

## 2011 WETLAND DELINEATION CERTIFICATION PROGRAM TRAINING SCHEDULE

COURSE	COURSE DESCRIPTION**	DATE(S)	LOCATION (Approximate)	COST	EARLY REGISTRATION DEADLINE*
<b>Hydrology Indicators</b>	This one day course reviews the application of wetland hydrology indicators for delineating wetlands in Minnesota. It includes half day lecture and half day field review.	June 2	Metro	\$195  (\$175 for Early Registration)	May 5
<b>5-Day Basic Wetland Delineation</b>	Wetland delineation using the CORPS Manual and Supplements (Midwest, Great Plains, NC/NE) with emphasis on common protocols and data sources used in MN. It includes lecture, lab, and field components.	June 6-10	Farmington	\$900	May 9
		July 25-29	Little Falls	(\$875 for Early Registration)	June 27
<b>Advanced Plant ID</b>	This advanced course will focus on identification of grasses, sedges, and rushes found in wetland-upland transition zones. Prerequisite for this course is familiarity with basic plant identification methodology (using Dichotomous keys, botanical terminology, etc.)	June 21-22	Metro	\$350	May 24
		June 28-29	Cloquet	(\$325 for Early Registration)	May 31
<b>Basic Plant ID</b>	This course focuses on identification of plant species commonly found in wetland-upland transition zones. This course will focus on basic plant identification methodology (recognizing basic plant groups and families, using Dichotomous keys, botanical terminology, etc.) with emphasis on identifying forbs, trees, and shrubs.	July 6-7	Farmington	\$350	June 8
		August 9-10	Cloquet	(\$325 for Early Registration)	July 12
<b>Hydric Soils</b>	This two day course reviews soil morphological descriptions, soil survey, and interpretation of hydric soil status with the emphasis on using the Field Indicators of Hydric Soils applied to Minnesota. We will have lecture and field sessions each day, including discussion on problem area soils and solutions.	July 12-13	Farmington	\$350	June 14
		August 2-3	Cloquet	(\$325 for Early Registration)	July 5

\* Note that to obtain the early registration fee your registration and payment MUST be postmarked by the date listed in the last column. Registration is filled on a first-come, first-serve basis. No registrations will be accepted after the last open registration date.

## **COURSE SCHEDULE**

Although every effort will be made to hold courses at the scheduled time and place, they are subject to cancellation due to weather, instructor illness, lack of participants, or other unforeseen circumstances. If this occurs, participants will be promptly notified and given a full refund. Additional courses may be added to the schedule at a later date.

## **INSTRUCTORS**

Course instructors are part of an interagency team of technical experts who along with University of Minnesota instructors have extensive experience and expertise in the subject matter of each course. Both state (Minnesota Board of Water & Soil Resources) and federal (U.S. Army Corps of Engineers, St. Paul District) agencies responsible for the implementation of wetland regulatory programs (as well as other related programs) in Minnesota provide instructors with practical knowledge and experience. Courses are typically taught via a “team approach” where agency and university instructors combine efforts and focus on individual specialties.

## **CANCELLATION POLICY**

A \$50 processing fee will be assessed if you cancel up to three working days by 4:30 pm prior to any session. Any cancellation after these dates will forfeit the entire registration fee. Cancellation requests must be submitted via email, mail, or fax and acknowledged before the first day of the cancelled course.

## **SUBSTITUTIONS**

You may substitute another person’s registration for your own. You must do this within five working days prior to the course.

## **\*\*COURSE DESCRIPTIONS:**

### **Hydrology Indicators for Wetland Delineation in Minnesota**

This 1-day course will review application of wetland hydrology indicators used in Minnesota for wetland delineation purposes, specifically, those in the NC/NE, Midwest, and Great Plains Regional Supplements. Related topics that are covered include evaluating antecedent precipitation conditions, utilizing wetland mapping conventions procedures in agricultural settings, growing season indicators, wetland hydrology standard, and monitoring hydrology. The course will include a half day of lecture and a half day in the field observing and interpreting indicators. Participants should be familiar with basic wetland delineation procedures as this course will focus on hydrology in the context of delineating wetlands.

### **Basic Wetland Delineation in Minnesota**

This 5-day course will focus on the fundamentals, concepts and techniques for delineating wetlands in Minnesota. The course will cover the Corps Manual of Engineers Wetland Delineation Manual as well as applicable Corps Manual regional Supplements used in Minnesota (Midwest, NC/NE, Great Plains). Specifically, the course will focus on the hydrology, soils, and vegetation parameters including the background necessary to interpret these parameters for

wetland delineation purposes. Other relevant topics that are covered include problem areas, atypical situations, difficult to delineate situations, wetland mapping conventions, antecedent precipitation calculations, use of offsite data sources, delineation methodology levels, hydrology monitoring, wetland classification, plant identification, and wetland delineation reports. The course will include lecture, lab, and field components. At least 2 of the 5 days will include a field practicum where participants will practice utilizing techniques described in the lecture. Although there are no formal prerequisites for taking this course, participants who do not have at least some educational background in natural resources (specifically soils, hydrology, botany) may find it challenging to follow the quantity and variety of technical information covered in a short time period.

### **Advanced Wetland Boundary Plant Identification**

This 2-day course will focus on the identification of grasses, sedges, and rushes in the wetland-upland transition areas of Minnesota. The course will review techniques and characteristics to distinguish plant species and groups of species that are often relevant to the hydrophytic vegetation criteria for wetland delineations. Keying out and identifying live plant specimens in the classroom and in the field will be part of the course. Participants should have previously completed a plant taxonomy/botany course, are expected to be familiar with basic botanical terminology, and have some experience using dichotomous keys for plant identification.

### **Basic Wetland Boundary Plant Identification**

This 2-day course will focus on the identification of forbs, trees, and shrubs common to the wetland-upland transition areas of Minnesota. The course will review techniques and characteristics to distinguish plant species and groups of species that are often relevant to the hydrophytic vegetation criteria for wetland delineations. Keying out and identifying live plant specimens in the classroom and in the field will be part of the course. Unlike the advanced plant identification course, this course will cover the basics of botanical organization and classification, plant parts, and how to use guides and keys to identify species. The course is intended for those participants with minimal training in plant taxonomy or those who would benefit from a review of the basics related to plant identification.

### **Hydric Soils**

This 2-day course will focus on identifying and interpreting hydric soil field indicators specific to Minnesota. The course will review basic soil description methodology, important terms and concepts used in applying the field indicators, and the association between the indicators and landscape position and hydrology. The course will include a field practicum where participants will practice describing soil profiles and identifying applicable hydric soil indicators. Although there are no formal prerequisites for taking this course, participants should have previously taken a basic wetland delineation course or at least be familiar with basic wetland delineation procedures.