

NC STATE UNIVERSITY
College of Natural Resources
Forestry Educational Outreach Program
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Stream and Surface Water Identification for Riparian Buffer Rule Applications - Piedmont and Coastal Plain

*A Training Course for Environmental
and Engineering Consultants,
Foresters, and Landscape Architects*



January 6-9, 2003
Raleigh and New Bern, NC

Sponsored by
Forestry Educational Outreach Program,
NC State University Department of Forestry
401/Wetlands Unit,
North Carolina Division of Water Quality

About the Course

This training course is designed to equip natural resource professionals with the knowledge and field skills necessary to identify intermittent and perennial stream origins, to locate riparian margins of water bodies, and to correctly apply various riparian buffer regulations in North Carolina. Topics include: (1) stream networks and hydrologic functions of streams and riparian zones, (2) stream ecology, (3) map accuracy for stream networks, (4) the NC Division of Water Quality stream identification and classification methodologies, (5) identifying riparian margins of water bodies, (6) applying the riparian buffer rules, and (7) wetland versus stream regulatory issues. Extensive field training will focus on streams and water bodies in the eastern Piedmont and Coastal Plain regions of North Carolina. A rigorous written exam will be administered and a certificate of training will be issued by the NCSU Department of Forestry for all participants who successfully pass the exam. The course is very similar to the certification course provided for state agency regulatory personnel and is endorsed by the NC Division of Water Quality Wetlands/401 Unit.

Who Should Attend?

This course will be valuable to environmental and forestry consultants, engineering consultants, landscape architects, and regulatory professionals whose work involves riparian zone and stream issues. Though the applications are specific to North Carolina conditions, this course will also be useful for professionals whose work is focused in other states. A second course will be offered in the near future that will focus on streams and water bodies in the western Piedmont and Mountains of North Carolina. Enrollment in this course will be limited, but an additional course will be scheduled if demand warrants. Continuing education credits have been requested for foresters (SAF, CFE), engineers (NCBEES, PDH), and landscape architects (NCBLA, CEC).

Location

The workshop will be held at two locations in order to maximize the variety of sites visited on the field trips. **On January 6 and 7**, the workshop will be held at the Holiday Inn - Crabtree Valley in Raleigh, NC. A block of rooms has been reserved under "Stream ID Workshop". Call 919-782-8600 for reservations. **On January 8 and 9**, the workshop will be held at the Hampton Inn in New Bern, NC. A block of rooms has been reserved under "Stream ID Workshop"; call 252-637-2111 for reservations. **Lodging is not included in the registration fee.**

Instructors

Dr. James D. Gregory is a Professor of Forestry at NC State University and has 27 years experience in teaching and research in watershed and wetlands hydrology. A co-chairman of the NC Stream Technical Advisory with John Dorney, Dr. Gregory has assisted in the development of the stream definitions, riparian buffer rules, and the methods for classifying and identifying stream origins in NC. Ongoing cooperative research on headwaters streams with the NC Division of Water Quality (NCDWQ) will add to the knowledge base about the hydrologic, biologic, and geomorphologic characters and functions of headwaters streams.

John Dorney has for 14 years served as the Supervisor of the Wetlands/401 Unit in NCDWQ where he has staff responsibility for managing the NC riparian buffer rules program and all the stream classification and identification issues related to those rules. As co-chairman of the NC Stream Technical Advisory Committee established in 1998, John has led the efforts by NCDWQ to develop consistent, science-based methods to define and identify stream origins for buffer rule applications

Other Instructors: This course is a collaborative effort between NC State University and the NC Division of Water Quality. Principal instructors from those two organizations, Dr. James Gregory and John Dorney will be assisted by professionals from NCDWQ and other agencies who have much experience in the stream and riparian buffer programs.

Registration and Fees

Preregistration is required. The registration fee is \$495 and includes course materials, lunches on Jan. 6, 7, and 8, refreshment breaks, and transportation ~~to the field sites and to New Bern~~ **Registration deadline is December 10, 2002.** Enrollment in the workshop is limited to the first 36 registrants - early registration is encouraged. **NOTE: You will receive your registration confirmation by E-mail or fax - please be sure to enter this information on your registration form. You will be FedExed the course notebook by Dec. 20th. Be sure to provide a physical address for delivery.**

Cancellation Policy

If cancellations are made before the registration deadline of December 10th, the registrant will receive a full refund less a \$20 service charge. Refunds will not be given for cancellations after December 10 - in this case it is recommended you send a substitute.

For upcoming workshops and more information on the Forestry Educational Outreach Program visit the FEOP home page at www.ncsu.edu/feop or contact Susan Moore at 919-515-3184, fax 919-515-6883 or susan_moore@ncsu.edu

Stream and Surface Water Identification for Riparian Buffer Rule Applications

January 6-9, 2003

Topics To Be Covered

Monday, January 6 - Raleigh

7:30 a.m. Registration and Coffee

8:00 a.m. - 12:15 p.m. Classroom Session

- Riparian buffer rule development and administration
- Stream networks, stream maps, and stream geomorphology
- Science behind the rules: hydrologic functions of streams and riparian areas
- Stream biology: role of aquatic animals in stream identification
- Stream biology: role of microbes and plants in stream identification

1:00p.m. - 5:30 p.m. Classroom Session

- NCDWQ stream and water body identification methods
- USACE methods for stream evaluation
- Field trip: Field instruction and practice in headwaters streams of the central Piedmont

8:00 p.m. Evening Session: Procedures for field identification of macrobenthos

Tuesday, January 7 - Raleigh

7:30 - 9:30 a.m. Classroom Session

- Overview of buffer rules
- Buffer management: stormwater issues
- Trout buffer issues

9:30 a.m. - 5:30 p.m. Field trip: Piedmont applications of the buffer rules

Evening – drive to New Bern (transportation provided)

Wednesday, January 8 - New Bern

7:30 a.m. - 8:45 a.m. Classroom session

- Coastal plain issues: wetland to stream transitions, modified streams, ditches
- CAMA and buffer rules

8:45 a.m. - 5:30 p.m. Field trip: Coastal Plain applications of the buffer rules

8:00 p.m. Evening session: Exam Review

Thursday, January 9 - New Bern

8:00 a.m. - 12:00 p.m. Morning session

- Buffer management: forestry issues
- Buffer management: allowable uses and mitigation, variances
- Written exam

12:00 p.m. Adjourn - return to Raleigh (transportation provided)

Registration Form
Stream and Surface Water Identification for Riparian Buffer Rule Applications

Registration Deadline is December 10, 2002

Name _____

Organization _____

Address (No PO Boxes) _____

City _____ State _____ Zip _____

Daytime Phone _____

Fax _____

E-Mail _____

Vegetarian meal? _____

I wish to receive: _____ CFEs for foresters
_____ CECs for landscape architects
_____ PDHs for engineers/surveyors

Method of Payment

\$495

Check _____ make payable to NC State University

Credit Card: _____ MasterCard _____ Visa **ONLY**

Card #: _____ - _____ - _____ - _____

Expiration Date: _____

Name of Cardholder: _____

Address of Cardholder: _____

I agree to allow NC State University to charge this credit card for the workshop registration.

Signature of Cardholder: _____

Send payment to Forestry Educational Outreach Program, NC State University, Campus Box 8003, Raleigh, NC 27695 or fax with credit card information to 919-515-6883.