

## Percolation Test Procedure

The San Joaquin County Environmental Health Department (EHD) has adopted the following procedure in order to evaluate and process percolation results uniformly, effectively and quickly.

### Obtain Application for Percolation Test Permit:

- Fee is \$152 per test hole or \$760 for 5 or more test holes.
- Indicate the test hole location(s) on the permit application plot plan.
- Percolation Test Hole(s) shall not be located within 100 feet of any well or violation any other set-back requirements for a septic system.
- Call (209) 953-7697 to schedule an inspection 48 hours in advance.

### Preparation of Test Hole(s)

#### *Test Hole(s) dimensions:*

**Diameter = 4 inches to 12 inches**

**Depth (Consistent with leach field) = 36 - 42"**

- Scratch or score sides to remove any smeared soil surfaces.
- Remove loose material from hole.
- Add 2 inches of course sand or fine gravel.
- Saturation: Pre-soak Test Hole(s) 24 hours before test by adding water a minimum of 12 inches over gravel. The EHD is to be notified of start of Percolation Test.

### Preparation of Test Hole(s) for Deep Perc Test:

#### *Test Hole Dimensions:*

**Diameter = 4 inches to 12 inches**

**Depth = 42 inches to 25 feet, Minimum 10 feet above water table.**

- Pre-soak Test Hole(s) by adding water 6" above selected stratum.
- Maximum water level allowed = 3 feet above selected stratum
- Red Zone area requires 25' deep test hole(s) or soil stratum that meets minimum percolation rate for pit testing.

### PROCEDURE #1

If water **remains** in the test hole overnight

- Add clear water to approximately 6 inches over the gravel.
- From a fixed reference point, measure the drop in water level over a thirty (30) minute period.
- Calculate the percolation rate in minutes per inch.

### PROCEDURE #2

If **NO** water remains in test hole overnight

- Add clear water to bring depth of water in the hole to approximately 6 inches over the gravel.
- From a fixed reference point, measure the drop in water level at thirty (30) minute intervals for four (4) hours, refilling 6 inches over the gravel as necessary.
  - Use the smallest reading of the four (4) hour period to calculate percolation rate in minutes per inch.

### PROCEDURE #3

Sandy soils (or other soils) in which the first 6 inches of water seeps away in less than thirty (30) minutes after the overnight saturation period

- Refill the hole to approximately 6 inches above the gravel.
- From a fixed reference point, take the readings 10 minutes apart over a one (1) hour period.
- Use the smallest reading change; calculate percolation rate in minutes per inch.

### At the time of the percolation test inspection, Environmental Health Staff will:

- Review application and parcel map for location accuracy and verify appropriate procedure used.
- Inspect test hole construction and review raw field data recorded prior to arrival.
- Observe and document the readings during the final 30 minutes of the test on the EHD "Percolation Test Application."
- Correct any data on the application and sign the percolation record sheets.

**Source:** Manual of Septic Tank Practices, U.S. Dept. of H.E.W. (1967), as founded and modified for San Joaquin County.  
San Joaquin County EHD Policy # 98-02.