SEPTICS — GUIDE

How septic systems work: conventional, aerobic and mound

Understand the treatment stages and use your approved records to identify your system.

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A septic system treats wastewater at the property. It is more than a storage tank. EPA describes a septic tank and a soil treatment area as the main parts of a conventional system. Different sites use different treatment and dispersal arrangements. [US EPA, Types of Septic Systems, accessed 2026-11-10.]

Conventional systems

Wastewater enters the tank. Heavy solids settle, and lighter material forms a surface layer. The tank retains these solids while liquid moves toward the drain field. Soil treatment is part of the system. Pumping removes accumulated solids; it does not replace the soil treatment stage.

EPA describes conventional drain fields with gravel or stone trenches. Other dispersal designs exist. Do not identify the design from a lawn shape or a lid colour.

Aerobic treatment units

An aerobic treatment unit adds oxygen to increase bacterial activity. EPA notes that some systems also have pretreatment and final treatment stages, including disinfection. Their mechanical parts need service. Ask the maintenance provider to identify the model, alarm instructions and approved maintenance plan.

A pump alone does not prove that a system is aerobic. Other system types also use pumps. Use the permit, design and equipment records.

Mound systems

EPA describes a mound as an elevated sand mound with a drain field trench. Wastewater is pumped into the mound and treated as it moves through sand and native soil. This design can address certain soil or groundwater constraints. It is not simply a conventional field with extra topsoil added by the homeowner.

Do not reshape the mound or change drainage around it without advice from the local authority and a qualified designer.

Find the actual design

Request the approved plan and maintenance instructions. Ask a service professional to mark the tank, treatment unit, dispersal area and access points on a copy. Keep that plan with your

service records.

Our type explainer compares these definitions. It cannot choose a system for a site or certify an installation. For new work, ask the local authority which design, installer and permits are needed.

Sources

All sources below were fetched and checked on 2026-11-10. That is the access date, not a claim about publication date.

- US EPA: Types of Septic Systems, accessed 2026-11-10.
- US EPA: How to Care for Your Septic System, accessed 2026-11-10.

Frequently asked questions

Does an aerobic unit remove the need for pumping?

No. Treatment equipment and tank solids need separate maintenance. Follow the approved service plan.