

## The Do's and Don'ts

- Do know where your septic system is and what type of system you have. Acquire a drawing if it is permitted from this office.
- Do have your tank or aerator pumped out every 3 to 5 years and have your aerator motor serviced annually.
- Do make sure your aerator motor is running. If it is not running, it is not treating the wastewater properly.
- Do practice water conservation by repairing leaking faucets, toilets, do full loads of laundry spread throughout the week, and use a dishwasher only when full.
- Do keep roof drains, sump pump drains and other forms of surface water away from the drain field.
- Do plant only grass over your leach field and keep plants and trees with invasive roots away from the leach field.
- Do clean out the effluent filter (if you have one) every six months.
- Don't drive, park cars, or build anything over any part of the septic system. This soil in this area should not be compacted or disturbed in any way.
- Don't use your septic system as a trash can by flushing nondegradables, strong cleaners, medications, cat litter, sanitary napkins, chemicals, paint, or diapers. These can both kill beneficial bacteria and clog your system.
- Don't use any septic tank additives or septic tank cleaners. At best, these products do nothing and maybe harmful to the system.
- Don't use a garbage disposal or flush other food products into the septic system.
- Don't make any changes or repairs to the septic system without consulting the Athens County Health Department first and always use a registered septic system contractor for repairs.
- Don't hesitate to call us with any questions!

## Additional Resources

This guide is an general overview of septic systems in Athens County. More detailed information, owner's manuals, and technical data are listed below:

- Athens City-County Health Department  
278 West Union Street  
Athens, OH 45701  
(740)-592-4431  
[www.health.athens.oh.us](http://www.health.athens.oh.us)
- Ohio Department of Health Sewage Website  
[www.odh.ohio.gov/odhPrograms/eh/sewage/sewage1.aspx](http://www.odh.ohio.gov/odhPrograms/eh/sewage/sewage1.aspx)
- Ohio State University  
Soil Environment Technology Learning Lab  
[setll.osu.edu](http://setll.osu.edu)
- Jet Precast Company  
Aerator Manufacturer  
[www.jetprecast.com](http://www.jetprecast.com)
- Norwalk Wastewater Equipment Company (NORWECO) Aerator Manufacturer  
[www.norweco.com/html/main.htm](http://www.norweco.com/html/main.htm)
- National Small Flows Clearinghouse  
[www.nesc.wvu.edu/nsfc/nsfc\\_index.htm](http://www.nesc.wvu.edu/nsfc/nsfc_index.htm)
- Ohio Onsite Wastewater Association  
[www.ohionsite.org](http://www.ohionsite.org)

### Athens City-County Health Department Environmental Health Division

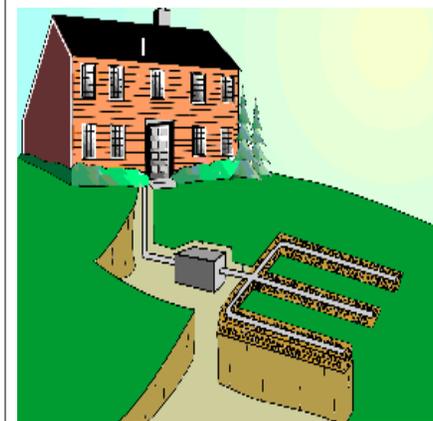
278 West Union Street  
Athens, OH 45701

Phone: 740-592-4431  
Fax: 740-594-2370

Email: [www.health.athens.oh.us](http://www.health.athens.oh.us)

Protecting and promoting  
the health and wellness of  
all Athens County residents.

## A Septic System Reference Guide for New Homeowners



Athens City-County Health Department  
Environmental Health Division

740-592-4431

## Sewage System Basics

According to the most recent data, more than 25 million families rely on onsite sewage treatment systems (septic systems) to dispose and treat their wastewater. This is approximately 25% of the total U.S. population. In Ohio there are more than one million homes that rely on onsite sewage systems. These numbers increase in rural areas such as Athens County and surrounding areas.

Surprisingly, past studies have found that more than 25% of these sewage systems in Ohio are not performing properly or are outright failing. These failures risk the health of the family, neighbors, and surrounding wildlife and natural resources, not to mention the cost of replacing or repairing the sewage system. One of the major reasons for this poor performance is the lack of maintenance by the homeowner. This can be associated with the homeowner's lack of knowledge, interest, or both. However, after reading this guide, you should have a basic understanding of caring and maintaining your septic system to ensure years of safe and effective treatment of your wastewater.

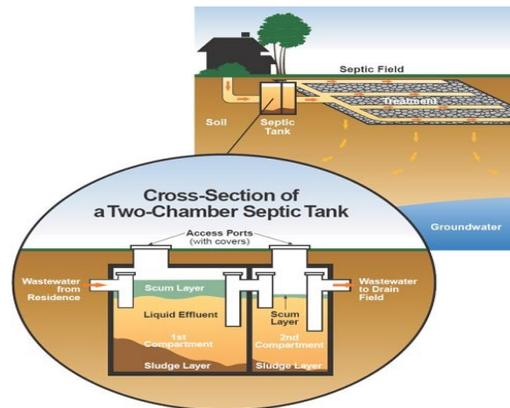
In Athens County, there is not just one main style or type of septic system for every home. Sewage systems vary based on the size of the home, the particular site and soil conditions, and other factors. However, about every septic system has a few main basic components in common such as a septic tank or aeration tank, and a drain field. Sometimes there is a pump tank, sand filter, or other treatment devices before the drain field treatment and disposal.

Most importantly, know what you have, where it is located, and how to maintain the system!

## How Does It All Work

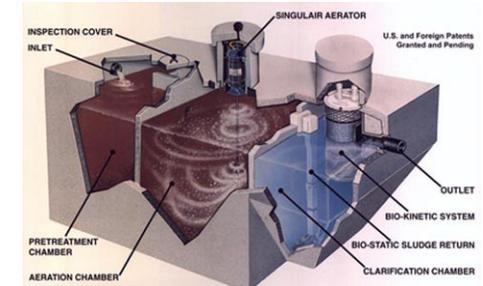
The most standard septic system has two major components: a septic tank and drain or leach field. The septic tank is a large, buried, watertight container made of concrete, fiberglass, or plastic. Current standards require the size of the tank to be between 1500 gallons to 2000 gallons with two compartments that have access risers and lids for servicing and pumping.

The main purpose of a septic tank is to filter heavy and floating solids in the first compartment and allow for some solids suspended in the water to settle out in the second compartment. This process is known as "primary treatment". To ensure small suspended solids do not exit the septic tank, all new tanks have an effluent filter that sits in the outlet baffle of the tank. This filter can easily be added to older model tanks with very little effort.



After the partially treated wastewater (effluent) leaves the septic tank it flows into a drain field. The drain field consists of a number of trenches with gravel and pipe or other material to distribute the effluent into the native soil. The soil safely treats and disposes the effluent before it enters the groundwater. This is known as "secondary treatment". The size of each drain field is dependent on the estimated daily wastewater flows from the house and the type of soils on the property. The drain field trenches are installed level and run parallel to the natural contours of the land.

In Athens County, there are a large number of homes that have an Aerobic Treatment Unit (ATU) or an aerator instead of a traditional septic tank. The ATU pumps air into the wastewater creating an "aerobic" environment that allows for quicker break down of organic matter, solids, and pathogens compared to a septic tank. This results in a "cleaner" effluent to be absorbed in the drain field.



In the past, many of the aerators were allowed to discharge the effluent to the surface of the ground. This was done because we thought this protected the public health. However, as time has showed, aerators not operating properly discharge a highly untreated wastewater. This is a danger to the public and is a health nuisance. Therefore, any new aerator currently installed must have a leach field similar to a septic tank's leach field. Most importantly, the aerator motor must be running properly and maintained on regular intervals as recommended in the owner's manual.

### Athens City-County Health Department Environmental Health Division

278 West Union Street  
Athens, OH 45701

Phone: 740-592-4431  
Fax: 740-594-2370  
Email: [www.health.athens.oh.us](http://www.health.athens.oh.us)