

Septic System Basics & You

(Based on the EPA's "A Homeowner's Guide to Septic Systems")

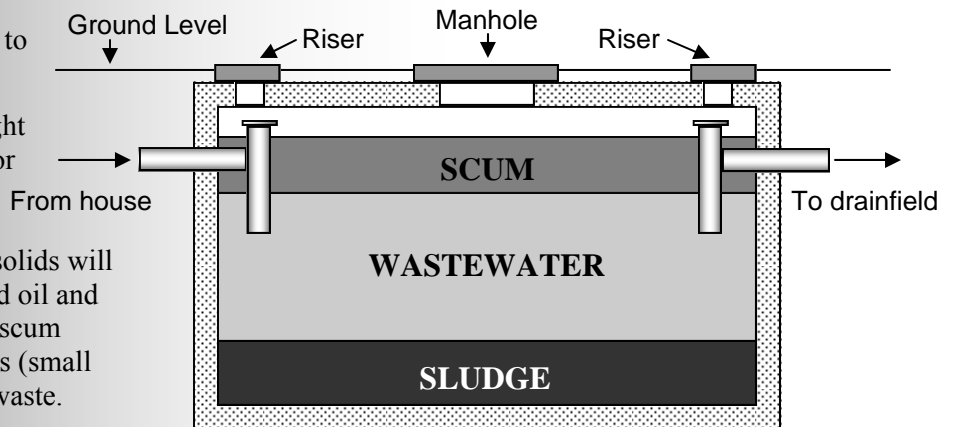
How septic systems work

There are typically four components of a septic system. They are the pipe from the house to the septic tank, the septic tank, the drainfield, and the soil between the drainfield and the groundwater.

The Pipe: All of the wastewater (including water from sinks, toilets, and bathtubs) from a home drain into a pipe that leads to the septic tank.

The Tank: The septic tank is a watertight container (usually concrete, fiberglass, or polyethylene) that is buried underground. The first step of treating the wastewater occurs in the septic tank as solids will settle to the bottom (forming sludge) and oil and grease will float to the top (forming the scum layer). Very important, natural microbes (small bacteria) begin to decompose the solid waste.

The Drainfield: Once the wastewater exits the septic tank through the T-shaped outlet, it is discharged into the drainfield where the partially treated wastewater will drain into the soil for further purification.



Normal single-compartment septic tank.

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.

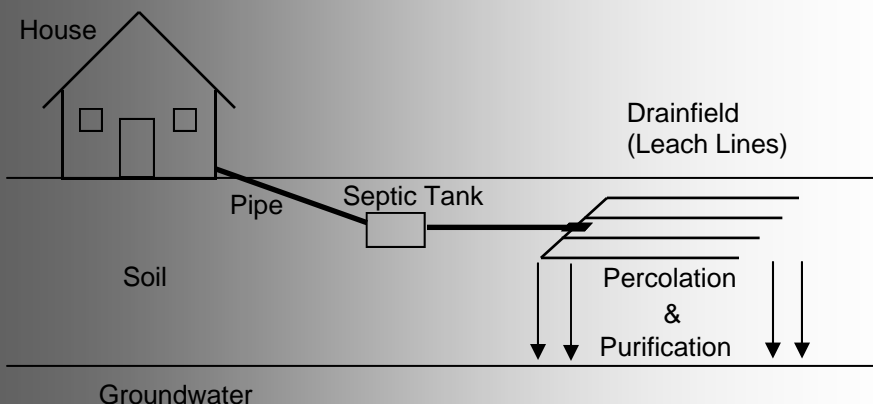
The Soil: As the wastewater percolates (drains) through the soil into the groundwater, it is filtered and purified as bacteria, viruses and nutrients attach to the soil. Suitable soil and groundwater levels are important for successful wastewater treatment!



Don't put household chemicals, pesticides, herbicides, paint, oil, gasoline, antifreeze, etc into the system. They will kill the microbes vital to decomposing the solids in the septic tank!



Don't put diapers, cat litter, grease, feminine products, coffee grounds, cigarette filters, etc into the system. They will clog the septic tank or drainfield!



Simplified view of a normal septic system.

Septic System Care

Important Best Management Practices (BMPs) For Protecting & Maintaining Septic Systems

- ❑ **Use water efficiently.** By conserving the amount of water entering the septic system, the operation of the septic tank will improve and the risk of septic system failure is reduced. A leaking toilet can waste as much as 200 gallons of water per day, which overloads the system and will cause the system to fail.
- ❑ **Pump the septic tank periodically.** By regularly pumping the septic tank, and removing the sludge and scum layers, the possibility of clogs in the pipes to and from the tank will be reduced. If clogging occurs, the wastewater will not make its way to the drainfield and can back up into the house. The table at the bottom of the page recommends the proper pumping frequency.
- ❑ **Never put industrial waste, solvents, paint, pesticides, fertilizers into the system.** Any of these items will kill the microbes in the septic tank which decompose the solid wastes.
- ❑ **Don't use your septic system as a trash can.** Non-biodegradable items such as dental floss, feminine hygiene products, diapers, cigarette butts, coffee grounds, cat litter, paper towels, etc can clog your system and the system will fail.
- ❑ **Commercial additives do not replace the need for periodic pumping.** Commercial additives are not recommended for septic tanks as they can be harmful to the system and all of the necessary microbes for decomposition are present in the system naturally.
- ❑ **Don't drive or park your car over any part of the septic system.** Driving over the septic system can compact the soil, damage the system components (the pipes or tank), and reduce the efficiency of the system.
- ❑ **Keep records of septic system maintenance.** Keeping records of pumping, inspections, permits, and other maintenance activities will help you keep your septic system in great shape.

Recommended Septic Tank Pumping Frequency

	Household Size—Number of Occupants									
	1	2	3	4	5	6	7	8	9	10
Septic Tank Size (# of bedrooms in the house)	Years									
1000 gal (1 to 3 bedrooms)	12.4	5.9	3.7	2.6	2.0	1.5	1.2	1.0	0.8	0.7
1250 gal (1 to 4 bedrooms)	15.6	7.5	4.8	3.4	2.6	2.0	1.7	1.4	1.2	1.0
1500 gal (1 to 6 bedrooms)	18.9	9.1	5.9	4.2	3.3	2.6	2.1	1.8	1.5	1.3
2000 gal (1 to 7 bedrooms)	25.4	12.4	8.0	5.9	4.5	3.7	3.1	2.6	2.2	2.0

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

Content developed by:



**Mission Resource
Conservation District**

Phone (760) 728-1332

www.missionrcd.org