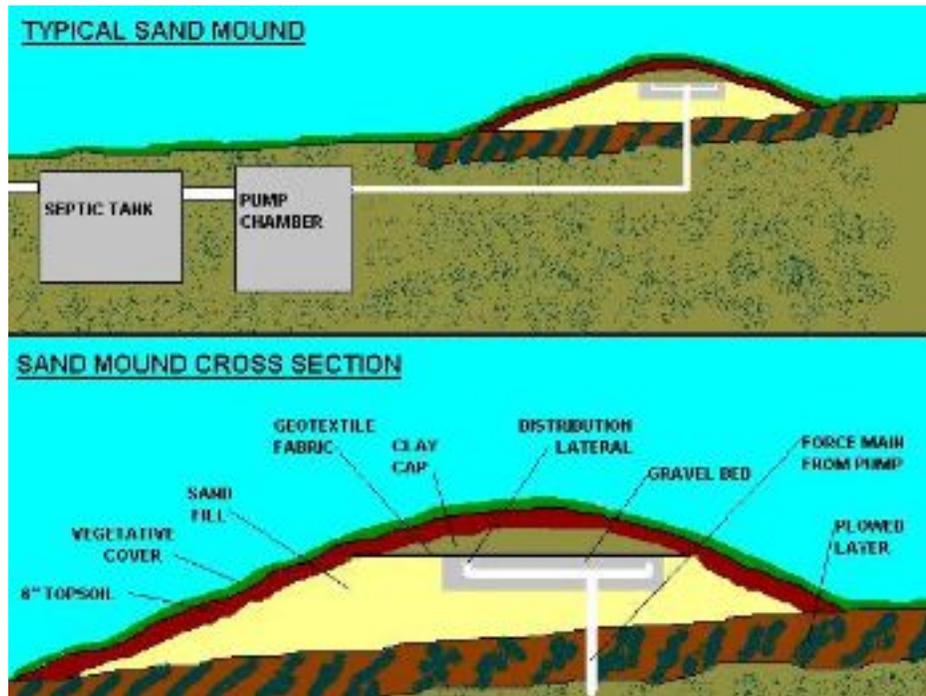


# Comfortspec Home Inspection Services

## SEPTIC SYSTEM INSPECTION REPORT



123 Anywhere Drive, Sunnyville, PA 12345  
Inspection prepared for: Satisfied Client  
Real Estate Agent: Happy Agent - The Best Realty

Date of Inspection: 10/2/2012 Time: 10 am  
Age of Home: Built in 1979 Size: 2000 sq ft

Inspector: Jason D'Amato  
License # NACHI 11012413  
305 Dana Drive, Saylorsburg, PA 18353  
Phone: (610) 895-4153 Fax: (610) 381-7646

Email: [jasondamato@comfortspecpa.com](mailto:jasondamato@comfortspecpa.com)  
[www.comfortspecpa.com](http://www.comfortspecpa.com)



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# SEPTIC SYSTEM INSPECTION

## 1. Location of septic tank

Observations:

- Back yard in the center of the house.

## 2. Septic tank size and type

Materials: Concrete tank. • 1250 gallon, double compartment • Conventional mound system

## 3. Septic tank lid

Materials: concrete lid

Observations:

- Concrete lid fully intact

## 4. Inlet baffle

Observations:

- Baffle was clogged but inspector was able to dislodge build up and its now working fine.

## 5. Outlet baffle

Observations:

- Baffle was fully intact and working properly.

## 6. Level of solids

Materials: With proper maintenance the septic system should be expected to function satisfactorily and is unlikely to create an unwanted condition. This statement does not constitute an assurance that the system will continue to perform satisfactorily. Only that if maintained the system should be adequate based on the given knowledge.

Observations:

- Given the level in the septic tank it is recommended to have the tank pumped and reinspected when empty. This will also serve as a reference point. A septic system should be pumped out at a minimum of every 4 years.

## 7. Riser

Materials: None Present

Observations:

- IMPROVE: A riser installed would aid in locating the tank lid in the future. This can be performed by a qualified septic management company.

## 8. Operating condition of septic tank

Materials: A modified hydraulic load test was performed using a fluorescent dye designed to show flaws in the septic system. This was introduced at a sink drain along with at least 150 gallons of water.

Observations:

- Roots present in septic tank. These will lead to premature plugging and eventually failure of the tank. It is recommended to have a qualified septic management company remove all roots from the septic tank.



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### 9. Drain field

Materials: Rear of home

Observations:

- Lateral cleanouts are present. These are designed to be used for cleaning out by a septic management company if needed. Take extra precaution when mowing around these.
- Broken lateral cleanout present allowing effluent to discharge on top of septic mound. This is an easy repair needing only a new threaded male plug however the septic field was unable to be tested with this condition.



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### 10. Landscaping and vegetation

Observations:

- It is not recommended to have plantings in the immediate vicinity of the drain field, I recommend removing the small bushes in the area.

## 11. Drainage

### Observations:

- Gutters and down spouts are in place and directing drainage away from the drain field.

## 12. Lift pump alarm and disconnect

### Observations:

- The lift pump was in working order at the time of the inspection
- Septic high level alarm was functioning as designed. This is in place to alert the homeowner of any malfunctions of the system. If the alarm is heard stop running water and call a septic repair company.

# Caring for your system

## How can you avoid a septic system nightmare?

- don't dump chemicals down your drains
- don't let vehicles drive over your drain field ( they can crush the drainpipes)
- don't pour grease and oils into the system
- the less water you use, the better
- stagger heavy water usage, i.e. showers, clothes washing, bathing.
- don't flush dyed or heavy toilet tissue
- don't flush feminine hygiene products
- avoid washing quantities of chlorine bleach into the systems
- do not grow trees too near the field, particularly willows (their roots can damage the drain field)

## What About Additives ?

Beware of septic-additive products that claim to eliminate the need for septic tank pump-outs. The bacteria that help break down organic matter in your septic tank are naturally occurring; you should not need to add more. Studies consistently show most septic-additive products have little effect on septic systems, according to Michael Hoover at the Department of Soil Science, North Carolina State University. Although septic additives do contain biologically-based materials like bacteria, enzymes and yeast, they also can contain harmful solvents. Some additives, which claim to degrease your system, may damage your drain field, contaminate your soil and groundwater, and in some states, be illegal.

## SEPTIC SYSTEMS

The purpose of a septic system is to create an environment where beneficial bacteria destroy pathogens and take up excess nutrients in wastewater. Wastewater enters the septic tank, which is essentially a storage unit, from a high inlet pipe and exits through a lower outlet pipe. Inside the tank, lightweight solids like fibers, hair and grease float to the top and form the scum layer. Sediments that sink to the bottom comprise the sludge layer. Clearer wastewater drains out into the leach field, also known as the drain field. The longer wastewater remains in the tank (retention time), the greater the chance anything that could potentially clog the drain field will sink or float. To allow, more time for settling, newer septic tanks feature one or more baffles or dividers to slow down the passage of wastewater from inlet to outlet. Naturally occurring anaerobic (oxygenless) bacteria in the tank start the biological breakdown process, but usually do not kill pathogens or remove toxic chemicals. After the septic tank has settled out solids, clarified wastewater is dispersed through perforated pipes into the soil. In Septic Tank Practices soil is the key to clean water. It acts as a "physical strainer, chemical renovator and a biological recycler" for the wastewater passing through it. Your soil absorption system may be called a leach field, leach bed, soil absorption field, seepage bed or mound, but all act similarly. Beneath and to the sides of the pipes, a black, jellylike mat or biomat forms. This thin layer of anaerobic organisms helps regulate the flow of wastewater to the soil and preys on potentially pathogenic bacteria, viruses and parasites. It also converts nutrients into a form that can be used by plants or releases nutrients into the atmosphere as gases. The biomat also is a common trouble spot for clogging, as it has low permeability. Failing to pump out your septic system or discharging too much wastewater down the drain can lead to a buildup of organic material, which causes the biomat

to grow too thick. Your leach field may be a series of trenches into which wastewater flows by gravity. If your system is older, your leach field may be buried 5 feet deep. More modern leach fields use drip-irrigation lines, usually buried only inches under the surface to keep wastewater in the zone of microbiological activity and within the root zones of plants. Leach fields work best when the soil surrounding them is well-drained. Don't do anything that could compact the soil, such as driving heavy trucks over it (a lawn mower is fine). Grass planted over your leach field helps keep the soil aerated. Don't plant trees with deep roots, especially invasive species such as willows. If your property does not have permeable soils or the soil is too permeable for filtering, your leach field may need to be built up with sand to create a mound system. Instead of distributing wastewater underneath the soil surface, wastewater is pumped up onto the mound, where it percolates through a layer of sand before contacting native soil.

## PUMPING IT

"A few times a year, I'll be called out to pump a system, and the homeowner doesn't know where it is" Joe a septic contractor says. "After a little probing, we'll find it under their new house addition or a driveway! When you buy a house, locate the septic system. Better yet, check out the whole system

before you buy the house." Some people will tell you that they've never pumped out their systems. In warmer climates and back when we didn't use so much water, toxics and non biodegradable products, this might have worked. But these days, going long periods without pump-outs is asking for trouble. After a new home is built, have the system pumped within the next six to 12 months, especially if toxic chemical finishing agents were rinsed into it. Unfortunately there is no way of knowing if the various people who built your new home treated the system the way you will. Most states offer convenient folders and charts on which you can calculate pumping frequency and keep accurate maintenance records. A septic system must be pumped out periodically to remove both floating scum and the sludge on the bottom. Failure to do this can result in an expensive repair or even replacement of the entire system. Experts recommend pumping your septic tank every two to three years, unless you use grease traps and particle filters.

### SEPTIC CARE

A properly designed and well-sited system that's also maintained well can be effective and environmentally responsible. We live in different times, and we can't take wastewater management for granted. It's important that we respect our septic systems as the living machinery that they are. It's not hard, but like any living thing, it needs daily awareness and effort. Paying attention to these simple septic tips can significantly extend the life of your system. Don't Go with the Flow. Prevent large volumes of water from entering your system all at once. A flood of water reduces the time wastewater is retained in the tank, leaving fewer opportunities for solids to settle out and for anaerobic bacteria to start the breakdown process. It also can stir up sediment and flush it into the leach field, causing clogs. Route roof drains and basement drainagetile water outside of the septic system and away from the leach field. Drain water from pools, hot tubs and roof drains to a ditch or separate dry well. To reduce water consumption further, install faucet aerators and low-flow showerheads, which give more force to less water. Take shorter showers and use showerheads that allow you to easily turn them off when you're lathering up. And shut off water while you're shaving or brushing your teeth. Wash only full loads in the dishwasher, or hand wash dishes with a basin of soapy water and a basin of clear rinse water. Front-loading washing machines use almost half the water of top-loading washers. Wash only full loads, and adjust load level settings for small loads. Distribute wash loads evenly throughout the week to avoid overloading the system with large volumes of water. Consider installing a gray -water system to use shower and wash water for irrigation. Your local health agency may permit a system that is properly sized, self-contained and allows no gray-water to come to the surface. If you have a water softener system, use potassium-ion exchange resins instead of sodium-ion exchange resins. They're a little more expensive, but they are much easier on your system. Recharge your water softener as infrequently as possible to reduce water use, and re-route the water softener recharge water outside the septic system if permitted by your health department. It does not need to be treated, and the salts can damage your leach field. About 60 percent of the water used in most American homes is used in the bathroom, and most of it goes to flushing toilets. To conserve water and increase the life of your septic system, consider installing a low-flush toilet. Most low flush or ultra-low-flush toilets use 1.6 gallons per flush; some flush with less than a gallon. Don't flush paper towels, feminine sanitary products and other slow degrade materials, like cat litter, in the toilet.

### Keep It Clean.

Take a load off your septic system whenever you can by composting kitchen scraps and using biodegradable and nontoxic cleaning products. Many toilet bowl cleaners, antibacterial agents and drain cleaners can kill beneficial bacteria in your system. Dispose of all solvents, paints, antifreeze and other chemicals through local recycling and hazardous waste centers. Never let wash water from latex paint on brushes or rollers go down the drain and into the septic system. Use phosphatefree liquid detergents instead of powders, which can clog your leach field, or switch to Liquid soap instead. Although small amounts of chlorine appear to have little effect on septic systems, use hydrogen peroxide-based bleaches to keep this potential carcinogen out of the watershed.

### Filter Out Fibers.

Keep fibers and particles out of the septic system. Many of today's fabrics are made of recycled plastic soda bottles and other nondegradable fibers that can clog your leach field. The Septic Protector (\$150) attaches to your washing machine drain to remove these fibers. Septic tank filters also can be added to the outlet of your septic tank to keep fibers and particles out of the leach field. For more information about your septic system (complete with graphics)

visit: [http://www.epa.gov/owm/septic/pubs/homeowner\\_guide\\_long.pdf](http://www.epa.gov/owm/septic/pubs/homeowner_guide_long.pdf)

The inspection performed on the septic system is based on a snapshot in time and does not determine future functionality only current operation. The inspection is limited to current functionality on the day of the inspection and is not a warranty. All repairs observed should be completed by a qualified septic management company.