Septic Maintenance and Homeowners: Where the heck is that water going?

by Jacqui Bauer, RCAP

Domestic wastewater: if ever there was a topic guaranteed to inspire glassy-eyed stares from the average homeowner, this is it. The only time it occurs to many people—your average Joe and Betty, say—to think about where their household plumbing might lead is when the water doesn't go away like it's supposed to. On the one hand, Joe and Betty might argue that this devil-may-care attitude about wastewater is one of the benefits of living in an advanced civilization. On the other, what if that plumbing hasn't kept up with the rest of the country, and is taking sewage to the backyard, to the creek, or, worse still, right to the well the family is drinking from? Exciting or not, domestic wastewater is a gritty reality more and more homeowners are being forced to address. In order for the on-site industry, regulators, and educators to deal with this issue effectively and start building more responsible attitudes, we need to focus on both long-term, community solutions and the importance of septic maintenance.

The fact is, domestic wastewater is a major contributor to the pollution of our lakes, rivers, streams, and groundwater. Many homeowners may not realize that the wastewater they produce each day—from dishwashers, washing machines, sinks, toilets, and other household uses—could be having a negative effect on water quality and community health. A large number of the on-site wastewater treatment systems in Indiana—up to 70 percent of systems in some areas—are inadequate and/or failing, and a long-term solution is crucial. Without one, water quality could decline steadily and result in increased health and environmental impacts on the state's residents.

Ultimately, a community-wide solution may be needed. For those homeowners in communities that have not yet established a community system, or for those homeowners whose property is suited for an on-site solution, the following steps can help minimize the health and environmental impacts of the sewage they produce.

What homeowners can do[1]

Even if residents decide to correct their wastewater problems at a community level, the time it will take to design a system, obtain approval from the relevant regulatory agencies, and identify funding to pay for it could take two to three years. What should residents do in the interim to reduce their impact on public health and the environment?

Unfortunately, many of the lots in Indiana's rural communities are simply too small or too steep to accommodate a proper septic system. This reduces the ability of homeowners to address problems on their own. However, each resident can start by answering a few questions for themselves.

- First, does your property have a septic system? If it doesn't, is there some other means of sewage treatment?
- Where is the system located?
- When was the last time you had your system inspected? Typically, it is recommended that systems be inspected annually to insure that they are working properly.
- When was the last time you had your system cleaned? The recommended frequency for cleaning varies according to the size of the tank and the number of occupants in the household. For example, a 1,000-gallon septic tank serving a household of three people needs to be cleaned about every three and a half years. For other examples, please see the table below.

Be sure to distinguish between having your tank *cleaned* and just having it *pumped*. Pumping removes only the liquid from your tank, while cleaning removes both liquids and solids. Unfortunately, the cost for having a tank pumped will almost always undercut the cost of having it cleaned, which means that many

[1] Maintenance information was obtained from *Pipeline*, a publication of the National Small Flows Clearinghouse, Fall 1995, Volume 6, Number 4.

homeowners opt for the cheap—and inadequate—fix. Clarifying this difference for homeowners can help insure that they select contractors who will keep their system functioning optimally.

Septic Tank Cleaning Frequency

Tank size (gals.)	Household size (number of people) 1	2	3	4	5	6
500	5.8	2.6	1.5	1.0	0.7	0.4
750	9.1	4.2	2.6	1.8	1.3	1.0
900	11.0	5.2	3.3	2.3	1.7	1.3
1000	12.4	5.9	3.7	2.6	2.0	1.5
1250	15.6	7.5	4.8	3.4	2.6	2.0
1500	18.9	9.1	5.9	4.2	3.3	2.6
1750	22.1	10.7	6.9	5.0	3.9	3.1
2000	25.4	12.4	8.0	5.9	4.5	3.7
2250	28.6	14.0	9.1	6.7	5.2	4.2
2500	31.9	15.6	10.2	7.5	5.9	4.8

Estimated septic tank cleaning frequencies in years. These figures assume there is no garbage disposal unit in use.

Source: Pennsylvania State University Cooperative Extension Service

Even without answering the above questions, some homeowners may already suspect that their system is failing. The following characteristics can be evidence of a failing system, although a system can fail without showing any signs at all.

- Slowly draining sinks and toilets
- Gurgling sounds in the plumbing
- Plumbing backups
- Sewage odors in the house or yard
- Ground wet or mushy underfoot
- Grass growing faster and greener in one particular area of the yard
- Tests showing the presence of bacteria in well water

Homeowners can take several steps to reduce the risk of septic failure or to reduce the impact on health and the environment until the community decides on a permanent solution.

- First, conserve water! This can reduce the demand you place on your septic drainfield. You can do this by fixing leaky faucets; using washing machines and dishwashers only when they are full; turning off water while brushing your teeth; avoiding long showers; and installing low-flow toilets, faucets, and shower heads.
- Second, avoid putting solid materials into your septic system. Solid materials can cause your system to clog, resulting in backups or inadequate wastewater treatment. This means you should avoid using garbage disposals, and should try not to wash food scraps and coffee grounds down the drain. Grease and oils can also inhibit your system's ability to treat wastewater—dispose of these materials in your trash.
- Third, avoid putting hazardous chemicals such as paints, varnishes, pesticides, and so on, into your septic system—they can destroy the bacteria that make your system work.
- Fourth, as mentioned above, have your tank inspected annually and cleaned according to the recommended schedule.
- Finally, don't plant shrubs or trees near your septic system, and don't drive heavy machinery or build anything over any part of the system—all of these things can damage the system and keep it from working properly.

If you have questions about this information, please call Jacqui Bauer of RCAP at (800) 382-9895, or via email at jbauer@incap.org. If you'd like additional information about septic systems, wastewater, and related issues, please visit the National Small Flows Clearinghouse website at www.estd.wvu.edu/nsfc/nsfc/.