

COLUMN FOR NOVEMBER 30, 2003.

HEADLINE; SEPTIC SYSTEMS; THE COUNTRY SEWERS

Q; This question came from a representative of the Kingston Whig Standard. "I purchased a home some time ago and we found our septic system failed shortly after we moved in. Is there any way to test a septic system and what can a homeowner do to maintain his system?"

A: Septic system, tank and leech bed or tile bed and residential waste treatment are all saying the same basic thing. It is a method of handling the home waste water and human waste in a controlled gravity based process utilizing a tank which separates the solids and liquids, soils that filter the waste water by absorbing contaminants, bacteria that breaks down the biodegradable materials including the grass roots that take up some of the liquid as nutrients. A septic system is like a small underground ecosystem.

Is there anyway to test a septic system? This has been a difficult area for many years and the options are very limited. Over the years in my former life as a builder I watched many "Snake-Oil Methods" used and most are smoke and mirrors. The most comical one I saw was the "Air Test" A fellow arrived in a fancy pickup with stick-on signs and he opened the tank and started a compressor, made a lot of noise and stated he was filling the distribution lines with air and if they were not clear it would bubble the soil in numerous areas. I saw this done twice and there was never any problem, he took his money and left. The problem was the second time the homeowners system failed that winter and the number he left was "disconnected". I have seen the red dye test done a number of times. Here the septic inspector puts a red dye into the drains in the house and runs the water for a considerable length of time. The theory is if the red dye shows up on the ground the system has failed. The problem here is how do you know when there is enough time or water to really have this action work? Most times I saw this done the septic inspector never opened the tank. This test could easily be voided by the present homeowner if he had the tank pumped the day before and never used the system, it takes hundreds, in some cases over a thousand gallons of water to fill a septic tank before the distribution lines ever see the "colored water". I spoke to an associate in North Augusta on this inspection issue and how a septic system should be reviewed. Mr Lavigne holds a Provincial Septic System Installers Certificate. He stated that another test is to drive rods into the ground and if the rods sink it means the system is saturated and likely has failed. He also said that he personally does not approve of this method. How his company checks the distribution field is by establishing the position of the perforated distribution lines, dig test holes beside them and establish the condition of the stone base around the pipes. If the stones surrounding the drains contain a heavy dark scum material it is a safe bet the system is not working properly. They also set up a transit after they have found the lines and check to see if the drains have the correct slope for proper discharge, another common problem in septic systems.

What are the first signs of possible problems with your septic system? The grass over the tile bed may be much greener than the rest of the lawn, although this not always a significant issue. The ground around the septic tank or the tile bed may be soggy or spongy to walk on, this is a significant issue. This will clearly show up in the middle of the summer when the ground is dry from lack of rain, yet this area is green or soft. Toilets or showers that begin to drain slowly. Sewage odours that may become noticeable after a heavy rain. Any sort of grey or dark liquid that surfaces in your yard near the system or if it backs up into the house. I always recommend homeowners get their potable water system checked annually at minimum and if high levels of nitrates are found it could be your septic system. Your well should be over 15 metres or 50 feet from the septic system so if it affects your house water, you can bet the system is failing.

Over the years I have heard many "not so funny stories" of septic system and their abuse. Some people do not understand that this flat piece of land should remain that, an open grass covered piece of your home

landscape. I have heard of people planting gardens over it, one case I know a parking lot was installed and the system froze after it was ploughed off every snowfall. I even heard where someone bought a country home and decided that an in ground pool would look nice on this spot and after failing to get a country excavation contractor to come, hired a city excavator and only after someone flushed the toilet did they understand what all the pipes they found were from!

What can a homeowner do to maintain their septic system? Most common recommendation is to have the tank pumped every 4-5 years. This will depend upon the tank size and the occupancy of the home. Be present when the tank is pumped and talk to the pump operator. Most of these gentlemen are a wealth of experience and most are provincially licensed for disposal. Try and establish the level of solids and this will give you an indication of the frequency of pumping. Store bought bacteria additives are generally not needed to get a tank up and running again. Have the pump operator confirm the integrity of the tank, check for leaks and make sure the baffles are intact. There are a number of books and government pamphlets on the subject of home waste water conservation and proper use of a septic system. I have two, one from the Ontario New Home Warranty program from my former days and one from CMHC. If any of my readers would like one or both of these, e-mail me your address and I will see you get them mailed to you.

Are you considering a new home? A Professional Home Inspection by a Registered Home Inspector as licensed by the Ontario Home Inspectors Act is wise part of your home buying plans. Go to www.oahi.com and click on the area you are moving too.

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