



LAKE COUNTY ENVIRONMENTAL HEALTH

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Wastewater Treatment Systems General Requirements

Installation or Alteration Permit

All wastewater treatment systems installed, constructed, altered or repaired on fee status land in Lake County must have a valid Installation or Alteration Permit issued by Lake County Environmental Health prior to the start of construction.

Repairs and/or maintenance may be made to a wastewater treatment system without first obtaining an Installation or Alteration Permit, provided that the proposed repairs are replacing a broken sewer line, pumping the septic tank or cleaning the effluent filter. Check with Lake County Environmental Health before undertaking any other work on a wastewater treatment system.

Obtaining a Permit

To obtain an Installation or Alteration Permit, the owner of record or their agent must complete the application form provided by Lake County Environmental Health. The applicant must complete the form to the best of their ability and have it signed and dated by either the owner of record or their authorized agent.

Each application must include:

1. Name, address, and phone number of the property owner(s).
2. Legal description of the property.
3. The structures or facilities served by, but not necessarily connected to the system and the total number of bedrooms for each structure or facility. Detailed floor plans for each level, including basements, of any structure or facility with living space that will be connected to or served by the wastewater treatment system.
4. Water supply information.
5. Water treatment units.
6. Lot layout consisting of:
 - a. Scale (for example: 1 inch=20 feet)
 - b. North directional arrow
 - c. Property lines
 - d. Existing and proposed structures or facilities
 - e. All existing or proposed wells and/or water sources on the property and/or within 100 feet of the property lines
 - f. All streams, lakes, springs, ponds, irrigation ditches, and other surface water sources on the property and/or within 100 feet of the property lines
 - g. Driveways, parking areas
 - h. Utility lines
 - i. Any existing wastewater facilities
 - j. Direction of slope on the property
7. Design specifications for the wastewater system including contact information of

- designer.
8. Soil profile information.
 9. Percolation test results, if required.
 10. Groundwater monitoring results, if required.
 11. Non-significance determination.

Alteration Permit

If a person is not making any physical changes to the wastewater treatment system but is changing the flow, an Alteration Permit may apply. If a person is adding components to a wastewater treatment system, an Alteration Permit may apply. **Alteration** *“shall mean physically changing a sewage treatment system by lengthening, shortening, widening, building structures over or changing the flow into a system by changing use of a living unit. Changing the use of a living unit or commercial unit may include, but is not be limited to, adding living quarters, adding structures or changing the use in such a manner as to alter the wastewater characteristics for which the system was permitted. This shall not be construed to mean changing dwellings in a campground or a trailer court currently licensed by the State Department of Public Health and Human Services. Conversion of a campground to a mobile home park shall be considered an alteration requiring Department approval. Alteration shall also mean the conversion of an existing living unit into multiple units. The Department has the sole discretion to determine if an enlargement, change in use, or circumstance is an increase in use or alteration”*.

No person may install, alter, repair, or replace a wastewater treatment system unless the Department has issued an Installation or Alteration Permit. **An Alteration Permit cannot be issued for a wastewater treatment system that does not have a valid Use Permit issued by the Department.** Check with Lake County Environmental Health for an application and to determine if the system has a valid Use Permit. If the existing wastewater system is not adequate for the proposed use and the property owner elects to pursue the change, the owner will be required to apply for an Installation Permit and upgrade the system in accordance with the Installation Permit. The Alteration Permit fee will be applied toward the Installation Permit fee.

Fees

A permit fee must accompany the completed application when submitted to the Department for review. Checks are payable to the Lake County Environmental Health Department. Fees are as follows:

Installation/Use Permit	\$300.00
Second or Subsequent Inspection	\$100.00
Alteration-No New Components Needed	\$100.00
Alteration-New Components Needed	\$200.00
Site Evaluation	\$200.00

If the applicant initiates a change in the wastewater treatment system design after it is approved by the Department, a second Installation/Use Permit fee must be submitted prior to the second review or alteration of the design.

Montana Certificate of Subdivision Approval

The majority of septic system applications submitted to our office are on lots that have a Montana Certificate of Subdivision Approval, also called state septic approval. State septic approvals include a lot layout that shows the well location, well isolation zone, and drainfield location. When a sanitarian permits a system on a lot with a state septic approval, the drainfield

and well **must be** located in the same location and orientation as shown on the approved lot layout.

If the lot owner wants to alter the drainfield or well location or orientation, they must submit additional information and pay additional fees to the Montana Department of Environmental Quality to re-write the state septic approval. If a wastewater treatment system is installed in conflict with the state septic approval, the system must be re-installed in the correct location. If a well is drilled in conflict with the state septic approval, the well must be re-drilled in the correct location. Otherwise, the owner may apply for a re-write of the State Septic Approval, and be granted approval if the change meets the state requirements.

Building locations are variable and determined by the property owner after considering the drainfield location, well location, and access roads.

Landowners, builders, installers, and well drillers are advised to contact our office for information on state septic approvals or how to change the approved lot layout if necessary.

Setback Requirements

The components of any wastewater treatment system must be located so as to comply with the minimum separation requirements in accordance with A.R.M. 17.36.918 as shown in the following table:

<i>Note: All measurements are in feet.</i>	Sealed components (1) Other components (2)	Absorption Systems (3)
Public or Multiple-user Drinking Water Wells/Springs	100	100
Individual and Shared Drinking Water Supply	50	100
Other wells (4)	50	100
Suction lines	50	100
Cisterns	25	50
Roadcuts/Escarpments	10 (5)	25
Slopes > 35% (5)	10 (5)	25
Property boundaries (7)	10	10
Subsurface drains	10	10
Water mains (8)	10	10
Drainfields/Sand Mounds (3)	10	--
Foundation Walls	10	10
Surface water, Springs	50	100
Floodplains	-- (1) 100 (2)	100

- (1) Sealed components include holding tanks, sealed pit privies, and the components addressed in Circular DEQ-4, Chapters 4 and 5. Holding tanks and sealed pit privies must be located at least ten (10) feet outside the floodplain or any openings must be at least two (2) feet above the floodplain elevation.
- (2) Other components include the components addressed in Circular DEQ-4, Chapter 7.
- (3) Absorption systems include the systems addressed in Circular DEQ-4, Chapter 6.
- (4) Other wells include, but are not limited to, irrigation and stock watering, but do not include observation wells as addressed in Circular DEQ-4.
- (5) Sewer lines and sewer mains may be located in roadways and on steep slopes if the lines and mains are safeguarded against damage.
- (6) Down gradient of the sealed component, other component, or drainfield/sand mound.
- (7) Easements may be used to satisfy the setback to property boundaries.
- (8) Sewer mains that cross water mains must be laid with a minimum vertical separation distance of 18 inches between the mains.

Site Visit

Upon receiving the completed application(s) and appropriate fee(s), a Sanitarian from Lake County Environmental Health will visit the building site. Proposed well and drainfield locations shall be staked and labeled for the on-site visit and must remain so staked through the final inspection.

Designing the System

All wastewater treatment systems must be designed by a professional engineer or a registered sanitarian in private practice. A wastewater treatment system design shall include a plan of the proposed system to be installed, with substantiating data attesting to its compliance with the minimum standards set forth in these regulations, to the Department for review, approval and permitting prior to installation.

If the applicant initiates a change in the design after approval or issuance by Lake County Environmental Health, the original installation permit is invalidated and a second installation/use permit fee must be submitted prior to the second review or alteration of the design.

The Department will require a wastewater treatment system be designed by and installed under the seal of a professional engineer when the system:

1. Has a specific public or environmental health concern.
2. Is located on a parcel with challenging site conditions.
3. Design incorporates a lined retaining wall greater than 24 inches in height.
4. Is an experimental system.
5. Serves a commercial or industrial establishment.
6. Has a design flow greater than 2500 gallons per day.
7. Is a multi-user or public wastewater system.

Installers

All wastewater treatment systems installed and/or repaired in Lake County must have all work performed by or under the supervision of a wastewater treatment system contractor licensed to perform work in Lake County.

A property owner of record may install their own wastewater treatment system at their primary residence, provided they successfully complete the Lake County Wastewater Treatment System Installer Exam and pay associated fees.

Installing the System

The installer must construct the system as approved by the Lake County Environmental Health Department and specified in the design and any related installation manual. Always refer to the manufacturer's instructions on installing specific components. Any deviation from the design in respect to type, components, specifications, size, configuration, orientation, etc. shall be approved by the Project Sanitarian.

It is the responsibility of the installer to make sure all setback requirements are met. In the event the installer discovers a situation that will prevent the system from being installed as designed, it is the responsibility of the installer to halt further construction and contact Lake County Environmental Health.

Please note that, because Lake County Environmental Health does not supervise system installation and does not have direct control over how the system is used and maintained, the department will not make any guarantee as to the life of an installed system or any of its components.

Final Inspection and Permit Issue

Upon completion of the system and prior to backfilling, the installer must contact the system designer and Lake County Environmental Health for a final inspection. A minimum of forty-eight (48) hours notice is required. A representative of the Department will inspect the system for compliance with regulations.

Provided the system was installed as designed and is in compliance with regulations, a Use-Permit for the system will be issued. **It is strictly prohibited to use any new and/or repaired system that does not have a valid Use-Permit issued by Lake County Environmental Health.**

Other Permits: Zoning Conformance or Building Notification

In some cases, wastewater treatment system applicants must first obtain the appropriate Zoning Conformance or Building Notification Permit prior to building a structure. These permits are available at Lake County Planning, 406-883-7235, <http://www.lakemt.gov/planning>. Applicants are encouraged to apply for all the necessary permits at the same time.

System Maintenance

Property owners should have their septic tanks pumped every three to seven years, depending on use. The use of garbage disposal units will require the system to be pumped more frequently. Failure to have the septic tank pumped on a regular basis will decrease the life of the drainfield.

Note that systems with effluent filters prevent most solids from passing to the drainfield. Effluent filters should be inspected and cleaned at least **once a year**. When filters become clogged, effluent will no longer be able to flow to the drainfield and sewage may possibly back-up into the structure or may cause system failure. Should this occur, have the tank pumped if needed and/or the filter cleaned.

Leaking water fixtures will dramatically decrease the life of the drainfield. A toilet that appears to have only a minor leak will produce in excess of 100 gallons of water per day. The drainfield is not designed to accommodate the extra flow.

Lake County Environmental Health strongly discourages the use of septic tank additives. The use of these products can substantially decrease the life of the drainfield.

It is strictly prohibited to alter, remove components, or to increase flows above the levels the septic system is designed to accommodate. Lake County Environmental Health must approve all alterations to wastewater treatment systems prior to the change.

Water Softeners

Backwash from water softeners, foundation drainage, and storm water runoff, may not be discharged into the wastewater treatment system. Contact the department for alternative disposal methods.

Vehicular Traffic Restricted

No component of the wastewater system may be located under driveways, roads, parking areas, or locations subject to heavy loading and no vehicles may be driven over the system after installation unless those portions have been properly installed to accept traffic loads. **Non-compatible activity over the wastewater treatment system may void the Use Permit.**

Vegetation In and Around the Drainfield

Vegetation is an important component in the treatment and disposal of sewage effluent. The uptake of effluent by plants is called transpiration. Evaporation-Transpiration-Absorption (ETA)

systems are particularly dependent upon transpiration to treat and dispose of sewage effluent. However, certain types of plants with intrusive root systems can clog septic system components.

Research indicates Colorado Blue Spruce trees are an excellent choice to plant alongside drainfields or beds. Provided that tillage is done carefully and by hand, some gardens can also be planted over drainfields. **However, do not plant subterranean vegetables (those with edible parts below ground) intended for human consumption in or near a drainfield.** Trees and shrubs should be planted on the north and/or east side of a drainfield to allow the full effect of the sun's rays to maximize evaporation.