### Disease from sewage

Disease causing micro organisms can be spread from sewage if it is not disposed of properly or if people do not practice proper toilet hygiene (cleanliness). If a sewage disposal system is not properly maintained it will not be able to treat sewage safely. For a sewage system to be properly maintained, all faulty (blocked, damaged, broken or worn-out) parts must be mended as soon as possible.

# DISEASES CAUSED BY IMPROPERLY TREATED WASTEWATER

Bacillary Dysentery Gastroenteritis Cholera Salmonella Hepatitis A Giardiasis

Wastewater from a typical household might include toilet wastes; used water from sinks, baths, showers, washing machines, and dishwashers; and anything else that can be put down the drain or flushed down the toilet.

Much of our wastewater, treated or untreated eventually ends up in our rivers, streams, lakes, and oceans sometimes via groundwater, the underground water source we tap for well water. We often assume that groundwater is pure and it usually is but unfortunately, well water contaminated by sewage is a common cause of outbreaks of wastewater-related diseases.

Humans "catch" diseases from wastewater in a variety of ways. Pathogens in wastewater may be transmitted by direct contact with sewage, by eating food or drinking water contaminated with sewage, or through contact with human, animal, or insect carriers.

For example, direct contact might accidentally occur as a result of walking in fields fertilized with untreated wastes, playing in or walking in a yard with a failed septic system, touching raw sewage disposed of in open areas, swimming or bathing in contaminated water, or working with or coming into contact with animals or wastewater and not following proper hygiene.

# RURAL SEPTIC SYSTEM CHECKLIST

| Preventive Maintenance Record |           |      |      |  |
|-------------------------------|-----------|------|------|--|
| DATE                          | WORK DONE | FIRM | COST |  |
|                               |           |      |      |  |
|                               |           |      |      |  |
|                               |           |      |      |  |
|                               |           |      |      |  |
|                               |           |      |      |  |
|                               |           |      |      |  |
|                               |           |      |      |  |

# Name Address Phone Date System Installed

| Your Septic System Pumper |  |  |  |
|---------------------------|--|--|--|
| Name                      |  |  |  |
| Address                   |  |  |  |
| Phone                     |  |  |  |

# Information concerning your septic system



### MONTEZUMA COUNTY PUBLIC HEALTH

106 W NORTH STREET CORTEZ, COLORADO

Phone: 970-565-3056 Fax: 970-565-0647



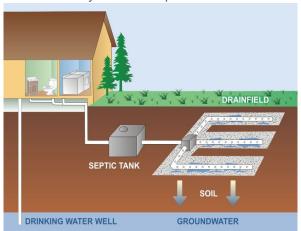
### **HOW IT WORKS**

A typical septic system has two major components: A septic tank and the absorption field also known as a leach field. The septic tank is usually made of concrete, or plastic and 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 collect all the wastewater from the house. separate the solids from the liquids to promote partial breakdown of contaminants naturally present in the wastewater. The wastewater or effluent is passed on to the absorption field through a connecting pipe or distribution box.

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. The wastewater then percolates into the soil which filters out many harmful bacteria and viruses. 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.



### **DID YOU KNOW?**

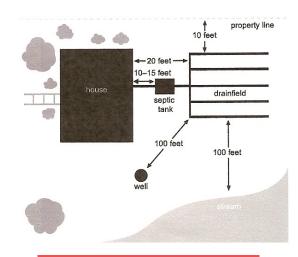
Over time, sludge will build up in the bottom of your septic tank. If the sludge is allowed to accumulate, it will eventually flow into the leaching bed and rapidly clog the distribution pipes.

A septic tank should generally be pumped out every 3-5 years, or when 1/3 of the tank volume is filled with solids. Never check yourself, always get a qualified professional. The best time to have the tank pumped out is in the summer to early fall.

### 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.





# DO'S

- 1. Know the location of your septic system. Keep a sketch of components for future maintenance.
- 2. Use water-conserving appliances and devices whenever possible, including showerheads and flush toilets.
- 3. Use single-ply toilet paper.
- 4. Conserve water by avoiding long showers. Use dishwashers and other water devices sparingly.
- 5. Use cleaning products sparingly.
- 6. Spread laundry use over the week rather than doing multiple loads in one day.
- 7. Keep trees with large root systems from growing on or near your leach field.
- 8. Divert gutter drains and surface waters away from your septic system.
- 9. Have your septic tank pumped regularly and keep records along with maintenance records.
- 10. Use water softeners with caution. The discharge changes the pH of the system.

### DON'T'S

- 1. Don't put excess fats, chemicals, or solvents into your septic system.
- 2. Don't over use garbage disposals. Overuse can shorten the life of your system and cause clogs because food particles do not break down.
- 3. Don't put plastics in your system.
- 4. Don't put varnishes, paint, thinners, pesticides or other hazardous chemicals into your system. These items can destroy the biological digestion within the system.
- 5. Don't allow any type of heavy equipment including vehicles to park or drive over your leach field. This could crush the piping.
- 6. Don't plant anything over the leach field except for native grass.
- 7. Don't flush anything other than human waste and toilet paper. This includes not flushing coffee grounds, disposable diapers, sanitary napkins, condoms, tampons, paper towels, cigarettes, cat litter, dental floss, pills, oils or any kind of wipes.

Please don't hesitate to give us a call if you have a question or a concern.