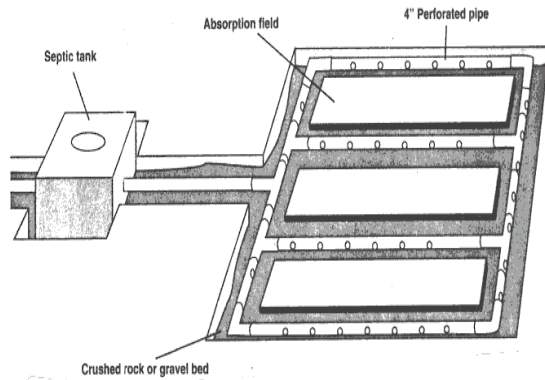


The modern onsite wastewater treatment system, or individual sewage disposal system (ISDS) is an environmentally sound method of wastewater treatment in areas without public sewers. This guide will help you understand how your system functions and will provide maintenance tips and information to prolong its life..

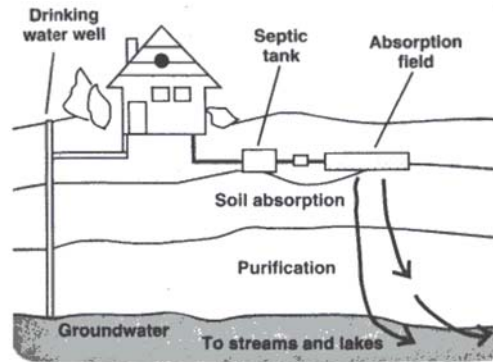


Septic System

## What it is and how it works

A typical ISDS has a septic tank and an absorption bed (leaching field). The tank is usually concrete or other durable materials. Most tanks have a capacity of 1,000 gallons or more and are divided into two compartments. Sewage enters the first compartment of the tank where bacterial decomposition occurs and materials that cannot be digested settle to the bottom as sludge or float to the top and form a scum layer. The remaining liquid flows into the second compartment for additional treatment. Some tanks have a motor or aerator to agitate the sewage - these mechanisms should not be removed or disconnected, as this will seriously affect the operation of the system.

From the tank the partially treated sewage flows to the absorption bed and into a series of perforated pipes bedded in gravel. There, it passes through the gravel and the soil below where it is further treated and filtered before reentering the groundwater. The filtering action of the soil removes most of the harmful bacteria, resulting in a high degree of treatment through a natural, environmentally sound process.



Wastewater Treatment and Disposal in the Soil

These systems cannot remove all contaminants. Nitrate, a by-product of human waste, is not removed and may impact groundwater quality. Distance separation from wells and proper maintenance is necessary to enhance treatment effectiveness.

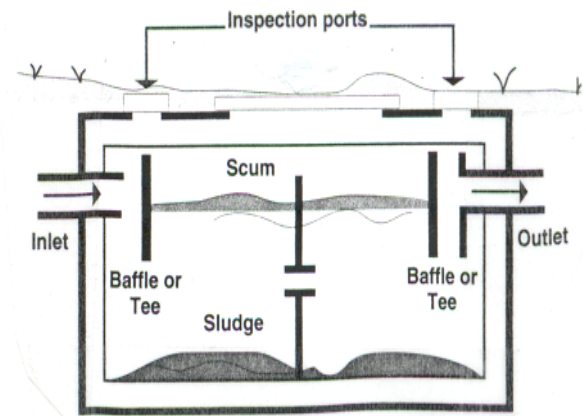
## Caring for your septic system

An ISDS is designed to treat only household wastewater. Although household soaps and cleaners should not cause a problem, paints, solvents, thinners, pesticides, antifreeze, or photographic chemicals should **never** be poured down the drain. These materials can damage

your system and seriously pollute the groundwater.

Likewise, disposable diapers, cigarette butts, and sanitary napkins should not be put into the system. Kitchen wastes such as bones, eggshells, and coffee grounds do not readily decompose and should be thrown out. Grease **can cause major problems** – wipe pans clean prior to washing and don't pour excess grease or drippings down the drain.

Unlike a public sewer, Your ISDS is designed to accept limited flow. Prolonged overloading of the system may cause sluggish drains, sewage backups, or effluent surfacing on the absorption bed. Space your water use out over time. Don't do multiple loads of laundry or permit three or four showers in a row.

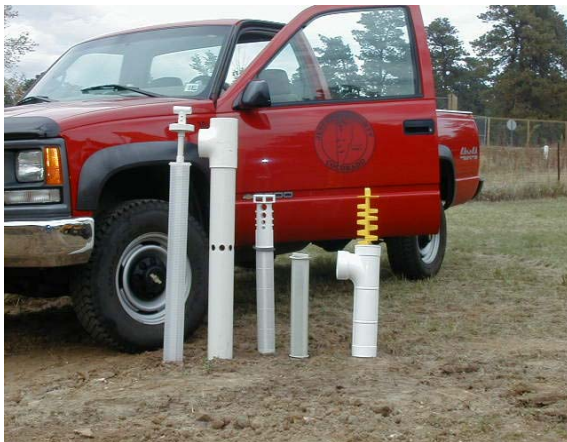


Septic Tank

## Pumping your septic tank

Some materials in household sewage are not easily decomposed. Therefore, tanks

(including both sides of 2-compartment tanks) should be pumped regularly by a licensed pumper. Otherwise, sludge may enter the bed where it can plug the soil pores and result in failure. In addition, adding an effluent filter to the outlet of your septic tank will help prevent solids from entering your absorption bed. Since replacing a failed absorption bed can cost thousands of dollars, an effluent filter and routine pumping represents a very reasonable investment in protecting your ISDS.



**Effluent Filters**

### **Absorption beds**

An absorption bed is where treated wastewater enters the soil. Plastic (PVC) pipes in the bed can be crushed, so vehicles should never be driven or parked on an absorption bed. Cattle or horses may also compact the soil and damage the pipes. If your ISDS is in a pasture it should be fenced to keep out livestock.

Erosion can remove the soil cover and allow sewage to escape from the bed, but

this can be prevented by maintaining proper drainage and establishing vegetative cover (excluding trees, whose roots can enter and clog pipes). If the bed is located in a lawn area, restrict watering to prevent saturation of the ground.

### **Additives**

Although Additives which claim to improve the operation of your system will probably not cause any harm, they are not needed to assure proper operation. Beware of claims that a chemical additive will "rejuvenate" your system or make pumping the tank unnecessary.

### **Summary**

Do not dispose of items that will destroy the natural digestion processes in your ISDS, contaminate the ground water, or overload the system with excess water. Have the tank regularly inspected and pumped. If you follow these few simple rules, your ISDS will prove to be a safe and economical onsite method of wastewater treatment for many years.

Despite the best of care, some systems do malfunction, either backing up into the dwelling or leaking from the absorption bed (as shown on the front cover of this brochure). Should this happen, contact the Health Department at once. They can advise you on procedures to repair the system.

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## **JEFFERSON COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT**



## **Septic System Maintenance**



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