

Septic Tank Maintenance

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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.

When choosing a septic tank, your selection should be determined by the number of bedrooms or fixture units to be served. New Mexico Plumbing Code requires the following septic tank sizes:

Single family dwelling size	Minimum septic tank size in gallons
0–2 bedrooms	750
3 bedrooms	1000
4 bedrooms	1200
5–6 bedrooms	1500

How Does a Septic Tank Work?

As the septic system is used, there is an accumulation of solids in the tank, which is 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. This is accomplished by a series of baffles inside the tank. Up to 50 percent of the solids retained in the tank will decompose over time. Treated effluent water discharges from the tank to perforated drain pipes. From there, it drains to a constructed absorption or “leach” field. The effluent eventually percolates through the subsoil to groundwater.

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 area. This can be prevented by periodically pumping the accumulated sludge.

How Often Should You Pump?

This depends on the following:

- Capacity of septic tank
- Flow of wastewater
- 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.

Table 1 gives the pumping frequencies according to the size of the septic tank. Please note that biological and chemical septic tank additives are not necessary and do not eliminate the need for pumping.

Table 1. Estimated septic tank pumping frequencies in years (for year-round occupancy).

Tank size (gal)	Household size (number of people)				
	1	2	3	4	5
750	9	4	3	2	1
1000	12	6	4	3	2
1250	16	8	5	3	3
1500	19	9	6	4	3
1750	22	11	7	5	4

Note: More frequent pumping needed if garbage disposal is used.

Safe Use of Septic Systems

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.

To find more resources for your business, home, or family, visit the College of Agriculture and Home Economics on the World Wide Web at www.cahe.nmsu.edu

Fats, grease, coffee grounds, paper towels, sanitary napkins, disposable diapers, and other such items will clog your septic system.

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. 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. This 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

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

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