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## WHITPAIN TOWNSHIP



### Percolation Test Requirements for Stormwater BMP's (ENGINEERING DEPARTMENT)

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**A percolation test report shall be submitted to Whitpain Township with the infiltration system design form, plan and details. The report shall include the name of the company and the qualifications of the person conducting the test.**

Percolation tests shall be conducted in accordance with the following procedure:

- (1) *Procedure for presoaking.* Presoaking shall be performed between June 1<sup>st</sup> and December 31<sup>st</sup>. Holes shall be presoaked, according to the following procedure, to approximate normal wet weather or in-use conditions in the soil:
  - (i) *Initial presoak.* Holes shall be filled with water to a minimum depth of 12 inches over the gravel and allowed to stand undisturbed for 8 to 24 hours prior to the percolation test.
  - (ii) *Final presoak.* Immediately before the percolation test, water shall be placed in the hole to a minimum depth of 6 inches over the gravel and readjusted every 30 minutes for 1 hour.
- (2) *Number and location.* A minimum of three tests shall be made in separate test holes spaced uniformly over the proposed absorption area site.
- (3) *Results.* Percolation holes located within the proposed absorption area shall be used in the calculation of the arithmetic average percolation rate.
- (4) *Type of hole.* Holes shall have a uniform diameter of 6 to 10 inches. The hole must be dug to the proposed bottom elevation of the underground facility.
- (5) *Preparation.* The bottom and sides of the hole shall be scarified with a knife blade or sharp-pointed instrument to completely remove any smeared soil surfaces and to provide a natural soil interface into which water may percolate. Loose material shall be removed from the hole.

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(6) *Test Procedure.* The test consists of filling the holes with water and measuring from the original ground level the drop in water surface every five (5) minutes for thirty (30) minutes. This test shall be witnessed by the Township Inspector or another designated person. Test results must be submitted to the Township for review.

**The percolation test can fail for one of the following reasons:**

- (a) Groundwater encountered within 2 feet of the bottom of the storage facility.
- (b) Rock encountered within 2 feet of the bottom of the storage facility.
- (c) The drop in the percolation test water surface elevation for any of the test holes is less than three-eighths (3/8) of an inch in the thirty (30) minute test period.

Important Safety Note :

Digging and excavation should never be conducted without adequate notification through the Pennsylvania One Call System (#1-800-242-1776 or [www.paonecall.org](http://www.paonecall.org)).