

Fact Sheet

Septic System Alternative Treatment Technologies (ATT)

For homes and businesses not served by sewer systems, wastewater is treated and dispersed into the soil by an onsite wastewater treatment system, or septic system. The primary components of a standard septic system are a septic tank that collects and treats sewage and a drainfield to disperse, filter, and treat wastewater. Some locations require additional treatment prior to dispersal due to small lot size, shallow water tables, steep slopes, or poor soil conditions. In many cases, you can install an alternative treatment technology, or ATT, to meet state requirements for siting a septic system where a standard system cannot be approved.

What is an ATT?

ATTs are units placed between a septic tank and an absorption area, like a drainfield, that provide additional treatment of septic effluent in order to protect public health and the environment.

Prior to ATTs being approved in 2005, the only alternative treatment option for property owners was a sand filter. Now, many alternatives are available for use in Oregon and listed on the Department of Environmental Quality's (DEQ) [Approved Alternative Treatment Technology Products website](#). ATTs are categorized based on different treatment standards:

Treatment Standard 1: Reduces total suspended solids and biochemical oxygen demand in septic effluent, making the effluent clearer with more dissolved oxygen by the time it reaches a drainfield. These systems require a greater separation to permanent groundwater than traditional sand filters because the ATT doesn't treat bacteria to protective levels. There must be at least 4 feet of separation between a drainfield and a permanent water table to filter out bacteria to protect groundwater and drinking water sources.

Treatment Standard 2: Reduces fecal coliform and nitrogen in addition to biochemical oxygen demand and total suspended solids. These systems may be used in place of sand filters and require less separation between an absorption area and a permanent water table. They disinfect the wastewater and, like sand filters, can also help reduce the amount of nutrients, like nitrate, that reach the environment and drinking water sources.

Note: For areas sensitive to nitrate-nitrogen pollution, such as coastal lakes, areas of groundwater concern, and groundwater management areas, local agents can require ATT models that are proven to reduce nitrate-nitrogen beyond the minimum standards established in Treatment Standards 1 and 2.

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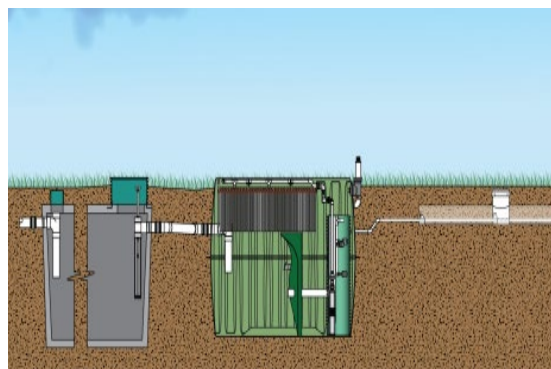


Diagram showing an ATT unit installed after a septic tank. The system adds oxygen to the wastewater to promote aerobic bacteria activity, improving treatment. Image courtesy of Orenco Systems Inc.

When is an ATT required?

Prior to construction of your septic system, your local agent will conduct a site evaluation to determine the type of system and treatment standard needed based on site conditions and the proposed use of the property. These details are recorded in a site evaluation report. In areas sensitive to nitrate-nitrogen pollution, an ATT with higher nitrate-nitrogen removal may be required.

Good Reasons to Choose an ATT

Even if a property is approved for a standard system, a property owner may elect to install an ATT system with a reduced size absorption area that takes up less space on the lot. Many people also choose ATTs because they produce cleaner effluent than a standard system, which provides additional protection for nearby drinking wells and groundwater.

Additional Requirements for ATTs

Owners of ATT systems must hire a certified maintenance provider to inspect and maintain their system at least twice a year for the first two years of operation and at least annually thereafter. An active contract with a certified maintenance provider must be maintained for the life of the system. See Operation and Maintenance Requirements Fact Sheet for additional information.

Other Considerations

ATTs treat wastewater to a high level using processes that may include one or more of the following: blowers, compressors, pumps, floats, and switches. They are required to have audible and visual alarms to alert occupants of a problem. Don't neglect these systems. Like a car, routine preventive maintenance avoids costly repairs. The installation and operational (energy and maintenance) costs of these technologies vary. Some systems may be less expensive to install but cost more to operate.

How do I Find a Maintenance Provider?

Each vendor or manufacturer of ATTs distributed in Oregon must train local installers and maintenance providers on their specific systems. They keep a list of qualified maintenance providers certified to operate and maintain the system you purchase. In addition, DEQ certifies maintenance providers to ensure that persons working on ATT systems are qualified. A list of [certified maintenance providers](#) is available on DEQ's website.

Certified maintenance providers are required to follow all terms of the maintenance contract and submit an annual report and fee to the local agent demonstrating that they have inspected and maintained your system for each reporting year. They must also observe and record the condition of your system during each visit and provide you a report in writing. Take time to research and hire a reliable provider – regular maintenance keeps your system working efficiently and helps you avoid costly repairs.

Contact

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