Many of the soil types that are indicative to Northwest Georgia and the surrounding area have formed soil conditions which support the occurrence of wet weather springs and perched water tables. Some soil types in our area contain a restrictive soil horizon or restrictive layer located at 20-40 inches, which decreases the downward movement of water through the soil. Other soil types in our area form a restrictive layer, known as a hard pan, that are often located at depths of 3-4 feet. Hard pans consist of a hard cemented layer made up of soil minerals and salts, which have been dissolved by groundwater and later deposited when the groundwater has become completely saturated. Since the installation depths for conventional field lines generally occur between 24-36 inches, they can be susceptible to the effects of groundwater caused by restrictive soil horizons or hard pans present in the soil. However, groundwater problems can sometimes be resolved if they are dealt with ahead of time through the use of curtain drains. A curtain drain is a gravel trench containing a pipe that is installed above the septic to intercept the ground water and outlet it below the system. The pictures below show how a properly designed curtain drain works. As part of permitting process the state of Georgia requires that a soil report must be conducted by certified soil scientist to identify the soil type and the conditions associated with that soil. When a soil scientist identifies the presence of certain soil conditions, they will require the installation of a curtain drain to deal with the potential ground water problems associated with that soil type.

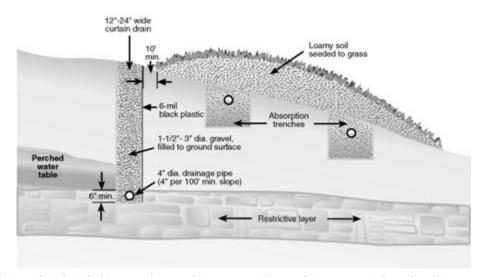
Curtain drain above trenches diverts water moving laterally and discharges it to the surface

964'

962'

Absorption trenches

*The setback minimum above the system is 15 feet not 10 feet in the state of Georgia



*The setback minimum above the system is 15 feet not 10 feet in the state of Georgia

The side view of the curtain drain shows the curtain drain going into the restrictive layer, which forces the ground water in the perched water table to follow the gravel into the drainage pipe that will outlet at a point below the septic system. The gravel trench is also lined with a plastic lining on the downhill slope to prevent the ground water from bleeding through. The side view also shows the installation of additional soil called a berm to shed off any surface water that may be affecting the system. With a properly constructed berm, surface water can also be drained through the curtain drain to a point below the septic system.