

Natural Resources Conservation Service

## Soil Science Division

Soil Survey Region 6



### Clinton and Cookeville, TN, MLRA Soil Survey Offices

## Tennessee Tests the Ecological Site Framework to Support Conservation Planning for All Land Uses

### Purpose

The Ecological Site/Conservation Planning Team recently evaluated the potential to better use ecological site information, including ecological site descriptions (ESDs) and state-and-transition models (STMs), in the 9-step conservation planning process for all land uses. ESDs provide land managers information needed to evaluate their land as to its suitability for various land uses, capability to respond to different management activities or disturbance processes, and ability to sustain productivity over the long term. STMs describe in concise terms the potential plant communities, alternative states (e.g., crops, pasture), range of resource conditions (e.g., states, phases), and processes (e.g., time, triggers, successions, disturbances, management activities/practices) relating to transitions for each land use.

The recently approved white paper, *Ecological Site Framework to Support Conservation Planning on all Land Uses*, requires that proposed concepts be applied at four locations across the U.S. This will test these concepts on ecological sites that have multiple land uses; aid in developing practical, simple, and useful products for conservation planners and clients; and provide needed data for the ongoing development of the Ecosystem Dynamics Interpretive Tool (EDIT) and the Conservation Delivery Streamlining Initiative (CDSI) Conservation Desktop. The State of Tennessee was selected as one of the four locations. During the last week of August 2018, staff of NRCS-Tennessee hosted Mike Kucera, SSD-NSSC agronomist and Ecological Site/Conservation Planning Team leader, for a brainstorming session and initial evaluations. A full week of field days followed the brainstorming session. Three MLRAs in Tennessee were selected for evaluation—MLRAs 134, 123, and 128. Barry Hart, Anita Arends, and Belinda Ferro, ecological site specialists, selected properties for field visits and planned field days in each MLRA, respectively.



Anthony Khiel, NRCS-Tennessee Area 4 resource soil scientist, and Mike Kucera, NRCS-NSSC agronomist, exit a cornfield in Jefferson County, TN, in MLRA 128.





**Patricia Thurman, NRCS-Tennessee State agronomist; David Barker, cartographer, Cookeville MLRA Soil Survey Office; Gabe Krantz and Preston Evans, soil scientists; and Mike Kucera, NRCS-NSSC agronomist, visiting a pasture in MLRA 123.**

## Key Outcomes

NRCS-Tennessee helped to launch this pilot project. The brainstorming session included staff from the State office, area offices, and MLRA soil survey offices as well as national NRCS staff and National Cooperative Soil Survey (NCSS) cooperators. Field visits in the three MLRAs were productive. Multiple land uses were identified that could be incorporated into agricultural state-and-transition models. Quarterly meetings will be held to maintain momentum on this project. The first one was scheduled for October 2018.