

Underground Wastewater Disposal Permit Requirements

Application for an underground wastewater disposal permit can be made after the parcel is approved and recorded as a building lot and an approved source of culinary water is provided. The percolation rate and number of bedrooms are used to calculate the square footage of the absorption field. The septic tank size is determined by the number of bedrooms. The maximum trench depth is determined by both the soil characteristics and maximum ground water table.

Permits for Conventional, At-Grade, or Earth-fill systems can be issued after a review of the application and calculations for the absorption field, septic tank size, and maximum trench depth are completed and submission of the appropriate fees. In order to expedite the process, it is helpful to call the day before with pertinent information so that the permit can be “pre-approved” (see checklist IV). You can then come to this office at your convenience rather than set an appointment with a specific individual or take your chance on dropping in at the right time.

Permits for a Mound system can be issued only after a review of the engineered plans for each individual system. Allow five working days for review of the engineered plans. Lists of certified designers and installers are included with this packet. These systems are to be installed only by certified installers.

When you receive your Permit to Construct a wastewater disposal system, take a few minutes to review the information printed. Make sure you understand the requirements for installation and inspection. Also, note the permit number in the upper left corner. Refer to this number any time questions arise in relation to installation or when calling for inspections. Provide a copy of this permit to the installer of the system. It is important that he is aware of all details relative to the installation of each wastewater disposal system. The permit is valid for a period of one year.

The fees for underground wastewater disposal systems vary relative to the amount of effort involved in review of engineered plans, inspection requirements, and continuing Operation and Maintenance inspections. The fee schedule is as follows:

Conventional	\$175.00
Seepage Trench	\$250.00
At-Grade	\$250.00
Mound	\$350.00
Renewal	\$75.00

HB 14, passed by the legislature in the 2001 session, created a \$25.00 fee for all new underground wastewater disposal systems, beginning July 1, 2001. These fees will go into a new State restricted account to be used for the training, testing, and certification programs at the on-site training center at Utah State University.

A Certificate of Final Approval will be issued only after full compliance with the requirements of the permit.

Operation and Maintenance

Operation and Maintenance (O&M) inspections for Alternate systems are currently conducted by this office. During the inspections, field personnel are making observations of the condition of the absorption field and pump chamber (Mound only). The types of observations are listed below:

Absorption Field

1. Overall maintenance of the absorption field
2. Types and condition of vegetation over and near the absorption field
3. Evidence of erosion or settling on the absorption field
4. Evidence of ponding or breakout of effluent on or near the absorption field
5. Levels of any ponding in the absorption trenches observed in the observation ports
6. Notations of biomat development
7. Evidence of uniform distribution of effluent
8. Evidence of traffic or animals on the absorption field

Pumping System

1. Evaluation of pump operation
2. Evaluation of float system
3. Evaluation of control panel
4. Calculations to determine actual effluent pumped to absorption field
5. Comparison of pump operation to actual water usage.

You may also be asked to complete a Residential Evaluation that contains questions related to your knowledge of the components of the system and water use practices within the home. Most people are interested in assuring that their system functions in a reliable manner for as long as possible and find that this questionnaire provides useful insights into the function of the various components of an on-site wastewater disposal system.

Types of Individual Wastewater Disposal Systems

Conventional

A conventional absorption field is located below the original ground surface and can be permitted on sites in which the maximum ground water table rises to no higher than 34 inches below the original ground surface and the naturally occurring soil characteristics percolate in the range of 1 to 60 minutes per inch (in the upper Ogden Valley this range is 5 to 60 minutes per inch) to a depth of not less than four feet below the bottom of the proposed absorption field. Generally, conventional systems are the simplest and, therefore, least costly systems. Absorption fields, absorption beds, and seepage trenches are different types of conventional systems.

Alternative Systems

In areas with soil limitations or where the maximum ground water elevation is less than thirty-four inches below the original ground surface, there are three types of alternate system: Earth Fill systems, At-Grade systems, and Mound systems. A brief description of the requirements for each follows.

Earth Fill Systems

Earth Fill systems fall into two categories: excavation and soil replacement and fill over existing soil. The requirements are:

1. The prevailing site grade cannot exceed 4 percent.
2. A stabilization period of one year is required.
3. The percolation rate in the fill following the stabilization period must fall within the range of 15-45 MPI.
4. The fill area shall be large enough to accommodate the original absorption field and replacement area sized for 60 MPI percolation rate.
5. The maximum ground water table cannot rise to a level higher than 12 inches below the original ground surface.
6. Three feet of suitable original soil with a percolation rate within the range of 5-60 MPI shall exist in the natural state below the area of fill.
7. The maximum depth of fill cannot exceed 6 feet.
8. Operation and Maintenance inspections will be conducted on an annual basis.

At-Grade Systems

An At-Grade system is a gravity fed system in which the absorption field is installed at the surface of the original ground. The requirements for this type of system are:

1. The prevailing site grade cannot exceed 4 percent.
2. Suitable soil must exist to a depth of not less than 48 inches below the original ground surface.
3. The maximum ground water table cannot rise to a level higher than 24 inches below the original ground surface.
4. Operation and Maintenance inspections will be conducted on an annual basis.

Mound Systems

The Mound system is a pressure-dosed system with a time-dosed control panel rather than dosing by demand. This system utilizes "high-tech" sand as the filter media. This sand is costly which makes this type of system considerably more expensive than either a Conventional or At-Grade system. The requirements for this type of system are:

1. The prevailing site grade cannot exceed 4 percent.
2. Three feet of suitable soil in the natural state shall exist below the Mound.
3. The maximum ground water table cannot rise to a level above 12 inches below the original ground surface.
4. Operation and Maintenance inspections will be conducted on a semi-annual basis.