Sewage Treatment Systems

How do they work?

A sewage treatment system, more commonly called a septic system, serves as an on-site wastewater treatment system in places where public sewers are not available. The most common type of septic system consists of a septic tank, a distribution box, and a soil absorption field.

The septic tank is a holding chamber where solids have time to settle out, and oils/grease separate out and float to the top. Solids sink to the bottom of the tank, where they are partially decomposed by bacteria, and the remaining solids are periodically pumped by a registered septage hauler. After wastewater leaves the tank, it flows into a distribution box, where it is evenly distributed into a network of trenches with perforated pipes and gravel in the soil absorption field. The effluent slowly seeps into the soil where it is further treated and dispersed.

Typical Septic System Components:

1. Septic tank
2. Splitter box
3. Distribution boxes

DOs & DON'Ts

DOs

- Have your septic tank pumped out & inspected every 2-5 years by a registered septage hauler
- Keep septic tank cover accessible with a water tight riser for ease of pumping
- Keep roof water, footer drain water, & surface drainage out of the septic tank and away from the soil absorption field
- Conserve water to avoid overloading septic system
- Learn the location of your septic system and protect it from physical damage
- Wash your laundry over the course of the week, don’t overload your system by doing all of the laundry on one day

DON'Ts

- Don’t drive or park over any part of the septic system
- Don’t use your toilet as a trash can; keep diapers, cigarette filters, cat litter, and feminine hygiene products out of your system
- Don’t put excessive chemicals down the drain—chemicals can kill the beneficial bacteria that treat your wastewater
- Don’t pour grease down your sink
Aerobic Treatment Systems: Are they like a Septic System?

Aerobic treatment systems, commonly called “aeration” units are actually much smaller versions of municipal wastewater treatment plants. These systems function much differently than a septic system, since they use oxygen for wastewater treatment. These systems have been typically used on properties that are too small for a septic system and are designed to treat the wastewater and discharge to a stream or other water body. Aeration units can also be used in place of septic tanks when followed by soil absorption trenches. These systems treat the wastewater by adding oxygen from either an aerator motor or an air compressor which mixes the sewage and uses bacteria needing the oxygen to break down the waste. Aerobic treatment systems usually contain some type of filtration mechanism and a means for disinfection. Chlorination is the most common type of disinfection that is used for reducing the bacteria levels when discharging occurs.

Because these aerobic treatment systems usually discharge to our rivers and streams, proper maintenance is critical. The key maintenance requirements are as follows:

- Keep the aerator motor or air compressor properly operating at all times. The wastewater will not be treated if there is no oxygen.
- Aerobic treatment units do accumulate solids and need to be pumped at a frequency recommended by the manufacturer and/or the service provider.
- Maintain an ongoing service contract with a service provider that has been trained and is qualified to maintain your type of system. Contact the Health District for a list of service providers registered in Lake County.
- Be sure to maintain an adequate supply of disinfectant (chlorine) in your disinfection device.
- Conserve water, avoid flushing toxic chemicals into your system, and if possible, spread your laundry washing over the course of the week.

A Properly Functioning Sewage Treatment System:

- **Is an important investment in your home and property.** It requires preventative maintenance and care. It is much more costly to replace or repair a sewage treatment system than it is to maintain it over time.
- **Will not harm the environment and pollute waterways causing a health threat to your family & neighbors.** Inadequately treated sewage can contaminate groundwater and drinking water wells which can cause illness. It can also contaminate nearby surface waters increasing the risk that people swimming in these waters may become ill from eye or ear infections/irritations or gastrointestinal illnesses.
- **Protects the value of your property.** Avoid damaging your system, don’t build structures, fences, or swimming pools without first contacting the Health District to determine the location of the system. Consult the Health District for more information.

Pumping Tanks

Most of the solids in the tank are broken down by bacteria. The remaining solids sink to the bottom of the tank to form a sludge layer. This remaining sludge layer needs to be pumped for proper maintenance.

Have your septic system inspected at least every two (2) years by a registered septage hauler and your tank pumped as necessary, usually every 2-5 years.

**You should pump your tank (s) based on certain factors such as:**
- The number of people in your household and the amount of wastewater generated
- The volume of solids in the wastewater

For More Information:

Lake County General Health District
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