

Home & Environment

Grandfathered Septic Systems: Location and Replacement/Repair

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If you own an older home or are considering buying an existing home that is not on a centralized sewer system, then you should have a septic system. Unfortunately, Indiana does not have a statewide inspection program that actually locates septic systems when a house is sold. In many counties, the health department or some other entity can provide a dye test that does not actually locate the system, but determines if septic tank effluent is surfacing on the lawn. *However, this test **does not** determine if the system is functioning properly, so it is quite possible (and legal) to purchase a home in Indiana without a properly functioning septic system. Once the sale is complete, new homeowners are responsible for any ground or surface water contamination from the septic system that occurs.*

The purpose of this publication is to provide suggestions on how to locate an existing septic system and describe the current Indiana rule regarding septic system failures.

Grandfathered Systems

“Grandfathered” is a term often used to identify something that does not need to abide by current rules or regulations. It is important to note that, in Indiana, no failing septic system is grandfathered under 1990’s Indiana State Department of Health (ISDH) Rule 410 IAC 6-8.1. The law is clear regarding septic system failure:

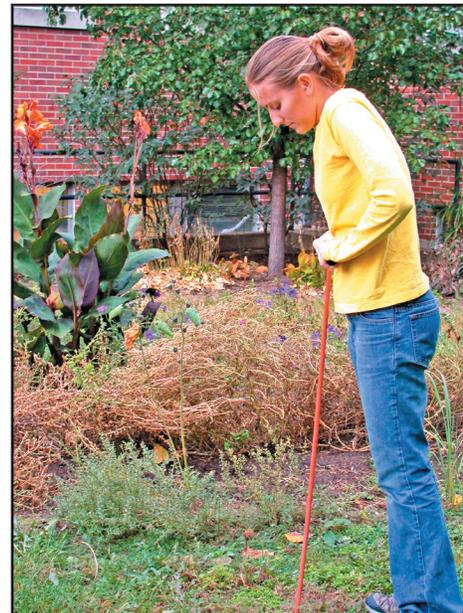
- No system will contaminate ground water.
- No system will have adverse effects on normal household plumbing operation.
- No system will discharge untreated effluent to the surface.

The ISDH rule contains a series of regulatory constraints on the location and design of current septic systems in an effort to prevent future failures. These constraints are based on the experiences of ISDH from previous decades, and health departments from other states. The remainder of the

rule contains various construction details for conventional trench and mound septic system designs.

Locating the Septic System

Before determining what kind of working condition your septic system is in, you first need to find it. The first step to locating an existing septic system is to check with the local health department to determine if your home has a septic system permit. If your home has a permit on file, the permit may include a description of the septic system design and a map of your lot showing the location of the tank and soil absorption field. Using the permit as a guide, you can insert a fiberglass tile probe into the soil to try locating the tank or trenches (Figure 1).



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Figure 1. Purdue University graduate student Kelli Hart uses a fiberglass tile probe in a lawn to locate a septic tank.

Always contact utility companies to locate buried electric, telephone, gas, and cable lines before using a probe or digging in the lawn. In Indiana, call (800) 382-5544 at least 48 hours before digging for a free service that will alert you to the location of gas, phone, and other buried utility lines.

If the local health department does not have a permit on record, locating the septic system is more difficult. As a starting point, you can usually identify the sewer pipe at the point it leaves the house from the basement or crawlspace. Then, from where this pipe exits the house, begin probing the lawn with the tile probe at a distance of 10 to 20 feet away from the house. In modern systems, septic tanks are typically 10 feet from the house. The septic tank is usually within two feet of the ground surface. The distribution box and absorption field are typically located downslope from the septic tank. Some older homes may have a septic tank set deep, with a top that is more than three feet down, making it difficult to detect with a short probe. If this is the case, contact a reputable septic tank cleaner and they can help you locate the tank and absorption field.

History of Indiana Septic Systems

Systems built prior to ISDH Rule 410 IAC 6-8.1 may not be built to current specifications. These systems are not out of compliance with state law, as long as the systems are not contaminating ground or surface waters and household plumbing operates properly. If your home was built prior to the early 1980s, it is probable the system was not designed based on consideration of the soils on your lot. Before the early 1980s, systems were built to a standard size and depth regardless of soil type. County health departments occasionally used the county soil survey to determine soil types present, but the examination would be considered inadequate by today's standards. For example, clayey soils require a much larger soil absorption field compared to a sandy soil. (For more information about soils and septic systems, see Purdue Extension publication HENV-7-W, *Indiana Soils and Septic Systems*).

Prior to the 1970s many homes were fitted with a dry well or sewer pipe that extended from the house to a buried agricultural tile drain that discharged into to a ditch or creek. Today, these systems are illegal since they contaminate surface water and should be repaired or replaced immediately.

Common Problems with Older Systems

Frequently, homes built before 1980 have undersized septic systems. These systems might have worked very well for small families with conservative water habits, but many of these homes (and their septic systems) have been sold to younger, growing families that have a much higher water use. This increased water use often results in hydraulic overloading and the subsequent failure of undersized septic systems. System failures often occur the first spring after the new family moves into the home. As a result, the new homeowner must repair or replace the undersized system.

Clues that you might have a failing system

- *You notice foul odors in your home or yard.*
- *You have slow or backed-up household plumbing drains.*
- *Wet, spongy ground or lush plant growth may appear near a leaky septic tank or failing soil absorption field.*
- *Algal blooms and excessive weed growth in nearby ponds or lakes can be caused by phosphorus leaching from septic systems or excess build-up in soil absorption fields.*
- *Family members may suffer repeated intestinal illnesses because your water is contaminated by poorly treated wastewater.*
- *You have occupied your house for 20 years and never pumped the septic tank.*
- *There is no septic permit on record with the county health department.*

System Replacement/Repair

Replacing old, inadequate systems and repairing failing systems are integral parts of an on-site wastewater management program. If a septic system fails, the county health department must be notified as soon as possible. County health officials can assist homeowners by providing legal requirements and offer contact information for septic

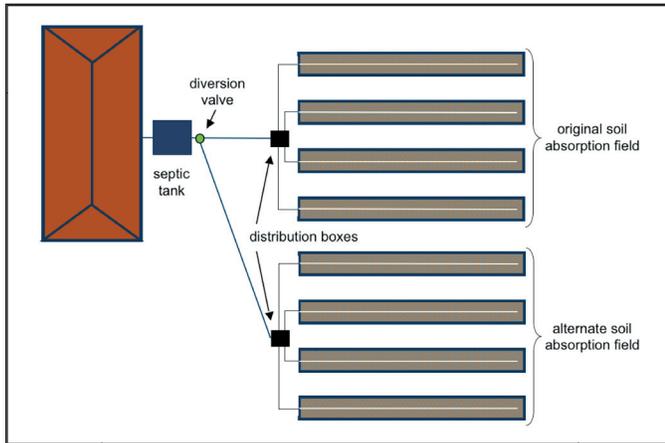


Figure 2. Alternating soil absorption fields are a common repair option for failing systems on larger lots. Diversion valves alternate the flow between soil absorption fields every six to 12 months. Resting a soil absorption field can restore a trench's infiltration capacity.

system professionals licensed to work in the county. Common repairs for failed soil absorption fields include building additional trenches or even a new soil absorption field adjacent to the old one (Figure 2). Often, a diversion valve between the septic tank and the soil absorption fields can be installed. This diversion valve can be used to load each field with effluent separately. By alternately loading one soil absorption field while the other rests every six months, failed soil absorption fields can be restored.

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