

HOW YOUR SEPTIC SYSTEM WORKS

Septic systems are underground wastewater treatment structures, commonly used in rural areas without centralized sewer systems. They use a combination of nature and proven technology to treat wastewater from household plumbing produced by bathrooms, kitchen drains, and laundry.

A typical septic system consists of a septic tank and a drainfield, or soil absorption field.

The septic tank digests organic matter and separates floatable matter (e.g., oils and grease) and solids from the wastewater. Soil-based systems discharge the liquid (known as effluent) from the septic tank into a series of perforated pipes buried in a leach field, leaching chambers, or other special units designed to slowly release the effluent into the soil.

Alternative systems use pumps or gravity to help septic tank effluent trickle through sand, organic matter (e.g., peat and sawdust), or other media to remove or neutralize pollutants like disease-causing pathogens, nitrogen, phosphorus, and other contaminants. Some alternative systems are designed to disinfect wastewater before it is discharged to the soil.



Specifically, this is how a typical septic system works:

1. All water runs out of your house from one main drainage pipe into a septic tank.
2. The septic tank is a buried, water-tight container usually made of concrete, fiberglass, or polyethylene. Its job is to hold the wastewater long enough to allow solids to settle down to the bottom forming sludge, while the oil and grease floats to the top as scum. Compartments and a T-shaped outlet prevent the sludge and scum from leaving the tank and traveling into the drainfield area.
3. The liquid wastewater (effluent) then exits the tank into the drainfield.
4. The drain field is a shallow, covered, excavation made in unsaturated soil. Pretreated wastewater is discharged through piping onto porous surfaces that allow wastewater to filter through the soil. The soil accepts, treats, and disperses wastewater as it percolates through the soil, ultimately discharging to groundwater. If the drainfield is overloaded with too much liquid, it will flood, causing sewage to flow to the ground surface or create backups in toilets and sinks.
5. Finally, the wastewater percolates into the soil, naturally removing harmful bacteria, viruses and nutrients.

For more information, please call the Land Use Program at 626-430-5380 or visit the Environmental Health website at www.publichealth.lacounty.gov/eh.