



SOIL AND PLANT SCIENCE DIVISION

Technical Soil Services

South Central Soil Survey Region

Nacogdoches, Ruston, and Pine Bluff Major Land Resource Area (MLRA) Soil Survey Offices (SSOs)

Lamar County, Texas, Pond Determination

Purpose

Staff in the South Central Soil Survey Region conducted a pond site determination in northeast Texas to identify areas suitable for the construction of a water-retaining structure for livestock (fig. 1).

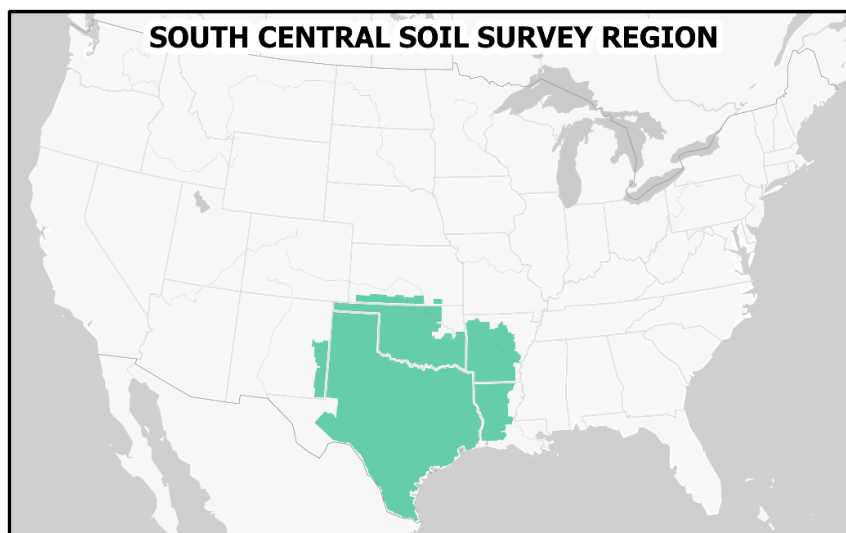


Figure 1.—Map of the South Central Soil Survey Region.

Background

Cattle remain the dominant livestock raised in northeast Texas, so it is important to ensure that livestock operations have adequate water supplies. Cost-shared ponds are one of the most common NRCS practices sought by producers in this area.



In early December, a Lamar County, Texas, producer approached the local field office for water structure advice. Sara Russell, a soil scientist with the Nacogdoches, Texas, MLRA SSO, teamed up with Ryan Eatherly, a civil engineering technician from Paris, Texas, to conduct a site investigation of the producer's property (fig. 2).

During the assessment, staff evaluated soil properties including clay percentage, fragment presence, and bedrock depth to identify if the soil was conducive for pond construction. Depth to bedrock and fragment presence are water-retention structure concerns for this area of Texas.



Figure 2.—Location of the potential pond site.

Key Outcomes

The property did not prove to be conducive for a pond due to the presence of fragments and the intrusion of bedrock. To circumvent these issues, staff recommended a pipe and water trough system to the producer to provide adequate water for the cattle.