



Health and Human Services

Environmental Health

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Septic Tank Maintenance

How does a Septic Tank work?

As the septic system is used, there is an accumulation of solids in the tank, sometimes referred to as sludge. The septic tank removes solids by holding wastewater in the tank for at least 24 hours, allowing the solids to settle and scum to rise to the top. A central baffle in the septic tank separates solids from the liquid phase and aids in the settling process. Up to 50 percent of the solids retained in the tank will decompose over time. Treated effluent water discharges from the tank to the absorption field or leach

field, through perforated pipes, where further treatment of the effluent is achieved.

Septic Tank Maintenance

As you use your septic system, sludge will accumulate in the tank. Properly designed tanks have enough space for *approximately* three to five years of safe accumulation. If too much sludge is allowed to accumulate, the separation of suspended solids and scum no longer takes place, and solid may migrate into the absorption field. This can be prevented by periodically pumping the accumulated sludge. How often to pump your septic tank depends on the following:

- Capacity of septic tank
- Number of residents in household
- Volume of solids in wastewater

Volume of wastewater flow is determined by the type and frequency of common household activities. Water conservation practices in the home will help to limit the flow into the system. Use of an in-sink garbage disposal will increase the volume of solids. Care should be given to the type and amount of solids disposed of through a garbage disposal.

Safe use of septic systems

Do not put substances such as motor oil, gasoline, paints, thinners, pharmaceuticals, and pesticides in drains. These materials may pollute the groundwater and are toxic to the microorganisms that maintain an active septic system. Moderate use of household cleaners, disinfectants, detergents, or bleaches will do little harm to the system, but remember that

where there is a high density of septic systems there may be a cumulative impact on groundwater from household cleaners. Fats, grease, coffee grounds, paper towels, sanitary napkins, disposable diapers, hair, and other such items will promote excessive accumulation of solids in your septic tank and result in the need for more frequent pumping. Failure to pump a septic tank on time *may* result in the premature failure of the leach field.

Protect the absorption field

Keep automobiles and heavy equipment off the absorption field. Grass cover and shallow-rooted plants are beneficial over the absorption field, but the deep roots of trees and shrubs stress and may plug nearby drain tiles. Grass on the surface of an absorption field should be mowed regularly to promote evaporation and removal of water through the leaves and helps prevent water from unnecessarily infiltrating the soil above the absorption field.

Conserve water

Remember to consider the capacity of your septic system when installing new appliances or plumbing. Limit the water entering the tank. Use water-saving fixtures. Repair toilet float valves, leaks, and dripping faucets.

Avoid septic tank additives

Yeasts, bacteria, enzymes, and chemicals are sold with the claim of helping septic systems work better; however, there is no scientific evidence that additives are effective. In fact, some cleaners allow the solids in an overloaded tank to be re-suspended and clog the drainage lines. Additives are not an alternative to proper maintenance and do not eliminate the need for routine pumping of a septic tank. Commercial biological additives are not necessary for restarting decomposition after pumping because the sludge residue contains active microorganisms.

How to recognize problems

Learn how to recognize problems with septic systems. For example, unusually lush and green grass over your drain field may indicate trouble. Also, pay attention to slow-draining toilets or drains, sewage odors, or sewage backing up into the house or over the drain field.

Checklist for Good Septic Tank Maintenance:

- Have your septic tank pumped by a California licensed pumping contractor on a regular basis.
- Practice water conservation. Repair leaky faucets and toilets. Spread clothes washing over the entire week, and operate only with a full load of laundry.
- Learn the location of your septic system. Make a map and keep it handy.
- Keep a maintenance record.

Failure of disposal fields

Be advised that surfacing sewage from a leach line requires replacement of the leach line. This **requires** a permit from the Health Department. Please remember that replacement of disposal areas can be costly.

Who to contact:

If you have questions regarding your septic system, contact Environmental Health at Alpine County Health and Human Services (530) 694-2146.



The End!

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