



## North Carolina Stream Assessment Method (NC SAM) and Training Course

*Charlotte, NC – April 18-21, 2017*



**Class Location:**

Class taught at the offices of WK Dickson & Co., Inc.  
616 Colonnade Drive  
Charlotte, NC 28205  
Office Phone: 704-334-5348

**Registration Fee:**

NCAEP members: \$825  
Non-members: \$850

**Organized by:**

NC Association of Environmental Professionals

**Taught by:**

John Dorney, Sandy Smith, LeiLani Paugh, and Dave Penrose

**Introduction:** This 4-day lecture and field course will focus on the North Carolina Stream Assessment Method (Version 2.1) (NC SAM) that was implemented by the U.S. Army Corps of Engineers, Wilmington District (USACE) in a public notice dated April 21, 2015. The USACE intends to utilize NC SAM for internal reviews of permit applications, including decisions regarding the amount and type of compensatory mitigation, avoidance and minimization of impacts, or other decisions pertaining to aquatic resource quality and functions on a case-by-case basis. Environmental consultants, federal and state agency personnel, and local government staff members who deal with regulatory programs related to streams are encouraged to attend. Emphasis will be on identification of North Carolina stream categories, determination of evaluation areas, discussion of evaluation concepts and functional assessment metrics, familiarization with common stream aquatic life, experience using the computer rating calculator, and field exercises in both undisturbed and disturbed streams. The course will conclude with a written test and aquatic life practical, and successful students will be presented with a Certificate of Training. Though the method is specific to North Carolina, this course may also be useful for professionals who work in neighboring states. Continuing education credits have been requested and can be sought for Foresters (SAF), Engineers (NCBELS), Landscape Architects (NCBOLA), Erosion & Sediment Control (CPESC), and Storm Water Quality (CPSWQ). In addition, others can be sought upon request. Applicants who are interested in continuing education credits must notify us by e-mail so appropriate arrangements can be made.

**Instructors:**

**John Dorney:** Senior Environmental Scientist, Moffatt & Nichol and retired from N.C. Division of Water Quality, Wetlands and Stormwater Branch. Mr. Dorney worked with the Division of Water Quality for over 28 years, was actively involved in the development of NC SAM, as well as the N.C. Wetland Assessment Method, and has taught courses in these methods for more than 5 years as well as numerous courses in stream identification in the Southeast. He is an expert in wetland and stream functional assessment, isolated wetlands, as well as wetland and stream permitting.

**Sandy Smith:** Senior Project Manager, Axiom Environmental, Inc. Mr. Smith has worked as a private environmental consultant in North Carolina for 27 years, was actively involved in the development of NC SAM, as well as the N.C. Wetland Assessment Method, and has taught courses in these methods for more than 5 years. He is an expert in wetland and stream delineation, functional assessment, and permitting.

**LeiLani Paugh:** ICI/On-Site Mitigation Group Leader, N.C. Department of Transportation (NCDOT), Project Development and Environmental Analysis Branch, Natural Environment Section. Ms. Paugh has worked for NCDOT for 17 years, was actively involved in the development of NC SAM, as well as the N.C. Wetland Assessment Method, and has taught courses in these methods for more than 5 years. She is an expert in wetland and stream delineation, functional assessment, mitigation, and permitting.

**David Penrose:** Director and Senior Environmental Scientist. Retired from NC State University, Water Quality Group and previously employed by the NC Division of Water Quality. Mr. Penrose also helped develop NC SAM. He has previously taught the Stream Identification class plus other classes on aquatic insect ecology through NC State University as well as NC SAM. Mr. Penrose is past President of the Society for Freshwater Science (formerly the North American Benthological Society), an international scientific organization whose purpose is to promote further understanding of freshwater ecosystems.

**Logistics:** The lecture portion of the course will be conducted in a classroom setting each morning, while field exercises will be conducted at various locations on Tuesday, Wednesday, and Thursday afternoons. All field trips will depart from the classroom site at the WK Dickson offices. Students will travel in to field sites in provided vans on Wednesday, but will be responsible for own travel to field sites on Tuesday and Thursday. Lodging is available at local hotels, and a list can be provided upon request. Field trips are conducted in all weather conditions except unsafe weather. If field trips cannot be conducted due to weather, the class or a portion thereof will be rescheduled. Knee boots or hiking boots will be adequate for the field trips.

The registration fee includes the NC SAM User Manual, class paper supplies, as well as field snacks, drinking water and lunches on two field days. **Liability waivers must be signed upon your arrival to class.**

**Registration:** Class enrollment is set at a minimum of 23 registrants and a maximum of 30 registrants. Payment is can be made to the N.C. Association of Environmental Professionals (NCAEP) by check or credit card at [www.ncaep.org](http://www.ncaep.org). All checks will be held until we are certain that the minimum number of students is achieved for the class. Registration fees must be received by NCAEP no later than April 7, 2017. Cancellations prior to April 12, 2017 will receive a full refund. Cancellations after April 12, 2017 will receive a refund of the registration fee less a \$100 administrative fee. Paid registrations may be transferred to another individual upon written request. No refunds will be given after the start of the class. Registrations after April 12, 2017 will be charged an additional \$100.00.