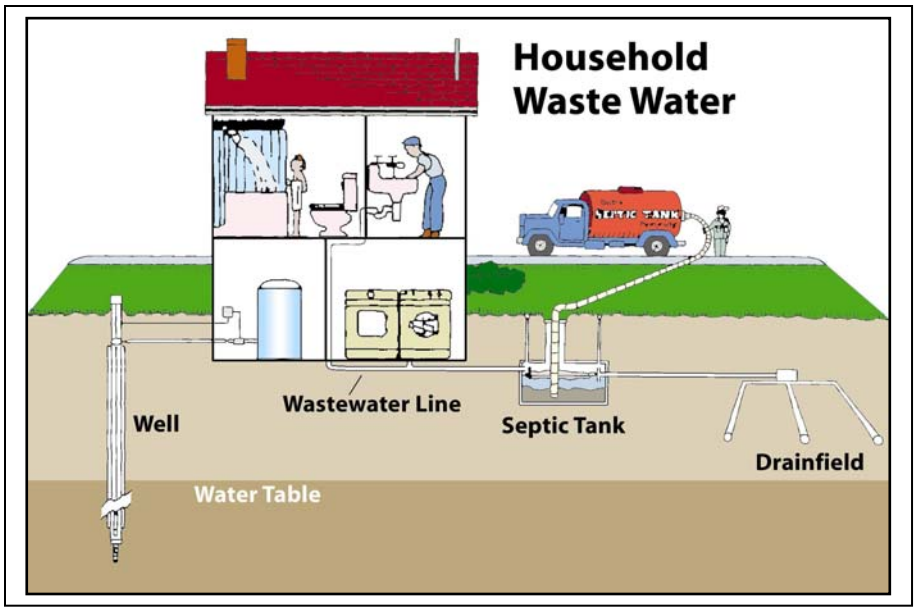
Managing your septic system

Nancy Mesner, Extension Specialist
– Dept of Aquatic, Watershed and Earth Resources

Rural properties rely on self-contained sewage treatment systems installed below ground near the properties they serve. Such systems are called septic tank-soil absorption systems, otherwise known as "septic systems."



Because septic systems are out of sight, they are often out of mind. They cannot be neglected, however, without problems popping up.

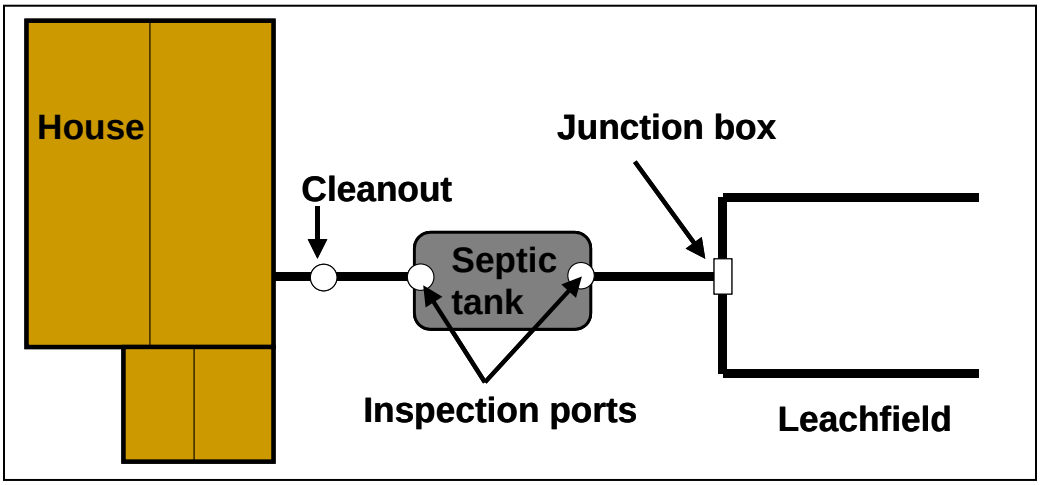
Do you know?

- Where your tank is?
- When it was last pumped?
- How big it is?
- The location of your leachfield?

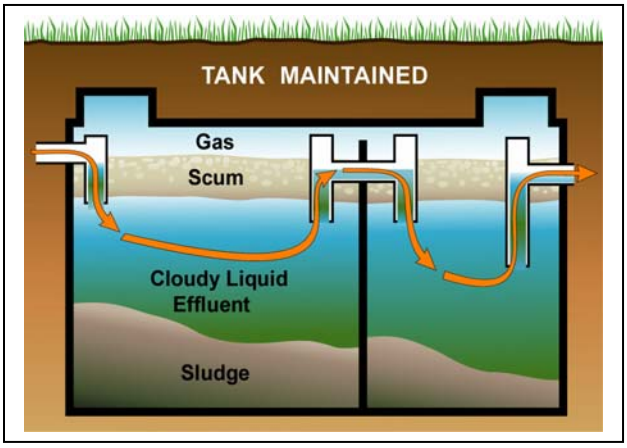
If you learn to be careful with your system, it should last for many years. On the other hand, abuse the system and suffer sewage backups!

Components of a septic system

Wastes from the house pass through the house main drain, or sewer line, into the septic tank. The purpose of the tank is to allow settling and bacterial breakdown to occur. The solids settle to the bottom of the tank.



A properly managed septic system treats and disposes of domestic waterborne wastes into the environment without adverse effects to human health or to the environment.



As microorganisms digest the organic solids, they sink to the bottom. Gases such as methane are generated. The gases, together with soils, grease, and soap suds, form a scum over the surface of the liquid.

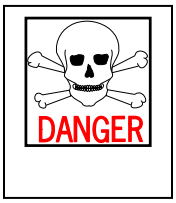
Through bacterial action, some of the solids are digested and converted to liquid for discharge into a "soil absorption area" or leachfield. The remaining solids are stored for future disposal.

To prevent failure of your septic system:

Keep your bacteria healthy and happy

Bacteria must be present in the septic tank to digest the organic solids. Normal household waste provides enough bacteria to digest the solids UNLESS the bacteria is killed off.

Avoid products with the following warnings on the labels:



- "Harmful if swallowed
- "Avoid contact with the skin"
- "Do not get in open cuts or sores"
- "If product comes in contact with eyes, call a physician immediately"

Reduce water use

Conserve water in your home and save your septic system!

- Install low flow fixtures
- Check for and fix leaks
- Do only full loads of wash at off-peak times
- Try to limit the number of wash loads daily.

Reduce solids in tank that cannot be digested

The material that cannot be digested, such as pieces of sand, plastic, etc., will remain in the tank and eventually must be removed by pumping.

Pump the tank to prevent overflow or backflow

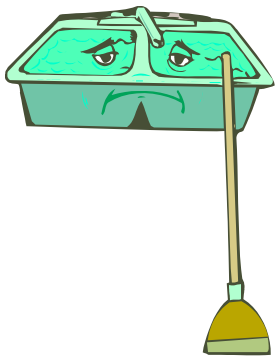
How often should you pump a tank?

	Number of people in household					
	1	2	3	4	5	6
Tank size (gallons)	Suggested pumping interval (years)					
1000	12	6	4	3	2	2
1250	16	8	5	3	3	2
1500	19	9	6	4	3	3

To pump... or not to pump ***Which would you choose?***

- Pumping costs about $200 for the average 1250-gallon tank, every three years or so
- A new leachfield costs from $5,000 to as much as $20,000.

Other causes of septic failure



- Placement in poor drainage area
- Driving over the drainfield
- Pouring kitchen grease into drains
- Failure to install according to septic codes
- Flushing cigarette butts, sanitary napkins or other inorganic materials down the toilet
- Extensive use of garbage disposals
- Tree roots clogging pipes - contact a septic contractor for repairs
- Use of salts and chemicals from water softeners and washing machines

What about additives?

- Enough bacteria are present in the tank from normal bodily wastes
- Additives cost $$$ and may actually increase the solid material in the tank by producing inert ingredients
- There is no substitute for pumping!

More tips to keep your septic system working well

- Don't water the leachfield
- Don't flood the system with excessive water use
- Keep excess solids out of the system and avoid flushing toxins down the drain
- Avoid using your garbage disposal to process large quantities of wastes
- Regularly pump out the septic tank and inspect the physical components of the system
- Don't park or drive over the leachfield
- Don't plant trees or large shrubs over the leachfield

Based on material developed by Susan Donaldson, University of Nevada Cooperative Extension