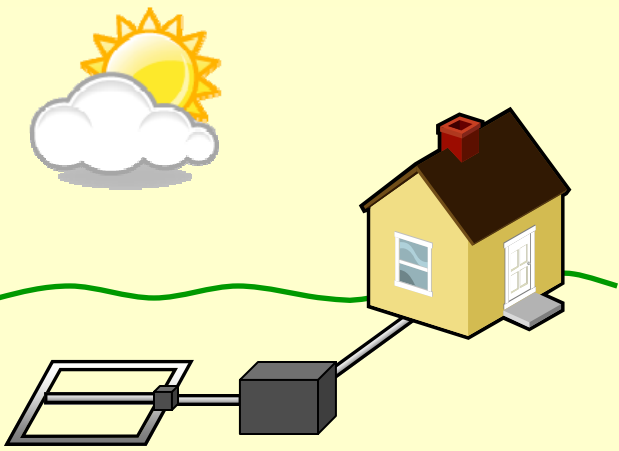


# SEPTIC SYSTEM SENSE

## A Guide to the Maintenance and Care of an Onsite Wastewater Disposal System



What you *don't* know may harm your septic system (and your wallet).

### HOW A SEPTIC SYSTEM WORKS

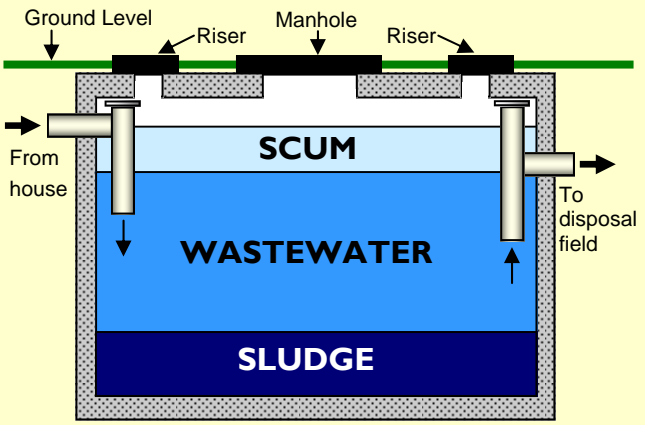
A standard septic system has four components: a sewer pipe from the house, septic tank, drainfield and the soil.

#### Sewer pipe from the house

Wastewater exits the home through the sewer pipe and enters the septic tank for initial treatment.

#### Septic Tank

The septic tank is a watertight concrete, plastic or fiberglass container that is buried underground. The tank retains wastewater long enough to allow organic solids to settle to the bottom of the tank (forming a layer of sludge) and the grease and oil to float to the top of the tank (forming the scum layer). Naturally occurring bacteria in the tank decompose the solid waste in the scum and sludge layers. Only the clarified liquid wastewater between the sludge and the floating scum is allowed to flow into the drainfield.

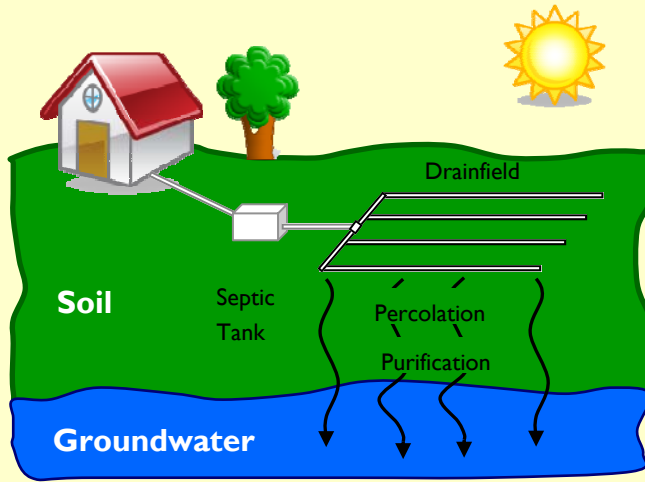


Normal single-compartment septic tank.

#### Drainfield

The drainfield (or leach field) is the area where effluent from the septic tank is discharged into

the soil for additional treatment. Perforated pipes are placed in gravel-filled trenches and effluent from the septic tank is distributed evenly through the pipes into the soil.



A typical septic system (not to scale).

#### Soil

The soil below the drainfield provides the final step in the onsite wastewater treatment process. The pipes in the drainfield should be at least five feet above groundwater levels. As wastewater percolates (filters through the soil), it is filtered and purified. Bacteria, viruses, chemicals and some nutrients are removed. Only treated water should reach the groundwater in a properly functioning septic system.

**Quick Fact!**  
 In California, there are over one million septic systems in use. San Diego County has over 61,000 septic systems, while Riverside County has almost 97,000 systems in place.

### MAINTENANCE RECORDS

An important Best Management Practice (BMP) for maintaining a healthy septic system is to keep records of any maintenance activities (including pumping and inspections).

The form below can be used to help organize your records.

Date system installed \_\_\_\_\_  
 Installer \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Tank size \_\_\_\_\_ gallons  
 Capacity \_\_\_\_\_ bedrooms

Next Service	Scheduled Activity	Pumping Company Phone #	Activities Completed
Jan. 2008	Inspection	555-pump	Inspection

Funding for this project provided by the County of San Diego and the State Water Resources Control Board.

**Mission Resource Conservation District**  

 P.O. Box 1777 Fallbrook, CA 92088  
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# SEPTIC SYSTEM MAINTENANCE & CARE

Maintaining your septic system can save you thousands of dollars and extend its life by many years. The following list includes tips for septic system care and maintenance.

## ◆ Inspection

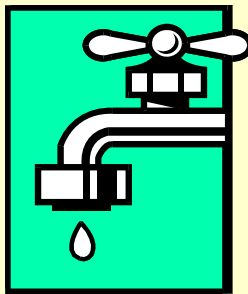


Having your septic system inspected at least every three years will ensure that the system is in tip-top shape and reduce the risk of system failure. A septic system

inspection will include: locating the system, uncovering the access holes in the septic tank, flushing the toilets to check for signs of sewage backup, measuring the scum and sludge layers in the septic tank, locating and identifying any leaks, and pumping the tank if necessary.

## ◆ Efficient Water Use

Conserving water, or using water efficiently, is a critical factor in extending the life of your septic system. When too much water enters the septic tank at one time, the sludge and scum layers do not adequately separate and may inadvertently enter the drainfield along with the clarified wastewater. This can clog the drainfield pipes and cause septic system failure. There are several ways to improve water use efficiency including installing high-efficiency (water conserving) toilets and showerheads, fixing any leaking



plumbing, turning off the water when you brush your teeth or wash the dishes, taking short showers, and doing fewer loads of laundry in one day. Water purification systems, including water softeners, can add hundreds of gallons of extra salty water into the system.

## ◆ Pumping Frequency

Pumping the septic tank is critical to maintaining a healthy, functioning septic system. Pumping ensures that the sludge and scum layers do not build up and enter the drainfield, which could

Estimated Septic Tank Pumping Frequency					
Tank Size (gallons)	Household Size - Number of Occupants				
	1	2	3	5	10
	Years				
1000	12	6	4	2	<1
1250	16	8	5	3	1
1500	19	9	6	3	1

Source: Adapted from "Estimated Septic Tank Pumping Frequency," by Karen Mancl, 1984. *Journal of Environmental Engineering*. Volume 110.

cause system failure. Use the table above to determine how often your septic tank should be pumped.

## ◆ Biodegradable Waste Only

As the sludge layer in the septic tank (the solid waste) is decomposed by naturally occurring bacteria, it is important to only put biodegradable waste into your septic tank. Non-biodegradable items, such as diapers, cat

litter, feminine products, cigarette filters, coffee grounds, baby wipes and grease, can cause clogs in the system that can be expensive to repair.

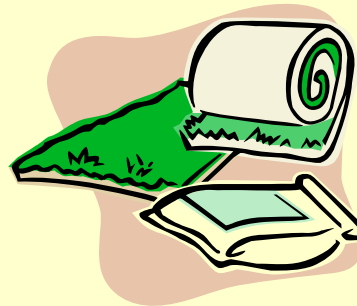
## ◆ Non-toxic Waste Only

The naturally occurring bacteria in the septic tank can easily be killed by household cleaners and bleach. This can result in a poorly functioning system and premature failure. By minimizing or eliminating the amount of household chemicals that are poured down the drain, the health of your septic system will increase. Chemical from containers labeled with "Danger", "Poison", "Warning", and "Caution" should not enter the system. Other chemicals that kill bacteria and should not be introduced into the septic tank include oil, gasoline, pesticides, and paint.



## ◆ Drainfield Care

There are several ways to maintain and care for the drainfield that will help extend the life of your septic system. Properly landscaping the drainfield with grass or other shallow-rooted plants will prevent clogging of the perforated leach pipes. Avoid driving or parking on the drainfield as this can damage the pipes and compact the soil. Finally, don't build any structures or grade over the drainfield as this can damage the system.



## ◆ Records

Keep detailed records of where the septic system is located on your property, when it was inspected and pumped, and any permits that were issued. Please use the table on the last panel to help organize your records.



## SYSTEM FAILURE SIGNS

There are several signs that a septic system is failing or is not functioning properly.

Failure signs include:

- ◆ Sewage backup in your drains and toilets.
- ◆ Unpleasant smelling liquid on or around the septic system drainfield or septic tank.
- ◆ Slow flushing of your toilets and slower draining in sinks, bathtubs or showers.
- ◆ Unpleasant odors from plumbing or septic system.
- ◆ Lush, green grass over the drainfield, even in the dry seasons.



If you suspect that your septic system has failed, please call the County Department of Environmental Health or a septic system professional immediately.

