

Homeowners Septic Systems Guide

What are the Components of a Private Septic System?

The things that are most obvious are the things seen every day - the sinks, toilets, and pipes in a normal house. What are not visible are the things that are underground; the things that are underground, and the ground itself, greatly impact how a septic system works.

The individual parts of the system are the septic tank, septic filter, a distribution box, and a leach field. Bacterial action takes place in the septic tank where the end products are mainly water, gases, and undigested material, called sludge that sinks to the bottom of the tank and scum that floats to the top of the tank.

The septic tank contains baffles that prevent any scum that floats to the surface and sludge that settles to the bottom from passing out of the tank. The gases that are generated vent to the atmosphere via the plumbing vent system. From the septic tank, the segregated and relatively clear liquid flows into a small distribution box where it is then metered out to several pipes. These pipes then deliver the liquid to a large soil surface area, called a leach field, or absorption field, for absorption.

The soil also acts as a filter to remove any small amounts of solids that may be carried along with the liquid. The sludge in the bottom of the tank must be periodically pumped out and properly disposed of.

SEPTIC SYSTEM MAINTENANCE - Septic System Care and Maintenance

Conventional septic systems are not entirely care free. The undigested solids (sludge) in the bottom of the septic tank should be pumped out every 3 to 5 years, depending on usage and tank size. If the sludge is not removed periodically, it will eventually carry over into the leach field and cause the field to fail.

Septic filter maintenance is also an essential part to keep the septic system working properly. Failure to clean the filter can lead to slow drainage in the building, clogged drains, and backups at the septic tank. (*See Septic Filter Maintenance Procedures on the back side*)

Conserving water is another vital part to keeping your septic system working properly. Consider installing water efficient toilets, appliances, and fixtures throughout your house.

You should avoid putting in chemicals that are toxic to the bacteria, such as paint thinner, solvents, insecticides, etc. Cooking fats and grease should also be avoided. If a garbage disposal is used, more frequent tank pumping may be needed.

Things to avoid doing with a Septic System

Your septic system is not a trash can. Don't put dental floss, feminine hygiene products, condoms, diapers, cotton swabs, cigarette butts, coffee grounds, cat litter, paper towels, latex paint, pesticides, or other hazardous chemicals into your system.

Don't use caustic drain openers for a clog. Instead, use a plunger or a drain snake to open clogs.

Don't drive or park equipment on any part of your septic system. Doing so can compact the soil in your drain field or damage the pipes, tank, or other septic system components.

Don't plant trees or shrubs over any part of your septic system. Roots can cause major problems if they penetrate the laterals, piping, and even the septic tank. Planting grass is the best cover you can provide.

Septic Filter Maintenance Procedures

This document discusses how to clean or maintain Septic Filters to protect the septic drain field or absorption system from clogging. Septic filters are placed either in the septic tank at the outlet tee or in a separate chamber outside of and close to the septic tank.

Septic filter maintenance is essential to keep the septic system working properly. Failure to clean the filter can lead to slow drainage in the building, clogged drains, and backups at the septic tank. For this reason, regular inspection (monthly) and filter cleaning on a schedule are very important.

How often to clean the septic filter

The actual cleaning frequency needed for septic filters may range from every few months to every few years, depending on system usage, wastewater flow, septic system design, and the type of filtration used.

After having a septic tank installed, pumped, or cleaned follow the septic filter manufacturer's recommendation for cleaning frequency. If you cannot find the manufacturer's septic filter cleaning recommendations or if you don't know your wastewater usage level, try checking the filter again in one month. If there is no significant clogging, check it again in another month. Following this procedure you can determine, based on your own building's wastewater usage and flow, just how often to clean the filter.

If there are signs of septic filter clogging before you reach the next schedule filter cleaning date, you should increase the cleaning frequency accordingly.

Signs of a Clogged Septic Filter

- **Sluggish drainage** in the building; if there is an access port to inspect the sewer line between the building and the septic tank, open it and flush a toilet. Does the wastewater run normally (in a rush, not a trickle) through the line to the septic tank?
- **High effluent levels in the septic tank:** open the septic tank at an inspection or service port. Is the effluent level abnormally high, at the top of the tank or over the baffles?
- **Dirty septic filter:** open the septic tank at the outlet end where the filter is probably installed; (Some systems may install an add-on filter in a small chamber just downstream from the septic tank. Inspect the septic filter for clogging and clean it anyway before returning it to the tank.

How to clean a septic filter

- Temporarily stop running water in the building
- Remove the access cover where the filter is housed.
- To protect yourself, it is recommended you wear gloves and goggles before pulling the filter.
- Pull the septic filter slowly to avoid a large rush of effluent to the field bed.
- **Never pull the septic filter when the scum or water level is above the top of the sanitary tee holding the filter!**
- While holding the septic filter over the access opening, hose off any particles that may be on the filter back in to the tank.
- Replace the filter making sure if there are any directional arrows, they are pointing the right way.
- Re-install the access cover.
- Mark your calendar for the next inspection date!