

A Homeowner's Guide To Septic Systems

Provided by
Vanderpool Construction, Inc.

So...You now own a septic system

We at Vanderpool Construction Inc. would like to take this opportunity to say "Thank You" for choosing our company to meet your wastewater needs. We realize this is a significant investment and want to help you to protect it for years to come.

Since your home or business did not have access to public sewer, it was necessary for you to install a private onsite wastewater treatment and disposal system. This is a long way of saying you have a septic system. Public sewers are connected to a main wastewater treatment or sewer plant. These plants are managed by a staff of people trained in this field and they are responsible for seeing that it is properly maintained and operated. With a private system such as yours, you as the owner, have this same responsibility for the system serving your home or business. With proper operation and maintenance, your septic system should function better and last longer. ≈

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What is a septic system?

Septic systems are individual wastewater treatment systems that collect, treat and dispose of wastewater. Anything that leaves your home or business through sinks, toilets, bathtubs, showers, dishwashers, and washing machines goes directly into your septic system.

The first stop for the wastewater is the underground septic tank. The tank is a watertight structure (normally made of concrete at our own plant). It has two compartments, an inlet and an outlet. The wastewater flows from the building structure to the inlet side of the tank. There, the wastewater is held long enough to allow solids to settle out and fall to the bottom forming sludge. With the help of bacteria, this sludge will go through a natural process and partially decompose over time. Oil and grease will float to the top forming scum. The wastewater then flows through uniform holes in the baffle wall into the outlet compartment. More decomposition takes place in this area before the wastewater flows out of the tank. This entire process is called **primary treatment**.

Once the wastewater leaves the tank, it flows into a **secondary treatment** area. The type of secondary treatment was determined by percolation test or soil analysis with final approval by your County Sanitarian. Your permit and final installation diagram will indicate the type of secondary treatment used. In any case, the purpose of this area is to provide additional treatment to the wastewater before it is released into the soils surrounding the area. ≈

Types of Secondary Treatment

As mentioned earlier, the type of secondary treatment installed at your site is shown on your permit and your final installation diagram. Following is an explanation of several different possibilities.

Subsurface Absorption (Lateral): This is the ideal form of secondary treatment. It consists of a series of trenches filled with gravel and perforated drainage pipes or leaching chamber placed directly on the bottom of each trench. The wastewater flows from the tank into a distribution box where it is then evenly disbursed into the lateral lines. It seeps through the perforations or louvers into the soil where it is further treated and purified. Systems of this type are not to outlet to the surface of the ground. The lateral area should be covered with soil and grass and mowed regularly.

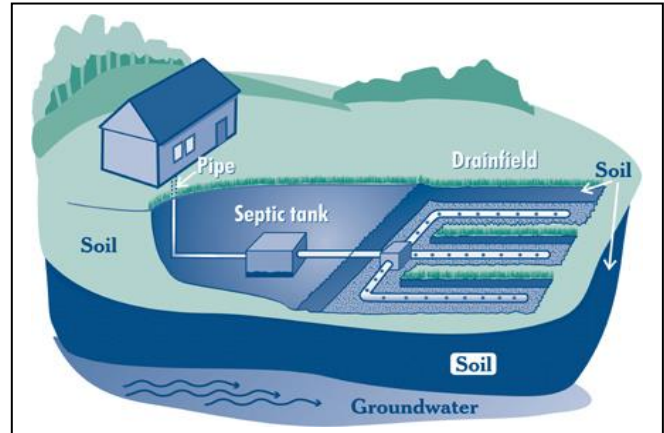
Intermittent Subsurface Sandfilter: When the soils are such that a standard lateral system cannot be installed, the preferred alternative is to create an area by removing the existing soils and replacing them with materials that will allow proper drainage and treatment. The intermittent sandfilter is approximately 5' deep and 240 sq. ft. per bedroom. It is filled with layers of rock and sand with embedded pipe. The wastewater disperses throughout the layers where it is treated before going into a single discharge line. Like the lateral system, the surface of the sandfilter can be covered with soil and grass and mowed regularly.

The subsurface intermittent sandfilter should not be confused with the *free access sandfilter*. The intermittent sandfilter is underground and can be covered. It requires no more maintenance than a lateral system. The free access sandfilter is much smaller in size, very shallow, and must have a cover that can be easily and frequently removed so the owner can rake the sand that is inside.

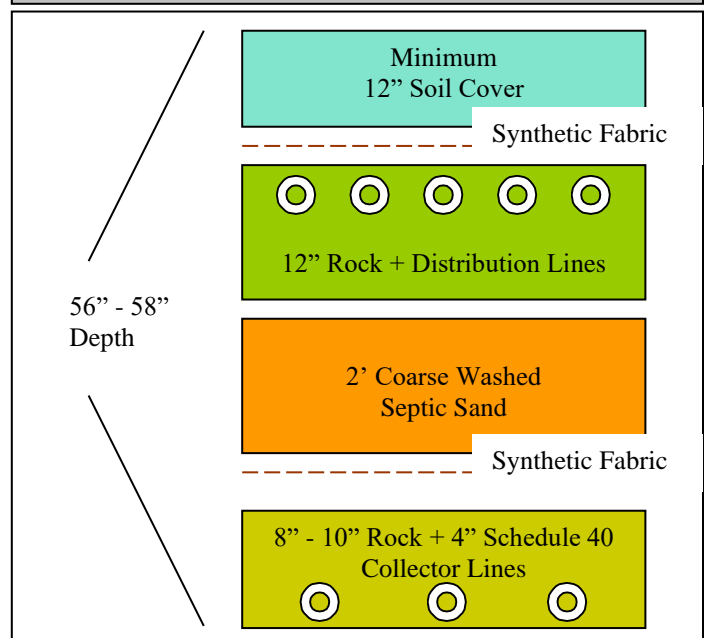
At-Grade or Mound: These systems are basically similar to a lateral but built on top of the existing ground rather than underground. It consists of layers of clean, carefully-graded sand and/or gravel. The wastewater is pumped to the area where it is dosed over a distribution bed on top of the fill.

If you have a different type of secondary treatment, additional information is enclosed. ≈

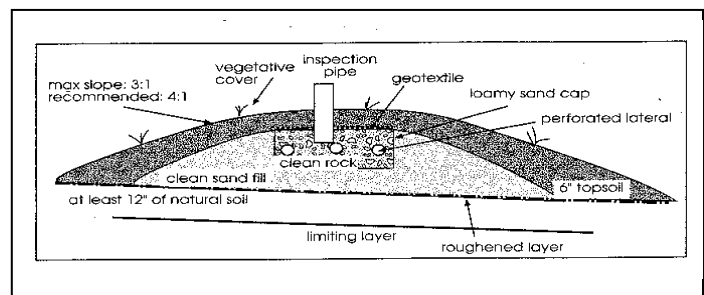
Subsurface Absorption (Lateral) System



Intermittent Subsurface Sandfilter



At-Grade or Mound

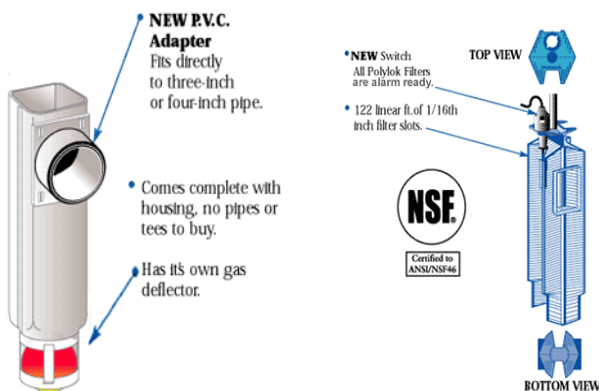


EFFLUENT FILTERS

Chances are your septic tank has been equipped with an effluent filter. This filter is inside the outlet compartment of the tank and is connected to the pipe that comes through the wall. When properly maintained, the effluent filter serves an important role in increasing the ability of the system to function correctly and for a longer period of time

As mentioned earlier, one function of the septic tank is to hold solids so they do not go into the secondary treatment area. The majority of solids will fall to the bottom of the tank and then be pumped out at a later time. Some solids will remain suspended and flow in to the outlet compartment. The effluent filter stops these suspended solids from flowing out of the tank and into the secondary treatment area.

In order for the filter to do its job, it does need to be rinsed on a regular basis, usually every 4-6 months, and also when the tank is pumped. To clean the filter, remove the manhole lid over the outlet end of the septic tank and then pull up on the filter to remove it from its housing. Using a garden hose, simply spray water onto the surface of the filter, which will remove solids that have collected over time. We suggest holding the filter over the manhole opening while rinsing it off. The filter is then placed back into its housing and the manhole lid is securely attached over the outlet end of the tank. If you have purchased a system inspection agreement from our company, we will be checking and cleaning the effluent filter with each 6-month visit.



Do's & Don't's for Proper Care of Your Septic System

DO

- Conserve water. Repair leaking faucets and toilets, run washing machines and dishwashers only when full, avoid long showers, use water-saving devices in shower heads, faucets and toilets.
- Divert down spouts and other surface water away from all parts of your septic system. This includes sump pump and footing drains as well.
- If you must use a garbage disposal, do it very sparingly. Like your own digestive system, the bacteria in a septic tank can only breakdown certain products.
- Know the location of your septic tank and secondary treatment area. Keep a sketch handy for service visits.
- Have your tank pumped out regularly, usually every 3 to 5 years. Higher water usage will cause pumping to be required more frequently. Call us or your County Sanitarian for a list of state certified pumpers that can assist you.
- Keep a record of all maintenance and pumping that is done. We have provided space on the back for this purpose.

DON'T

- Allow anyone to drive or park over any part of the system.
- Allow plant trees or shrubs near the drain lines. The roots may harm the system.
- Dump disposable diapers, plastics, feminine hygiene products, cigarette butts, grease, hazardous substances or chemicals into the system.
- Use chemical septic tank additives. These additives kill the beneficial bacteria that your tank needs to break down solids.

Properly maintaining your system increases the longevity of this valuable investment.

Maintenance and Service Record

Installation Date _____ Permit # _____

Installer : Vanderpool Construction, Inc. Phone: 515-961-4682

Tank Size _____ Tank Material _____

Effluent Filter (circle one) Yes No Type of Secondary Treatment _____

Date	Work Performed	Effluent Filter Cleaned ?	Pumped ?	Who provided service?

Remember, if you should have any questions regarding your septic system, call Vanderpool Construction Inc. at (515) 961-4682 Other helpful resources include:

- Your county sanitarian
- Iowa Onsite Wastewater Association (IOWWA) www.iowwa.com
- National Small Flows Clearinghouse (NSFC) www.nsfcr.wvu.edu
- Environmental Protection Agency (EPA) www.epa.gov/owm/onsite
- Septic Resources and Information Online www.septic-info.com