



Percolation Test

A Percolation test will help in determining the permeability of the site at a specific location. Since the Natural Resources Conservation Service (NRCS) soil survey data is typically completed at the large scale of 1:12,000, a percolation test can tell you more about how the soil on your individual site will drain. You may want to complete more than one percolation (perc) test, given different elements and soil variability on a given site.

SUPPLIES

- Post hole digger
- Time keeping device
- Water/Hose



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Percolation Test



STEP 1: Dig a 12” min depth hole

In an area designated for a stormwater BMP, dig a 12”min—24” max depth with a standard post hole digger.



Figure 1: Post hole digger



Figure 2: 12” deep hole

STEP 2: Water

Note the time and completely fill the hole with water.



Figure 3: Fill hole with water

STEP 3: Measuring

After the hole is completely filled with water note the water level at a given time increment, 10 to 15 minutes. If the water seeps slowly you may want to increase the time increment to 30 minutes.



Figure 4: 15 minutes of infiltration



Figure 5: Completed perc test, 30 minutes after start

STEP 4: Calculation

Follow step 3 until the water has completely infiltrated into the surrounding soil, or up to 4 hours. If the water has not seeped out in 4 hours, you have poorly drained soil and may want to contact a professional, relocate the Stormwater BMP to an area with better drainage, or modify the selected BMP to a Stormwater wetland.