

INTERNAL DRAFT



Appendix F

Fundamentals of Rangeland Health and Standards and
Guidelines

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Appendix F. Fundamentals of Rangeland Health and Standards and Guidelines

The Standards and Guidelines for livestock grazing on Bureau of Land Management lands in New Mexico were approved in January 2001. The standards were written to accomplish the four fundamentals of rangeland health.

The fundamentals of rangeland health are basic components of healthy rangelands. The four fundamentals of rangeland health, as identified in 43 CFR 4180.1 are:

- Watersheds are in, or are making significant progress toward, properly functioning condition.
- Ecological processes are maintained, or there is significant progress toward their attainment.
- Water quality complies with, or is making significant progress toward achieving, state standards.
- Habitats of protected species are maintained or are making significant progress toward being restored.

Standards for public land health are expressions of the level of physical and biological condition or degrees of function required for healthy and sustainable lands, and define minimum resource conditions that must be achieved. The New Mexico Standards are:

- *Upland Sites Standard:* Upland ecological sites are in a productive and sustainable condition within the capability of the site. Upland soils are stabilized and exhibit infiltration and permeability rates that are appropriate for the soil type, climate, and landform. The kind, amount, and/or pattern of vegetation provide protection on a given site to minimize erosion and assist in meeting State and Tribal water quality standards.
- *Biotic Communities, Including Native, Threatened, Endangered, and Special-status Species Standard:* Ecological processes such as hydrologic cycle, nutrient cycle, and energy flow support productive and diverse native biotic communities, including special-status, threatened, and endangered species appropriate to the site and species. Desired plant community goals maintain and conserve productive and diverse populations of plants and animals, which sustain ecological functions and processes.
- *Riparian Sites Standard:* Riparian areas are in a productive, properly functioning, and sustainable condition, within the capability of that site. Adequate vegetation of diverse age and composition is present that will withstand high stream flow, capture sediment, provide for groundwater recharge, provide habitat and assist in meeting State and Tribal water quality standards.

Guidelines are practices, methods, or techniques determined to be appropriate to ensure that standards can be met or that significant progress can be made toward meeting those standards.

Assessments of rangeland health interpret the degree to which the integrity of the soil, biotic (vegetative), and hydrologic processes of rangeland ecosystems are sustained. An interdisciplinary team (ID team) conducts a field assessment(s) to examine the current soil site stability, biotic integrity, and hydrologic function attributes that are present on the allotment. Seventeen individual factors (indicators) are assessed to rate the soil, biotic and hydrologic attributes. These indicators are examined and assigned one of five condition categories based upon the degree of departure from the ecological site description. The possible degrees of departure range from “none to slight” to “extreme”.

40 An ecological site is a distinctive kind of rangeland that, in the absence of abnormal disturbance and physical
41 site deterioration, has the potential to support a native plant community typified by an association of species
42 capable of occupying the site. The Soil Conservation Service (now Natural Resource Conservation Service)
43 developed ecological site descriptions based on relict areas and historical knowledge. An ecological site
44 description identifies the soil characteristics, potential natural plant community, and potential cover by
45 species, potential annual production, and other pertinent information for each site.

46 The interdisciplinary rangeland health assessment is used to determine if the site (watershed, allotment or
47 pasture) meets the New Mexico standards and the fundamentals of rangeland health. The final determination
48 of whether a site does or does not meet the New Mexico standards and fundamentals of rangeland health is
49 based on 1) the degree of departure from the ecological site description for the soil site stability, biotic
50 integrity, and hydrologic function attributes; 2) how well the site meets the definition of a fundamentally
51 healthy site, as identified in 43 CFR 4180.1 and; 3) other information such as monitoring data. If an allotment,
52 or a portion of the allotment, is determined to be in a condition that does not meet the New Mexico
53 standards and/or the fundamentals of rangeland health, the causal factor(s) is identified. If current livestock
54 management is determined to be a causal factor, the authorized officer is required to take appropriate
55 management action, no later than the start of the next grazing year, to make significant progress towards
56 achieving the fundamentals of rangeland health and New Mexico standards (43 CFR 4180.1 and 4180.1(c)).