

Tile Dewatering System Construction

A tile dewatering system is approvable for sites with a natural outlet above annual high water, drainable soils, and a slope that does not exceed 3%. All other requirements for the system, except depth to groundwater must be met.

The depth of the dewatering trench is dependent on the type of water table on the site and depth to confining layers. The depth of the drain media is dependent on the type and depth of the water table.

Refer below for the required trench and media depths.

OAR 340-71-315 (2) Construction Requirements:

- (a) Field collection drainage tile must be installed on a uniform grade of 0.2 to 0.4 feet of fall per 100 feet. The tile drainage trench must be constructed to the minimum depth required in the approved site evaluation report.
- (b) A field collection drainage tile trench must be constructed at least 12 inches wide.
- (c) Maximum drainage tile spacing must be 70 feet center to center.
- (d) The minimum horizontal separation distance between the drainage tile and absorption facility must be 20 feet.
- (e) Field collection drainage tile must be rigid smooth wall perforated pipe, or other pipe material approved by the agent, with a minimum diameter of 4 inches.
- (f) Field collection drainage tile must be enveloped in clean drain media or underdrain media to within at least 30 inches of the soil surface in soils with permanent groundwater or to within at least 12 inches of the soil surface in soils with temporary groundwater. Drain media must be covered with filter fabric, treated building paper or other non-degradable material approved by the agent.
- (g) Outlet tile must be rigid smooth-wall solid PVC pipe, meeting or exceeding **ASTM Standard D-3034** with a minimum diameter of 4 inches. The agent may require a flap gate or rodent guard.
- (h) A silt trap with a 12-inch minimum diameter must be installed between the field collection drainage tile and the outlet pipe unless otherwise authorized by the agent. The bottom of the silt trap must be at least 12 inches below the invert of the drainage pipe outlet.
- (i) The discharge pipe and tile drainage system are integral parts of the system, but do not need to meet setback requirements to property lines, wells, streams, lakes, ponds or other surface waters.
- (j) Before issuing a site evaluation report approving the site, the agent may require demonstration that a proposed tile dewatering site can be effectively drained.
- (k) The absorption facility must use equal or pressurized distribution.

