

# Protecting Your Investment Inspecting Your Septic System



Maintaining your septic system is just like taking care of your car: regular inspection and care significantly impacts how well it works and how long it lasts. Like a car, a septic system is an investment. Many homeowners give little thought to what goes on underground in their septic system, but repair or replacement can cost more than some of today's cars!

Failing septic systems are generally caused by poor maintenance. Regular preventative maintenance costs very

little in comparison to repair or replacement. Maintenance also

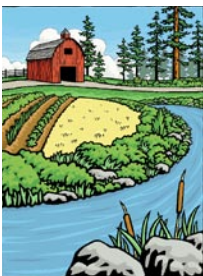
protects the health of your family, the community and the environment. Failing septic systems release untreated wastewater into the environment and contaminate nearby wells, groundwater, stream and other surface waters. Contact with untreated human waste can pose a serious health threat for humans and animals.

It is the landowner's responsibility to see that their system is properly maintained through regular inspection and pumping. Regular inspection of the septic tank is the most important maintenance a homeowner can perform. Inspection of the sludge and scum layers is the only way to determine when a tank requires pumping. The inspection can be conducted by a licensed septic inspector or by you the homeowner, if you have a gravity fed system, but it must be done every three years. Septic tank inspectors and pumpers can be found in the yellow pages or on the Internet. A list of licensed inspectors and pumpers in Clark County can also be obtained from Clark County Public Health. If you choose to conduct the inspection yourself, a licensed inspector must conduct the next inspection. Inspecting the septic tank is not a pleasant job, but can be done relatively easily following the steps outlined below.

**TIP:** If you do not know where your septic tank is located, records of its location may be available from the Clark County Health Department. If no record exists, probing the ground with a steel rod tapped gently into the ground should help you find it. Start five feet from where the sanitary sewer leaves the house. Consider installing risers to make your tank easy to locate in the future.

## Measuring the Scum Level

Calculating the distance between the bottom of the scum layer and the bottom of the outlet baffle or tee will determine whether your septic tank requires pumping.



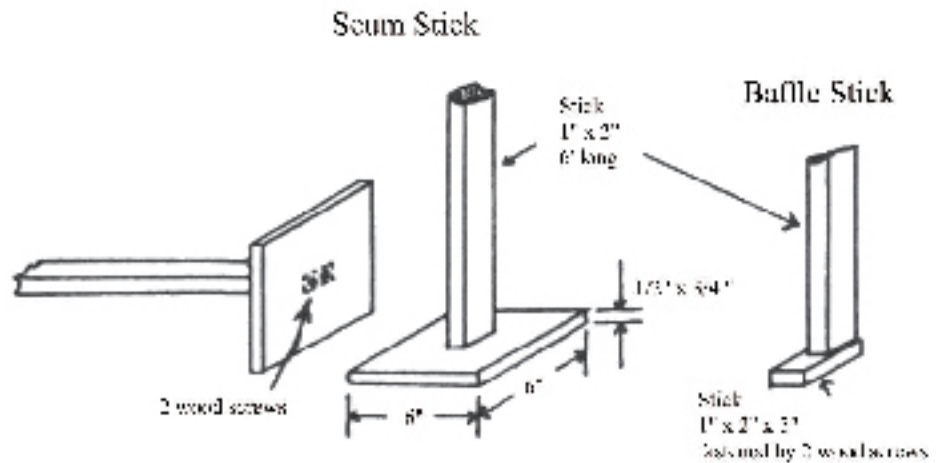
1. Establish a convenient reference point, such as a stick laid on the ground across the hole at the top of the holding tank.

2. Attach a 3" x 1" x 2" board at the bottom of a six-foot stick and lower it down through the outlet tee of the first compartment. Hook the 1" x 2" board against the bottom lip of the baffle and mark the stick where it crosses the reference point. This is the baffle stick (Figure 1).

**CAUTION:** Remember you are dealing with harmful material. Wear disposable gloves, hose off and disinfect the sticks and dispose of the towel in a sealed plastic bag. Never enter a septic tank! The fumes and lack of oxygen can be fatal. Any work you do on the tank should be conducted from the outside.



3. Attach a 6" square board to the bottom of a second stick at least six feet long. This is the scum stick (Figure 1).
4. From the manhole of the first compartment of the tank, work the stick through the scum layer. This is best accomplished by starting at a 45-degree angle and straightening the stick once the board is through the scum layer (Figure 2).
5. Raise the stick slowly until you feel or see the stick contact the bottom of the scum layer.
6. Mark your stick at the reference point to indicate the bottom of the scum layer.
7. Lay the baffle stick and scum stick side by side with the reference marks lined up. The distance between the bottom of each stick represents the distance left between the bottom of the scum layer and the outlet baffle ("A" in Figure 2).
8. If the two marks are three inches or less apart, the tank needs to be pumped out. If the top of the scum is within one inch of the top of the outlet baffle, the tank needs to be pumped.
9. Lay the baffle stick aside for later comparison with the sludge level stick.



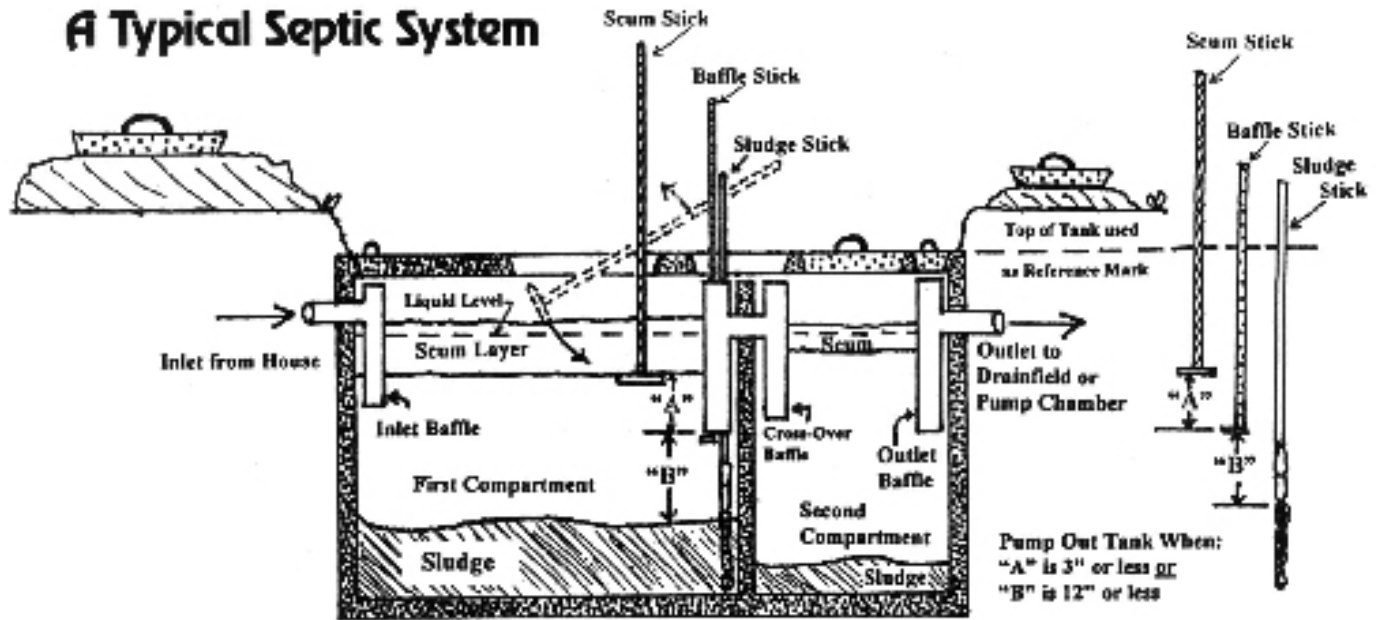
## Measuring the Sludge Level

This will help you determine the distance from the bottom of the outlet baffle or tee to the top of the sludge layer.

1. Tightly wrap a white rag or old towel around the bottom three feet of a stick at least six feet long, and fasten it with tape or string. This is the sludge stick.
2. Carefully lower the stick to the bottom of the first compartment. To avoid pushing it through the scum layer, lower the stick behind the outlet baffle or through the outlet tee.
3. Hold the stick in the tank for a few minutes to allow sludge particles to adhere to the towel. Mark the stick at the reference point to indicate the bottom of the tank.
4. Remove the stick carefully and note a distinct dark stain on the towel representing the sludge layer.
5. Lay the sludge stick beside the baffle stick lining up the top marks.
6. Measure the distance from the bottom of the scum stick to the top of the dark stain on the sludge stick. This represents the distance between the top of the sludge layer and the bottom of the outlet baffle ("B" in Figure 2).
7. If the distance is 12 inches or less, your tank needs to be pumped.



## A Typical Septic System



**Figure 2. A typical septic system showing methods for utilizing measuring sticks for inspection.** (From *Inspecting Your Septic Tank Thurston County, WA*)

### Inspecting the Baffles

1. Remove the inspection covers over the inlet, outlet and crossover baffles. Inspect the baffles to ensure they're present and not severely corroded. If the baffles are concrete and molded into the rest of the tank, venting holes should be present and unobstructed.
2. The inlet baffle should be unobstructed and the pipe well sealed to the tank.
3. The outlet baffle should be unobstructed and the liquid level should be at the bottom of the pipe, not below the pipe or well above the bottom of the pipe. The pipe must be well sealed to the tank.
4. The crossover baffle should also be free of obstruction.
5. Have the baffles replaced if they are in poor condition or missing.

**NOTE:** If your tank has an outlet filter, it should be cleaned or replaced at least once each year.

Properly sited, designed, constructed and maintained septic systems can provide efficient, economical and long-lasting on-site wastewater treatment. Keep accurate records of the location of your septic system, as well as dates when the system was inspected and pumped. Maintaining your septic system will protect your investment, save money and protect your family, the community and the environment.



If you would like additional information on septic tank maintenance or inspection contact:

Washington State University  
Clark County Extension  
11104 NE 149th Street C 100  
Brush Prairie WA 98606  
360-397-6060 extension 7720  
<http://clark.wsu.edu/>

Clark Conservation District  
11104 NE 149th Street C 400  
Brush Prairie WA 98606  
360-883-1987 extension 110  
<http://www.clarkcd.org/>

Clark County Public Health  
1601 E Fourth Plain  
Vancouver, WA 98666  
360-397-8000 x8428  
<http://www.clark.wa.gov/public-health/Index.asp>

### Information Sources on the Web:

Clark County Public Health <http://www.clark.wa.gov/public-health/septic/index.html>  
WSU Clark County Extension <http://clark.wsu.edu/horticulture/smallAcreageProgram.html>  
Washington State Department of Health <http://www.doh.wa.gov/ehp/ts/waste.htm>  
EPA Septic Systems <http://cfpub.epa.gov/owm/septic/home.cfm>  
National Small Flows Clearinghouse <http://www.nesc.wvu.edu/>  
The Septic Yellow Pages <http://www.septicyellowpages.com/>

### Sources:

Farrell-Poe, K. and E. Hassinger. 2000. Inspecting Your Household Septic System. University of Arizona Cooperative Extension. 3 pp. <http://ag.arizona.edu/pubs/water/az1159.pdf>

King County Public Health. 2003. Wastewater Program: Inspecting Your Septic System. <http://www.metrokc.gov/health/wastewater/owners/inspections.htm>

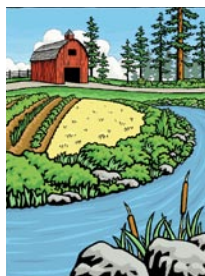
Thurston County. n.d. Inspecting Your Septic Tank. Brochure. <http://www.co.thurston.wa.us/health/ehoss/inspect.html>

Washington State Department of Health. 1991. Inspecting Your Septic Tank. DOH Pub 334-016 (3/91). Brochure.

Adapted by Erin Harwood, WSU Clark County Extension (August 2005).

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