Homeowner Information on Septic Systems

A septic system is a private, on-site wastewater treatment system located on your property. Unlike homes connected to public sewer systems, wastewater from a septic system is treated naturally in your backyard. Once treated, the water returns to the earth's aquifer, where it is recycled and reused as part of the natural water cycle.

In the state of Connecticut, approximately 40% of homes rely on septic systems. Despite how common they are, many homeowners are unfamiliar with how their system works. Below is a simple breakdown of the process.

How a Septic System Works

All wastewater from your home, including toilets, sinks, showers, washing machines, and dishwashers flow through a single pipe leaving the house, known as the house sewer pipe. This pipe carries wastewater to the septic tank.

Septic Tank

A septic tank is a watertight, two-compartment container, typically made out of concrete or plastic. Its primary function is to hold wastewater long enough for solids to settle and separate. Inside the tank, wastewater naturally separates into three layers:

Scum – the top layer, made up of grease, oils, and floating solids
Effluent – the liquid wastewater in the middle
Sludge – the heavy solids that settle at the bottom

Anaerobic bacteria inside the tank break down the solid waste into organic matter. While this process reduces the volume of solids, *septic tanks still require routine maintenance*. For most residential homes, pumping is recommended every 3 to 5 years to maintain the systems efficiency.

Distribution and Leaching Field

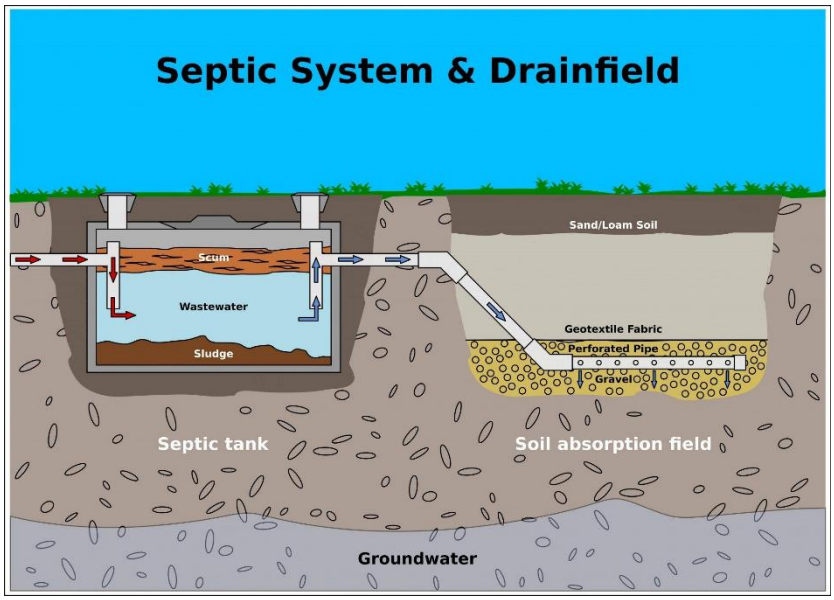
After settling, the effluent (liquid layer) exits the septic tank through an outlet pipe. It then travels through a distribution pipe into a distribution box, which evenly directs the flow into the leaching field.

A leaching field consists of rows of treatment units or pipes that allow effluent to spread evenly through the soil. Over time, a beneficial microbial layer forms in the soil, helping to naturally treat the wastewater. This process removes harmful bacteria, viruses, and excess nutrients.

As the treated effluent continues to percolate downward through the soil, it undergoes further natural filtration. By the time it reaches the groundwater, the water has been effectively purified.

Septic System Flow Summary

House → Septic Tank → Distribution System → Leaching Field → Soil Treatment → Groundwater



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