

# Army Corps of Engineers Wetland Delineation Classroom & Field Training by Richard Chinn, PWS, of Richard Chinn Environmental Training, Inc.

This 4-day, 38 hour course covers wetland delineation procedures used and approved by the U.S. Army Corps of Engineers (including the **Arid West Regional Supplement** or another Regional Supplement by request in advance) and other regulatory agencies through a combination of inside lecture / class discussion and an equal amount of field demonstrations and repetitions. This course has been pre-approved for 2.5 Equivalent Semester Hours by the Society of Wetland Scientists Professional Certification Program, Inc. toward the Society of Wetland Scientists' Professional Wetland Scientist certification, satisfies the training requirements of many agencies, and is a standard credential of wetland delineation competence. Please see our web page, <http://www.richardchinn.com>, for additional information.

## Topics

- Introduction to the 1987 Manual and Regional Supplements
- **The May 27, 2015 "Clean Water Rule" definition of Waters of the US and the older Rapanos rules**
- Section 10 waters
- Section 404 authorization
- Definition of interstate and foreign commerce
- Definition of Navigable Waters
- Definition of Waters of the US incorporating the recent **SWANCC** and **Rapanos** decisions
- Introduction to the Cowardin system
- Criteria of wetland hydrology
- Wetland definitions of ACOE, EPA, FWS and NRCS
- Growing season determination
- Primary and secondary field wetland hydrology indicators
- Introduction to hydrophytic vegetation
- Vegetation adaptations to hydrology
- Vegetation strata
- Methodologies to determine vegetation dominance including Point Intercept Method
- Benefits and drawbacks of plot methodology
- National Wetlands Inventory classifications
- Morphological, physiological and reproductive plant adaptations to water
- Selection of dominant species (50/20 Test)
- How to perform Dominance Test
- How to determine Prevalence Index
- Hydric soils processes
- Soil Taxonomy
- Soil hydrogeochemistry (reduction / oxidation)
- Aerobic and anaerobic processes in wetlands
- Anaerobiosis
- Comparison of aerobic and anaerobic metabolic rates
- Soil colors
- How to use a Munsell chart
- Redoximorphic features
- Hydric soil indicators of the Regional Supplements
- Routine small area determination
- Comprehensive application
- Atypical situations
- Problematic areas
- Routine small area field delineation
- Delineating wetlands using the regional supplement and the regional supplement data form
- Optional practice examination

### Wetland Delineation Training Registration Form - Salt Lake City, Utah, May 7 - 10, 2018 - \$1100

Name: \_\_\_\_\_ ● Date: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_ ● Work Phone (\_\_\_\_\_) \_\_\_\_\_

Email Address: \_\_\_\_\_ ● Fax (\_\_\_\_\_) \_\_\_\_\_

Select Payment Form (✓):             Government

Credit Card No.: \_\_\_\_\_ ● Name on card: \_\_\_\_\_ ● CVV \_\_\_\_\_

Signature of Cardholder: \_\_\_\_\_ ● Exp. Date: \_\_\_\_\_

I wish to receive my confirmation via (✓):  Email (our preference)  Telephone  Fax  Postal Mail

Course Location: To be determined. See our web page for specific hotel location.

Refund Policy: Full refund if cancelled in writing at least 10 business days before the beginning of course. 50% refund if cancelled in writing at least 5 business days before the beginning of course. A full credit will be issued if cancelled at least 1 day before the beginning of course. There is no refund or transferability on the hardship. Although very rare, Richard Chinn Environmental Training, Inc. reserves the right to cancel a class and refund all fees.

## The Course Instructor

Richard Chinn, a Certified Wetland Delineator and Professional Wetland Scientist holds BS and MS degrees in Zoology. Mr. Chinn has 25+ years experience in wetlands and environmental resource management in both the public and private sectors and 25+ years training and teaching experience as a wetland regulator, consultant and community college and university Instructor.

Mr. Chinn has trained 8000+ wetland scientists in ACOE Wetland Delineation protocol nationwide.

Mr. Chinn was Certified during the Army Corps of Engineers' *Wetland Delineation Certification Program Demonstration Phase*.

Mr. Chinn is a former member of the Boards of the Society of Wetland Scientists and National Environmental Safety and Health Training Assn.

## The Course

### Unsolicited quotes from previous participants

*I thoroughly enjoyed your class and took a lot of home with me. Your teaching style is unprecedented-you have a calling to teach!*

*You had great energy, allowed for questions to be discussed, maintained a good sense of humor, and were an engaging speaker. I will recommend your class to others in my company and field.*

Every participant will receive:

- Comprehensive workbook,
- Regional Supplement Manual,
- County list of hydric soils for that county,
- NWI list of wetland plants for that Region,
- Corps' Clarification memoranda,
- Certificate of completion suitable for framing,
- Sources of pertinent wetland information,
- 3.8 Continuing Education Units (CEUs),
- Password to the alumni page,
- 2.5 Pre-Approved Credit Hour equivalents toward SWS Professional Wetland Scientist

## Richard Chinn Environmental Training, Inc. Additional Courses

### Wetland Permitting Training

This 2-day course covers the regulatory issues of wetland management, especially the "how-to"s of wetland impact permits. This course is pre-approved for 2.5 equivalent semester credit hours toward Professional Wetland Scientist certification by the Society of Wetland Scientists.

### Regional Supplement Wetland Delineation Training

This 2-day course covers the new Army Corps of Engineers Regional Supplement Wetland Delineation method in effect at that location. This course is offered as a standalone course on the third and fourth days of our 4-day Wetland Delineation Training class.

### On-Line HAZWOPER Annual Refresher

This course satisfies OSHA's requirements for annual refresher training for Hazardous Waste Operations & Emergency Response workers (29 CFR 1910.120).

Call us or visit our web page for our current, posted training class schedule.

**On-site training is available for groups as few as 10 persons.**

## Richard Chinn Environmental Training Wetland and Waters of the US Delineation & Field Training including the new Regional Supplements

**Learn the definitions of waters of the US following the May 27, 2015 ACOE and EPA "Clean Water Rule" guidance and the older Rapanos rules.**

**Learn** the Corps' wetland delineation methods, including the new **Regional Wetland Delineation Supplemental Methods**, to correctly delineate wetlands through identification of hydric soils, hydrology and hydrophytes in normal, disturbed, and problem areas,

**Satisfy** the training requirements of state Departments of Transportation, the Corps of Engineers and other government agencies that have mandated or recommended training requirements for their listed wetland contractors,

**Earn** 2.5 pre-approved equivalent semester credit hours toward **Professional Wetland Scientist** certification by the Society of Wetland Scientists and 3.8 Continuing Education Units that are required by many certifying and licensing bodies

## ½ Classroom & ½ Field

**Salt Lake City, Utah**

**May 7 - 10, 2018**

**\$1100**

**Richard Chinn Environmental Training, Inc.**

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Please pass this brochure on to your colleagues.

