

wellcare® information for you about Your Septic System

As a homeowner with both well and septic systems, you must take care to maintain these systems to ensure a properly functioning septic system and the safety of your well water.

How Septic Systems Work

A septic system is a highly efficient, self-contained, underground wastewater treatment and disposal system. When properly maintained, a septic system can successfully treat wastewater for many years. Septic systems consist of two main parts – a septic tank and a drainfield.

The **septic tank** is a watertight box constructed of concrete, fiberglass, or high-density polyethylene. The septic tank is where the *primary* stage of treatment occurs – physical separation. Heavier solids sink to form the *sludge layer* and *FOG* (fats, oils, and grease) float to the top forming the *scum layer*. The layers of sludge and scum remain in the septic tank where natural bacteria work to break down solids. Solids that cannot break down remain in the tank until the tank is pumped. Newer tanks may have risers at the ground surface that permit easy access for inspection and maintenance.

Following physical separation, partially treated wastewater called *sewage effluent* flows from the septic tank, through a distribution box to the **drainfield**, also called leach field, leaching field, disposal field, field lines, or soil absorption field. A standard drainfield is a group of perforated pipes buried in 12 to 60-inch-deep trenches lined with gravel or coarse sand. The trenches are often covered with geo-textile paper or fabric and then backfilled with native soil.

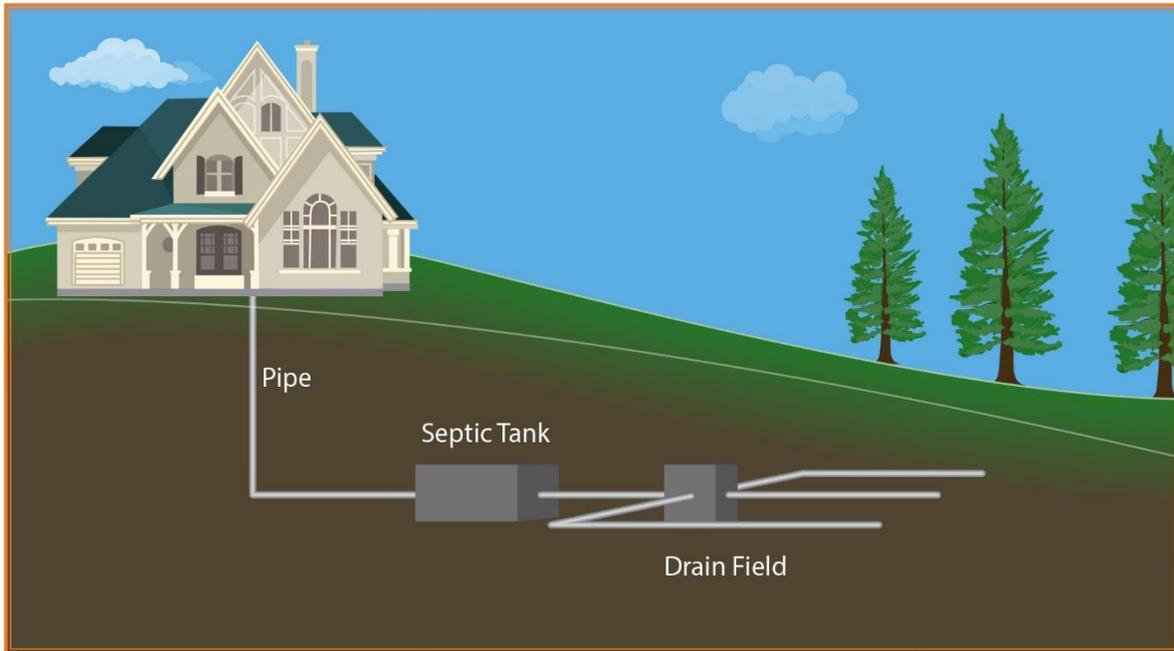
In the drainfield, sewage effluent trickles from the perforated pipes and onto the beds of rock below. Bacteria, protozoa, fungi and other materials develop on the rock bed and naturally treat the water by feeding on organic and nutrient contents. The treated water is further clarified by additional biological and natural filtration processes as it moves through the soil.

Location of Your Septic System

Septic systems must be installed at safe distances from drinking water wells, streams, lakes, and houses to protect water quality from the risks posed by untreated wastewater. Minimum vertical and horizontal distances are established by state and local agencies to protect surface and groundwater. The U.S. Environmental Protection Agency recommends a minimum of 50 feet between your well and your septic tank or drainfield, and it is ideal to install the septic system downhill of the well if possible. Check with your local environmental health department for safe distances, construction methods and materials common in your area as these can vary by location.

If you are looking to purchase or have bought a property where the septic system does not meet minimum separation standards, test your well water for bacteria at least twice annually and nitrate at least annually.

Sample Septic System



This image is intended to represent some of the components that can be included in a septic system and is not intended as an installation guide. Check local codes for actual requirements and restrictions.

Septic System Maintenance

Just like water well systems, septic systems require regularly scheduled maintenance to ensure proper function. You should create a septic maintenance log and keep it with your well maintenance log. Or, [download a free copy from NOWRA's website](#).

Proper maintenance of a septic system includes:

- Regular inspection every 1 to 2 years
- Have the system pumped every 3 to 5 years, depending on demand
- Conserving water to reduce the amount of demand placed on the system and prolong its useful life

Demand is based on the number of people in your household, the amount of wastewater generated, the volume of solids, and the size of your tank. Contact your septic service professional for assistance and maintenance.

Protecting Your Septic System

Everyone in the household must consider what is flushed into the septic system as this can reduce or damage the natural function of the septic system. Avoid flushing items that can clog the system or chemicals that can contaminate ground and surface water, and potentially damage the biological components of the system.

DO NOT flush grease, fats, oils, bandages, feminine hygiene products, disposable diapers, disposable wipes – even wipes that say ‘flushable’, paper towels, kitty litter, cigarette butts, coffee grounds, dental floss, hair, medicines, paint, pesticides, varnish, thinners, waste oil, or other chemicals. Ideally ONLY water and household detergents are flushed into the system.

The septic system’s drainfield must also be protected. The following strategies are recommended to protect the field and prolong its functional life:

- Do not drive over the drainfield with cars, trucks or heavy equipment.
- Do not plant trees or shrubbery in the drainfield area as roots can plug or damage the wastewater distribution lines.
- Do not cover the drainfield with hard surfaces such as concrete or asphalt. Grass is the best cover because it will help prevent erosion and help remove excess water.
- Divert surface runoff water from roofs, patios, driveways and other areas away from the drainfield.

A properly maintained septic system poses no threat to the groundwater that supplies a household well. However, wastewater from a failing septic system can carry contaminants such as nitrates, harmful bacteria and viruses into groundwater and potentially the well.

WSC provides additional publications on well and well water protection at <https://www.watersystemscouncil.org/water-well-help/wellcare-info-sheets/> or request hard copies by contacting our wellcare® Hotline at 888.395.1033 or info@wellcarehotline.org.

For More Information on Septic Systems

Contact your septic service professional. If you need help locating a professional, the following resources may help: [NOWRA](#) and [NAWT](#).

U.S. Environmental Protection Agency. Septic Systems (Onsite/Decentralized Systems). <https://www.epa.gov/septic>

FOR MORE INFORMATION to help maintain and protect your water well system:



wellcare® is a program of the **Water Systems Council (WSC)**. WSC is the only national organization solely focused on protecting the health and water supply of more than 13 million households nationwide who depend on private wells.

This publication is one of more than 100 **wellcare®** information sheets available FREE at www.watersystemscouncil.org.

Well owners and others with questions about wells and well water can contact the **wellcare®** Hotline at 1-888-395-1033 or visit www.wellcarehotline.org to fill out a contact form or chat with us live!

JOIN THE WELLCARE® WELL OWNERS NETWORK!

By joining the FREE **wellcare®** Well Owners Network, you will receive regular information on how to maintain your well and protect your well water.

Contact us at 1-888-395-1033 or visit www.wellcarehotline.org to join!