Wetland Function Versus Value: Impact of Anthropogenic Activity at the Camp Shelby Training Site, Hattiesburg Mississippi

Ian Floyd[1], Thomas Orsi[2], and David Patrick[2]

[1]Department of Geology, Centenary College, Shreveport, Louisiana

[2]Department of Geology and Geophysics, Louisiana State University, Baton Rouge, Louisiana

ABSTRACT

The importance of wetlands has become increasingly recognized over the last few decades. Wetlands play an important role in ecosystems for three major reasons: water storage, water filtration, and biological productivity. Altering any of these criteria can affect the wetland's function, leading to environmental problems and a decrease in wetland value. This study is a comprehensive look into the response and recovery of an anthropogenic induced sediment infill of a bottom land hardwood wetland at the Camp Shelby Training Site (CSTS) in Perry County, Mississippi. Lack of sediment control structures (sediment fences and matting), combined with high rainfall, lead to erosion within and around the Multi Purpose Range Complex-Heavy (MPRC-H) during its construction. Deposition of sediment affected approximately 50 acres of wetlands that have been monitored since the event occurred in 2005. To better understand the recovery process, the study area will be compared to a control wetland site with similar, but natural environmental characteristics. Groundwater geochemistry and infiltration rates will be compared to determine the effects of the sediment infill on the wetland. This data will enable wetland managers and scientists to better understand the impact of sediment infill and how they translated to the decrease or increase in wetland value.

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