Operations and Maintenance Requirements

Unlike septic systems, for which operation and maintenance is the responsiblity of the septic tank owner, owners of aerobic treatment systems must belong to an operation and maintenance (O&M) entity—a nonprofit corporation for managing small individual subsurface wastewater systems. Each owner pays into a fund used by the O&M entity to provide the following:

- Service O&M member systems
- Monitor system performance
- Compile and provide a yearly report to the Idaho Department of Environmental Quality and Idaho Public Health Districts

To ensure that the O&M entity has full access to the treatment system for service and monitoring, the owner must provide an easement, which is recorded on the deed by the county clerk.

As with septic systems, the owner of an aerobic treatment system should do the following:

- Use water efficiently to avoid overloading the system.
- Avoid flushing materials that can clog the system such as diapers, cat litter, cigarette filters, feminine hygiene products, cotton swabs, dental floss, and paper towels.
- Minimize flushing of chemicals that can kill microorganisms in the system.

For more information

Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706
(208) 373-0502
http://www.deq.idaho.gov/septic_systems
http://www.deq.idaho.gov/technical-guidance-manual

US Environmental Protection Agency
http://www.epa.gov/owm/septic/pubs/aerobic_treatment.pdf

Idaho Public Health Districts

Panhandle Health District
8500 N. Atlas Road
Hayden, ID 83835
(208) 415-5100
www.phd1.idaho.gov

North Central Health District
215 10th Street
Lewiston, ID 83501
(208) 799-3100
idahopublichealth.com

Southwest District Health
13307 Miami Lane
Caldwell, ID 83607
(208) 454-7722
www.publichealthidaho.com

Central District Health Department
707 North Armstrong Place
Boise, ID 83704
(208) 375-5211
www.cdhd.idaho.gov

South Central Public Health District
1020 Washington Street North
Twin Falls, ID 83301
(208) 734-5900
www.phd5.idaho.gov

Southeastern Idaho Public Health
1901 Alvin Ricken Drive
Pocatello, ID 83201
(208) 233-9080
www.sdhdidaho.org

Eastern Idaho Public Health District
1250 Hollipark Drive
Idaho Falls, ID 83401
(208) 522-0310
www.phd7.idaho.gov

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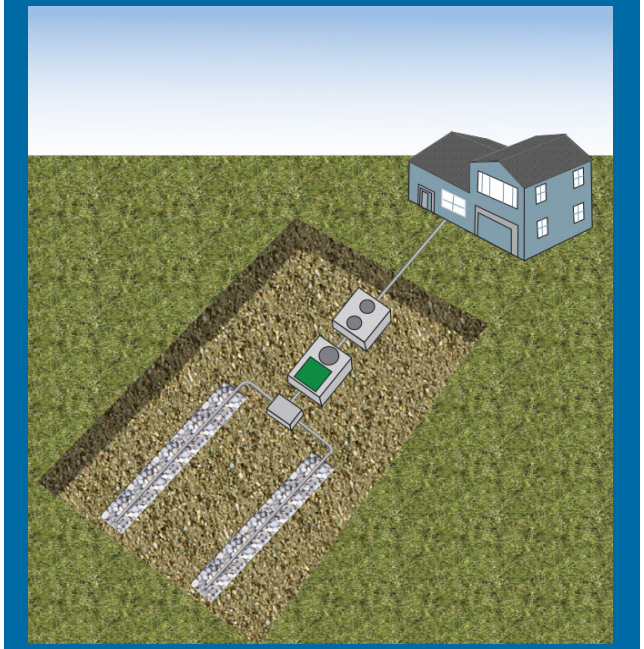
Aerobic Treatment Systems and Drainfields:

What You Need to Know

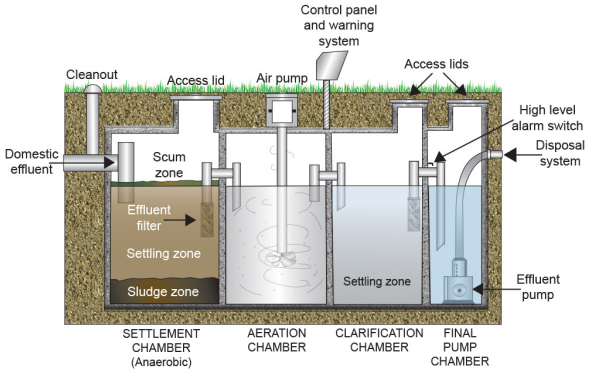


For homeowners, real estate professionals, and developers

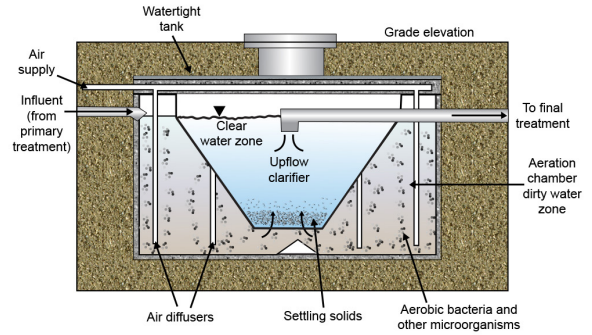
Idaho Department of Environmental Quality
www.deq.idaho.gov

What is an Aerobic Treatment System?

An aerobic treatment system is a form of on-site wastewater treatment that is used to augment a traditional septic system in areas of ground water sensitivity.



Like septic systems, aerobic systems must have a tank to settle out nonbiogradable solids and float oils, fats, and greases. Unlike septic systems, aerobic systems mix air with the clarified effluent, so oxygen-loving bacteria can quickly clear up the remaining nutrients prior to discharge to the drainfield.



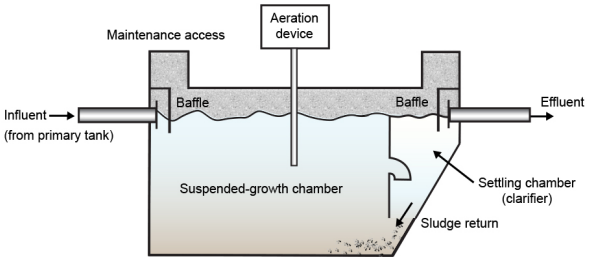
Adding oxygen yields a higher degree of treatment, making aerobic treatment a potential option when a septic system is not possible because of limited space, poor soil characteristics, or high ground water.

Types of Aerobic Systems

Aerobic treatment systems adapted for on-site use include suspended growth, fixed film, and trickling filter units.

Suspended Growth Unit

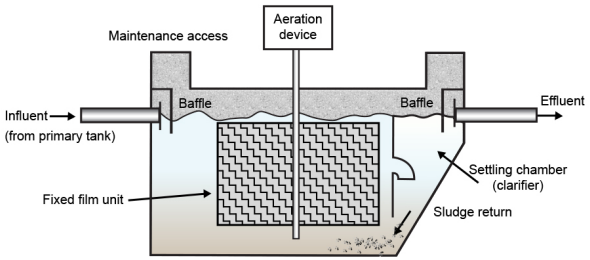
In a suspended growth unit, microorganisms that break down wastes are suspended in the wastewater and consume pollutants to create additional biological mass (biomass), releasing carbon dioxide, water, and energy as byproducts.



Biomass exiting the treatment chamber settles and returns while clarified wastewater effluent proceeds to a drainfield for final treatment.

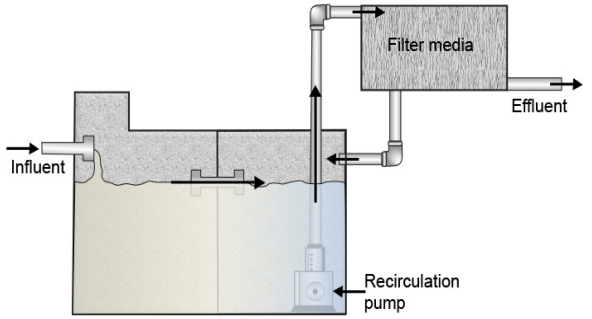
Fixed Film Unit

In a fixed film unit, microorganisms are attached to an inert structure, such as a plastic lattice, where they consume waste, converting it into nonpolluting biomass and byproducts.



Trickling Filter Unit

In a trickling filter unit, the microorganisms grow on media contained in a tank, and the pretreated wastewater is sprayed over this media. As the water *trickles* down, the microorganisms consume the pollutants.



Advantages and Disadvantages of Aerobic Treatment Units

Advantages of aerobic treatment units include the following:

- A higher level of treatment than septic systems, which may make a smaller drainfield possible
- May work when the soil or ground water level will not support a standard septic system
- Help reduce environmental impacts

Disadvantages of aerobic treatment units may include the following:

- Additional expense for equipment and maintenance
- Additional complexity, including the need for electricity