

How to Maintain Home Sewage Treatment Systems

Septic tanks and aerobic treatment systems (aeration units) serve as an on-site wastewater treatment system in places where public sewer is not available. Proper maintenance of these units is vital in order to prevent contaminating groundwater and drinking water wells.

Septic tanks consist of a septic tank, a distribution box and a soil absorption field. The septic tank is the holding chamber where household wastewater enters and separates into three distinct layers. Oils and grease float to the surface, forming the top scum layer. The wastewater and waste particles make up the middle layer. The heavier particles travel to the bottom of the tank and form a layer of sludge. Inside the tank, bacteria from the wastewater breaks down the solid waste. These bacteria decompose the solid waste rapidly allowing the liquids to separate and drain away more easily. Water then leaves the tank and flows into a distribution box, where it is distributed into a network of trenches with perforated pipes and gravel into the soil absorption field. The effluent slowly leaches through the soil and is dispersed. The sludge material remains in the tank until it is pumped.

Aerobic treatment systems use oxygen for wastewater treatment and function differently than a septic tank. Aeration units treat the wastewater by adding oxygen from either an aerator motor or air compressor, which mixes the sewage and breaks down waste using aerobic bacteria. Aerobic treatment systems usually contain a filtration system and a disinfection process. Chlorination is the most common type of disinfection that is used for reducing bacteria levels before discharging the water. Because aerobic treatment systems usually discharge directly to rivers or streams, proper maintenance is important.

- Be sure to keep the aerator motor or air compressor operating at all times. The wastewater will not be treated if there is no oxygen.
- Use the proper disinfection tablets and use them on the schedule recommended by your system designer. Typically, the disinfection tablets are added to the system through a PVC pipe that extends above ground level and has a removable cap. Don't put in more tablets than the instructions say, since doing so may cause them to break down prematurely and not be dispensed at the proper rate. Check the condition of your aerobic treatment system disinfection tablets monthly.
- To properly maintain your septic tank or aeration unit, have it pumped every 2-4 years by a registered septic hauler. If a septic tank is not pumped regularly, sludge and solid waste can build up in the septic tank and drain field lines, causing overflow and failure.
- Do not drive or park over any part of the septic system.
- Do not flush diapers, feminine hygiene products, cigarette filters or cat litter down the toilet.
- Conserve water, do not flush toxic chemicals into the system, if possible, spread your laundry washing over the course of the week.

<https://medium.com/waste-disposal-hub/how-septic-tanks-work-and-when-to-empty-them-346a4fe4fe6f>

