Septic Systems and Drainfields: What You Need to Know

For homeowners, real estate professionals, and developers
What is a Septic System?

A septic system is a form of wastewater treatment commonly used in areas where connection to a municipal wastewater system is not practical. The system consists of piping, a septic tank, a drainfield, and the soil.

The septic tank holds the wastewater long enough for solids to settle into a sludge at the bottom of the tank, while oils and greases float to the top, forming a scum. Bacteria in the tank consume a small amount of waste as nutrients.

Tank effluent flows to a drainfield where pipes below the surface distribute the wastewater throughout the drainfield. The wastewater then percolates through the soil. As the wastewater moves through the soil, some waste products adsorb to soil particles, while microorganisms in the soil ingest other waste products, providing final treatment of the wastewater.
Caring for Your Septic System

When properly designed and constructed, your septic system can greatly reduce the environmental impacts of household wastewater. But proper system operation requires some routine maintenance and care:

Have your septic system inspected.
Have your septic system inspected by a qualified professional at least every three years—every year if your system has electrical components—and have the tank pumped when necessary.

Pump your septic tank.
Pump a septic tank at least every three to five years (recommended) depending on use and sludge depth within the septic tank.

Use water efficiently.
Excessive flows can overload the septic system, causing wastewater to back up into the house or yard.

- Use the proper load size when washing clothes and avoid doing all the laundry in one day.
- Do not empty your hot tub into the septic system.
- Consider replacing older toilets and inefficient showerheads with more efficient models.

Do not flush materials that can clog your septic system.
Such as diapers, cat litter, cigarette filters, coffee grounds, feminine hygiene products, cotton swabs, dental floss, and paper towels.

Do not pour toxic chemicals down the drain.
Household chemicals, paints, gasoline, and pesticides can harm or kill the bacteria that digest and treat waste.

Minimize (or eliminate) your garbage disposal use.
Kitchen scraps significantly increase sludge and scum in your septic tank, requiring more frequent pumping. Compost these wastes instead.

Dispose of old medicines, such as antibiotics in the trash.
Medicines may kill the bacteria in your septic tank if flushed and result in groundwater contamination.
Giving Your Septic System More Life

The typical functioning life of a septic system is 20 years. To enhance the life of your system:

Add an effluent filter.
An effluent filter, placed in the septic tank outlet baffle or tee, prevents excess solids from flowing to and clogging the drainfield.

Protect your system’s drainfield.
Plant only grass on top and never drive or park vehicles on the drainfield. Direct roof drains, basement sump pump flows, and other drainage systems away from the drainfield.

Add a washing machine filter.
Washing machine filters trap lint and fibers that may accumulate in the septic tank and drainfield. If these fibers discharge to the drainfield, they will cause premature failure.
Questions to Ask When Planning a Septic System

If you are planning a home that will use a septic system, now is the perfect time to ask questions that can head off costly modifications and repairs:

Is the system appropriately sized?
The tank should be large enough to hold at least two days of waste flow—at least 1,000 gallons for a three-bedroom house with four occupants.

Is the lot appropriate for a septic system?
Sufficient room should be available for a septic tank, drainfield, and one replacement drainfield area. Evaluate the site for the following:

- Topography—properties with ridges, knolls, and numerous slopes may not be suitable.
- Soils—soil must have the capacity to accept and treat the anticipated volume of wastes.
- Ground water—areas with high ground water may not be suitable.
- Surface water—drainfields have minimum setback distances from streams, rivers, and lakes.

What will it cost to add a second drainfield?
State regulations require a reserve area for a future drainfield when the first drainfield reaches the end of its useful life. Adding a replacement drainfield during initial construction may only cost a fraction of installing one later. Plus, having the capability to switch the drainfields annually ensures that the resting drainfield is dry and ready to receive wastewater.
For more information

Idaho Department of Environmental Quality
1410 N. Hilton, Boise, ID 83706
(208) 373-0502

DEQ Septic and Septage page, including a list of service providers:

Idaho Technical Guidance Manual:

US Environmental Protection Agency
https://www.epa.gov/septic/septicsmart-homeowners

Idaho Public Health Districts
https://healthandwelfare.idaho.gov/health-wellness/community-health/public-health-districts

Panhandle Health District
8500 N. Atlas Road, Hayden, ID 83835
(208) 415-5100
https://panhandlehealthdistrict.org/

North Central Health District
215 10th Street, Lewiston, ID 83501
(208) 799-3100
https://idahopublichealth.com/

Southwest District Health
13307 Miami Lane, Caldwell, ID 83607
(208) 455-5400
https://phd3.idaho.gov/

Central District Health
707 North Armstrong Place, Boise, ID 83704
(208) 375-5211
https://cdhd.idaho.gov/

South Central Public Health District
1020 Washington Street North, Twin Falls, ID 83301
(208) 737-5900
https://phd5.idaho.gov/

Southeastern Idaho Public Health
1901 Alvin Ricken Drive, Pocatello, ID 83201
(208) 233-9080
https://siphidaho.org/

Eastern Idaho Public Health
1250 Hollipark Drive, Idaho Falls, ID 83401
(208) 523-5382
https://eiph.idaho.gov/

Revised February 2022