

**Do you know where the water goes when you wash clothes, take a shower, or flush the toilet?**

**If you're like most people, worrying about your wastewater ranks low on your priority list.**

**However, there are several things that every homeowner should know.**

**NEED HELP FINDING A SOLUTION?**  
Call your county health department. Also, the Indiana Rural Community Assistance Program (RCAP) provides free assistance to low income, rural communities (<10,000) with onsite and centralized wastewater treatment problems. Please call (800) 382-9895 or (317) 638-9302 for more information.

For additional information about wastewater-related topics, contact the following:

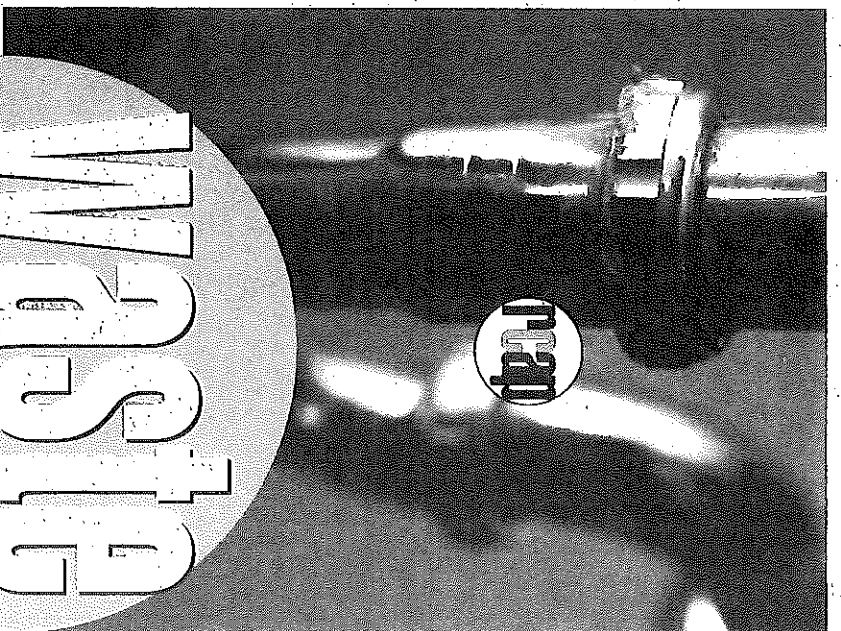
- Your local health department. For a directory of Indiana County Health Departments: [www.state.in.us/isdl/vital/local.html](http://www.state.in.us/isdl/vital/local.html)
- National Environmental Services Center: [www.nesc.wvu.edu/nesc/nesc\\_about.htm](http://www.nesc.wvu.edu/nesc/nesc_about.htm)
- Purdue Residential Onsite Wastewater Disposal: [www.ces.purdue.edu/initiative/Onsite/](http://www.ces.purdue.edu/initiative/Onsite/)
- Onsite/Decentralized Wastewater Systems: [www.epa.gov/owin/decent/](http://www.epa.gov/owin/decent/)
- Indiana State Department of Health: [www.state.in.us/isdl/](http://www.state.in.us/isdl/)

1. On-Site Wastewater Disposal and Public Health, Catherine Taylor and Joseph Yahner, Agronomy (765) 494-4773, Don Jones, Agricultural Engineering (765) 494-1167, Purdue University and Alan Dunn, Indiana State Department of Health (317) 233-7177.



*RCAP provides free assistance to assure safe drinking water and sanitary waste disposal for the low income, rural communities and individuals of Indiana.*

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**out of  
sight,  
out of  
mind?**

Need help finding a community solution? Call the Indiana Rural Community Assistance Program at (800) 382-9895

## HEALTH AND ENVIRONMENTAL CONCERNS RELATED TO WASTEWATER

Untreated wastewater poses a serious threat to public health and the environment. Typhoid, Cholera, Hepatitis A, polio, and viral gastroenteritis are a few of the diseases that can be contracted from pollutants in wastewater. Wastewater can also carry *E. coli* and parasites. In the past few years, well-publicized outbreaks of giardiasis (caused by the protozoan *Giardia lamblia*), and cryptosporidiosis (caused by the protozoan *Cryptosporidium*) have brought attention to these threats.

Elevated levels of nitrates in water can also be dangerous. Nitrates are the cause of methemoglobinemia or blue baby syndrome, a condition that prevents the normal uptake of oxygen in the blood of young babies. It is also suspected of causing miscarriages.

Surface and groundwater quality also suffers from the constant inflow of inadequately treated wastewater. These inputs can lead to eutrophication, fishkills, and can otherwise limit the health and integrity of a water body.

### IF YOU TREAT YOUR WASTEWATER AT HOME

Based on 1990 census information, 31% of households in Indiana utilize a residential onsite treatment system, usually a septic system, to treat their wastewater. However, the Purdue Residential Onsite Wastewater Disposal Program estimates that 90% of soils in Indiana have "severe limitations for septic systems"—that is, the soils are inadequate to properly treat wastewater. Furthermore, many older homes rely on the original means of wastewater disposal, which might consist of an underground cistern or a direct connection to a field tile. If homeowners don't give proper attention to how their septic system is functioning, they may be unwittingly endangering public health and the environment.

### DON'T PUT THESE DOWN YOUR DRAIN!

- Motor oil, lighter fluid, paint or paint thinner, gasoline, etc.
- Pesticides, herbicides
- Disinfectants, antibacterial cleansers
- Rodent poisons
- Anything containing heavy metals such as mercury
- Other hazardous materials

## FOLLOW THESE BASIC MANAGEMENT PRACTICES TO INSURE PROPER TREATMENT AND EXTEND THE LIFE OF YOUR SYSTEM.

**CONTROL WATER USE** – repair leaks, install low-flow toilets and shower heads, and spread water usage throughout the day and week. A waterlogged absorption field will hinder wastewater treatment.

**WATCH WHAT YOU PUT IN THERE** – Minimize the use of harsh cleaners, bleach, soaps, and detergents and do not dispose of paints, medications and other hazardous chemicals that may kill the friendly bacteria in the septic tank. If you are ever unsure whether an item can be disposed of safely down the drain, contact your local sewer treatment facility or solid waste district for more information.

• Grease, oils, lint, feminine hygiene products, coffee grounds, cigarette butts and some food items will take a long time to decompose or will never decompose in your septic tank. Solids building up in the tank affect the system's ability to treat waste and increase the frequency of tank cleaning.

• A garbage disposal can increase the amount of solids in your wastewater by 50 percent. If you have a septic system, compost or dispose of your kitchen waste in another way.

### SYMPTOMS OF A FAILING SEPTIC SYSTEM

A homeowner's first duty is to determine whether their own septic system is adequate and functioning properly. Symptoms of failing systems include:

- Plumbing back-ups or slow draining sinks and toilets
- Sewage odors indoors or outdoors
- Mushy ground or ponding sewage above the absorption field
- High levels of bacteria in nearby streams or wells
- Algae blooms or excessive plant growth in nearby ponds or lakes.
- Gurgling sounds in the plumbing

## MORE MAINTENANCE TIPS

- There is no reason to ever add anything to your septic tank; cleaners and additives will not replace proper maintenance, and can be harmful in some cases!!!
- Make sure that your septic hauler cleans the tank instead of merely pumping the tank. Cleaning the tank removes solids and prevents them from clogging the absorption field, whereas pumping usually only removes the liquid.
- Cleaning frequency can be estimated on the basis of 100 gallons of tank capacity per person per year. For example, a 1000 gallon tank used by a family of two should be cleaned every 5 years [1000/(100x2) = 5].
- A filter can be installed in the septic tank to restrict the passage of solids into the absorption field. Filters are relatively inexpensive (less than \$200) and can be installed or retrofitted to fit most tanks.
- Do not drive heavy machinery over the absorption field. Soil compaction will reduce filtering ability.
- Mow but do not fertilize or water over the absorption field.
- Do not place gardens, swing sets or sandboxes over absorption field.
- Do not plant trees, shrubs, or any woody vegetation close to the area. Roots may clog the absorption field.

Though these maintenance steps may cost money now, they'll save you money in the long run. You may spend \$100 a year to have your tank inspected and cleaned, but it can cost \$5,000 or more to have a new system installed. In addition, a failed septic system can reduce your property value and make it difficult to sell your property.

### IF YOU ARE CONNECTED TO A COMMUNITY SEWER SYSTEM...

Most community sewer systems are monitored by the Indiana Department of Environmental Management (IDEM). Many larger sewer systems issue annual reports to their customers; however, it is more difficult to get information about smaller systems. You may be able to find some information about your local sewage treatment plant on the IDEM website. Go to [www.state.in.us/idem](http://www.state.in.us/idem) and select "My Community". Enter your zip code for a variety of information about your community, including a list of authorized water dischargers. You can also visit the "Compliance" section at the same website or call (317)232-8670 for specific information about your local sewage treatment plant.

You can also call your sewage treatment plant or local sewer district directly—there should be a contact number on your monthly bill.