

SEPTIC SYSTEMS

FAQs & MAINTENANCE FACTS

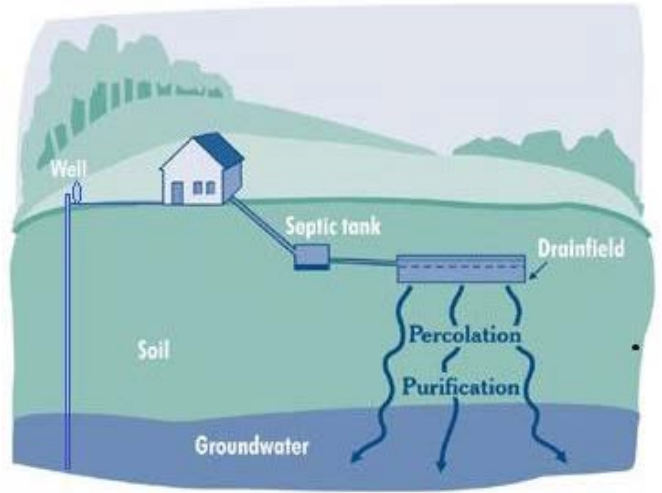
Yolo County

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This is a brief overview of septic systems and what is needed for them to work for a long time. For more information, please contact our office or our website.

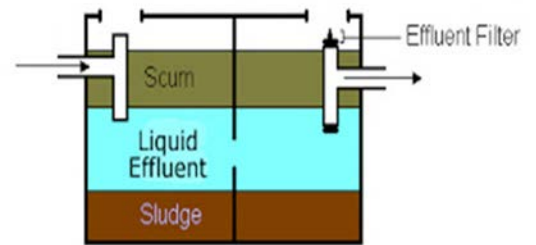
What is a Septic System?

Also known as an Onsite Wastewater Treatment System, a septic system is a plumbing system that treats wastewater (sewage) on site with the help of tanks, pipes and soil. It usually consists of a septic tank and a leach field.

What does a Septic Tank do?

Septic tanks are watertight tanks that collect solids and separate your wastewater into layers of floating scum, sinking sludge, and a middle layer of “clear” liquid effluent that goes to the soil for further treatment.

Sanitary T’s are important to separate out the layers, and collect from the “clear” middle layer. Anaerobic bacterial activity happens in the tank to treat the sewage and reduce some of the solid volume. However, tanks need to be pumped periodically to keep the solids and larger particles out of the leach field and the soils, usually every 3-5 years; but the use of the system will determine how often the tank should be pumped. Washing machines, dishwashers, and garbage disposals will increase the amount of sludge, and the tank will require more frequent pumping.



Effluent filters, inserted into the outlet sanitary T, also help to keep solids out of the leach fields and the soils. They need to be cleaned once or twice a year: open both septic tank lids, remove/slide out the filter, hose the filter off over the inlet side of the tank, re-insert the filter into the outlet/effluent sanitary T, and secure both septic tank lids.



Beware: entering into a septic tank (purposefully or accidentally) is likely to be fatal because of dangerous gases and/or risk from drowning. Watch out for unsecured or damaged septic tanks and/or septic tank lids. Repair or replace using a licensed septic contractor under an approved permit.

What does a Leach Field do?

Effluent from the septic tank flows by gravity or is pumped to a leach field for further treatment. Leach field operation is affected by the soil percolation rates, which includes aerobic bacterial activity and physical filtration through the soils. The wastewater generally percolates downward through soil and eventually enters a groundwater aquifer. A standard leach field consists of a series of perforated distribution pipes placed in two-to-three foot wide trenches. The perforated pipe is placed on top of gravel which is also used to backfill around the pipe. The gravel promotes drainage and provides a surface area for necessary bacterial activity. The trenches are covered with soil to prevent contact with the wastewater and reduce infiltration from rain, and to promote additional aerobic activity and/or possible transpiration.

What is a Failing Septic System?

Septic systems are failing when your plumbing backs up, there is pooling untreated effluent on the ground, or when the system no longer protects the groundwater from ineffective onsite treatment.

SEPTIC SYSTEM MAINTENANCE:

Septic tanks and leach fields are a viable wastewater (sewage) treatment system if properly designed, constructed, and maintained. Maintenance of the septic system primarily consists of removing the accumulated sludge on a periodic basis.

In addition, users of a septic system must observe the following basic rules in order to ensure satisfactory operation:



DO....

- ✓ Have your septic tank pumped periodically by a Yolo County registered septage hauler.
- ✓ Minimize or eliminate the use of garbage disposals/grinders. This appliance adds extra solids to the system.
- ✓ Design your septic system properly based on the site evaluation report proposed by a qualified septic professional.



DO NOT....

- Flush semi- or non-biodegradable items into the tank, including paper towels, sanitary napkins, tampons, newspapers, writing paper, rags, disposable diapers, or cat litter. Do not put grease into your septic system.
- Wash down sides of the tank when it is pumped. The remaining slime contains bacteria which can "seed" the empty tank.
- Flush large amounts of chlorine bleach or lye products into the tank; however, normal use may not harm the bacteria.
- Pour oil or grease into the tank.
- Connect roof drains or other landscaping drains to your septic system. Extra water will flood the tank and leach field. Divert drainage away from the leach field area.
- Add sodium hydroxide or potassium hydroxide to the tank. These chemicals will affect the settling of solids and cause the sludge to flow into the leach field.
- Plant trees or plants known to have invasive roots near a septic system. Roots will clog the pipelines or damage tanks.
- Drive vehicles or place heavy objects such as portable swimming pools over septic tanks and leach fields or over the required leach field replacement/repair area.



FAILING SEPTIC SYSTEMS: *Possible Symptoms/Causes/Remedies:*

1. Water will not drain in showers & toilets / Ponding of wastewater over leach fields.

- Solids or scum could be blocking septic tank inlet and outlet:
 - Pump septic tank periodically, and have the tank inspected by a licensed septic contractor.
 - Clean effluent filter, if one exists (see first page).
 - Do not remove the effluent filter – this tool protects your leach field.
- Roots blocking pipelines: Contact a licensed septic contractor to remove roots and repair any damage.
- Reduce landscape irrigation of soils near leach field – monitor to see if this eliminates the problem.
- High groundwater
 - Construct new leach field under permit in area without high groundwater; soil analysis is necessary.
 - Construct an alternative septic system to allow for less vertical separation to groundwater.
- Gravel clogged with fine soils; soil pores plugged due to biomat formation or solids
 - Replace leach field. This requires a site evaluation/soil analysis and a major repair permit.



2. Well water analysis is positive for fecal coliform.

- Soils may not be filtering the effluent completely prior to it entering into the water supply aquifer. The horizontal setback to the water well is less than the required 100 feet.
 - It may be necessary to construct a new septic system under permit meeting all horizontal and vertical setbacks.