

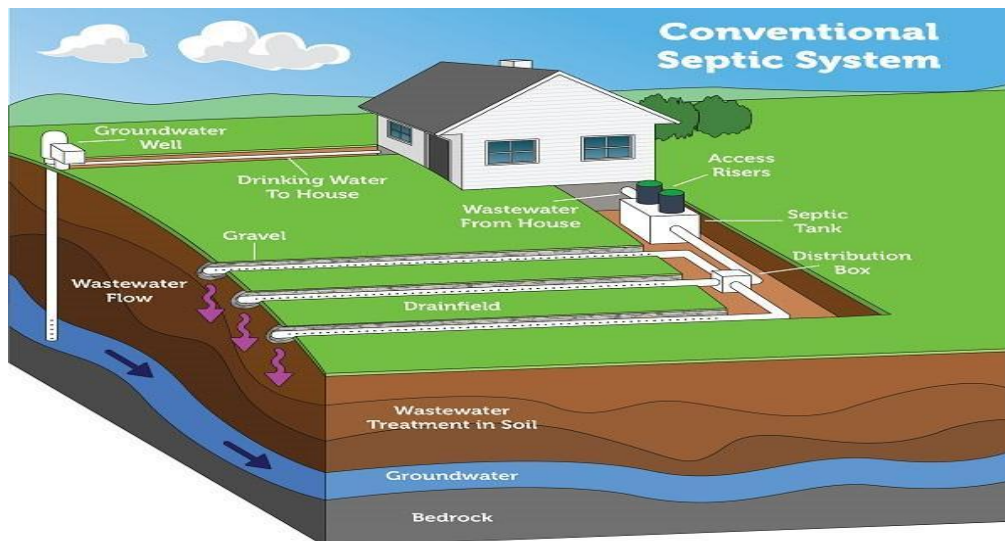
Septic Systems

There are several types of septic systems, the most common in our area are conventional and aerobic. They are also known as On-Site Sewage Facility (OSSF).

Conventional System

A decentralized wastewater treatment system consists of a septic tank and a trench or bed subsurface wastewater infiltration system (drainfield). A conventional septic system is typically installed at a single-family home or small business. The gravel/stone drainfield is a design that has existed for decades. The name refers to the construction of the drainfield. With this design, effluent is piped from the septic tank to a shallow underground trench of stone or gravel. A geofabric or similar material is then placed on top of the trench so sand, dirt, and other contaminants do not enter the clean stone. Effluent filters through the stone and is then further treated by microbes once it reaches the soil below the gravel/stone trench.

Gravel/stone systems are relatively large in overall footprint and may not be suitable for all residential sites or conditions.



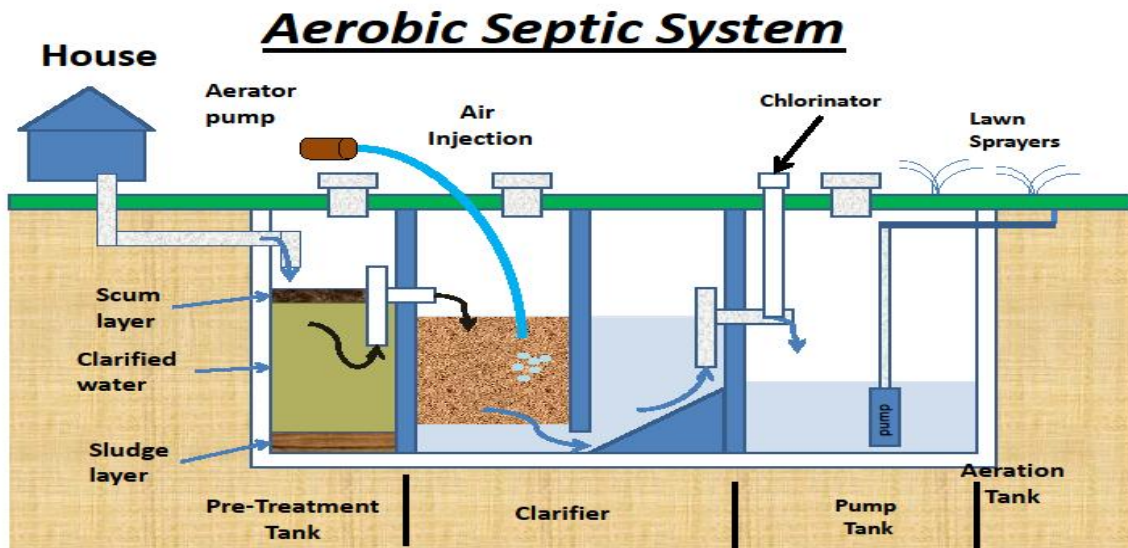
Please note: Septic systems vary. Diagram is not to scale.

Aerobic Septic Systems

Aerobic treatment systems use many of the same processes as a municipal sewage plant, but on a smaller scale. An aerobic system injects oxygen into the treatment tank. The additional oxygen increases natural bacterial activity within the system that then provides additional treatment for nutrients in the effluent. Some aerobic systems may also have a pretreatment tank and a final treatment tank including disinfection to further reduce pathogen levels.

The benefits of this system are that it can be used in homes with smaller lots, inadequate soil conditions, in areas where the water table is too high, or for homes close to a surface water body sensitive to contamination by nutrients contained in wastewater effluent.

Regular life-time maintenance should be expected for Aerobic Treatment Systems.



If your septic tank failed, or you know someone whose did, you are not alone. As a homeowner, you are responsible for maintaining your septic system. Proper septic system maintenance will help keep your system from failing and will help maintain your investment in your home. Failing septic systems can contaminate the ground water that you and your neighbors drink and can pollute nearby rivers, lakes and coastal waters.

Ten simple steps you can take to keep your septic system working properly:

1. Locate your septic tank and drainfield or sprinklers. Keep a drawing of these locations in your records.
2. Have your septic system inspected at least every three years.
3. Pump your septic tank as needed (generally, every three to five years).
4. Don't dispose of household hazardous waste in sinks or toilets.
5. Keep other household items, such as dental floss, feminine hygiene products, condoms, diapers, and cat litter out of your system.
6. Use water efficiently.
7. Plant only grass over and near your septic system. Roots from nearby trees or shrubs might clog and damage the system. Also, do not apply manure or fertilizers over the drainfield.
8. Keep vehicles and livestock off your septic system. The weight can damage the pipes and tank, and your system may not drain properly under compacted soil.
9. Keep gutters and basement sump pumps from draining into or near your septic system.
10. Check with your local health department before using additives. Commercial septic tank additives do not eliminate the need for periodic pumping and can be harmful to your system.

Your septic system is your responsibility!

Did you know that, as a homeowner, you're responsible for maintaining your septic system? Did you know that maintaining your septic system protects your investment in your home? Did you know that you should periodically inspect



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your system and pump out your septic tank? If properly designed, constructed and maintained, your septic system can provide long-term, effective treatment of household wastewater. If your septic system isn't maintained, you might need to replace it, costing you thousands of dollars. A malfunctioning system can contaminate groundwater that might be a source of drinking water. And if you sell your home, your septic system must be in good working order.

Pump frequently...

You should have your septic system inspected at least every three years by a professional, and have your tank pumped as necessary (generally every three to five years).

Use water efficiently...

Average indoor water use in the typical single-family home is almost 70 gallons per person per day. Dripping faucets can waste about 2,000 gallons of water each year. Leaky toilets can waste as much as 200 gallons each day. The more water a household conserves, the less water enters the septic system.

Flush responsibly...

Dental floss, feminine hygiene products, condoms, diapers, cotton swabs, cigarette butts, coffee grounds, cat litter, paper towels, and other kitchen and bathroom waste can clog and potentially damage septic system components. Flushing household chemicals, gasoline, oil, pesticides, anti-freeze and paint can stress or destroy the biological treatment taking place in the system, as well as contaminate surface waters and groundwater.

Keep drain field clear...

Plant only grass over and near your septic system. Roots from nearby trees or shrubs might clog and damage the drainfield.

Don't drive or park on it...

Don't drive or park vehicles on any part of your septic system. Doing so can compact the soil in your drainfield or damage the pipes, the tank or other septic system components.

Keep ground water out...

Keep roof drains, basement sump pump drains, and other rainwater and surface water drainage systems away from the drainfield. Flooding the drainfield with excessive water slows down or stops treatment processes and can cause plumbing fixtures to back up.

Aerobic system maintenance...

- Keep calcium hypochlorite tablets in the Chlorinator. Do not use swimming pool chlorine tablets. They can cause harm to your system and can create hazardous gases.
- Maintain the aerator pump filter. Clean it on a regular basis to keep air flowing into your system.
- Maintain the sprinkler heads. Make sure they are clear of debris and can operate freely.
- Have your system inspected and cleaned every three years.

Why should I maintain my septic system?

A key reason to maintain your septic system is to save money! Failing septic systems are expensive to repair or replace, and poor maintenance is often the culprit. Having your septic system inspected (at least every three years) is a bargain when you consider the cost of replacing the entire system. Your system will need pumping every three to five years,



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depending on how many people live in the house and the size of the system. An unusable septic system or one in disrepair will lower your property's value and could pose a legal liability.

Other good reasons for safe treatment of sewage include preventing the spread of infection and disease, and protecting water resources. Typical pollutants in household wastewater are nitrogen phosphorus, and disease-causing bacteria and viruses. Nitrogen and phosphorus are aquatic plant nutrients that can cause unsightly algae blooms. Excessive nitrate-nitrogen in drinking water can cause pregnancy complications, as well as methemoglobinemia (also known as "blue baby syndrome") in infancy. Pathogens can cause communicable diseases through direct or indirect body contact, or ingestion of contaminated water or shellfish. If a septic system is working properly, it will effectively remove most of these pollutants.

Regulation

Septic system regulation is usually a state and local responsibility. In Texas OSSF's are regulated by the Texas Commission on Environmental Quality (TCEQ). Website: <https://www.tceq.texas.gov/permitting/ossf>

The U.S. Environmental Protection Agency (EPA) provides information to homeowners and assistance to state and local governments to improve the management of septic systems to prevent failures that could harm human health and water quality.

Additional Information

Additional information can be found at:

U.S Environmental Protection Agency	https://www.epa.gov/septic
Texas Commission on Environmental Quality	https://www.tceq.texas.gov/assistance/water/fyiossfs.html
Texas A&M University	https://ossf.tamu.edu/

Local Septic service companies:

- | | | |
|---------------------------------|-----------------|--------------|
| • Massey's Septic Service | Springtown, TX | 817 609-4695 |
| • Aerobi-Tech Septic Service | Weatherford, TX | 817 596-9489 |
| • Michou Construction | Weatherford, TX | 817 594-7396 |
| • Aerobic Wastewater Service | Weatherford, TX | 817 613-9424 |
| • Garrett Aerobic Septic | Springtown, TX | 817 448-9467 |
| • S & A Septic Service | Weatherford, TX | 817 594-0549 |
| • Septic One Septic Service | Weatherford, TX | 817 659-1160 |
| • Other companies are available | | |

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