Clark County Health Department
, Jeffersonville, IN 47130
Phone: (812) 282-7521 Fax: (812) 288-2711 Website: www.clarkhealth.net

Public Health
Prevent. Promote. Protect.

ON-SITE SEWAGE DISPOSAL SYSTEM PERMIT APPLICATION

Property Owner Information

Business Name (Commercial Only) _____

First Name: _____ MI: ___ Last Name: _____

Address Line #1_____

Address Line #2_____

City: _____State: ____ Zip code: _____

Phone Number: (_____) _____-_____ Alternate Phone Number: (_____) _____-_____

Email: _____ Fax: (_____) _____-_____

Applicant Information ☐ Same as Owner

Business Name (Commercial Only) _____

First Name: _____MI: ___ Last Name: _____

Address Line #1_____

Address Line #2_____

City: _____State: ____ Zip code: _____

Phone Number: (_____) _____-_____ Alternate Phone Number: (_____) _____-_____

Email: _____ Fax: (_____) _____-_____

Facility Address ☐ Same as Owner

Address _____Township: _____

City: _____ State: _____Zip Code: _____

Location Description **(nearest mailbox)**:_____

_____

Signature: _____ Date: _____

Revised 04/23/2020

OVER

General Information

System Type: ☐ Residential ☐ Commercial Year Structure Built _____

Permit Type: ☐ New ☐ Repair/Replacement ☐ Tank Only ☐ Operational

Facility Details:

Facility Type: ☐ Single Family Residence ☐ Other: _____

Number of Bedrooms: _____ Number of Employees/Occupants :_____(commercial only)

Seasonal Use Only: ☐ Yes ☐ No Garbage Disposal: ☐ Yes ☐ No

Has Jetted Tub ≥ 125 Gallons: ☐ Yes ☐ No Has Water Softener: ☐ Yes ☐ No

Water Supply: ☐ Private Well ☐ Community Water System ☐ Other_____

Existing Well on Property: ☐ Yes ☐ No Rental Property: ☐ Yes ☐ No

Legal Description

Section#: _____ Township#_____ Lot#: _____ Parcel/Lot Size: _____ (Acres)

Subdivision: _____ Parcel#: _____

Office Use Only

Request Number (Site Survey#): _____ Parcel Control Id: _____

System Permit Number: _____ Permit Issued Date: _____/_____/_____

Building Permit #_____ Final Inspection Date: _____/_____/_____

Fee(s)	**Receipt Number/Date**
Application: $_____	_____
Permit: $_____	_____
>2 Inspections $_____	_____
>1 Contractor Conference $_____	_____

Site Survey# _____

Application# _____

The Clark County Health Department is willing to recommend, though not guarantee, the design for most septic systems used in our county. This recommendation is based on existing state codes. We do this because it saves time and costs for the homeowner or builder. It is impossible to design systems that are failure-proof due to the many variables that effect septic system function. The chance of premature failure of a system is quite. However, the homeowner or builder can usually decrease the risk of this failure by having a * Certified Soil Scientist perform the soil evaluation and a *Registered Professional Engineer design the Septic System at their own. Again, the Health Department cannot guarantee that the system recemmended by us will not prematurely fail.

I _____ have read and understand the above information. (I will / will not) use a * Registered Professional Engineer to design the septic system for my dwelling at

_____

I release the Health Department from any liability should the septic system fail.

Signature: _____ **Date:** _____

*** Certified Soil Scientists and Registered Professional Engineers are NOT employees of Clark County Health Department and are NOT septic system installers. These professionals are privately employed by the Homeowner/Builder at their own cost.**

PURDUE UNIVERSITY

PURDUE EXTENSION

HENV-2-W

Home & Environment

Increasing the Longevity of Your Septic System

Heidi Peterson, Brad Lee, and Don Jones
Department of Agronomy and Department of Agricultural and Biological Engineering,
Purdue University

Introduction

After purchasing a new or existing home, most homeowners probably do not expect to pay several thousand dollars to provide adequate waste disposal. But that's what frequently happens in Indiana due to failed septic systems. Backyard seepage, toilets that won't flush, bathtubs that won't drain, and illnesses from contaminated drinking water are a few of the problems related to these failures, not to mention the frustration of high repair costs.

This publication provides homeowners with a basic introduction to septic systems by explaining how septic systems function and suggesting ways to better maintain systems and increase their life spans.

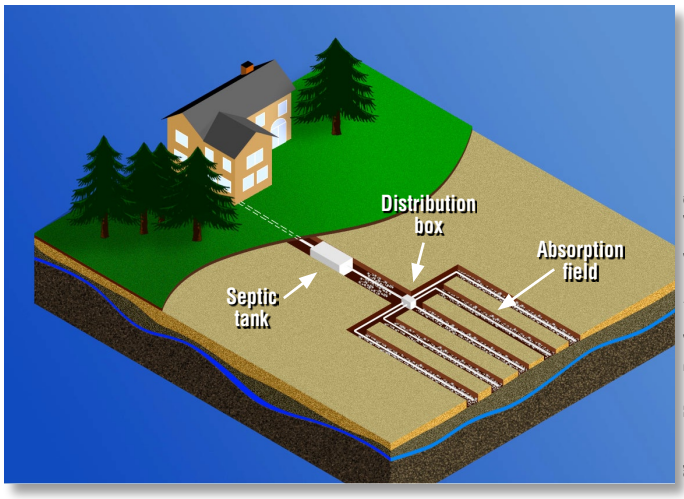
How a Septic System Works

Traditional septic systems (Figure 1) are made up of three main parts:

- The septic tank
- The distribution box
- The absorption field

Wastewater is directed to the tank once it leaves the home. Once there, the solids in the wastewater separate from the liquid effluent over a period of about 24 hours. Greases and fats in the wastewater are lighter and tend to float to the top of the tank, forming a scum layer. The heavier wastewater particles settle to the bottom, forming a layer of sludge. In between the sludge and scum layers is the liquid portion (or, clarified effluent) that is discharged to a soil absorption field (Figure 2). Baffles at the tank's outlet prevent solids from overflowing and plugging the pipes and soil pores in the distribution field. Baffles also dampen fast-moving water entering the tank from the home, preventing turbulence in the tank that can disrupt the wastewater separation process.

Effluent filters are devices that are very effective at preventing solids from leaving the tank and allowing only the clear liquid portion of the wastewater to discharge to the soil absorption field. New septic tanks can be built with effluent filters, which



Sharon Katz, Purdue Agricultural Communication

Figure 1. *Conventional septic system layout.*

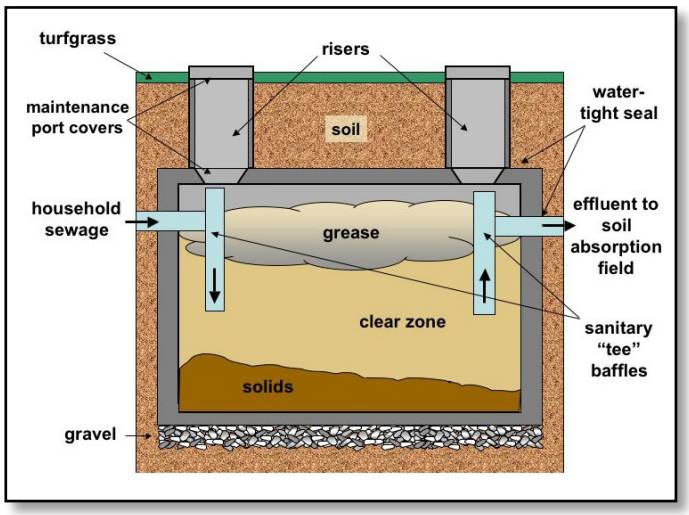


Figure 2. *A cross-section view of a septic tank. Dense organic matter sinks while lighter wastewater components (grease and fats) float. The clarified effluent moves from the septic tank to the soil absorption field.*

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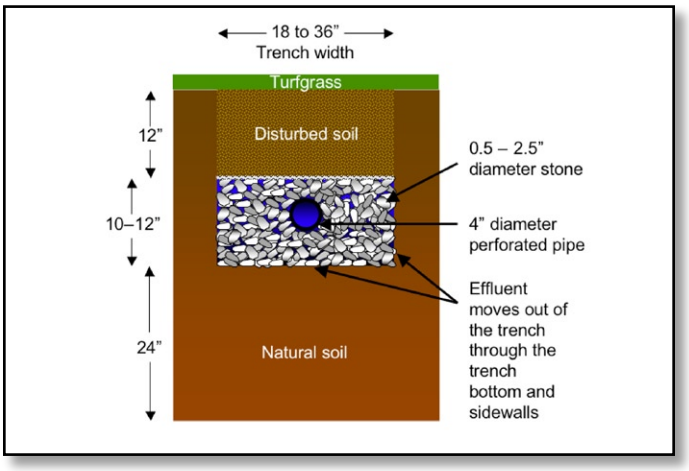

Figure 3. *Cross-section of a conventional gravel trench. This trench is the most common type found in Indiana septic systems.*

attach to the baffle at the outlet end of the tank. Existing tanks can (and should) be retrofitted with effluent filters whenever possible, since they protect the soil absorption field, the most expensive part of the system (for more information about septic tanks, baffles, and effluent filters, see Purdue Extension publication HENV-5-W, *Septic Tanks: The Primary Treatment Device of Your Septic System*, http://www.ces.purdue.edu/extmedia/HENV/HENV-5-W.pdf).

When wastewater effluent exits the septic tank, it is transferred to a distribution box via a watertight pipe. The distribution box is a concrete or plastic box containing several outlet ports that are installed at the same elevation and that dispense the effluent equally among the absorption field's trenches. If the trench outlets are not at the same elevation, one trench will receive more effluent than another, which could overload and damage that portion of the soil absorption field (for more information about distribution boxes, see Purdue Extension publication HENV-4-W, *Septic System Distribution Boxes: Importance of Equal Distribution in Trenches*, http://www.ces.purdue.edu/extmedia/HENV/HENV-4-W.pdf).

The soil absorption field is where the final treatment processes take place. Effluent flows from the distribution box through several solid pipes into a series of parallel trenches in the soil. Each trench contains a perforated pipe surrounded by gravel. Effluent moves through the perforated pipes, trickles through the gravel, and is introduced into the soil (Figure 3). Most absorption field trenches are filled with gravel, however there are many substitutes available. For more information about gravel trenches and alternatives to gravel, see Purdue Extension publication HENV-8-W, *Gravel and Gravelless Trench Soil Absorption Fields*, http://www.ces.purdue.edu/extmedia/HENV/HENV-8-W.pdf.

Once in the soil, pathogens are removed from the wastewater by three general processes:

1. Predation by other organisms that feed on the pathogens
2. Adsorption of pathogens to soil particle surfaces
3. Desiccation of pathogens in the oxygen-rich soil below the trenches.

Septic System Placement

An absorption field must be placed in a suitable area. The area must have limited vehicular and foot traffic before and after construction because parking, driving, and walking over the absorption field can compact the soil, which can cause the pipes in the trenches below to break or sag. Avoid planting shrubs or trees near or within the absorption field because large roots can plug or break the pipes. Also, never plant a vegetable garden over a soil absorption field due to food contamination risks.

Caring for Your System

Additives

There are numerous septic system additives on the market and manufacturers promote them as necessities for proper septic system function. But if properly designed, septic systems should not require additives (for more on additives, see Purdue Extension publication HENV-13-W, *Septic System Additives*, http://www.ces.purdue.edu/extmedia/HENV/HENV-13-W.pdf).

Cleaning

Over time, sludge and scum accumulate in the septic tank, limiting the area between the two layers for the clarified effluent. When that limited space becomes too small, solids may begin to move out to the soil absorption field and begin to restrict soil infiltration. To maintain adequate wastewater detention in the septic tank, hire a professional to periodically remove the scum and sludge.

The time between cleanings depends on the amount of solids entering the system and the tank's size. But for most single-family home septic systems, tanks should be cleaned every 3-5 years. Make sure the cleaner thoroughly removes all the sludge, effluent, and scum from the tank.

Homeowners also should routinely remove and clean effluent filters every 6-12 months. Simply hose off the solids back into the tank. If effluent filters plug up every few months, it is time to call the septic tank cleaner.

Be Careful About What Goes Down the Drain

Whatever homeowners dispose of in the household plumbing system ends up in the septic system and eventually in the environment. Excessive water use (whether from excessive laundering or inefficient water fixtures) can overload absorption fields and result in surface ponding of wastewater. Substances such as paint thinner, bleach, and motor oil poured into the wastewater stream can disrupt biological activity in the tank,

Table 1. *Disposal materials not suitable for septic systems.*

Kitchen	Bathroom	Laundry Room	Garage
Oil	Pharmaceuticals	Powdered laundry detergents	Fertilizers
Grease	Feminine products	Household cleaners	Pesticides
Large food particles	Non-biodegradable toilet paper	Bleach	Paints or paint thinner
Coffee	Contraceptives	Arts and crafts Remnants (i.e., glue)	Mechanical oil
Paper towels	Diapers	Cat litter	Gasoline
Cigarete Butts	Dental floss	Lint	Solvents

clog up soil pores in the absorption field, and even contaminate ground water sources in the area (Table 1 includes common materials and their sources that should be prevented from entering septic systems).

Maintenance Tips for a Longer, Healthier Septic System

- **Avoid using septic system additives**
- **Have the tank pumped every 3-5 years**
- **Minimize excess water use**
- **Minimize garbage disposal use; compost or throw food wastes in the garbage**
- **Avoid planting trees around the system, especially near the absorption field inlet pipe**
- **Avoid flushing any object or substance that does not easily decompose**
- **Avoid vehicular traffic and construction activities in the absorption field area before and after installation**
- **Divert run-off water from your lawn, roof, and basement drain away from the absorption field**
- **Prevent chemicals and petroleum products from entering the system**

Visit the *Home & Environment* Web site for science-based information about homes and the home environment: http://www.ces.purdue.edu/HENV.

Other Purdue Extension bulletins in this series

HENV-1-W, *Septic System Failure*, http://www.ces.purdue.edu/extmedia/HENV/HENV-1-W.pdf.

HENV-2-W, *Increasing the Longevity of Your Septic System*, http://www.ces.purdue.edu/extmedia/HENV/HENV-2-W.pdf.

HENV-3-W, *Turfgrass Color: Indicator of Septic System Performance*, http://www.ces.purdue.edu/extmedia/HENV/HENV-3-W.pdf.

HENV-4-W, *Septic System Distribution Boxes: Importance of Equal Distribution in Trenches*, http://www.ces.purdue.edu/extmedia/HENV/HENV-4-W.pdf.

HENV-5-W, *Septic Tanks: The Primary Treatment Device of Your Septic System*, http://www.ces.purdue.edu/extmedia/HENV/HENV-5-W.pdf.

HENV-6-W, *Grandfathered Septic Systems: Location and Replacement/Repair*, http://www.ces.purdue.edu/extmedia/HENV/HENV-6-W.pdf.

HENV-7-W, *Indiana Soils and Septic Systems*, http://www.ces.purdue.edu/extmedia/HENV/HENV-7-W.pdf.

HENV-8-W, *Gravel and Gravelless Trench Soil Absorption Fields*, http://www.ces.purdue.edu/extmedia/HENV/HENV-8-W.pdf.

HENV-9-W, *Water Use and Septic System Performance*, http://www.ces.purdue.edu/extmedia/HENV/HENV-9-W.pdf

HENV-10-W, *Septic Systems in Flooded and Wet Soil Conditions*, http://www.ces.purdue.edu/extmedia/HENV/HENV-10-W.pdf.

HENV-11-W, *Obtaining a Septic System Permit*, http://www.ces.purdue.edu/extmedia/HENV/HENV-11-W.pdf.

HENV-12-W, *Seasonally High Water Tables and Septic Systems*, http://www.ces.purdue.edu/extmedia/HENV/HENV-12-W.pdf.

HENV-13-W, *Septic System Additives*, http://www.ces.purdue.edu/extmedia/HENV/HENV-13-W.pdf.

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EXPERT REVIEWED

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