USDA United States Department of Agriculture

Natural Resources Conservation Service

Soil Science Division

Southeast Coastal Plain and Lower Mississippi River Valley Soil Survey Region

Meridian, MS, MLRA Soil Survey Office

Assistance for *Advanced Hydric Soils for Soil Scientists* Training Course

Purpose

Training ensures that employees are technically sound and adequately informed of policy to properly facilitate the mission of NRCS. Soils-related training is a priority for many soil scientists at all levels. It typically is conducted by a national cadre of instructors. Soils training commonly includes instruction and other activities in the field that are coordinated and organized by staff of local offices. The *Advanced Hydric Soils for Soil Scientists* course is conducted in three states—Mississippi, Wisconsin, and New Mexico. The host state is rotated annually. In 2018, the course was held in Meridian, Mississippi, and assistance was provided by staff of the Meridian MLRA Soil Survey Office. The assistance was led by Christopher Hatcher and Joxelle Velazquez-Garcia. In support of the NRCS Technical Soil Services, the staff networked with NEDC coordinators and local government officials, gained access to properties, selected field sites, and guided NEDC instructors and course participants in the field. The goal was to ensure that the training provided participants the technical knowledge to enhance their effectiveness in carrying out the mission the agency.

The *Advanced Hydric Soils for Soil Scientists* course provides soil scientists and staff of related disciplines the skills to accurately identify hydric soil indicators and properties and redoximorphic features. It also provides training in delineating hydric soils. At the completion of the training, participants should understand the pedogenic processes in hydric soils, the regional groundwater and surface water relationships, and how hydric soil interpretations are developed. They should be able to install monitoring equipment to quantify wetland for mitigation, restoration, and enhancement.

Reduced iron (Fe2+) shown by strong reaction (red areas) to alpha-alpha-Dipyridyl solution applied to a soil ped.

High water table near the surface of a soil that consists of highly decomposed acid organic material.

This course prepares soil scientists, hydrologists, and biologists to accurately identify hydric soils, which is one of the three criteria for identifying and delineating wetland.

Participants discussing features of and criteria for hydric soils.

Participants installing groundwater monitoring equipment.

Key Outcomes

Sixteen participants, including soil scientists and staff from other disciplines, successfully completed the course and passed the examinations. The participants were from Alabama, Alaska, Arkansas, Colorado, Georgia, Kentucky, Mississippi, Oregon, Tennessee, and Virginia. The course provided the foundation and framework for the participants to make well-informed, science-based decisions for conservation planning in their individual regions throughout the country. It also provided them the skills to develop and implement the rationale needed to correlate programs and conservation practices when science-based land applications and policy are intertwined in decision making. It provided them the technical expertise to identify characteristics, limitations, and situations that need additional evaluation or an alternate plan of action to ensure the wise use of the Nation's natural resources and accomplish the mission of NRCS.

2018 participants and instructors.