Rangeland Interagency Ecological Site Manual

General

A. Although all lands are included in the spatial scope of ecological sites, this policy is specific to rangeland ecosystems and pertains only to ecological sites on rangelands regardless of their current vegetation or land use. The U.S. Department of the Interior's Bureau of Land Management (BLM), and the U.S. Department of Agriculture's (USDA) Forest Service (FS) and Natural Resources Conservation Service (NRCS) have a common objective of utilizing science-based technical processes to sustain and enhance natural resources and the environment. These agencies have utilized different methods to stratify rangeland ecosystems into units for planning, analysis, and decision making. Since private and public lands under these agencies' jurisdictions are intermingled throughout much of the United States, a standardized system to define and describe rangeland ecological sites is more efficient and defensible.

B. A Memorandum of Understanding (MOU) was entered into by BLM, FS, and NRCS to develop a standardized method for defining, delineating, and describing rangeland ecological sites. In accordance with the MOU, a Federal Interagency Team developed the Rangeland Interagency Ecological Site Manual (RIESM), defining the interagency policy to cooperatively identify and define rangeland ecological sites for use in the inventory, monitoring, evaluation, and management of the Nation's rangelands.

C. Implementation of this policy will complement existing agency protocols for classifying, describing, mapping, and the inventory of soil and ecosystems. It will facilitate the stratification of rangeland landscapes according to their ability to respond similarly to ecological stressors. BLM, FS, and NRCS will work cooperatively with other Federal, State and local agencies, organizations, and academia to further develop and implement this RIESM.

D. This policy shall remain in effect until canceled or modified by the parties in writing. It may be amended as appropriate if agreed to by all agencies.

Signed:

Robert. Abbey — 6-14-10

Director — Date
Bureau of Land Management

Thomas L. Tidwell — 6/7/2010

Chief — Date
Forest Service

Dave White — 5-20-10

Chief — Date
Natural Resources Conservation Service

Purpose

A. BLM, FS, and NRCS have a common objective of utilizing science-based technical processes to sustain and enhance natural resources and the environment. These agencies have utilized different methods to stratify rangeland ecosystems into units for planning, analysis, and decision making. Since private and public lands under these agencies' jurisdictions are intermingled throughout much of the United States, a standardized system to define and describe rangeland ecological sites is more efficient and defensible.

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Authorities

Executive Order 13352 -- Facilitation of Cooperative Conservation (69 FR 167, 52989, August 30, 2004). The purpose of this order is to ensure that the Departments of the Interior, Agriculture, Commerce, Defense, and the Environmental Protection Agency implement laws relating to the environment and natural resources in a way that promotes cooperative conservation, with an emphasis on appropriate inclusion of local participation in Federal decision making, in accordance with their respective agency missions, policies, and regulations.

(1) Bureau of Land Management (BLM)
Authorities
- The Taylor Grazing Act (TGA) of 1934 as amended (43 U.S.C. 315, 315a through 315r)
- The Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1701 *et seq.*), as amended by the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 *et seq.*).
- Executive orders that transfer land acquired under the Bankhead-Jones Farm Tenant Act of July 22, 1937, as amended (7 U.S.C. 1012), to the Secretary and authorize administration under the TGA.
- Section 4 of the Oregon and California Railroad Land Act of August 28, 1937 (43 U.S.C. 1181d).
- The Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 *et seq.*).

(2) Forest Service (FS)
Authorities
- The Forest and Rangeland Renewable Resources Planning Act of 1974 (P.L. 93-378, 88 Stat. 476, as amended; 16 U.S.C. 1601 (Note), 1600—1614 and the National Forest Management Act of 1976 (P.L. 94-588, 90 Stat. 2949, as amended; 16 U.S.C. 472a, 476, 500, 513-516, 518, 521b, 528 (Note), 576b, 594-2 (Note), 1600 (Note), 1601 (Note), 1600-1602, 1604, 1606, 1608-1614).
- Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 *et seq.*).

(3) Natural Resources Conservation Service (NRCS)
Authorities
- Soil Conservation and Domestic Allotment Act (Public Law 74-46) April 27, 1935.
- Secretary of Agriculture Memorandum 1396, April 10, 1956.
- Rural Development Act of 1972 (Public Law 92-419, Section 302).
- Soil and Water Resources Act of 1977 (Public Law 95-192 Sections 2.3. and 5).

Objectives

A. To implement a standardized system to define and describe a common unit for inventory, monitoring, evaluation, and management of rangeland ecosystems.

B. To provide direction for the cooperative development and application of rangeland ecological site descriptions.

C. To improve the ability to manage the landscape in a coordinated manner across ownership boundaries.

Policy

A. Cooperatively identify and define rangeland ecological sites for use in the inventory, monitoring, evaluation, and management of the Nation's rangelands.

B. 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.

C. The following are minimum requirements to be included in the contents of the rangeland ecological site description:

(1) General Information including ecological site name, ecological site number, and a map identifying approximate geographic extent of the ecological site.
(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.
(5) Representative Soil Features including those 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 that are expected to occur as a result of disturbances and/or stresses.
    (i) Include information related to landscape scale processes such as runoff, erosion, fire behavior, wildlife use, etc.
    (ii) Discussion of temporal scale associated with transitions, community pathways, restoration pathways, and thresholds. Where information exists about response to disturbance or management actions, probabilities of occurrence can be included (drought occurrence, fire frequency intervals).
(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 from the Integrated Taxonomic Information System as presented in the NRCS PLANTS database.

(iv) For the reference state include a narrative description, detailed listing of plant species (includes scientific and common name, normal 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.

(8) Supporting Information

(i) Record information about the relationship of the ecological site to other ecological sites and the documentation and references used to develop the rangeland ecological site description.

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

Responsibilities

A. Chiefs of FS, NRCS, and the Director of BLM will cooperatively provide the leadership to implement this policy for the Nation's rangelands.

B. The NRCS Deputy Chief for Science and Technology, the FS Deputy Chief for National Forest System, and the BLM Assistant Director of Renewable Resources and Planning are responsible for coordinating interagency leadership for policy, development, and use of rangeland ecological site descriptions. In addition, they will establish and maintain an interagency workgroup to provide support and oversight of rangeland ecological site description development and use.

C. The NRCS Director of the Ecological Sciences Division and the Soils Survey Division, the FS Director of Range Management, and the BLM Division Chief for Rangeland Resources are responsible for ensuring that the development and implementation of agency policy and procedures conform and complement this RIESM.

D. The interagency workgroup will develop and recommend policy, procedures, and data management for the development and use of rangeland ecological site descriptions. In addition, this workgroup will provide support and quality control/assurance to appropriate State and regional agency leadership, coordinating the development and use of rangeland ecological site descriptions.

E. The NRCS National Range and Grazing Lands Ecologist, FS Assistant Director for Range Management, and BLM Senior Rangeland Management Specialist are responsible for integrating the RIESM into agency-specific policy. In addition, guidance and recommendations to the agency leadership will be provided to ensure that the RIESM is appropriately integrated and implemented agency-wide.

F. The NRCS State Conservationists, FS Regional Foresters, and BLM State Directors are responsible for coordinating local development and use of rangeland ecological site descriptions. This includes cooperatively prioritizing rangeland ecological site development, developing work plans, and assigning appropriate staffs for completion of tasks, including the analysis of local needs and plans of work. Interagency and interstate correlation will be implemented when appropriate.

G. Managers and Supervisors are responsible for providing their employees and volunteers with the support, direction, and training to perform their assigned tasks in compliance with this policy.

H. Employees are responsible for familiarizing themselves with this Manual, related handbooks, technical references, and current science to work cooperatively and consistently apply rangeland ecological site descriptions.