SEPTIC SYSTEM

A HOMEOWNER'S GUIDE

PACIFIC NORTHWEST TITLE

HOW YOUR SEPTIC TANK WORKS

1. Wastewater enters the tank

Every time you flush a toilet, take a shower, wash dishes, or do laundry, the wastewater travels from your home, through the inlet pipe, and into your septic tank.

2. The tank separates the waste

Once inside the tank, the contents naturally separate into three layers:

- **Scum** (top layer): Grease, fats, oils, and lightweight materials float to the surface.
- **Effluent** (middle layer): The relatively clear liquid in the center is what eventually leaves the tank.
- **Sludge** (bottom layer): Heavier solids settle on the bottom, where they slowly break down over time.

The goal is to keep the solids and grease inside the tank while only allowing the liquid layer to move on.

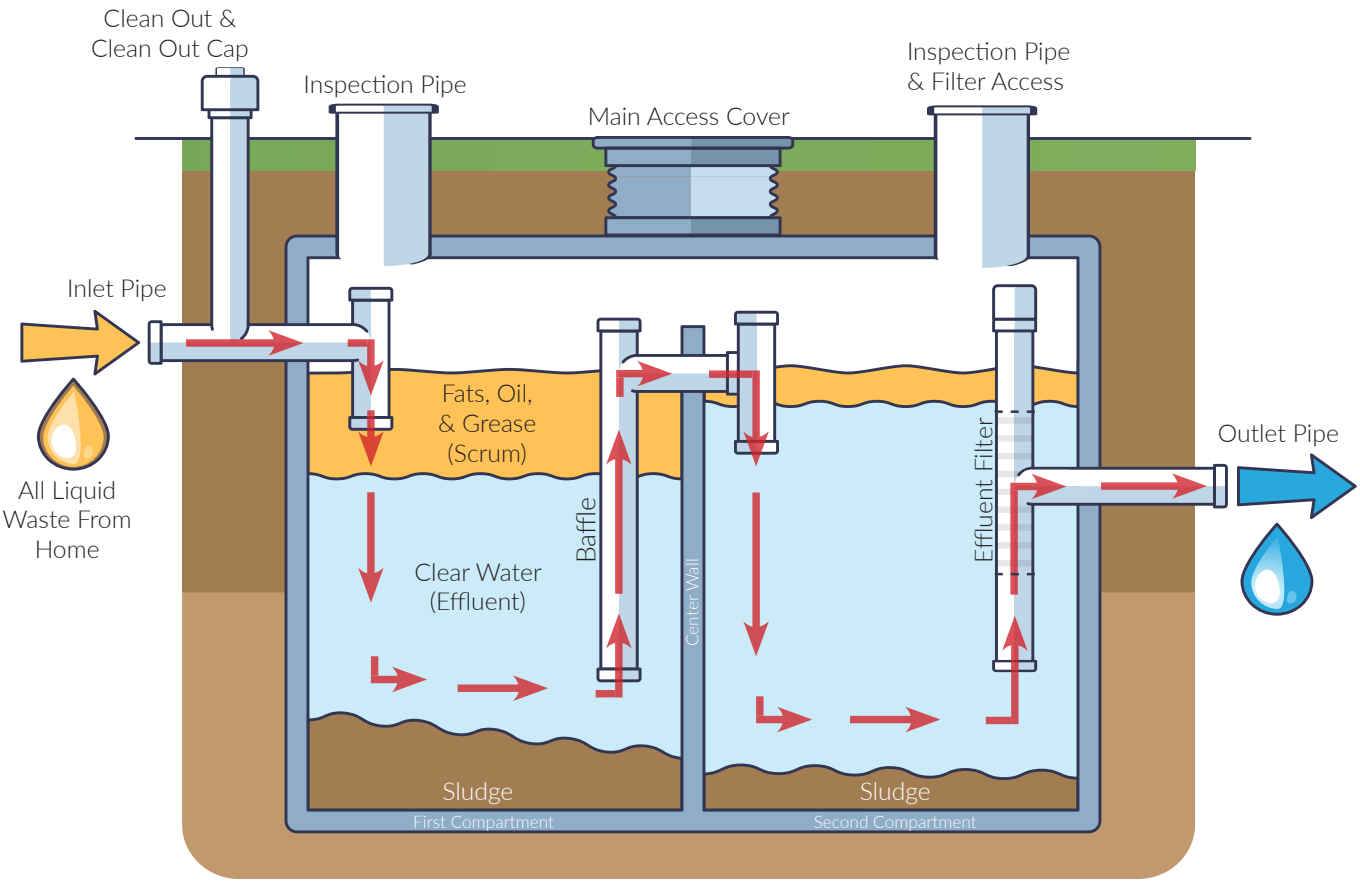
3. Baffles and filters protect your system

Special fittings called baffles help direct the flow of wastewater so that floating grease and settled sludge stay where they belong in the tank.

Before the water exits the tank, it passes through an effluent filter, which catches stray solids and helps prevent them from clogging the next step in the process, the drain field.

4. Treated water leaves the tank

The liquid wastewater (called effluent) exits through the outlet pipe and travels to the drain field or other approved dispersal system, where it is filtered naturally by the soil.



ADDITIONAL TERMS TO KNOW

Clean-Out Cap

The clean-out provides access to the sewer line that runs between your home and the septic tank. If there's ever a clog or backup in that line, a plumber can use this access point to inspect or clear it without digging up your yard.

> **Homeowner tip**: Keep the clean-out cap visible and in good condition, but avoid removing it unless you're addressing a plumbing issue.

Inspection Pipes

Inspection pipes allow septic professionals to check the liquid levels inside the tank and evaluate how the system is functioning. These pipes make routine inspections faster and less disruptive.

> **Homeowner tip**: Don't bury or cover these pipes with landscaping, mulch, or decorations. Easy access helps with maintenance and can save time during service visits.

Effluent Filter Access

Many modern septic tanks include an effluent filter near the outlet. This filter catches small solids before they leave the tank, helping protect the drain field from clogs.

> **Homeowner tip**: The filter should be cleaned periodically as recommended by your septic professional—often during routine pumping or inspections.

Main Access Cover

This is the primary opening used when the septic tank is pumped or serviced. Technicians remove this cover to inspect the tank and remove accumulated sludge and scum.

> **Homeowner tip**: Know where your main access cover is located and keep it accessible. Avoid placing permanent structures, heavy planters, or vehicles over it.

Maintenance and cleaning of a septic tank

Effluent filter showing buildup and in need of cleaning to maintain proper flow

WHERE DOES THE WATER GO AFTER THE SEPTIC TANK?

Once wastewater leaves your septic tank, it isn't sent to a sewer treatment plant. Instead, it flows into a drain field (also called a leach field), where the soil does the final cleaning.

As the effluent, slowly moves through the drain field, the surrounding soil naturally filters out harmful bacteria, viruses, and nutrients before the water returns to the groundwater.

Think of your septic tank as the separator and your drain field as the natural filter. Both are essential for a healthy system.

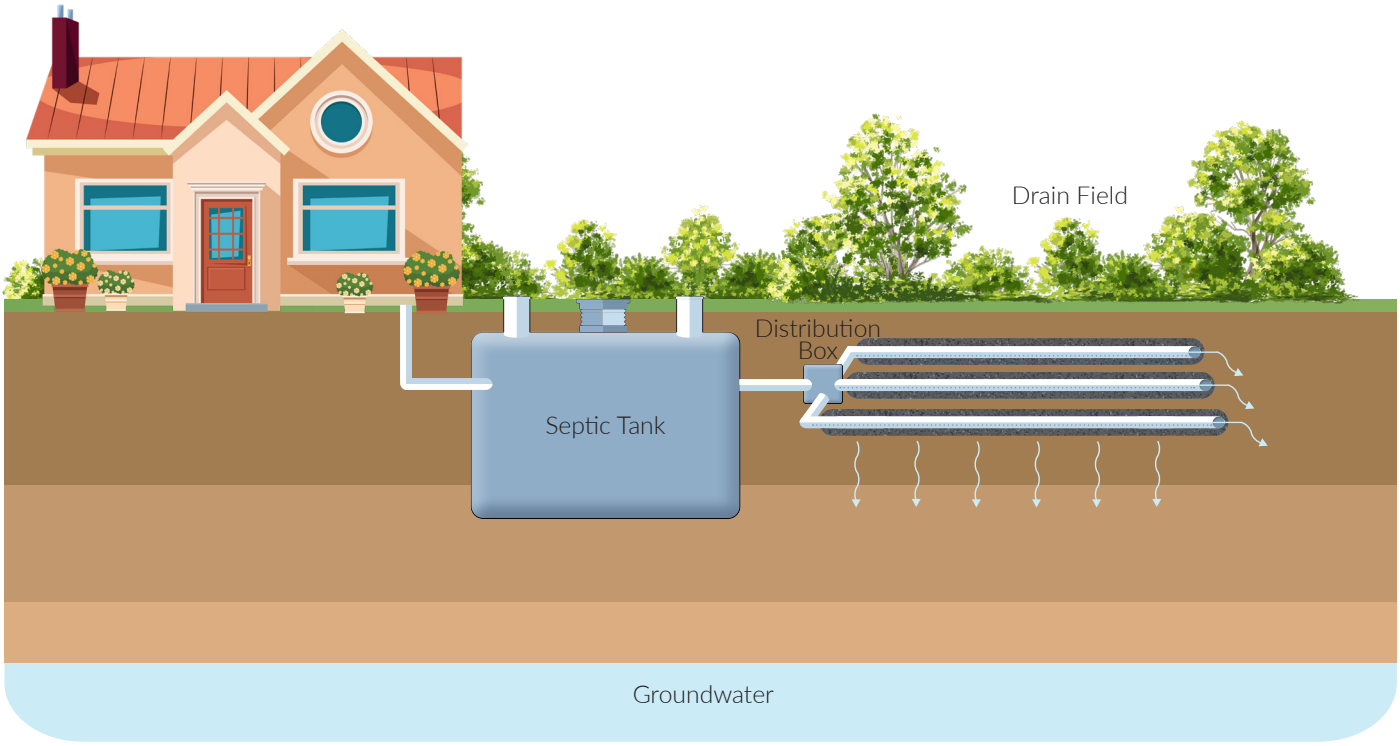
The Most Common Drain Field: Standard (Gravity) System

A standard gravity system is the most common type of septic system found in residential homes. As the name suggests, it uses gravity to move wastewater from your home, through the septic tank, and into the drain field, no pump required.

Once it reaches the right level, the effluent naturally flows out of the tank through an outlet pipe. From there, gravity carries it into the drain field. The effluent moves through a series of perforated pipes buried in shallow, gravel-filled trenches. A distribution box helps spread the flow evenly so each section of the drain field is used properly.

From the pipes, the liquid slowly trickles into the surrounding soil. This is where the final and most important treatment happens. Naturally occurring bacteria and soil layers work together to break down contaminants and filter the water.

After moving through the soil, the water is naturally cleaned and eventually returns to the environment through groundwater recharge, evaporation, or plant uptake.



ALTERNATIVE SYSTEMS

Not every property has the same soil or space available, so different systems may be used.

Chamber Systems

Instead of gravel-filled trenches, these systems use large plastic chambers that create an open space for wastewater to spread into the soil.

Often used when: Gravel is difficult to obtain or installers prefer a lighter-weight option.

Pressure Distribution Systems

A pump sends effluent through small pipes under pressure, ensuring it is distributed evenly across the drain field.

Often used when: The site needs more uniform distribution or has challenging terrain.

Sand Filter Systems

Wastewater passes through a specially designed bed of sand before being released into the soil, providing additional treatment.

Often used when: Native soils don't provide enough natural filtration.

Mound Systems

If the natural soil is shallow or unsuitable, an engineered mound of sand and gravel is built above ground level. A pump moves effluent into the mound, where it is treated before entering the underlying soil.

Often used when: High groundwater, bedrock, or poor soils prevent a conventional drain field.

In Kitsap County, you can't choose an alternative system just by preference. It follows a formal review process through the Kitsap Public Health District.

Many are required to have annual maintenance by a certified professional, along with regular checks of pumps, electrical components, alarms, and performance records. These systems are approved on a case-by-case basis, with a focus on protecting groundwater and Puget Sound and preserving soil health. They are only permitted when a standard gravity system is not feasible for the property's conditions.

Construction of a sand and gravel drainage system.

Construction of a chamber drainage system.

MAINTAINING A STANDARD (GRAVITY) SEPTIC SYSTEM

Regular Inspection

A good rule of thumb is to have your system inspected every 1–3 years.

- Every 1–2 years is best for most homes
- Annually if the home is heavily used (large family, rental, frequent guests)
- Inspections are especially important if you notice slow drains or odors

An inspection helps catch small issues early, before they turn into drain field problems.

How A Septic Inspection Works

A licensed septic professional will typically:

- Open the septic tank access lids
- Measure sludge and scum levels inside the tank
- Check the condition of the tank, baffles, and outlet filter
- Inspect the effluent filter (and clean it if needed)
- Look for signs of backups or stress in the drain field area (soft soil, odors, pooling water)
- Sometimes run a flow test to see how the system is handling wastewater

No digging is usually required for a basic inspection.

Pumping The Tank

Most gravity systems need pumping about every 3–5 years, but this can vary based on household size, water usage, and tank size.

The inspection often determines when pumping is needed. It's not always on a fixed schedule.

Sewage truck pumps out septic tank at a residential home

SEPTIC SYSTEM DO'S

- **Schedule regular inspections.**
  Have your system checked every 1–3 years by a licensed septic professional.
- **Pump the tank as needed.**
  Most homes need pumping every 3–5 years, depending on usage and household size.
- **Space out water use.**
  Spread laundry, showers, and dishwasher use throughout the week instead of all at once.
- **Fix leaks quickly.**
  A running toilet or dripping faucet can overload the system over time.
- **Protect the drain field area.**
  Keep it open and unobstructed so it can absorb and treat water properly.
- **Keep records.**
  Save inspection reports, pumping records, and repair history for future reference.

SEPTIC SYSTEM DON'TS

- **Don't flush anything besides toilet paper and human waste.**
  Avoid wipes (even "flushable" ones), feminine products, paper towels, hair, and similar items.
- **Don't pour grease or oils down the drain.**
  They harden and can clog the system over time.
- **Don't park or build on the drain field.**
  Weight compacts the soil and can damage underground pipes.
- **Don't plant trees or large shrubs nearby.**
  Roots can invade and break drain field lines.
- **Don't use harsh chemicals in large amounts.**
  Strong cleaners like bleach or drain cleaners can disrupt the natural bacteria that help treat wastewater.

Never pour hazardous products down the drain or flush them down the toilet.

In Kitsap County, the best option is to take these materials to the county's household hazardous waste program. Keep products in their original containers when possible and store them safely until you can dispose of them properly. This includes:

- Paints, stains, solvents, and paint thinner
- Pesticides and herbicides
- Automotive fluids (motor oil, antifreeze, gasoline)
- Pool and spa chemicals
- Strong cleaners and chemicals labeled "Danger," "Warning," "Toxic," or "Flammable"
- Batteries, fluorescent bulbs, and many other hazardous household products

These items can be dropped off at the Kitsap County Household Hazardous Waste Collection Facility, which serves residential customers and accepts a wide variety of common household hazardous wastes. The county also advises that hazardous products should not be put in the trash or recycling.

Household Hazardous Waste Collection Facility
5551 SW Imperial Way, Bremerton, WA 98312
(360) 337-5777 or help@kitsap1.com

WARNING SIGNS YOUR SEPTIC SYSTEM MAY NEED ATTENTION

Inside Your Home

- Slow-draining sinks, tubs, or showers
- Toilets that flush sluggishly or back up
- Gurgling sounds coming from drains or plumbing fixtures
- Sewage odors inside the home
- Wastewater backing up into sinks, tubs, showers, or floor drains

Around Your Yard

- Standing water or soggy spots near the septic tank or drainfield
- Grass over the drainfield that is noticeably greener or grows faster than the surrounding lawn
- Persistent sewage odors outdoors
- Wastewater surfacing above the drainfield

WHEN TO CALL A PROFESSIONAL

- Multiple drains throughout the home becoming slow at the same time
- Sewage backing up into the house
- Standing water or persistent odors near the drain field
- A septic alarm sounding or warning light appearing
- Ongoing plumbing problems that don't improve with normal troubleshooting

A single slow drain may simply be a clogged pipe, but when several fixtures are affected or you notice signs outside the home, your septic system may need attention. Addressing issues early can help protect your septic tank, preserve your drain field, and extend the life of your entire system.

KITSAP COUNTY SEPTIC RESOURCES

Kitsap Public Health
Drinking Water & Onsite Sewage: www.kitsappublichealth.org/septic
Water Pollution Identification & Correction: www.kitsappublichealth.org/pic

Washington State Department of Health
Wastewater Management: www,doh.wa.gov/wastewater

U.S. Environmental Protection Agency
Septic Systems: www.epa.gov/septic

Craft3
Clean Water Loans: www.craft3.org/homeowner-loans/clean-water

SEPTIC SYSTEM RECORDS

Type of system: _____

System Designer: _____

Installation date: _____

Tank location: _____

Drain field location: _____

Additional Info: _____

DATE	MAINTENANCE	PERFORMED BY	COST

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