

## Problems (continued)

em that fails to function properly, the water is not treated prior to reaching a source. This can result in contamination of ground and surface water (including residential wells), odor and health risks.

Locations such as flood plains, a septic system may not be suitable. Alternative systems or designs may be

## Design and Installation

from Wyoming Department of Environmental Quality Water Quality Division Chapter 11, Part D

**Permit** from the Campbell County Department of Building and Planning. The permit requires general information on the septic system and facility. These permits are a requirement of State and County law for installation or upgrading a system without a permit is illegal.

**Tank.** Tanks need to be watertight and resistant to corrosion. Metal tanks are not recommended.

**Minimum Tank size.** A minimum 1000 gallon tank is required for residences with up to 3 bedrooms (not bathrooms). An additional 250 gallons is required for EACH bedroom over four. Tanks should be sized to provide some retention time for solids to settle out. (For a complete list of requirements for residential and commercial systems see the Campbell County Department of Building and Planning requirements.)

**Minimum size of the absorption field.** This is based upon the size of the septic tank, and the quality of the soil.

**Location of tank and leach field.** See the Campbell County Department of Building and Planning requirements.

**Soil Exploration.** Soil exploration should be used to determine the distance to groundwater or bedrock and to examine the soil texture, structure and color.

**Conduct percolation tests.** See the Campbell County Department of Building and Planning requirements.

## Maintenance

**Inspect and Pump Regularly.** You should have your septic system inspected by a professional at least every three years and your tank pumped every 3 to 5 years. The capacity of the tank and the volume of solids in the wastewater influence how often a tank should be pumped. Always use caution if inspecting a system without professional assistance; toxic gases can be lethal.

**Avoid overloading the system.** Conserve water and repair leaky fixtures. Space laundry water throughout the week, rather than in one day. Install low flow toilets and aerators on sinks and shower heads. Divert other water and runoff from gutters, etc. away from the absorption field. Garbage disposals will cause rapid accumulation of sludge in the septic tank and their use should be minimized or eliminated to keep the septic system functioning properly.

**Watch your drains.** Dental floss, feminine hygiene products, diapers, paper towels and other kitchen and bathroom items can clog and potentially damage septic system components. Paints, thinners, waste oils, pesticides and other harmful chemicals and cleansers may kill the bacteria in the tank and cannot be effectively treated in the soil layers. In general it is not recommended to use septic tank additives. In most cases, they do not help and may even be harmful to your system.

**Poor maintenance is a common cause of septic system failure. However, it should be recognized that a septic system does NOT have an infinite life-span. Even well-designed and maintained systems eventually need replaced. The Campbell County Conservation District has information on financial assistance opportunities.**

**Avoid damage to the leach field.** Plant only grass on the absorption field and do not drive or park over the system.

## Where do I go for help?

If after completing the self-assessment you discover a majority of your responses fall into a high risk category, it is recommended that you seek further assistance from the Campbell County Conservation District. Even if you have marked only a few as High Risk, it is recommended that you explore options to address the potential risk.

The Campbell County Conservation District has received EPA/WYDEQ Section 319 funding through a grant. This grant is designed to provide cost-share money to landowners in the Little Powder River watershed and the Donkey Creek/Stonepile Creek watershed with failing or inadequate septic systems.

Both of these watersheds are on the WYDEQ 303(d) list as being impaired for fecal coliform bacteria. The goal of the project is to improve the quality of water in the two drainages to address fecal coliform concerns and meet State water quality standards by implementing Best Management Practices within the watersheds.

The cost-share money available to landowners in the Little Powder River and Donkey Creek/Stonepile Creek drainages are provided through an application process with the District and local steering committees.

For more information, please contact Michelle Cook, District Manager.

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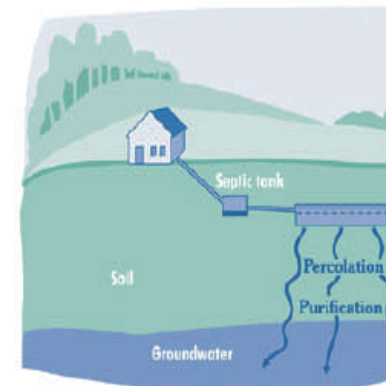
## CAMPBELL COUNTY CONSERVATION DISTRICT

A  
Wyoming Homeowner

## Guide

to

# Septic System



**Learn to Protect and Maintain  
your septic system for  
health and safety**

# Homeowner Self-assessment

Septic System Features	Higher Risk (H)	Lower Risk (L)	Self-Assessment indicate H or L
Locate your septic tank?	No	Yes	
Clean out between the house and the septic tank?	No	Yes	
Locate your leach field?	No	Yes	
Measure the distance from the septic system to surface water (canals, streams, rivers, etc.)	Less than 100' away	More than 500' away	
Does the terrain slope towards or away from surface water? (What is the slope of the terrain?)	Toward Steep to Moderate	Away Flat	
What are the soil types?	Gravelly or rocky soils that water runs easily through or tight, clayey soils that water cannot penetrate	Medium textured soils that allow water infiltration	
Measure the distance to any water wells?	Less than 100' away	More than 500' away	
Is there any groundwater from any such well used for human consumption?	Yes	No	
Check the relationship between your septic tank size and the size of your household. Septic tanks are commonly 1000, 1250 or 1500 gallon tanks. To determine the relationship, divide the septic tank size (in gallons) by the number of bedrooms in your home. (1000 gallon tank ÷ 2 bedrooms = 500 gallons per bedroom)	Less than 250 gallons per bedroom	250 gallons or more per bedroom	
Is there an impermeable surface such as concrete, asphalt or gravel covered over the leach field?	Yes	No	
Are there any of more of the following signs of system failure: septic odors, ponding or wastewater breakthrough, grass or ground staining over leach field or unusually lush green grass over leach field?	Yes	No	
Are there trees, shrubs or other plants with extensive root systems in the vicinity (10') of the leach field?	Yes	No	
Are there any objects (cars, etc.) or evidence from such objects in the vicinity of the leach field?	Yes	No	
Are there any sump pumps, foundation drains or roof drains connected to flow into the septic system?	Yes	No	
Is there any apparent cave-in or exposed component?	Yes	No	
When was the septic system last pumped?	More than 5 years ago	Less than 3 years ago	

## Your Septic System Is Your Responsibility!

As a homeowner, you are responsible for maintaining your septic system. Maintaining your septic system protects your investment in your home.

If properly designed, constructed and maintained, your septic system can provide long-term effective treatment of household wastewater. A malfunctioning system can contaminate surface and groundwater.

## Our Local Watershed

The Little Powder River & Belle Fourche River watersheds provide the water resource that powers the recreational, agricultural, urban and wildlife opportunities for much of Campbell County. Protection of this water resource is critical to maintain the quality of life enjoyed by residents and nonresidents alike.

States are required by the Clean Water Act to periodically conduct water quality assessments on waters of the state (streams, lakes and reservoirs). The state then identifies impaired or threatened waters which have data showing they do not meet applicable water quality standards. The absence of a septic system ("straight pipe") or a failed septic system can be one of the causes of a stream's impairment. A "straight pipe" to the stream, if discovered through a DEQ assessment or complaint investigation, would be considered an illegal discharge point and subject to state enforcement action.

The Campbell County Conservation District, using a locally-led planning process is working with local citizens to address water quality concerns as an alternative to potential regulation.

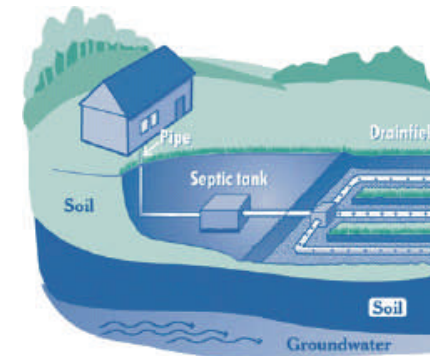
Please see Where To Go For Help for local happenings in the Little Powder River and Donkey Creek/Stonepile Creek watersheds.

## How Does a Septic System Work?

A typical septic system has four main components: a pipe from the home, a septic tank, a drainfield and the soil. Microbes in the soil digest or remove most contaminants from the wastewater before it eventually reaches the groundwater.

The septic tank is a buried, watertight container typically made of concrete, fiberglass or polyethylene. It holds the wastewater long enough to allow solids to settle out, forming a sludge, and oil and grease to float on the surface as a scum.

It also allows partial decomposition of organic materials. Compartments and a T-shaped outlet in the septic tank prevent the sludge and scum from leaving the tank and traveling to the drainfield area. Screens are also recommended to keep solids from entering the drainfield.



### Potential Problems

In some older systems, the wastewater (without solids removed) is transported directly to a stream or other water source. Modern systems may never fail or back up, but residents may be unaware that a problem exists.

**continued**