

# Home & Environment

## Cleaning an Onsite Sewage System

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Whether you are new to owning an onsite sewage system or have lived with one your whole life, there are some basics that you should know about your system.

### Clean the Outlet Filter

Indiana law requires every new or repaired outside sewage system to have an outlet filter on the septic tank. Some Indiana counties required them earlier. If you don't know if you have an outlet filter, check with your local health department.

This filter protects the absorption field from solid material that can pass into the field with the partially treated effluent. This will lengthen the life of onsite systems. Clean the outlet filter periodically or sewage will back up into the home! Although installing one can be very costly, a system without an outlet filter will fail much sooner — and repairing a failure is more expensive.

### How An Onsite Sewage System Works

Sewage is a mix of waste that must be treated to protect people and the environment. An onsite system treats sewage in three steps. The system:

1. Separates waste components.
2. Treats waste.
3. Disposes of what remains.

In a standard onsite sewage system, wastewater flows from the house into a septic tank. In the tank, the sewage separates into three layers: heavier solids settle to the bottom to form a sludge layer, greases and fats float to the surface to form a scum layer, and the largest portion forms the effluent layer. The sludge and scum resist the bacteria that break down much of the effluent.

A septic tank is designed to retain waste for two or three days to give bacteria time to treat it. After sufficient time, treated effluent flows through an outlet filter for final treatment in the soil absorption field where bacteria destroy

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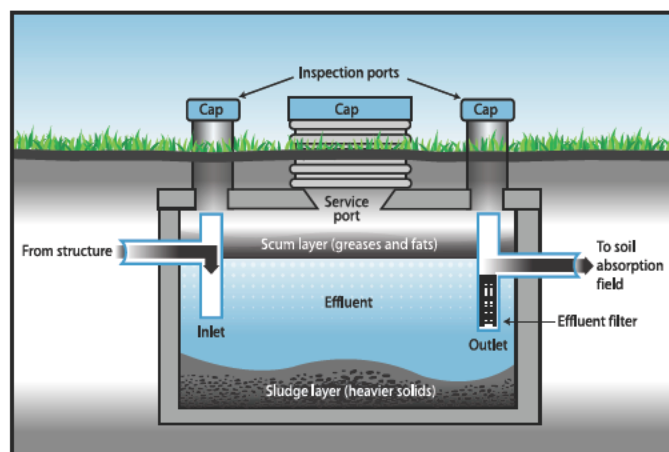


Figure 1. The components of a septic tank.

potentially hazardous organisms. The effluent must pass through at least 24 inches of aerated soil to be treated properly.

If the system works as designed, sludge and scum build up in the tank and must be cleaned out periodically.

Modern septic tanks have access ports to observe the condition of the outlets. Typically, the outlet filter is on the outlet pipe and is accessible from the observation port.

Initially, you should clean the filter every six months. This interval can be lengthened or shortened depending on how much solid material the filter traps.

Outlet filter cleaning is a job for professionals. Your local health department may have suggestions of those qualified to perform this service. The National Association of Wastewater Transporters, Inc. ([www.nawt.org](http://www.nawt.org)) maintains a list of trained service providers. The Indiana Onsite Wastewater Professionals Association ([www.iowpa.org](http://www.iowpa.org)) maintains a list of certified installers, many of whom would be available to assist.

The filter must be pulled from the tank and rinsed off with a garden hose. Rinse the trapped solids back into the septic tank so they can be removed when the tank is cleaned. After cleaning, immediately replace the filter to protect the system from irreversible damage. Septic system professionals will observe safety precautions and wear rubber gloves and face shields to avoid contact with the waste. Human waste is hazardous in any form.

### Inspect Systems

An onsite sewage system inspection is the best way to avoid problems and correct deficiencies. When the outlet filter is cleaned is an excellent time for a thorough inspection. Inspections are a job for professionals with training and certification. These trained people will know what to look for and how to deal with problems. An inspection must involve looking into the septic tank to inspect the inlet and outlet baffles and to check the depth of sludge, effluent, and scum in the tank. It also should include a look into the distribution box, any pump chambers used in more complex systems, and if indicated, a look at the absorption field.

### Clean Out the Septic Tank

Periodically, sludge and scum must be completely cleaned from the tank. If not removed, the buildup of scum and sludge will cause the system to fail.

A professional licensed by the Indiana Department of

Environmental Management must perform any septic tank cleaning. The professional's services should include pumping and completely cleaning the tank, inspecting tank openings and baffles, and disposing the sludge in an approved manner. Be certain that the pumping is done through the manhole cover and not the ports that are used to inspect the baffles.

Generally, clean septic tanks every three to five years, but this varies depending on how the system is used. Measurement by a trained professional is the only way to know with certainty when a tank needs to be cleaned.

A trained professional should measure sludge and scum depths at least once a year, starting with the second or third year after a cleaning.

Garbage disposals increase solids loading by about 50 percent. If you use a garbage disposal, you will have to clean more frequently.

Commercial septic tank additives will *not* eliminate the need to clean tanks out.

If the interval between required cleanings seems unduly short, see *Operating and Maintaining an Onsite Sewage System* (Purdue Extension publication ID-142-W), available from the Education Store, [www.the-education-store.com](http://www.the-education-store.com).

When cleaning the tank make sure it is completely cleaned out. There is no need to leave a layer of sludge in the bottom. There are enough organisms left in the septic tank to start the process all over again. And leaving sludge in the tank only means that a professional must clean it out sooner the next time.

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