

SEPTIC SYSTEMS IN CONTRA COSTA COUNTY

This handout is intended to provide a general overview of septic systems. IT IS NOT MEANT AS A SUBSTITUTE FOR FAMILIARITY WITH APPLICABLE LAWS AND REGULATIONS. State and local laws govern the design, installation and maintenance of septic systems in the county. The purpose of these laws is public health protection and the prevention of environmental degradation. Improperly designed, installed or maintained systems can result in surfacing sewage or contamination of our water resources.

A typical septic system consists of a septic tank, disposal field and 100% expansion area. The septic tank retains and anaerobically digests the solids component of sewage. It must be sized to maintain an adequate retention time while providing for sludge and scum mat accumulation. The disposal field allows the liquid effluent from the tank to percolate into the surrounding soil. Oxygen, biological activity and the filtering effects of soil aerobically treat the effluent in the field killing viruses and pathogenic organisms and allowing nitrate reduction. The 100% expansion area is a location separate from the original disposal field, reserved to install a new field in the event of failure.

The critical factor in designing a septic system is ensuring the disposal field has adequate conditions so that sewage is properly treated prior to its reaching water resources. Areas to be used for on-site sewage disposal must comply with all of the following requirements:

1. Minimum effective soil depth below the bottom of the leachline trench - 3' and can be shortened to 2' if an approved pretreatment device is used.
2. Minimum separation between seasonal high groundwater and the bottom of the leachline trench - 3'.
3. Maximum slope - 20% for conventional systems and up to a maximum of 30% for some alternative system designs.
4. Maximum percolation rate - 60 minutes/inch for a conventional system and 120 minutes/inch for some alternative systems.

As part of any permit application, the Environmental Health Division conducts a site investigation and soil evaluation to determine the suitability of a site for a septic system and, if suitable, the required design. Systems must also comply with MINIMUM setback requirements as follows:

	Septic Tank	Leach Field (includes expansion area)
Wells	100'	100'
Property line in area served by water well	25'	50'
Property line in area served by public water	10'	10'
Foundations	10'	10'
Edge of bank of streams, creeks	100'	100'
Large trees	10'	10'
Water lines – private	5'	5'
Water lines – public	10'	10'
Tributaries of domestic water reservoirs	1000*	1000**

*As measured from the parcel boundary line. The property line that contains the septic system must be 1000 feet from the tributary of a domestic water reservoir.