



USDA Forest Service Watershed, Fish, Wildlife, Air and Rare Plants Briefing Paper

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Topic: Revision of FSM 2060 to incorporate the Rangeland Interagency Ecological Site Manual (RIESM) and the National Hierarchical Framework of Ecological Units.

Issue: The Natural Resource Conservation Service (NRCS), Bureau of Land Management (BLM), and Forest Service (FS) have developed a policy and technical direction for implementing an interagency system of classifying and mapping rangeland ecological site descriptions. A key component of implementing the RIESM is officially recognizing the National Hierarchical Framework of Ecological Units (NHFEU) as the Agency's ecological framework in developing ecological sites on NFS lands.

Background: At the request of the U.S. Congress, a Memorandum of Understanding was entered into by BLM, FS, and NRCS to develop a standardized method for defining and delineating rangeland ecological sites. Subsequently, a Federal Interagency Team developed the RIESM. The overall goal is to improve the ability to manage landscapes in a coordinated manner across ownership boundaries by implementing a consistent system for defining, mapping, and interpreting ecological sites of the nation's shrub and grassland ecosystems.

Ecological site descriptions are defined and mapped using a hierarchical, multi-factor system that is conceptually comparable to the Agency's NHFEU. The NHFEU is currently in use for Forest project planning and in associated inventory, i.e., Terrestrial Ecological Unit Inventory (TEUI), in many Regions across the country. The system is also used nationally as analysis and reporting units by FIA, FHM, LANDFIRE, TNC, and NATURESERVE, as well as numerous state agencies. Ecological site descriptions present an opportunity to develop an interagency system that complements the NHFEU, builds upon past FS investments, and produces improved information for natural resource managers.

The importance of developing a nationally consistent hierarchy of ecological units was recently emphasized in the U.S. Climate Change Science Program's Synthesis and Assessment Product (SAP 4.3) on *Thresholds of Climate Change on Ecosystems*. This report states "Because climate change effects are likely to interact with patterns and processes across spatial and temporal scales, it is clear the monitoring strategies must be integrated across scales. First and foremost, the earth's surface must be hierarchically stratified (for example, using the Major Land Resource Area and Ecological Site Description System of the U.S. Department of Agriculture and National Resources Conservation Service and U.S. Forest Service ecoregions), and conceptual or simulation models of possible impacts and feedbacks must be specified for each stratum."

Key Points:

- Interagency cooperation in defining, mapping, and interpreting ecological site descriptions will produce consistent information on land capability across ownerships.
- The system is compatible with existing FS ecological mapping systems, and will improve the quality of traditional FS or NRCS soil surveys of NFS lands by incorporating other important ecological criteria such as geology, slope and aspect, vegetative indicators, etc.
- The revision of FSM 2060 provides the policy direction needed to implement the interagency manual and officially adopts NHFEU for guiding land management planning and conducting TEUI.

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