Coastal Plain, Wetland Plants of the Carolinas; Winter Keys to Common, Wetland, Trees, Shrubs, and Woody Vines of the North Carolina Coastal Plain; Winter Twig Keys to Common, Native, Fully Deciduous Trees and Phanerophyte Shrubs of the North Carolina Eastern Piedmont. His primary research focus is native plant species conservation and he has published 30 scientific research articles on this and related topics in journals including BioScience, American Journal of Botany, American Midland Naturalist, and others. He is a member of several professional organizations including the Society of Wetland Scientists, Association of Southeastern Biologists, Southern Appalachian Botanical Society, North American College Teachers of Agriculture, and others.

Topical / Daily Agenda (revised August 1, 2009)

Monday, September 28, 2009;

8:15 – 8:30 Registration – Hampton Inn Conference Room
8:30 – 8:45 Introductions and overview of the course
8:45 – 9:00 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Coastal Plain Supplement) - overview, applicability, and relationship to the Corps of Engineers Wetlands Delineation Manual
9:00 – 9:15 Wetland Determination Data Form – Atlantic and Gulf Coastal Plain Supplement
9:15 – 10:15 Hydrology indicators; wetlands that periodically lack indicators of wetland hydrology
10:15 – 10:30 Break refreshments provided
10:30 – 11:15 Hydrophytic vegetation assessment; problematic hydrophytic vegetation
11:15 – 12:15 Hydric soil indicators; problematic hydric soils
12:15 – 1:00 Lunch at Hampton Inn breakfast area
1:00 – 5:00 Field Practicum – Weyerhaeuser Company's Cool Springs Environmental Education Center. Board vans at front entrance of the Hampton Inn

Tuesday, September 29, 2009, Field Practicum

8:00 – 12:00 Field Practicum – Croatan National Forest. Board vans at front entrance to Hampton Inn

Registration and Fees

The registration fee for the course is \$295 and includes course instruction and course materials, all lunches, morning and afternoon refreshment breaks, field trip transportation and training certificate. Class size is limited, so early registration is encouraged.

There are two registration methods:

- (1) Registration on-line at the FEOP Registration Store using Mastercard or Visa
- (2) On-line / mail / fax version of the registration form.

Cancellations in writing (fax, US Mail, or email) received on, or before, 14 days prior to course day 1 will receive a full refund. Cancellations received between 14 days and 7 days prior to the course day 1 will receive a refund less a \$45 service charge. Sorry, but it is not possible to obtain a refund within 7 days of the courses' day 1. Substitute attendees are welcome with notification of our office.