

Rangeland Interagency Ecological Site Manual

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Rangeland Interagency Ecological Site Manual (RIESM)

- Signed by the Chiefs FS, NRCS and Director BLM
- Final Signature June 14, 2010
- Six Sections
 - General
 - Purpose
 - Authorities
 - Objectives
 - Policy
 - Responsibilities

RIESM Sections

- GENERAL

- Manual is specific to ecological sites on rangelands
- Identifies common objective of science based technical process
- Highlights a common system will be more efficient and defensible
- Complements existing protocols
- Identifies that BLM FS and NRCS will seek to expand partnership

RIESM Sections

- **PURPOSE**
 - Need for common method to classify land due to intermingling or rangeland resources
 - Complement existing processes
 - Identifies the need to include other partners, federal state local agencies, organizations, and academia to further develop and implement

RIESM Sections

- **AUTHORITIES**
 - Identifies Executive Orders, US Codes and Public Laws support the agencies in this effort.
- **OBJECTIVES**
 - To implement a standardized system to define and describe a common unit for inventory, monitoring, evaluation, and management of rangeland ecosystems.
 - To provide direction for the cooperative development and application of rangeland ecological site descriptions.
 - To improve the ability to manage the landscape in a coordinated manner across ownership boundaries.

RIESM Sections

- POLICY
 - Cooperatively identify and define rangeland ecological sites for use in the inventory, monitoring, evaluation, and management of the Nation's rangelands.
 - Establish an interagency, interdisciplinary workgroup to recommend, develop, and support policy and procedures to review, approve, and provide quality control and assurance and manage rangeland ecological site description data
 - Establish minimum content requirements for Ecological Site Description:

Ecological Site Description - content

- (1) General Information including ecological site name, ecological site number, and a map identifying approximate geographic extent.
- (2) Physiographic Features including landform, geology, aspect, elevation, slope, water table, flooding, and ponding.
- (3) Climatic Features including frost-free period (length and dates), freeze-free period (length and dates), mean annual precipitation, monthly moisture and temperature distribution, and name of approved climate stations.
- (4) Influencing Water Features existing on the site or adjacent wetland/riparian ecological sites that influence vegetation and/or management of the site. Use Cowardin Wetland Classification and/or Rosgen Stream Classification terminology.

Ecological Site Description - content

- (5) Representative Soil Features that differentiate from other ecological sites, affect plant adaptation, establishment, growth, and response to disturbance.
 - (i) Use standard terminology and definitions in National Soil Survey Handbook and Soil Survey Manual.
 - (ii) Identify properties that affect plant-soil-water relationships and hydrology.
- (6) Ecological Dynamics of the Site including: states, transitions, thresholds, restoration pathways, community phases, community pathways, animal species, wildlife habitat elements, hydrology, and changes to soil properties
 - (i) Include information related to landscape scale processes: runoff, erosion, fire behavior, wildlife use, etc.
 - (ii) Discussion of temporal scale associated with transitions, community pathways, restoration pathways, and thresholds. Information about response to disturbance or management , probabilities of occurrence can be included (drought occurrence, fire frequency intervals).

Ecological Site Description - content

(7) Vegetation

- (i) Describe the most common, predominant, and/or ecologically significant states and community phases. Include description of transitions, restoration pathways, and community pathways. Include a state and transition diagram.
- (ii) Describe ecologically significant associations of plant species that indicate important environmental gradients used to differentiate sites, state, or plant community phases.
- (iii) Use standardized plant names as presented in the NRCS PLANTS database.

Ecological Site Description - content

(7) Vegetation - continued

(iv) For the reference state include a narrative description, detailed listing of plant species (scientific and common name, annual production in pounds air dry weight (ADW) per acre, and either canopy, foliar, or basal cover depending on life form), total annual production by growth form (median ADW pounds per acre per year in favorable, normal, and unfavorable years), and growth curve (monthly growth by plant species or communities).

(v) For all other states/community phases include, at a minimum, a narrative description.

(vi) Productivity of Major Tree Species –annual productivity and site index for forested plant communities occurring on rangeland ecological sites, if applicable.

Ecological Site Description - content

(8) Supporting Information

(i) Record information about the relationship other ecological sites and documentation and references used.

(ii) Identify relationships to other classification systems such as National Vegetation Classification System (NVCS).

RIESM Sections cont.

Responsibilities

- Leadership provided by Chiefs FS, NRCS and Director BLM
- FS Deputy Chief National Forest System, NRCS Deputy Chief Science and Technology and BLM Assistant Director Renewable Resources and Planning coordinate interagency policy related to Ecological Sites and establish a work group to support ESD development and use.
- Interagency workgroup develops and recommends policy, procedures and data management for development and use of Ecological Site Descriptions