

Another Conservation Success Story...

Chattahoochee County, Georgia

February 2008

A Look Back In Time

The Buena Vista Field Office staff, Soil Scientist Alfred Green, and State Soil Scientist Edward Ealy assisted the Unified Government of Chattahoochee County in locating and marking over 80 old unmarked graves in the Mount Olive Cemetery in the City of Cusseta.

Wes Tuttle, Soil Scientist with National Soil Survey Center in North Carolina, utilized Ground Penetrating Radar (GPR) to identify soil disturbances and other features which indicated the burial sites.

The investigation was done to prevent the disturbance of any existing graves and to determine the extent of any remaining available areas for new grave sites. As suspected, the cemetery is virtually filled to capacity and the County will need to find another site soon.

While the exact age of the Mount Olive Cemetery was not known at the time of this investigation, it was noted however that there were headstones dating back to 1853.

Ground Penetrating Radar

Ground-penetrating radar (GPR) is widely used by a diverse group of service providers that include agronomist, archaeologists, criminologists, engineers, environmental specialists, foresters, geologists, geophysicists, hydrologists, land use managers, and soil scientists.

In recent years, GPR has gained recognition in the search for terrorism and military hazards. A common concern of GPR service providers is whether or not GPR will be able to achieve the desired depth of penetration in the soils of a project area.

In many soils, high rates of signal attenuation severely restrict penetration depths and limit the suitability of GPR for a large number of applications. In saline and sodic soils, where penetration depths are often less than 10 inches (Daniels, 2004), GPR is unsuited to most applications.

In wet clays, where penetration depths are typically less than 40 inches (Doolittle et al., 2002), GPR has very low potentials for most applications. However, GPR is highly suited to most applications in dry sands and gravels, where penetration depths can exceed 160 feet with low frequency antennas (Smith and Jol, 1995).



Pictured L-R; Wes Tuttle, Soil Scientist with the National Soil Survey Center, Lewis Fokes, District Conservationist, and Alfred Green, Soil Scientist.



The Ground Penetrating Radar unit is pulled along a line of flags as the operator looks for disturbances in the soil profile which indicates a potential gravesite.

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**Pine Mountain Soil And Water
Conservation District**