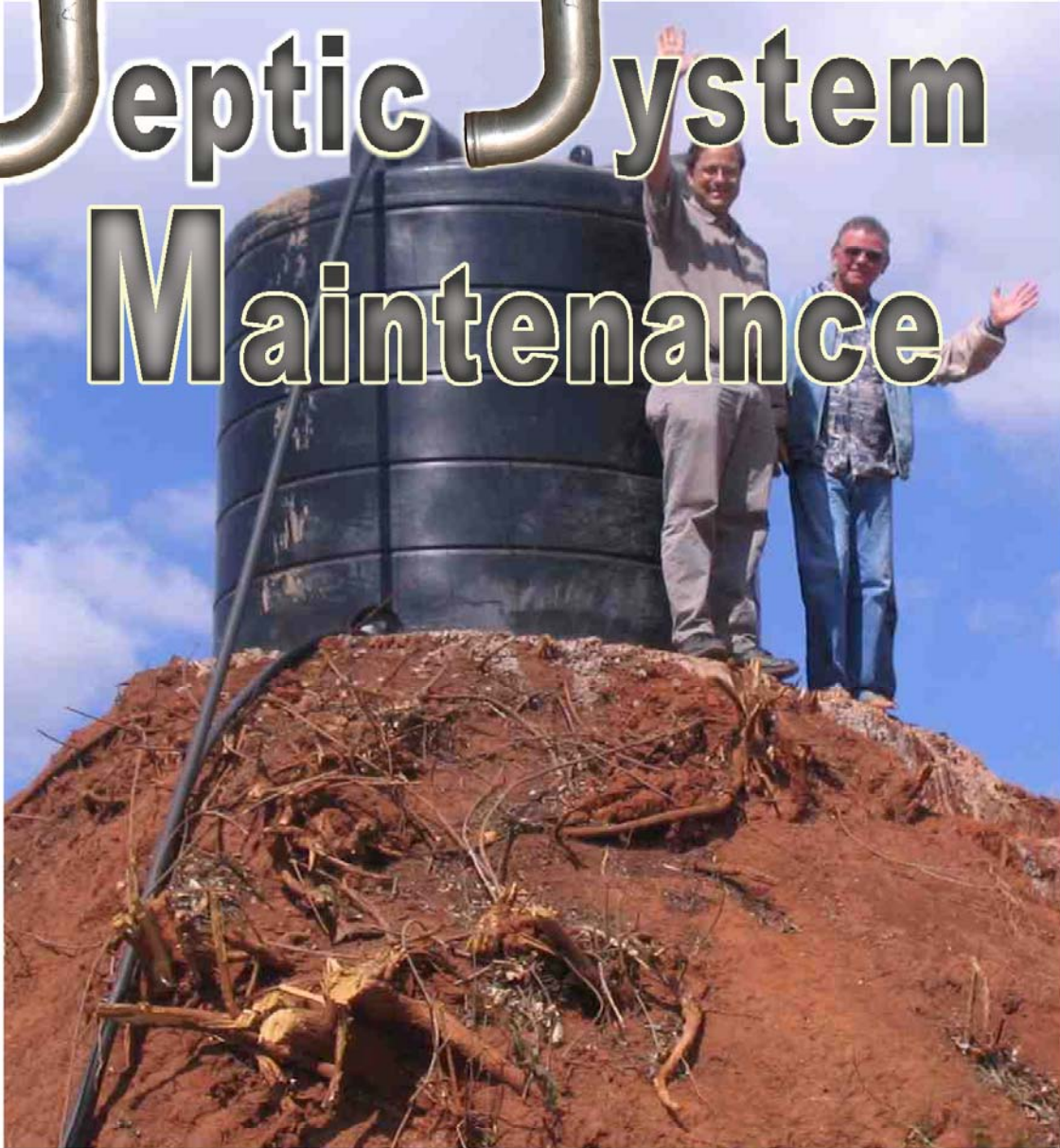


Septic System Maintenance



As a homeowner, you need to know that you are responsible for the maintenance of your septic system.

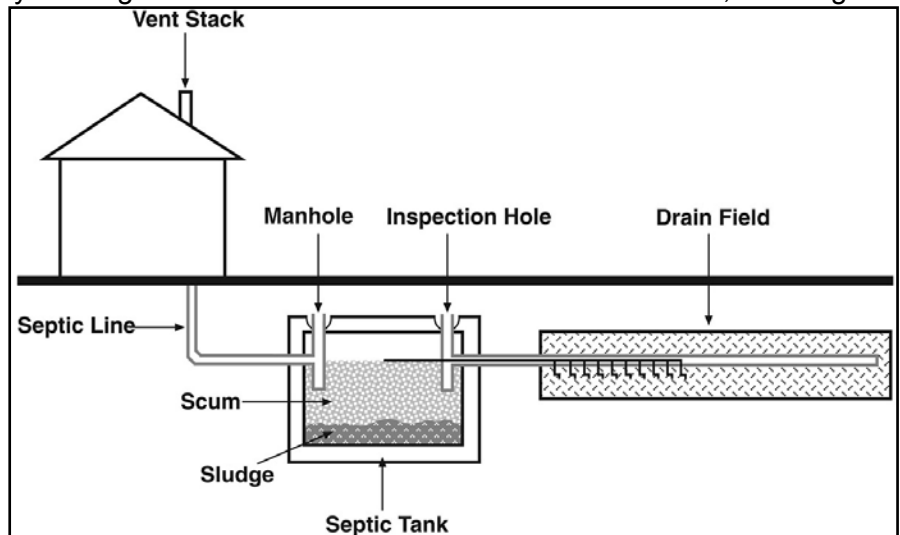
A well-maintained septic system protects your investment in your home, and the health of our community.

What is a Septic Tank?

A septic tank is an underground sewage-collection system. The tank itself is a watertight container constructed of a sound, durable material resistant to corrosion or decay. With proper care and maintenance, a septic system will provide decades of trouble-free service.

How Does a Septic Tank Work?

As the septic system is used, there is an accumulation of solids in the tank, which is sometime 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. This is accomplished by a series of baffles inside the tank. Up to 50% of the solids retained in the tank will decompose over time. Effluent water discharges from the tank to perforated drain pipes. From there, it drains to a constructed absorption or leach field. **This effluent eventually percolates through the subsoil to the groundwater table which, in Nipomo, is our fresh-water source.**



Septic Tank Maintenance

As you use your septic system, sludge will accumulate in the tank. Properly designed tanks have enough space for up to three years of safe accumulation. Once the sludge has reached this level, the separation of solids and scum no longer takes place, and sewage may overflow into the absorption/ leach field.

A common misconception is that the key component of a septic system is the septic tank. The soil absorption system, or leach field, is where much of the treatment occurs.



After the septic tank has settled out solids, clarified wastewater is dispersed through perforated pipes into the soil. Soil is the key to clean water. It acts as a physical strainer, chemical renovator and biological recycler for the wastewater passing through it.

As wastewater goes through the leach field beneath and to the sides of the pipes, a black, jelly-like mat (or biomat) forms. This thin layer of anaerobic organisms helps regulate the flow of wastewater to the soil and preys on potentially pathogenic bacteria, viruses and parasites. It also converts nutrients into a form that can be used by plants.

The biomat also is a common trouble-spot for clogging, as it has low permeability. Failing to pump out your septic system or discharging too much wastewater down the drain can lead to a buildup of organic material, which causes the biomat to grow too thick. This sludge flow into the leach field can damage the operation of the septic system, and lead to costly repairs. This can be prevented by periodically pumping the accumulated sludge.

Safe Use of Septic Systems

Don't use the septic system as a trashcan. Fats, grease, coffee grounds, paper towels, sanitary napkins, disposable diapers, kitty litter, and other such items will clog your septic system. Scrape food waste into the compost or garbage, rather than use the in-sink garbage disposal.

Do not put substances such as motor oil, gasoline, paints, thinners 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.**

Protect the Absorption/ Leach 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 may plug nearby drain tiles.

Do not fertilize the soil above the drain field. Grass on the surface of an absorption field should be mowed regularly to promote evaporation and removal of water through the leaves.

Practice Water Conservation

Prevent large volumes of water from entering your system all at once. A flood of water reduces the time wastewater is retained in the tank, leaving fewer opportunities for solids to settle out and for anaerobic bacteria to start the breakdown process. It also can stir up sediment and flush it into the leach field, causing clogs.

Remember to consider the capacity of your septic system when installing new appliances or plumbing. Limit the water entering the septic tank.

Use water-saving fixtures. Repair toilet float valves, leaks, and dripping faucets. To reduce water consumption further, install faucet aerators and low-flow showerheads, which give more force to less water.

Take shorter showers and use showerheads that allow you to easily turn them off when you're lathering up. Shut off water while brushing the teeth or shaving.

Wash only full loads in the dishwasher, or hand wash dishes with a basin of soapy water and a basin of clear rinse water.

Front-loading washing machines use almost half the water of top-loading washers. Wash only full loads, and adjust load level settings for small loads. Distribute wash loads evenly throughout the week to avoid overloading the system with large volumes of water.



Pipe from house to tank

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. Additives are not an alternative to proper maintenance and do not eliminate the need for routine pumping of a septic tank.

If you have a water softener system, recharge as infrequently as possible to reduce water use.

How to Recognize Problems

Learn to recognize problems with septic systems.

- **Toilets run slowly or back up.** In the worst cases, the shower is flooded with sewage. This can be the result of plugged sewer lines to the tank, a plugged inlet or outlet pipe, a full septic tank, or a failed drain field.
- **Septic odors occur in the house, above the tank and drain field, or escape from the vent pipe.** If the system is operating properly, there should be no odors. If there are odors, it can be an early-warning sign that the system is failing.
- **Unusually lush and green grass over your drain field** may indicate trouble.

Annual Preventative Maintenance

An annual inspection, with pumping as required, is the most reliable way to maintain the health of your septic tank and leach field. The most common cause of septic system failure is sludge overflow in the leach field resulting in a costly replacement of the leach field.

HOW OFTEN SHOULD YOU PUMP? This depends on the following:

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

Checklist for Good Septic Tank Maintenance

- Keep a maintenance record.
- Learn the location of your septic systems. Make a map and keep it handy.
- Check the system annually for leaks and sludge.
- Have your septic tank pumped by a licensed pumping contractor.
- Practice water conservation.

ESTIMATED SEPTIC TANK PUMPING FREQUENCY IN YEARS

Tank Size (gallons)	Household Size (number of people)					
	1	2	3	4	5	6
500	6	3	2	1	1	0.5
750	9	4	3	2	1.3	1.0
900	11	5	3.5	2	1.7	1.5
1000	12	9	4	3	2.0	1.5
1250	15	8	5	3.5	2.5	2.0
1500	19	9	6	4	3	2.5
1750	22	11	7	5.0	4	3
2000	25	12	8	6	4.5	3.5
2250	29	14	9	7	5	4
2500	32	16	10	8	6	5

New Homeowners: Review Your Septic System Evaluation

A septic system evaluation should be conducted as soon as the property is placed on the market so that necessary repairs can be made to the system. The evaluation should be completed before the sale is final.



Septic system pump truck

At a minimum, an evaluation should examine these issues:

- The location, age, size and original design of the septic system.
 - The soil conditions, drainage, seasonal water table and flooding possibilities on the site where the septic system is located.
 - Review system maintenance and pumping records.
 - The condition of the plumbing fixtures and their layout to determine whether structural changes have been made to the plumbing that would increase flow to the septic system above the capacity.
 - The date the septic tank was last pumped.
 - The sludge level in the septic tank.
 - The condition of the absorption field.
- Evidence of liquid waste reaching the soil surface, draining toward nearby lakes and streams, or clogging the soil and gravel beneath the field. This usually requires digging up a small portion of the field.
 - Look for evidence that heavy equipment has been on the drain field, causing compaction and possible damage.

Information is provided as a public service by the Nipomo Community Services District Water Conservation Program.



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