Frequently Asked Questions about Septic Systems

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What is a septic tank?
A septic tank is a large container usually buried near a home that receives all of the home’s waste water. Solids settle to the bottom and grease and lighter solids float on the top. Healthy bacteria continually break down these materials and allow effluent water to leave the tank to be dispersed through a leach field.

Where is my septic tank located?
The septic tank is usually buried near your house and connected by a sewer pipe to your indoor plumbing. You can find the pipe in the basement, usually 3 to 4 inches in diameter; very carefully remove the end cap to determine the direction of the pipe that leads out to your yard. You can use a flashlight to look through the pipe and a tape to measure the distance to the tank. With this information, you can estimate the location of the tank and then probe carefully with a shovel or soil probe to locate the four corners of the septic tank lid and its probable depth.

Do septic tanks last forever?
No. Private septic systems are temporary systems; they will not last forever and do require maintenance. The lifespan of a septic system depends a lot on how well it was installed and maintained, how much it is used, and how good the soil and surrounding drainage are. Pumping your septic tank is one of the best and least expensive means by which to maintain your septic system.

What should and should not go into my septic tank?
The best situation for a long septic tank life would be that only human wastewater enters the tank. This includes bathroom sink waste and proper toilet tissue. In moderation, a properly working septic tank can handle some biodegradable detergents, laundry soaps, kitchen wastes, and biodegradable household chemicals. In large amounts, any and all of these things can limit the digestive properties of your septic tank.
Things like cigarette butts, disposable diapers, sanitary napkins, plastics, any other trash, or high levels of cleaning agents or chemicals create problems for your septic tank. Some things kill the good bacteria the septic tank needs to breakdown human waste. Other items do not readily decompose and, more importantly, may clog the baffles and prevent proper fluid flow inside the septic tank.

How can I tell if my septic tank is working properly?
Two very obvious signs that your septic system is not functioning properly are strange odors and standing waste water in your yard where the leach field should be. However, not all malfunctioning septic systems show these clear signs. To find out if your septic system is functioning properly, it will need inspected every 1-3 years. You can hire a professional to do the inspection for you and then follow his recommendations for pumping out the sludge and scum (pumping will usually be recommended every 3-5 years). Even if you use septic tank additives that claim you will never need to pump your tank, you should still inspect it; it is likely you will need to pump it at some point.

An alternative to having a professional inspection done is to do a stick test on your own. This test, outlined in two publications on the Clear Choices, Clean Water website, will enable you to measure the amount of sludge and scum in the tank and determine whether or not it needs pumping.

Why should I care if my septic system is failing?
Because septic systems are out of sight, many homeowners don’t realize there may be a problem until their system is already failing. The most common cause of failure is lack of maintenance. Here are 3 reasons to care for your septic system:

- **Save money.** A failing septic system can be expensive to repair or replace. You can protect yourself against costly surprises through regular preventative actions like inspections and pump-outs of your system and by learning the do’s and don’ts of septic care.

- **Protect the health of your family and neighbors.** A failing septic system can release inadequately treated household wastewater and offensive odors, often right in your backyard. Human wastewater contains disease-carrying organisms and can pose health risks to your family and your neighbors; untreated wastewater can transfer diseases such as dysentery, hepatitis, and typhoid fever to animals and humans.

- **Protect water quality.** Humans and wildlife both depend on clean water. A septic system uses the environment to treat wastewater, but may release untreated or partially treated wastewater if the system fails. Inadequately treated water can pollute our streams, lakes, and groundwater, some of which are drinking water supplies. Failing systems also leak excessive nutrients and bacteria to streams, lakes, and the ocean, destroying plant and animal habitat, closing beaches, and hurting the fishing industry.

How many septic tanks in Indiana are failing?
There are approximately 800,000 septic systems in Indiana, and the Indiana State Department of Health (ISDH) estimates that 200,000 of these are inadequate and have failed or are failing to protect human and environmental health. According to a publication by Purdue University Extension in 2005, “We can estimate that every failing septic system can discharge more than 76,650 gallons of untreated wastewater into Indiana’s groundwaters and surface waters per year. That means that the 200,000 failing septic systems in Indiana estimated by the ISDH are introducing approximately 15.3 billion gallons of raw sewage into the environment annually.”
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How often should my septic tank be pumped?
Private septic systems are temporary systems; they will not last forever and do require maintenance. The lifespan of a septic system depends a lot on how well it was installed and maintained, how much it is used and how good the soil and surrounding drainage are. Pumping your septic tank is one of the best and least expensive means in which to maintain your septic system. Most septic tanks should be pumped every 3 to 5 years. Cleaning frequency depends on household size and water use. Additionally, if you use a garbage disposal, cleanings may need to be done more often.

When do I need an emergency pumping?
Emergency pumping is needed when you hear strange noises or smell unusual odors coming from your house plumbing. Hopefully you get the emergency pumping before a nasty backup of septic material into your home. You will still need the emergency pumping but then you also have the unpleasant job and cost of cleaning up a mess that could have been avoided.

Do they need to dig up my lawn to pump?
Not necessarily. If you already have access to the lid of your septic tank, digging up your lawn may not be necessary. If there is no access to the lid of the septic tank, some digging may be necessary to expose the ports so that the hose can be inserted to remove the septic material. At this time it would be wise to install risers so that digging would not be necessary the next time pumping is required. Pumping cannot and should not be done through the pipe outlet in your basement.

How much does a pumping cost?
The cost of pumping varies depending on a number of factors, but an average cost for a typical septic tank pumping is $200-300. There may be additional charges if the septic tank is larger than average, the amount of material removed is very large, or the septic tank lid has to be located and uncovered.

Who should I contact about septic system problems or maintenance?
For more information on your septic system and its maintenance, or if you suspect a problem with your septic system, contact your county health department. The health department should maintain a list of licensed contractors who can inspect and/or pump your septic system when it needs it. When working with a contractor, be sure you get a paid receipt that includes details of the transaction (how many gallons were pumped out of the tank, the date, the charges, and any other pertinent results).

Can a septic system be repaired?
Yes. Depending upon the problem, many times a repair is possible. Some examples of a repair would be: to fix a crushed or collapsed pipe, to replace a broken baffle that has allowed solids into the leach field, or to replace a cracked or collapsed septic tank lid.

What is a leach field?
A leach field is the area through which effluent from the septic tank is dispersed into the soil to be filtered. In the leach field, the effluent moves through the pipes and seeps into the surrounding soil. The soil filters out suspended solids and organic matter. Bacteria in the soil then decompose harmful microorganisms and other organic components. Clay particles trap viruses which eventually die. Treated effluent continues downward as it percolates through the layers of soil. Leach fields are not always built the same way or the same size. Things like soil types, topography, trees, and nearby wells can all dictate the size and design specifics of a leach field.
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Where would I find my leach field?
If you do not have access to building plans or records of a septic dealer's repair of the leach field, you might have a difficult time guessing where the entire field is located. Sometimes the lay of the land helps identify where it is located. If the leach field has been properly maintained, there should not be any buildings, driveways, or woody vegetation over it. Sometimes it may take a measuring snake to identify how long each distribution line is as long as no tree roots or other obstructions have damaged or infiltrated the installation.

Why does a leach field fail?
The main reason for failure of a leach field is plugging caused by a failed septic tank. Particles of non-decomposed septic material escape the septic tank outlet baffle and decrease the permeability of the leach field soil. Over time the effluent water, often containing dangerous bacteria, may seek relief by bubbling up to the surface since it no longer can be absorbed properly downward into the ground. Offensive odors usually accompany this event.

Solving the problem of the failed septic tank is the first step to correcting this problem. Extending the leach field without addressing the septic tank’s problem will only result in the event happening again. The best way find the true cause and extent of the failure is to ask a trained professional.

What can I do if my leach field is always wet?
Usually this indicates that the leach field has failed and needs immediate attention. Septic bacteria are unsafe for people or pets. The cause for the failure needs to be determined and the problem corrected. Plugged leach field lines, groundwater flooding, leaking house water, a failed septic tank, or damage done to the field by excavation or settling all can contribute to a failure.

Can I build over my septic tank or leach field?
It is not recommended to build over the septic tank or leach field. Access to the tank is necessary for inspection and maintenance. Anything built over the tank would have to be removed for pumping and repairs. Additionally, the weight of anything built over a septic tank could damage the unit. The gasses that might escape the tank are very harmful to people and in a worst case scenario could actually be explosive damage to the structure. Building over leach fields can compact soils or damage the underground apparatus and cause the septic system to fail.

Can I plant anything over my leach field?
Yes, but you need to be careful what you choose to plant. Woody plantings like trees or shrubs can damage the underground apparatus and vegetable or fruit gardens could be contaminated if placed too close. For these reasons, landscaping the area with native plants is a very appropriate and beautiful way to utilize the space while also protecting it. Purdue Extension has published a great guide to landscaping over septic systems using native plants; this guide is available on the Clear Choices, Clean Water website.

www.clearchoicescleanwater.org
References:
Defiance County General Health District
http://www.defiancecohealth.org/Septic_Systems.htm
MassDEP Massachusetts Department of Environmental Protection
http://www.mass.gov/dep/water/wastewater/pump.htm
Friends of Bridge Lake
http://www.friendsofbridgelake.org/pages/stewardship/septic2.php