
WETLANDS CERTIFICATION TRAINING FOR NOVA SCOTIA

FROM: MARITIME COLLEGE OF FOREST TECHNOLOGY
SUBJECT: BASIC WETLAND IDENTIFICATION & DELINEATION FOR NS
DATE: June 2, 2010

The Maritime College of Forest Technology's, Department of Continuing Education is pleased to offer **Wetlands Certification Training for NS**. These courses will teach people to identify, delineate and assess function of wetlands. This suite of courses was developed in conjunction with Nova Scotia Environment and provides all required elements for individuals to be included on the list of qualified delineators made available to the public. *Please keep in mind that regulated criteria is still up for review, and are yet to be finalized.*

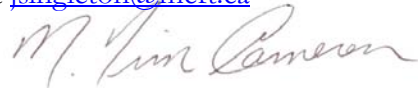
The courses start out with the foundational elements of hydric soils and wetland plant identification, building to a Basic Identification and Delineation course. In addition, an Advanced Wetland Delineation course will allow participants to assess problem areas, function, and mitigation options.

MCFT offered the first delineation course in the Maritimes in August, 2008. Participants' evaluations told us this was an excellent course but contained far too much information for such a short period of time. In order to facilitate learning in a structured manner, we've developed four modules that can be taken individually, or as an entire suite of courses. Individuals who are competent in any of the individual elements can challenge for credit in the given course; thereby allowing them to apply for the next module in the ladder structure.

People who've taken wetland training from other institutions may be accredited on an individual basis.

Instructors for these modules are leading experts in their fields and are also excellent instructors and communicators.

Please see the following announcement for course details. If you have any questions or concerns, please contact Julie Singleton at 506-461-7637 or via email at jsingleton@mcft.ca



N. Tim Cameron, Director
Department of Continuing Education

**BASIC WETLAND IDENTIFICATION AND
DELINEATION COURSE *LEVEL 1
FOR NOVA SCOTIA – 2010**

- DATES:** The principal course dates are July 7 – 10, 2010.
- Please note that this course includes part of a weekend. This was necessary in order to accommodate the instructors' busy schedules.
- LOCATION:** Holiday Inn, 437 Prince Street, Truro, Nova Scotia. Contact number is 902 895 1651.
- OBJECTIVES:** This program is designed to introduce students to fundamentals of wetland ecology and how a combination of plants, soils, and other signs can be used to identify and delineate wetlands onsite.
- Participants will learn to identify and delineate wetlands for **Avoidance** purposes in NS. They will have the knowledge to delineate the wetland boundary upon completion of the course.
- CANDIDATES:** **Basic Wetland Identification and Delineation *Level 1** is designed for people whose work involves the identification, delineation, and avoidance of wetlands. Ideally candidates will have a strong interest in wetland hydrology, soils and plants.
- This course will be used by land surveyors, consultants, and forestry personnel (among others) who need to AVOID and/or delineate a wetland.
- Please note:** Prerequisite courses are the *Hydric Soils Properties and Indicators* as well as the *Wetland Plant Identification courses*, or you must have *successfully challenged the exams for these courses*.
- FORMAT:** The course is designed in two parts. The first part is an online segment that is intended to provide students with a good understanding of wetlands, their formation, and diversity and introduce common indicators used to identify wetlands. The second part of the course involves a combination of classroom lectures and field exercises where students are taught how plants, soils, and other signs of wetland hydrology are used to identify wetlands while being introduced to Nova Scotia wetland regulations and policy and to products from the province's wetland inventory.

FORMAT cont'd: Online Component

The online segment of the course consists of a series of modules designed to provide students with a working knowledge of wetlands that will serve as a foundation for using a combination of plant, soil, and other properties to identify wetlands and their boundaries in the field. After students complete the required readings from “In Search of Swampland: A Wetland Sourcebook and Field Guide” and a specific module, they will be taking a short quiz to insure that students have a basic understanding of that topic. Students must successfully complete the online course before taking the lecture-field exercise portion of the course.

Online Course Outline

Listed below are the topical modules for the online part of the course. Readings should be done before viewing each module; readings from “In Search of Swampland” are given in parentheses following the module title.

Introduction and Wetland Definitions (Chapter 1, pp. 3-7)
Wetland Formation (Chapter 3, pp. 29-42)
Wetland Types (Chapter 5, pp. 53-79)
Wetland Hydrology (Chapter 2, pp. 14-27)
Hydric Soils (Chapter 4, pp. 44-48, Chapter 11, pp. 212-221)

Onsite Component

This portion of the course is designed to give students contact with the instructors, lectures on wetland delineation techniques and appropriate indicators, in-field instruction in vegetation sampling and hydric soil properties and hands-on experience applying basic techniques for wetland identification and delineation at a few sites with varied characteristics. Students will work in groups during field exercises and work will be reviewed by the instructors. The course will end with a certification exam. Exams will be graded onsite and returned to students for use during the review. All questions will be reviewed so that students know how and why they received the score they did and if they missed some points, the instructors will clarify those point during the review. After the review, exams will be turned in.

Onsite Course Outline**Day One**

Introduction and Course Objectives
Nova Scotia Wetland Policy
Introduction to Wetland Identification/Delineation
Wetland Hydrology and Indicators
Introduction to Hydric Soils and Basic Indicators
Concept of a Hydrophyte and Plant Adaptations
Use of Plants for Wetland Identification

FORMAT cont'd:

Day Two

Introduction to Provincial Wet Areas Mapping and Significant Habitat Layers

Detailed Field Indicators of Hydric Soils

Vegetation Sampling and Determining Positive Indicators of Hydrophytic Vegetation

Field Exercises (Vegetation Sampling, Soil Property Recognition; Wetland Determination)

Day Three

Basic Wetland Delineation Method

Field Exercises (Two Wetland Delineations)

Day Four

Field Exercise (Freshwater Wetland Identification and Delineation)

Certification Exam

Review of Exam

Field portions of the course will involve visits to a variety of wetlands for discussion and data collection. Please bring appropriate field gear and prepare for all weather conditions. MCFI will supply all course materials for both classroom and field sites.

INSTRUCTORS:

Ralph Tiner and Peter Veneman are North American experts in wetland ecology and identification. Both are involved in research and education involving wetlands. Their abilities as teachers are highly developed and appreciated by those lucky enough to have attended one of their courses.

Ralph Tiner is a wetland ecologist with over thirty years experience in wetland identification, classification, and mapping. He has written extensively on these subjects including In Search of Swampland (a natural history of and field guide of wetlands of the Northeast and North Central United States), and Wetland Indicators: A Guide to Wetland Identification, Delineation, Classification, and Mapping (a textbook focusing on wetland delineation). Ralph is an adjunct professor in the Department of Plant, Soil, and Insect Sciences at the University of Massachusetts.

Peter Veneman is a recognized throughout this continent for his expertise in the field of hydric soil identification and wetland delineation. His research has focused on wetland soils and their formation and wetland mitigation. His writings include Hydric Soils of New England, co-authored with Ralph Tiner, the first well-illustrated text on the subject of hydric soils. Peter is a department head and Professor of Soil Science at the University of Massachusetts.

ENROLMENT: Enrolment for this course is limited to 20 participants. Subsequent courses will accept fewer applicants. The Maritime College of Forest Technology will limit enrolment of individual organizations or companies in order to allow participation from as many interested groups or individuals as possible.

ACCOMMODATIONS:

The Holiday Inn has reserved a block of rooms for course participants. Rates for rooms are as follows:

\$109.00 for single or twin occupancy + HST

Course participants are expected to make their own reservations. The Holiday Inn is located at 437 Prince Street in Truro. The telephone number for reservations is 902 895 1651.

TUITION: Tuition for the program including supplies is \$1650.00 + HST.

IDENTIFYING AND DELINEATING WETLANDS
is equivalent to 28 Continuing Forestry Education Credit

