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Well and Septic Percolation Testing Procedures

Percolation testing is the process of soils evaluation including establishment of infiltration rates for soils that make up an area intended for the installation of an initial septic system and replacement septic systems.

Percolation testing may only be conducted:

- On lots going through the subdivision process once the Well and Septic office has received a plan of subdivision and has approved the plan for testing with prior submission of a complete application package
- On individual parcels of land once this office has received a complete application package for percolation testing
- On lots with existing dwellings for the purpose of replacing a failing septic system
- In areas of original soils – no areas of disturbed soils are eligible for testing
- In areas that meet all setback requirements
 - 100 feet from all water wells
 - 100 feet from all water bodies, including intermittent streams
 - 25 feet from rock outcrops, drainage swales and excessive slope areas
 - 20 feet from any part of a building with a foundation
 - 10 feet from tennis court, swimming pool, detached garage and shed
 - 10 feet from any utility line or utility easement
 - 5 feet from all lot lines and driveways

Application for percolation testing

- Submit a complete application package for ‘water table’ and percolation testing to the Well and Septic office (If proposal is for subdivision, the project must already be in the MNCP&PC subdivision review process)
- Make certain that all test sites are staked by a licensed surveyor prior to testing
- Secure the services of a qualified excavator to schedule the test date(s) with a Well and Septic inspector and prepare the test holes for evaluation

Provisions for test site preparation

- All test sites, except sites for sandmound testing, must be prepared in the following fashion, at locations indicated on the approved test plan:
 - For ‘water table’ evaluation, each of the sites must be excavated to a total depth of fifteen (15) feet, or to the point at which the excavator encounters groundwater and/or excessive rock fragments
 - For shall tile field systems: several shallow test sites at a depth of 2.5 feet depth and at least two sites with total depth of 6.5 feet total depth

- For deep trench systems; a minimum of two to three test sets must be prepared, as indicated on the approved test plan
- For sandmound systems: infiltrometer tests must be conducted at the geometric center of each of the proposed sandmound sites
- Test sites for shall tile field systems and deep trench systems must be presoaked with approximately 5 gallons of clean water each, no more than twenty-four hours before testing
- A test set consists of one shallow test cup and one deep test cup, with test depths determined by the excavator based on soil conditions
- Each test cup must be 6 to 8 inches in diameter, thirty (30) inches in total depth
- For each test cup to be tested, a clean five gallon bucket filled with clean water must be provided
- For each test cup to be tested, a straight edge stick of 3 to 4 feet in length, 2 to 4 inches in width and ½ to 2 inches in thickness must be provided (to establish a point at original grade with which to conduct all measurements required for testing)
- **Caution:** Open test holes are hazardous to humans and animals. No test holes shall remain open any longer than absolutely necessary to complete testing. Test holes must be filled immediately after testing is completed. Open test holes must be adequately fenced off and barricaded at all times.
- For clarification on any issues related to the percolation testing process, please contact the Well and Septic office at (240) 777-6300.