

# **Advanced Training Workshop for Soil Evaluators**

## **Reading Different New England Landscapes**

**Workshop Number: T514-0003**

**Credits Awarded: SE—6 TCH, Title 5 SI --3 TCH**

**Cape Cod (Sandwich to Orleans, Massachusetts)**  
**May 5, 2017 (Bad-weather day, May 12, 2017)**

**Presented by:**

**Peter C. Fletcher, Certified Professional Soil Scientist (02703)**  
**Soil Evaluator (SE3027) and Title 5 System Inspector (SI2975)**

### **Workshop Description**

This is a 6 hour field workshop. This workshop is designed for professionals who are seasoned Soil Evaluators with field experience. It is being presented in different regions of the State. Each workshop is uniquely different from the others in that the participants will see different soils and geology that are common to that particular region of the State. Participants completing this workshop will receive 6 Soil Evaluator Training Credit Hours and 3 Title 5 System Inspector Training Credit Hours.

An important and essential skill for all Soil Evaluators is being able to interpret a landscape by first reviewing available reference materials and then walking the landscape. Identifying the different landforms and understanding the geologic processes (glaciers, rivers, marine, wind, etc.) that formed the underlying sediments is key to a comprehensive evaluation of a site. With this knowledge one can visualize the landscape from a three dimensional perspective, alerting the evaluator to underlying restrictive layers, presence of silt and clay, potential for a high water table, altered/disturbed soil conditions, etc. This should be done before excavating any deep holes and will guide a Soil Evaluator to the best areas for locating a system at a site.

This workshop will be conducted using hand shovels and soil augers. Participants are to bring their own field equipment (soil color book, trowel, water bottle, etc.). Soil shovels and augers will be provided by the instructor. Because this workshop focuses on “keeping your head out of the deep hole” and interpreting the landscape, there will be no excavated deep observation holes.

The field exercises for this workshop are strenuous and require participants to traverse rough terrain, walk long distances, and dig test holes using shovels and augers. Each participant needs to evaluate their own health and physical conditioning before registering for this workshop.

## Workshop Agenda

**Date:** Friday, May 5, 2017 (Bad-weather day May 12, 2017)  
**Meeting Location:** To be announced (Cape Cod)  
**Time:** 9:00 AM to 4:00 PM

### **Small group activities at each field stop:**

- Review and interpret reference maps (USGS Topographic Maps, Surficial Geology Reports, USDA NRCS published Soil Surveys, different flights of aerial photographs, FEMA Flood Insurance Maps, DEP Wetland Maps, USFW, National Wetland Inventory Maps, USGS Current Groundwater Conditions reports, etc.).
- Discuss the geologic past: identify different landforms and understand the geologic processes that formed them.
- Identify the soil parent material and discuss its physical and chemical properties.
- Understand the kind of groundwater system and interpret the depth to estimated high groundwater.
- Interpret the depth to estimated high groundwater using a shovel and soil auger.
- Estimate the soil texture using field techniques.
- Identify the soil structure and consistence.

**Course Materials:** Each participant will receive handouts and a field workbook.

**Field Investigations:** This workshop will be conducted using hand shovels and soil augers. Participants are to bring their own field equipment (soil color book, trowel, water bottle, etc.). Soil shovels and augers will be provided by the instructor. Because this workshop focuses on “keeping your head out of the deep hole” and interpreting the landscape, there will be no excavated deep observation holes.

**Field Conditions:** The field exercises for this workshop are strenuous and require participants to traverse rough terrain, walk long distances, and dig test holes using shovels and augers. Each participant needs to evaluate their own health and physical conditioning before registering for this workshop.

**Field Session Weather Conditions:** Participants should come properly dressed for the field and wear appropriate clothing for the weather conditions. If the weather conditions are extreme (driving rain and lightning), participants will be notified via the Internet and the workshop will be rescheduled to the designated **Bad Weather Day on Friday, May 12, 2017.**

**Refreshments and Lunch:** Snacks and drinks will be provided.

**Driving:** Because challenging field sites are essential for the success of this workshop, participants may be required to drive considerable distances between field sites.

**Attendance:** All participants are required to be present at all times during the workshop. Attendance will be taken at the start and close of the workshop.

**Limited Enrollment:** To allow for small group instruction/discussion, enrollment for this workshop is limited to 20 participants.

**Certificate of Completion:** A Certificate will be awarded to each participant who successfully completes the workshop verifying the completion 6 Soil Evaluator Training Credit Hours and 3 Title 5 System Inspector Training Credit Hours. Participants should keep the Certificate in a safe place as it may be needed by NEIWPC to verify attendance at the workshop.

**All LSP participants:** A Standard Course Continuing Education Attendance Certification Form that will be given to each LSP participant who successfully completes the workshop. Complete the LSP form and send to the LSP Board.

**Lost Certificate Policy:** There will be a \$50 fee for researching records and the reissue of a Certificate of Completion. The request and the fee must be received by mail addressed to: Peter Fletcher, PO Box 87103, South Dartmouth, MA 02748.

**The Registration Form and the Liability Agreement are shown  
on the following two pages, and must be completed.**

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Print Name: \_\_\_\_\_  
Name as shown on Official State Soil Evaluator List (please print):

Soil Evaluator Number: SE \_\_\_\_\_

Title 5 System Inspector Number: SI \_\_\_\_\_

Organization/Business: \_\_\_\_\_

Position/Title: \_\_\_\_\_

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

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Business Telephone: \_\_\_\_\_ Cell \_\_\_\_\_

E-mail: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Check the box for  SE (6 TCH),  SI (3 TCH) and/or  
 LSP (CEC) Credit

**Fee for workshop is \$135.00, please make checks payable to Peter Fletcher.**

**Confirmation:** Upon receipt of your registration form, a confirmation notice will be emailed to you.

**Liability Form**  
**Release of Liability Agreement (ROL)**

For Peter C. Fletcher training, workshop, courses, and etc.

In consideration of being allowed participation, I agree, on behalf of myself, my assigns, executors, and heirs, to release and indemnify and hold harmless Peter C.

Fletcher from any cause or action, claims or demands, or any nature whatsoever, including but not limited to any claims of negligence, which I, my heirs, representatives, executors, administrators, and assigns may now have, or have in the future against Peter C. Fletcher on account of personal injury, property, damage, death or accident of any kind arising out of or in any way related to my presence at or participation in any activity, event or workshop, including traveling to, training for, being instructed in or participation in any of the above named events, workshops, or activities. I understand that I am releasing Peter C. Fletcher for any and all claims for injuries or damages arising out of Peter C. Fletcher's negligence including, but not limited to the temporary or permanent muscle strain or soreness, sprains, strains, cuts, abrasions, bruises, ligament and/or cartilage damage, fractures, spinal injuries, head injuries, eye injuries, disfigurement, paralysis, internal injuries, organ damage or death. I recognize that there are other risks of injury that may occur by my participation, which are not possible to specifically list.

It is the clear intent of this release agreement that the participator is releasing Peter C. Fletcher, his trustees, officers, agents, employees or instructors from any and all liability for any personal injury or property damage caused by Peter C. Fletcher's negligence of any and all agents, employees or instructors.

I understand, have read this release and, understand its terms.

**I have read the attached Liability Form and agree with the terms stated:**

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Print Name:** \_\_\_\_\_

**Make check payable to Peter Fletcher.**

**Mail check for \$135, completed registration form and signed liability form in the same envelope to:**

**Peter Fletcher**  
**PO Box 87103**  
**South Dartmouth, MA. 02748**