YOUR SEPTIC SYSTEM - *UNCOVERED*

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It's underground where you can't see it. You don't really understand how it works. When it doesn't work your toilets will not flush, your sinks and showers will not drain and you could have black smelly sewage water oozing out of your front lawn. A septic system malfunction may be a health hazard and can cause environmental damage, stream contamination and groundwater pollution (and make your house the neighborhood smelly embarrassment). This septic system belongs to *you*, not a public utility. Your septic system is your complete responsibility. It's a system that disposes of all of your household wastewater and sewage within the environment of your own property. Replacement or repair to your septic system may easily cost you thousands of dollars, expenditures that could be avoided with ordinary homeowner care and maintenance.

A conventional septic tank system is passive, meaning that it requires only gravity and naturally occurring

microbes to work effectively. Your septic tank is typically a precast concrete box of 1,000 to 1,500 gallons that holds, separates and digests your household sewage and other liquid wastes. By natural microbial action a septic tank converts all wastes into a liquid form called ***effluent*** that can be absorbed and further decomposed in the soils on your property. Following the septic tank is an **absorption field**, the part of your system that delivers treated effluent to the soils for final decomposition and disposal. Waste water is returned to the soil and soil microbes breakdown the rest of the wastes. Most absorption fields consist of several hundred square feet of gravel and pipe buried two to four feet below ground surface. Instead of gravel, newer absorption fields may be made of plastics (chambered system) or even styrofoam peanuts encased in web netting. Even chips made from old tires are sometimes used. Whatever the material, absorption field delivers treated effluent from the septic tank into the soil. Different soils have different absorption rates (called percolation rates). Some soils are not suitable due to very slow percolation rates, rock, slope or high groundwater tables. A soil evaluation is a critical part of determining if your land can support a new septic system.

If your home is served by a septic tank system you need to remember these four basic rules for care and maintenance:

1. Have your septic tank pumped out about every four or five years to remove the black sludge that gradually accumulates in the bottom of the tank as a byproduct of microbial decomposition. If yours is a vacation home and only occupied part of each year you do not need to have it pumped as often. But if you don't have the sludge removed periodically it will build up and exit your tank into the absorption field where it will block final absorption and decomposition of wastewater into the soils (ruin your drainfield). You will have a failing septic system and repair costs from one to five thousand dollars or more. Through the years I've heard many homeowners brag that they, "..have never had to pump out my septic tank." This is like bragging that you never have to change the oil in your car. Once you ***have to*** pump out your septic tank the damage has usually already been done. If you use a sink garbage

disposal to dispose of your food wastes it is probably necessary to have your tank pumped every three years unless you have a 1500 gallon tank.

2. To the degree that it is practical, keep cooking grease, oils and household toxic materials out of the system. For example dispose of grease used for deep-frying in a container placed in the trash; don't pour used grease down the sink or into the garbage disposal. Grease hardens and accumulates within the tank and may create a blockage for wastewater going into or out of the tank. Once grease leaves the tank however it causes major damage to the absorption field where it blocks absorption of wastewater into the soil. Again, replacement of the absorption field is usually necessary. Disposing of household toxic materials such as paints, solvents, antifreeze and pesticides into your septic system not only harms your system but has the potential for environmental damage by allowing these toxic materials to enter groundwater. Inside your septic tank billions of microbes break down your household wastewater

into a form that can be safely and naturally disposed of into the soils surrounding your absorption field. Toxic materials have the potential for killing the microbes in your septic system and for polluting the groundwater in the area where you live, ground water that you and others may need for drinking water some day. You may use normal amounts of household bleach in your laundry without concern over harming your septic system.

3. Practice water conservation. There are many good reasons to conserve water but here we are concerned about exceeding the capacity of your septic system. Ultimately the amount of wastewater your system can handle at any one time is determined by the size of your absorption field and the rate that the soils on your property will absorb treated wastewater effluent. These absorption or *percolation* rates vary a great deal because there are many different soils and conditions within Georgia. The size, slope and soil conditions on your property may be limiting factors for your septic system.

4. Don’t waste your money buying expensive additives that claim to make your septic system work better. There are no scientific studies that prove any of these products do any good at all, and these additives may do harm by making you believe that you don’t have to pump the sludge from your septic tank every few years. All the bacteria and other microbes necessary for breaking down household wastewater occur naturally in your septic tank and drainfield. You don’t have to purchase bacteria, chemicals or solvents to make your septic system work better. Save your money.

If you are not sure where your septic system is located contact your county health department’s Environmental Health Office and ask for a copy of the original inspection report. If your system needs repair, look for a reputable and ***state-certified*** septic system contractor with experience and references. Remember that septic tank systems and repairs must be fitted to the exact environmental conditions that exist on your property, so there is no one standard type or size of system; this fact makes it very difficult for homeowners to know what is

needed. If you are not sure what to do about your septic system problem call your county health department environmentalist.

ALTERNATIVE SYSTEMS:

Some properties that are not suitable for conventional septic tanks and absorption fields may be used with alternative systems. These are usually mechanical and include aerobic treatment units, drip-emitter systems, shallow gravel fields, biopeat treatments, sand filters and created wetlands treatment systems.