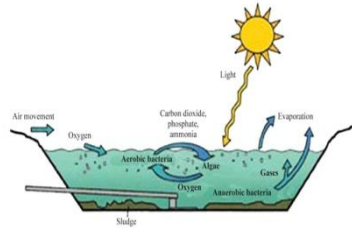
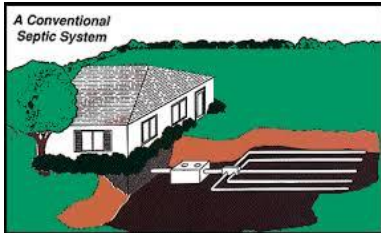




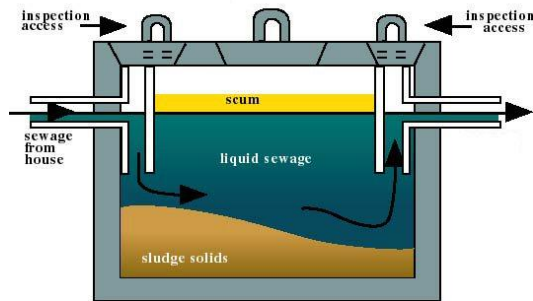
Septic Maintenance Brochure How to Care for your Septic System And Lagoon



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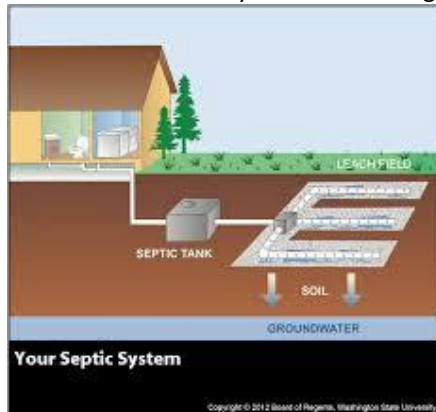
SEPTIC SYSTEMS



A septic system is a small, on-site sewage treatment and disposal system buried in the ground. The septic system is comprised of a septic tank and a soil absorption area.

When household waste material enters this box, several things occur:

1. Organic solid material floats to the surface and forms a layer of what is commonly called "scum"
2. Inorganic or inert solid materials and their by-products of bacterial digestion sink to the bottom of the tank and form a layer commonly called "sludge"
3. Only fairly clear water should exist between the sum and the sludge layers. It is **ONLY** this clarified layer that should flow into the soil absorption area. Solid material overflowing into the soil absorption area should be avoided at all costs. It is this solids overflow that clogs soil pores and causes septic systems to fail. Two main factors cause solid material to build up enough to overflow: Bacterial deficiency and lack of sludge removal.



WARNING SIGNS OF SEPTIC SYSTEM FAILURE:

- Gurgling sound in pipes and drains
- Sluggish drainage in the home
- Plumbing backups
- Outdoor odor
- Mush ground or greener grass in the area of septic system

CAUSES OF SEPTIC SYSTEM FAILURE:

- Poor design
- Poor soil conditions on site
- Improper placement, in area of poor drainage
- Improper installation, not according to septic codes
- Improper care and maintenance of septic system
- Hydraulic overloading: putting more wastewater into the system than it was meant to process. Example: leaky fixtures, long showers, too many loads of laundry at one time
- Frequent use of garbage disposal
- Tree roots clogging chambers or pipes in drain field area
- Crushed chambers or pipes as the result of heavy machinery, excavation or livestock over the drain field area
- Age. Septic systems typically have a 20-30 year lifespan



SEPTIC SYSTEM MAINTENANCE:

The U.S. Government Department of Health, Education, and Welfare Public Health Service says, "A septic tank system will serve a home satisfactorily only if it is properly designed, installed, and adequately maintained. Even a good system which does not have proper care and attention will become a nuisance, and burdensome expense.

Sludge that accumulates in the bottom of the tank must be pumped out periodically. There are no additives that you can put in the tank that will deal with the sludge. Sludge is as broke down as it gets and IT MUST BE PUMPED OUT. If not pumped out, it will eventually flow into the soil absorption area. This will clog the system, and it will need to be replaced. This replacement process will be expensive and inconvenient.

Your septic tank could be flowing solid material into the soil RIGHT NOW, and you won't know it until it blockes the soil so badly that no more drainage is possible. This blockage takes varying periods of time depending on soil structure.

But this is fact: a neglected system

- Will get blocked
- May overflow
- Will have an obnoxious odor
- Contaminate and pollute
- Probably have to be replaced

We have all heard stories about septic tank systems that have worked well for many years without any maintenance or care. Unfortunately, these are the exception. Most septic tank systems require proper care if they are to work well over time.

PROPER CARE INCLUDES:

- Knowing where your septic tank and drain field are located
- Pumping your septic tank every 3 to 5 years for a family of 4
- Practicing water conservation. Use water sparingly. Do only full loads of wash at off-peak times if possible. Use low flush toilets and low volume shower heads.
- Diverting runoff away from your drain field area
- Not constructing anything over your drain field or any component of your septic system
- Not parking or driving cars over your drain field or any component of your septic system
- No horses or livestock on drain field area
- Not planting trees and shrubs over your septic tank and drain field
- Being careful what you flush into your septic tank
- Avoid use of coconut oils when possible. Usually found in many shampoos and lotions
- Use only liquid soaps in your washer and dishwasher – anti bacterial soaps work against your septic systems environment
- Do not put any chemical in your system like bleach, paint thinner or paints, drain cleaners or oils. Do not put kitchen grease down the drain
- Do not flush cigarette butts, feminine hygiene products, condoms, baby wipes or other inorganic materials down the toilet



YOU ARE WHAT YOU EAT

This is true in all organisms, whether they be human, animal or microscopic, like the ones living in septic tanks. What goes down the drain has a major affect on how the septic system works. To illustrate, we refer you to some definitions from Webster's Dictionary:

- Septic tank: an underground tank in which waste matter is decomposed through bacterial action
- Disinfectant: a means of destroying bacteria
- Antiseptic: any substance that inhibits the action of microorganisms (bacteria)
- Chlorine (bleach): a poisonous, gaseous chemical element with a disagreeable odor used as a bleaching agent POISONOUS
- Antibiotic: having the capacity to inhibit the growth of or destroy bacteria

Are there any products that are better to use than others? Sure, just look for one key word, again from Webster's:

- o Biodegradable: capable of being readily decomposed by bacterial action

Obviously bacteria is required for proper septic tank operation, and many of the household products that we all use every day can kill bacteria. How many of you use toilet disinfectant products that get dispensed with each flush? Have you ever washed your paintbrushes or rollers after you painted something? Have you ever flushed a cigarette butt down the toilet, or a tampon or condom? It's no wonder there are so many failed or failing septic systems.

HELP FOR FAILED DRAINFIELDS

Experts agree that the leading cause of drain field failure is most likely biological overloading or what some industry practitioners refer to as "creeping failure". It is sludge or bio-solids clogging the gravel/soil interface in the absorption beds, thus preventing percolation into the soil. The standard remedy for this condition has been to either add to the existing drain field or replace it in its entirety. These repairs can be very expensive not to mention the cost or re-landscaping of the property.

An alternative to drain field replacement in selected instances can be a process called Drain field Vacuuming. Drain field Vacuuming is simply the process of removing the sludge and excess effluent from the drain field with a vacuum truck, commonly known as a septic tank pump truck. The vacuum hose of the truck is connected to the piping system of the drain field and the solids are removed by the use of vacuum and rapid airflow generated by this equipment. Multitudes of failing drain field have been revived by this method.

Experts agree that in addition to removing a substantial quantity of sludge from the piping system and gravel beds, additional benefits are derived from the increased oxygen content in the system.

Candidates for this process must be carefully selected. It is not recommended to vacuum a drain field that is in soil with a high water table. This condition can be detected by digging test holes across the drain field through out the drain field area, the vacuum process should not be attempted. If the water level is high in the gravel trenches but more than twelve inches below the bottom of the gravel bed in the areas between the trenches, the system may be a candidate for the drain field vacuum process.

Older systems that have twelve-inch long concrete tiles may be deteriorated by hydrogen sulfide gas and acid, and are thus prone to crumbling. This condition is almost always more prominent nearest the septic tank or distribution box, if one is present in the system. Frequently, the practitioner can replace the first two to ten feet of the deteriorated pipe with PVC pipe, and then proceed with the drain field vacuuming process. (Note: most county health jurisdictions require a permit for replacement of even one foot of pipe. Check with the health district before proceeding.)

SYSTEM UP GRADE: RISERS and RISER LIDS

No more digging, No more guessing where to dig

Gain easy access for inspection and servicing of your septic system. This is a very important upgrade to your septic system. Risers allow for easy access when there is a need to have maintenance done. Most tanks during the digging process allow rocks and dirt to fall into the tank, not to mention the landscaping that has to be redone each time the tank lids are exposed. Most pumping companies now charge extra for digging and locating (time is money). Riser installation eliminates these problems and added costs.

See possible riser options below:



WHY SHOULD I GET A MAINTENANCE CONTRACT?

A septic system can be the most expensive component of your home to replace. Can you imagine the condition of a sewer treatment plant if it was inspected once every three years? Many of today's septic systems are also treatment systems. They need to be treated as such. Inspections once or twice a year are critical.



We offer a maintenance program if you are interested. It is a 3 year contract that includes the following:

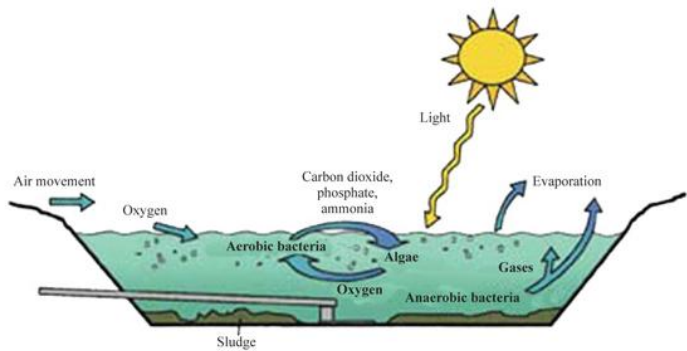
- Complete record keeping of your system
 - o No more guess work. Most people with septic systems lose track of time when it comes to maintenance. For example, when did I pump it last? Ten years ago? Five? The result of poor maintenance will end in drain field failure. A maintenance contract solves problems in a cost effective and convenient manner. The end result is better care of your septic system. Hopefully better care equals longevity.
 - o If you decide to sell your home we will have the records needed for your sale
- Bi-Annual inspection
 - o We determine if it is time to pump or not. We can also make notes and keep track of any potential problems and take care of them before they become problems
 - o While on-site, we can diagnose your problems
- Complete pumping and cleaning every 36 months
 - o Additional pumping if needed \$100 plus disposal fee
 - o A family of 4 should have their tank pumped every 3-5 years
- 10% off of any necessary repairs
- Placing risers on the septic system
 - o Stop the need for locating your system each time and digging up the yard. This also makes biannual inspections access quick for a more thorough service

This contract cost is less than an average sewer bill in the Lincoln area.

The price for our maintenance contract may vary depending on what type of system is installed on the property

TAKE THE WORRY OUT OF SEPTIC MAINTENANCE!

LAGOONS



WHY A LAGOON?

Probably the main reason people chose a lagoon is because they can't put a septic system in. Septic systems require a certain soil type to work appropriately and when the soil isn't right, another option is a lagoon.

Lagoons have both advantages and disadvantages. Lagoons are typically cheaper to install, but require a bit more seasonal maintenance. They need to be mowed so that air can reach the water, and they need to be cleared of any cattails or other vegetation growing up in them.

Another benefit of a lagoon (verses a septic system) is the amount of water you can use with it. With septic systems, homeowners have to be very careful about the amount of water they use and how often they water their yard (if their sprinkler system happens to be close to their lateral field). This is not a concern for a homeowner on a lagoon.

Many people don't like how a lagoon looks, but if it is properly taken care of many lagoons can look quite nice.

Finally, though lagoons require a seasonal mow or burn, once they are installed you don't have to worry about remembering every 3 to 5 years to have your lagoon pumped like you do a septic system.

