

# STANDARD OPERATING PROCEDURE (S.O.P.) FOR: AMENDED SOIL QUALITY AND DEPTH TEST

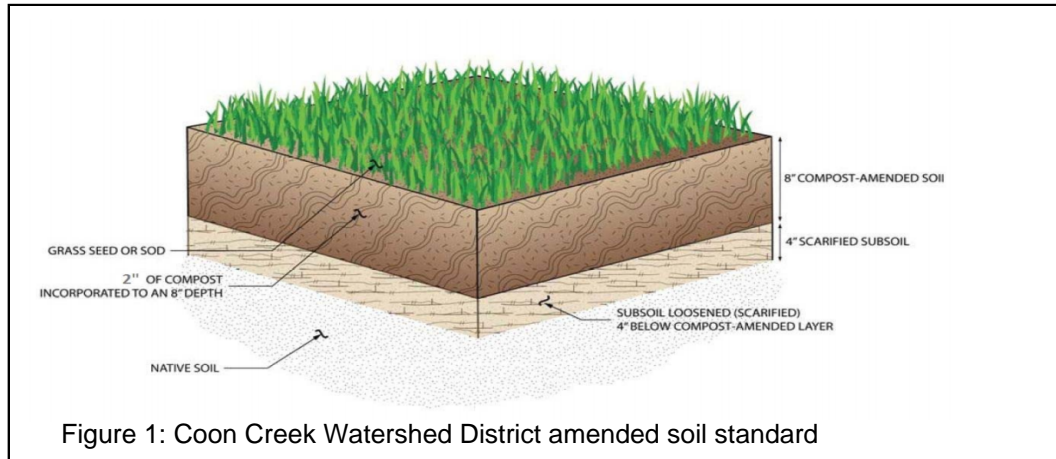


Figure 1: Coon Creek Watershed District amended soil standard

The main conditions to be confirmed are:

1. Provision of eight (8) inches of compost amended soil or imported topsoil.
2. Four (4) inches of scarified (loosened) subsoil below the topsoil layer (for a total uncompacted depth of 12 inches).
3. Grass seed or sod.

**SITE INSPECTION SUPPLIES: 1.) Sturdy shovel, 2.) Tape measure or 12" ruler, 3.) Rod Penetrometer (see Step 4 for details)**

The following steps may be completed at multiple visits as a project progresses or in one final project approval inspection:

### Step 1: Compare site conditions with the approved Plan Set.

Make sure site conditions match these details:

- Soil amendment areas match approved drawings.
- Areas with amended soils have been fenced off during construction to prevent soil compaction.

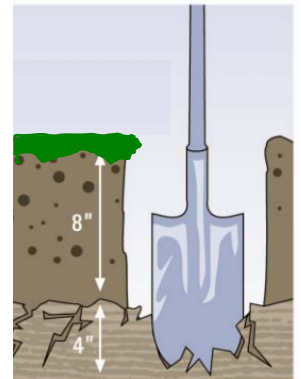
### Step 2: Inspect delivery tickets for compost and topsoil.

Permittee must provide original delivery tickets for all soil and compost products stating the following information:

- Soil specification stating that the soil consists of 20-25% compost by volume or soil test showing 5% organic matter by loss-on-ignition test.
- Total quantities for each soil product and compost.
- Product descriptions and sources.

### Step 3: Verify depth of amended soils and scarification.

Use a shovel to dig at least **one test hole per acre** to verify eight inch topsoil depth, incorporation of amendments, and four inches of uncompacted soil.



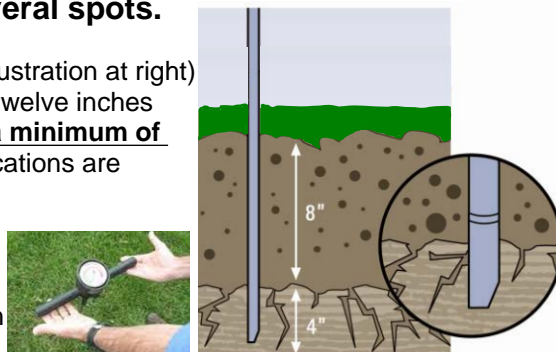
-The top eight inches of soil should be easy to dig using a garden spade driven solely by your weight. The soil should be darker than the unamended soil below, and particles of added compost (organic matter) are likely to be visible. Soil that requires vigorous chipping with the shovel to penetrate does not meet the requirement.

-The next four-inch depth of soil should be loose enough to penetrate with the shovel.

### Step 4: Check soil depth in several spots.

Use a simple "rod penetrometer" See illustration at right) to confirm that the soil is uncompacted twelve inches deep at **ten locations per acre - with a minimum of ten on smaller sites**. Additional test locations are encouraged.

The rod penetrometer should enter the soil 12 in. deep, driven solely by the inspector's weight. Irregular scarification or rocks in the lower layer may require probing a few spots at each location to reach the full depth.



A rod penetrometer is a 4 foot long, 3/8 inch or 10 mm diameter stainless steel rod with a 90 degree bend 5 inches from the top to make a handle, and a 30 degree bevel cut 1/8 inch or 3 mm into the side of the tip.