

Septic System Alternative Treatment Technologies

For homes and businesses outside areas served by large sewer systems, sewage is treated and dispersed into the soil by septic systems. The primary components are a septic tank that collects and treats waste and a drainfield to capture, disperse and filter treated waste.

Some locations require additional treatment prior to dispersal into the drainfield due to smaller lot size, shallow water tables or soil limitations.

In many cases, you can meet state requirements for onsite septic waste disposal by installing what Oregon administrative rules call an alternative treatment technology. Alternative treatment technologies are devices that can be connected to a standard septic system and are designed to provide additional treatment in order to protect your health and the environment.

How do I find out about alternative treatment technologies?

Before 2005, the only alternative treatment option for property owners was the sand filter. Now, many alternatives are available.

Alternative treatment systems are categorized into two levels:

Treatment Standard 1

These systems require a greater separation to a permanent water table than traditional sand filters because the treated waste will be higher in bacteria. The soil layer above the water table must be able to provide adequate filtration to protect groundwater and in many cases drinking water sources.

Treatment Standard 2

These systems may be used in place of a sand filter. Systems that fall into this category disinfect and, like sand filters, have demonstrated an ability to reduce nitrogen.

When is alternative treatment required?

An alternative treatment technology system is required due to smaller lot size, shallow water tables or soil limitations.

Before building your septic system, an inspector will conduct a site evaluation to determine the type of system you need based on site conditions and proposed use of the property. In addition,

your inspector can identify the treatment standard your lot requires. Your inspector will provide these details in a site evaluation report.



Alternative treatment technologies provide additional treatment. Photo courtesy of Orenco Systems Inc.

Other good reasons to choose alternative treatment

A property owner may elect to install an alternative system instead of a standard system in order to take up less space on the lot. Many people choose alternative treatment options because they produce cleaner effluent than a standard system which provides additional protection for nearby drinking wells and groundwater.

Additional requirements for alternative treatment technologies

Owners of an alternative treatment technology system must have an operation and maintenance service contract with a certified maintenance provider. The contract must be maintained for the life of the system.

The maintenance provider or homeowner must submit an operation and maintenance report annually with the fee to the appropriate permitting authority, either DEQ or the local county. Please visit Washington County's Onsite Sewage page at:

<https://www.co.washington.or.us/HHS/EnvironmentalHealth/OnsiteSewage/index.cfm>

Other considerations

Alternative treatment technologies provide a high level of treatment to wastewater. The processes to treat wastewater may include one or more of the following: blowers, compressors, pumps, floats and switches. Don't neglect these systems. Like a car or furnace, preventive maintenance avoids costly repairs.



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Installation and operating costs vary depending on the technology so do your homework.

Remember to factor in maintenance too. Sludge will settle at the bottom of the tank that houses the alternative treatment system or in a connected recirculation tank. If this accumulated sludge is not removed by a licensed pumper it can end up in the drainfield.

How do I find a maintenance provider?

A list of qualified maintenance providers is available from the distributor of the system you purchase. Each vendor or manufacturer of alternative treatment technology distributed in Oregon must train local installers and maintenance providers to ensure proper installation and their systems receive the appropriate maintenance.

In addition, DEQ certifies maintenance providers to ensure that persons working on alternative treatment technology systems are qualified. A list of [certified maintenance providers](#) is available on DEQ's website.

Alternative formats

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.