

## HOW IT WORKS

A typical septic system contains two major components: a septic tank (Fig. 1) and the absorption field (Fig 2), also known as a leach field. The septic tank is usually made of concrete, fiberglass, or plastic, is typically buried and should be watertight. All septic tanks have baffles (or tees) at the inlet and outlet to insure proper flow patterns.

The average size tank is 1,000 gallons. The size of the tank may vary depending upon the number of bedrooms in the home, and state and local regulatory requirements. The primary purpose of the septic tank is to separate the solids from the liquids and to promote partial breakdown of contaminants by micro-organisms naturally present in the wastewater. The wastewater or effluent is passed on to the absorption field through a connecting pipe or distribution box.

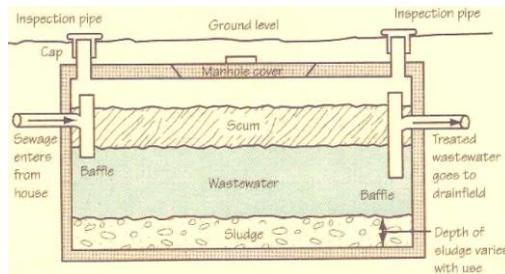


Figure 1

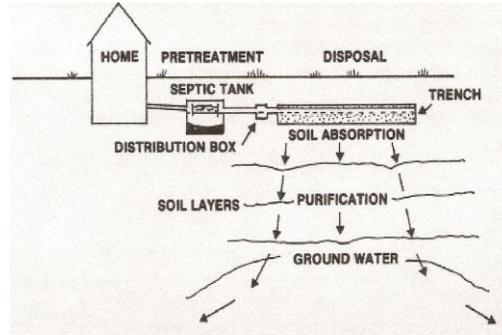
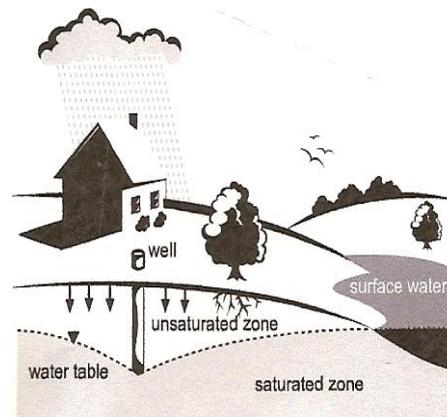


Figure 2

The effluent is distributed through perforated pipes or chambers and is absorbed by the soil. The soil also acts as a natural buffer to filter out many of the harmful bacteria and viruses, effectively treating the wastewater as it passes through an unsaturated zone, before it reaches the groundwater. The absorption field, which is located in the unsaturated zone of the soil, treats the wastewater through physical, chemical and biological processes.



The solids, known as sludge, collect on the bottom of the tank, while the scum floats on the top of the liquid. The sludge and scum remain in the tank and should be pumped out periodically.

Solids that are allowed to pass from the septic tank may clog the absorption field. Keeping solids out of the absorption field not only prevents clogging, but also reduces potentially expensive repair or replacement costs and helps ensure the ability of the soil to effectively treat the septic tank effluent.

## HELPING YOUR SYSTEM SERVE YOU

Consult a licensed engineer and qualified contractor to ensure proper system design, location and construction.

Remember that your septic tank operates according to standard engineering principles. It is not a mysterious machine that works best when left to itself. With proper use and maintenance, your wastewater disposal system can offer a reliable, inexpensive alternative to centralized waste water treatment. The amortized cost of is usually considerably less than regular

monthly charges for district systems. In many areas the natural purification and recycling of water back into the ground water system represents very efficient water conservation.

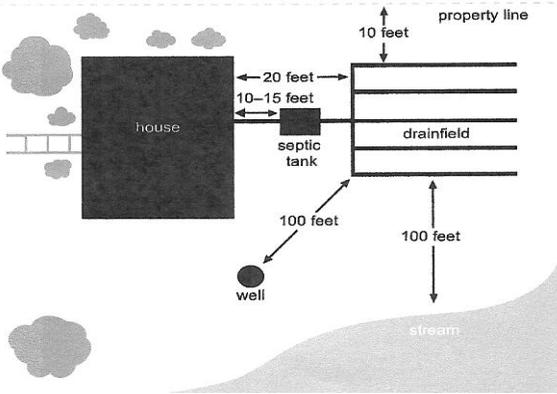
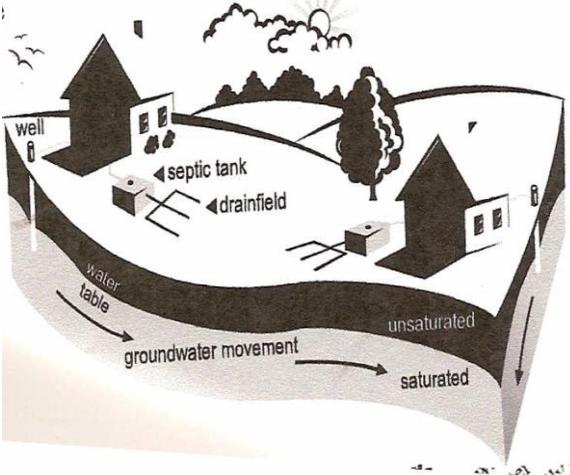
## SEPTIC TANK MAINTENANCE

- Conserve water to avoid overloading the system. Be sure to repair leaky faucets or toilets.
- Do not use caustic drain openers, septic tank additives, commercial septic tank cleaners, yeast, sugars, etc.
- Use commercial bathroom cleaners, laundry detergents and grease fighting dish soaps in moderation.
- Do not put coffee grounds, disposable diapers, sanitary napkins, tampons, condoms, paper towels, facial tissues, plastics, cat litter, or cigarettes into your system. These items may clog the sewer line to the septic tank.
- Avoid dumping grease or fats down your kitchen drain.

# INFORMATION CONCERNING YOUR SEPTIC SYSTEM

For more information regarding the care of your septic system, contact:

Montezuma County Health Department  
 106 West North Street  
 Cortez, Colorado 81321  
 970-565-3056 ext. 225



- They solidify and can cause blockage in the system.
- Don't put paint, varnishes, thinners, pesticides or other hazardous chemicals into your system. These items can destroy the biological digestion within the system.
- Only grass should be planted on or near the system. Roots from nearby trees or shrubs may clog and damage the absorption field.
- Direct down spouts and runoff away from the leach field to avoid saturating the area with excess water.
- The frequency of pumping the tank will depend on the size of the tank, the number of people contributing to the volume of wastewater and the volume of solids in the wastewater. Pumping is recommended every three to five years, depending on the mentioned variables.
- Do not design a driveway to cross over the leach field. Keep automobiles and heavy equipment off the leach field.

- Know the location of your septic system. Keep a sketch of it handy.
- Keep records of design, permit, repairs and if it has been pumped.
- Consult an engineer if making changes to your existing system.

## SEPTIC SYSTEM FAILURE SIGNS

- Sewage odors in your house or yard
- Slow draining sinks and toilets
- Gurgling sounds in the plumbing or plumbing back-ups
- Soggy soil surrounding the septic tank or leach field
- Excessive plant growth near the leach field or algae growth in nearby waters

Malfunctioning septic systems can leak effluent with high concentrations of bacteria to both surface water and groundwater. Bacteria in surface water and groundwater can create health risks for anyone in direct contact.