

Examining Soils for OWTS Practical Skills in Marking out an OWTS

Course created in partnership with Missouri Association of Professional Soil Scientists (MAPSS) and
Missouri Smallflows Organization (MSO)

Course Date: October 4, 2021

Location: Clinton, Missouri

Attendance is required to both the morning and afternoon session for CEUs.

Morning Session:

8:00 AM – 8:45 AM – Fundamentals of Soils by Mark Abney, NRCS – USDA

8:45 AM – 9:30 AM – Missouri One-Call Law by Charlie Peel, Damage Prevention Manager

9:30 AM – 9:45 AM – Break

9:45 AM – 10:45 AM – Examining soil reports, Group work – led by Tammy Trantham, OSE

10:45 AM – 11:30 AM – Group discussion on soil reports with entire class

11:30 AM – 12:45 PM – Lunch break (on-your-own)

Afternoon Session

Participants will need to drive to the field site. Directions will be handed out in the morning session. The plan for the afternoon is to look at a three different soil pits (i.e. Soil Series: Hartwell, Deepwater, and Barco). At each site, Onsite Soil Evaluators and Installers will work together to 1) describe the soil profile, and 2) flag out an OWTS system based on example parameters put forth on site.

12:45 PM – 1:45 PM – Describe soils and flag out system at location 1

This one will be completed as an entire group.

Split into groups: half of class will go to Site 2 and the other half will go to Site 3

1:45 PM – 2:00 PM – Break and walk to next site

2:00 PM – 3:00 PM – Describe soils and flag out system at location 2 or 3

3:00 PM – 3:15 PM – Bring class back together at Site 2

3:15 PM – 3:45 PM – Groups discuss results and decisions at Site 2

3:45 PM – 4:15 PM – Groups discuss results and decision at Site 3

4:15 PM – 4:30 PM – Wrap-up with Q&A, Evaluations

Field discussions will be led by Certified Onsite Soil Evaluators and MAPSS Members. Area Environmental Health Specialists will be invited to join in on the field discussion.

Course Description:

The class will have a classroom portion in the morning to go over Fundamentals of Soils by Mark Abney, NRCS. This chapter will cover the important characteristics of soils to look at for soil health and determining limiting factors for onsite wastewater treatment systems. Missouri One-Call Law led by

Charlie Peel will cover the following topics: Ticket Status, When to Call a No Response Ticket, When to Call in an Incorrect Locate, Direction Drilling/Boring, Obligation of Caller, Obligations of Utility, and APWA Color Code General Excavation Safety. Tammy Trantham will lead a course discussion by looking at prepared soil morphology reports for an onsite wastewater treatment site. The groups will examine the reports, discuss any errors on the reports, and prepare an oral presentation to the rest of the group. Missing characteristics and accurate findings will be discussed on the reports with the whole group. The field component of the class will examine three different soil pits that examine the following soil series: Hartwell, Deepwater and Barco. Each has its own set of advantages and disadvantages for onsite wastewater treatment systems. Installers and Onsite Soil Evaluators will work together in groups to discuss the soil pits and then lay out with flags an onsite wastewater treatment system based on an example property given on site. The group will come together in the end and discuss each group's soil description and OWTS recommendation.

Biographies of Speakers:

Mark Abney

Assistant State Soil Scientist for Missouri under NRCS-USDA. Soil Scientist for 33 years in Missouri.

Charlie Peel, Damage Prevention Manager with Missouri One-Call

Damage Prevention Manager Missouri One Call (2 years)

Right of Way/ Damage Prevention Specialist for Enbridge Pipeline (5 years)

Past President of Pipeline Association of Missouri (3 years)

President of Randolph County Local Emergency Planning Committee (6 years)

Assistant Director District 3 Fire Fighters Association of Missouri (6 years)

Adjunct Instructor University of Missouri Fire Rescue Training Institute (3 years)

Retired US Army - 25 ½ years of service

Tammy Trantham

Tammy Trantham has extensive experience in water quality education. She obtained her Bachelor of Science degree in Biology from Viterbo University in La Crosse, Wisconsin. She completed her Master's in Biology from Missouri State University with an emphasis in Aquatic Biology. Tammy has done educational presentations all around southwest Missouri pertaining to stream ecology, lake ecology and wastewater treatment. As the Executive Director of Missouri Smallflows Organization, she coordinates educational presentations around the state for continuing education opportunities. She was also the Projects Assistant for Missouri Project Learning Tree, Project Water Education for Teachers (WET), and Flying WILD at Missouri State University. Here she conducts training workshops for teachers to incorporate water ecology, forestry, and bird ecology into their curriculum. Finally, Tammy is also a registered Onsite Soil Evaluator through the Department of Health and Senior Services (DHSS) to conduct soil evaluations for onsite wastewater treatment systems.