

For More Information

Idaho Department of Environmental Quality

1410 N. Hilton

Boise, ID 83706

(208) 373-0502

www.deq.idaho.gov

www.deq.idaho.gov/water-quality/wastewater/septic-systems.aspx

www.deq.idaho.gov/technical-guidance-manual

www.deq.idaho.gov/extended-treatment-package-systems

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

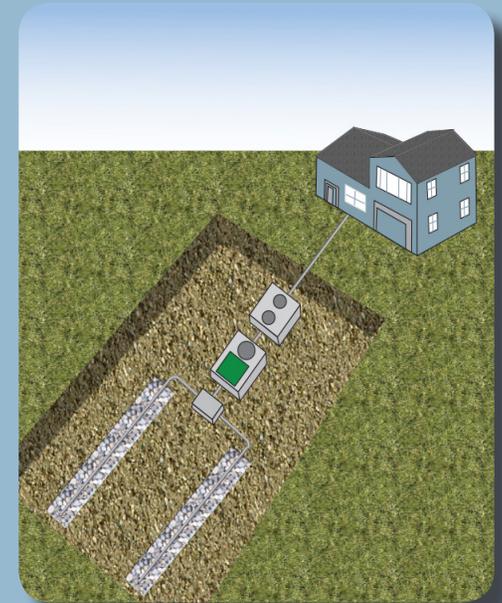
Idaho Falls, ID 83401

(208) 522-0310

www.phd7.idaho.gov

Extended Treatment Package System:

What You Need to Know



For system owners, real estate professionals, and developers



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



Printed on recycled paper, DEQ, April 2014, PID 0205, CA 30060. Costs associated with this publication are available from the State of Idaho Department of Environmental Quality in accordance with Section 60-202, Idaho Code.

What is an Extended Treatment Package System?

An extended treatment package system (ETPS), also referred to as an aerobic treatment unit, 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, ETPSs must have a septic tank located prior to the ETPS unit to settle out nonbiodegradable solids and float oils, fats, and greases. Unlike septic systems, ETPSs mix air with the clarified effluent, so oxygen-loving bacteria can clear up the remaining nutrients prior to discharging effluent to the drainfield.

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

Types of Extended Treatment Package Systems

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

Suspended Growth Unit

In a suspended growth unit, microorganisms are suspended in the wastewater where they consume waste, converting it into nonpolluting biomass and byproducts. Biomass exiting the treatment chamber settles in a clarifying chamber and returns to the treatment chamber while clarified wastewater effluent discharges 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 filter media contained in a tank, and the pretreated wastewater is sprayed over this filter media. As the water trickles down the filter media, the microorganisms consume the waste converting it into nonpolluting biomass and byproducts.

Advantages and Disadvantages of Extended Treatment Package Units

Advantages of ETPS units include the following:

- A higher level of treatment than standard 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 ETPS units may include the following:

- Additional expense for electricity, equipment, operation, maintenance, and monitoring.
- Additional complexity.
- Annual reporting responsibilities.

Operation and Maintenance Requirements

Unlike standard septic systems, owners of aerobic treatment systems must belong to an operation and maintenance (O&M) entity. An O&M entity is a nonprofit corporation that manages the operation, maintenance, and monitoring of their member's ETPS units. To ensure that the O&M entity has full access to the treatment system for operation, maintenance, and monitoring, the owner must provide the O&M entity an easement. The easement is recorded on the property deed by the county clerk along with a membership agreement between the property owner and the O&M entity. The member agreement also outlines the services provided by the O&M entity for their members and details the annual membership fees. Each member pays into a fund used by the O&M entity to provide the following:

- Operation and maintenance of member systems.
- Effluent testing of member systems.
- Compilation and submission of an annual report to the Idaho Department of Environmental Quality and Idaho Public Health Districts on behalf of their members detailing the operation and maintenance activities and effluent testing results for each O&M entity member's ETPS unit.

For information on ETPS unit maintenance, see DEQ's brochure *Extended Treatment Package System Maintenance: What You Need to Know*.