

NORTHEASTERN GREAT BASIN AREA

PREAMBLE

The Nevada Northeastern Great Basin Resource Advisory Council (RAC), as chartered by the Department of the Interior to promote healthy rangelands, has developed Standards and Guidelines for grazing administration on about 16.2 million acres of public lands and Standards and Guidelines for maintaining healthy wild horse and burro herds on Herd Management Areas (HMA's) administered by the Bureau of Land Management within the designated geographic area of the Northeastern Great Basin. The RAC in developing these Standards and Guidelines, understands and agrees that grazing and wild horses and burros are two of the multiple uses recognized under the Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1739, 1740). The RAC recognizes the limited management options currently available for wild horses and burros. Unlike domestic stock that can be husbanded and controlled regularly, or wildlife that can be controlled through sport harvest, free-roaming wild horses and burros must be managed by capture and adoption or placement in sanctuaries to achieve a sustainable relationship with land and resources year-round. The RAC in recommending these Standards and Guidelines urges the Bureau to aggressively implement the management strategies to expeditiously establish, achieve and maintain Appropriate Management Level's (AML's) of wild horses and burros within HMA's and remove them from outside HMA's. These recommended Standards and Guidelines reflect the stated goals of improving rangeland health while providing for the viability of the livestock industry, all wildlife species and wild horses and burros in the Northeastern Great Basin Area.

NE RAC'S INTENDED USE OF STANDARDS AND GUIDELINES

Standards and Guidelines will be implemented through terms and conditions of grazing permits, leases, and other authorizations, grazing-related portions of activity plans (including Allotment Management Plans), and through range improvement-related activities.

Standards and Guidelines for wild horses and burros will be implemented through control of population levels within established HMA's, related portions of activity plans (including Allotment Management Plans), and through range restoration related activities. Wild Horse and Burro herd management practices should consider both economic and physical environment and will address all multiple uses including, but not limited to recreation, minerals, cultural resources, wildlife, domestic livestock, community economics, Areas of Critical Environmental Concern, designated wilderness and wilderness study areas (WSAs).

The RAC anticipates that in most cases the Standards and Guidelines themselves will not be terms and conditions of various authorizations but that the terms and conditions will reflect the Standards and Guidelines.

The RAC intends that the Standards and Guidelines will result in a balance of sustainable development and multiple use along with progress towards attaining healthy, properly functioning rangelands and healthy wild horse and burro herds. For that reason, wording has been adopted in this final rule that will require the authorized officer to take appropriate action upon determining

the existing management practices are failing to ensure significant progress toward the fulfillment of the Standards and towards conformance with the guidelines.

The RAC intends that assessments and corrective actions will be undertaken in priority order as determined by BLM.

The BLM will use a variety of data including monitoring records, assessments, and knowledge of the locale to assist in making the “significant progress” determination. It is anticipated that in many cases it will take numerous seasons to determine direction and magnitude of trend. However, actions will be taken to establish significant progress toward conformance as soon as sufficient data are available to make informed changes relative to numbers of wild horses and burros, herd management decisions and grazing practices.

STANDARDS AND GUIDELINES

STANDARD 1. UPLAND SITES:

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and land form.

As indicated by:

Indicators are canopy and ground cover, including litter, live vegetation and rock, appropriate to the potential of the site.

GUIDELINES:

- 1.1 Livestock grazing management and wild horse and burro population levels are appropriate when in combination with other multiple uses they maintain or promote upland vegetation and other organisms and provide for infiltration and permeability rates, soil moisture storage, and soil stability appropriate to the ecological site within management units.
- 1.2 When livestock grazing management and wild horse and burro herd management alone are not likely to restore areas of low infiltration or permeability, land management treatments should be designed and implemented where appropriate.
- 1.3 Livestock grazing management and wild horse and burro herd management are adequate when significant progress is being made toward this standard.

STANDARD 2. RIPARIAN AND WETLAND SITES:

Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

As indicated by:

Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows. Elements indicating proper functioning condition such as avoiding accelerating erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:

Width/Depth ratio; Channel roughness; Sinuosity of stream channel; Bank stability; Vegetative cover (amount, spacing, life form); and Other cover (large woody debris, rock).

Natural springs, seeps, and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plant species and cover appropriate to the site characteristics.

Chemical, physical and biological water constituents are not exceeding the state water quality standards.

GUIDELINES:

- 2.1 Livestock grazing management and wild horse and burro population levels will maintain or promote sufficient vegetation cover, large woody debris, or rock to achieve proper functioning condition in riparian and wetland areas. Supporting the processes of energy dissipation, sediment capture, groundwater recharge, and stream bank stability will thus promote stream channel morphology (e.g., width/depth ratio, channel roughness, and sinuosity) appropriate to climate, landform, gradient, and erosional history.
- 2.2 Where livestock grazing management and wild horse and burro herd management are not likely to restore riparian and wetland sites, land management treatments should be designed and implemented where appropriate to the site.
- 2.3 Livestock grazing management and wild horse and burro herd management will maintain, restore or enhance water quality and ensure the attainment of water quality that meets or exceeds state standards.
- 2.4 Livestock grazing management and wild horse and burro herd management are adequate when significant progress is being made toward this standard.

STANDARD 3. HABITAT:

Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species and maintain ecological processes. Habitat conditions meet the

life cycle requirements of threatened and endangered species.

As indicated by:

Vegetation composition (relative abundance of species);

Vegetation structure (life forms, cover, heights, or age classes)

Vegetation distribution (patchiness, corridors);

Vegetation productivity; and Vegetation nutritional value.

GUIDELINES:

- 3.1 Livestock grazing management and wild horse and burro population levels will promote the conservation, restoration and maintenance of habitat for threatened and endangered species, and other special status species as may be appropriate.
- 3.2 Livestock grazing intensity, frequency, season of use and distribution and wild horse and burro population levels should provide for growth and reproduction of those plant species needed to reach long-term land use plan objectives. Measurements of ecological condition and trend/utilization will be in accordance with techniques identified in the *Nevada Rangeland Monitoring Handbook*.
- 3.3 Livestock grazing management-and wild horse and burro management should be planned and implemented to allow for integrated use by domestic livestock, wildlife, and wild horses and burros consistent with land use plan objectives.
- 3.4 Where livestock grazing management and wild horse and burro herd management alone are not likely to achieve habitat objectives, land treatments may be designed and implemented as appropriate.
- 3.5 When native plant species adapted to the site are available in sufficient quantities, and it is economically and biologically feasible to establish or increase them to meet management objectives, they will be emphasized over non-native species.
- 3.6 Livestock grazing management and wild horse and burro herd management are adequate when significant progress is being made toward this Standard.

STANDARD 4. CULTURAL RESOURCES:

Land use plans will recognize cultural resources within the context of multiple use.

GUIDELINES:

- 4.1 Rangeland management plans will consider listings of known sites that are National Historic Register eligible or considered to be of cultural significance and new eligible sites as they become known.
- 4.2 Wild horse and burro herd management will be designed to avoid or mitigate damage to significant cultural resources.

STANDARD 5. HEALTHY WILD HORSE AND BURRO POPULATIONS:

Wild horses and burros exhibit characteristics of a healthy, productive, and diverse population. Age structure and sex ratios are appropriate to maintain the long term viability of the population as a distinct group. Herd management areas are able to provide suitable feed, water, cover and living space for wild horses and burros and maintain historic patterns of habitat use.

As indicated by:

Healthy rangelands that provide sufficient quantities and quality of forage and water to sustain the appropriate management level on a year long basis within a herd management area.

Wild horses and/or burros managed on a year-long basis for a condition class greater than or equal to five to allow them normal chances for survival in the winter (See glossary for equine body conditioning definitions).

Highly adoptable wild horses and burros that are readily available from herd management areas.

Wild horse and burro herds that exhibit appropriate age structure and sex ratio for short and long term genetic and reproductive health.

GUIDELINES:

- 5.1 Implement the objectives outlined in the Wild Free-Roaming Horses and Burros Tactical Plan for Nevada (May 1999).
- 5.2 Manage for wild horses and/or burros in herd management areas based on the capability of the HMA to provide suitable feed, water, cover and living space for all multiple uses.
- 5.3 Set appropriate Management Levels based on the most limiting habitat factor (eg. available water, suitable forage, living space and cover) in the context of multiple use.
- 5.4 Manage herd management area populations to preserve and enhance physical and

biological characteristics that are of historical significance to the herd.

- 5.5 Manage wild horse and burro herds for short and long term increases and to enhance adoptability by ensuring that wild horses and burros displaying desirable traits are preserved in the herd thus providing a reproductive base to increase highly adoptable horses and burros for future demands.
- 5.6 Identify and preserve historic traits and characteristics within the herd which have proven to be highly desirable by the adoption public to increase the long term availability of animals bearing these features.
- 5.7 Wild horse and burro selective removal criteria are modified on a per herd basis to correct deficiencies in population age and sex ratios which threaten short and long term genetic diversity and reproductive health.

GLOSSARY

Most Definitions are taken from "A Glossary of Terms Used in Range Management" developed through the Society for Range Management. If a definition has been slightly modified it is marked with an *. Other definitions are from Grazing Administration Regulations Code of Federal Regulations, Chapter 43, Sec. 4100.0-5 or Bureau of Land Management Technical Reference. Definitions also include meanings that were developed by the Northeastern Great Basin Resource Advisory Council to understand their intent in the Standards and Guidelines.

B

Biotic - Refers to living components of an ecosystem, e.g., plants and animals.

C

Canopy - (1) The vertical projection downward of the aerial portion of vegetation, usually expressed as a percent of the ground so occupied. (2) The aerial portion of the overstory vegetation.

Canopy Cover - The percentage of ground covered by a vertical projection of the outermost perimeter of the natural spread of foliage of plants. Small openings within the canopy are included.

Climate - The average or prevailing weather conditions of a place over a period of years.

Conservation - The use and management of natural resources according to principles that assure their sustained economic and/or social benefits without impairment of environmental quality.

D

***Distribution (Grazing)** - Dispersion of grazing animals within a management unit or area.

E

Ecological Site - The kind of land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in its ability to produce vegetation and to respond to management.

Edaphic - Refers to the soil.

Equine body conditioning -

1. Poor. Extremely emaciated; spinal processes, ribs, tailhead, tuber coxae and ischii projecting prominently, no fatty tissue can be seen.

2. Very Thin. Emaciated; slight fatty covering over base of spinal processes; transverse processes of lumbar vertebrae feel rounded; spinal processes, ribs, tailhead, tuber coxae and ischii prominent; withers, shoulders, and neck structure faintly discernible.

3. Thin. Fat buildup about halfway on spinal processes; transverse processes cannot be felt; slight fat covering over ribs; spinal processes and ribs easily discernible; tailhead prominent, but individual vertebrae cannot be identified visually; tuber coxae appear rounded but easily discernible, tuber ischii not distinguishable; withers, shoulders, and neck accentuated.

4. Moderately Thin. Slight ridge along back; faint outline of ribs discernible; tailhead prominence depends on conformation – fat can be felt around it; tuber coxae not discernible; withers, shoulders and neck not obviously thin.

5. Moderate. Back is flat (no crease or ridge); ribs not visually distinguishable but easily felt around tailhead and area beginning to feel spongy; withers appear rounded over spinal processes; shoulders and neck blend smoothly into body.

6. Moderately Fleshy. May have slight crease down back; fat over ribs spongy; fat around tailhead soft; fat beginning to be deposited along the side of withers, behind shoulders, and along sides of neck.

7. Fleshy. May have crease down back; individual ribs can be felt, but noticeable filling between ribs with fat; fat around tailhead soft; fat deposited along withers, behind shoulders and along neck.

8. Fat. Crease down back; difficult to feel ribs; fat around tailhead very soft; area along withers filled with fat; area behind shoulder filled with fat; noticeable thickening of neck; fat deposited along inner thighs.

9. Extremely Fat. Obvious crease down back; patchy fat appearing over ribs; bulging fat around tailhead, along withers, behind shoulders, and along neck; fat along inner thighs may rub together,

flank filled with fat.

Erosion - (v.) Detachment and movement of soil or rock fragments by water, wind, ice or gravity.
(n) The land surface worn away by running water, wind, ice, or other geologic agents, including such processes as gravitational creep.

Exotic - An organism or species which is not native to the region in which it is found. **Synonym** *non-native*.

G

***Grazing** - For the purposes of this document grazing refers to the removal of vegetation by domestic livestock.

Ground Cover - The percentage of material, other than bare ground, covering the land surface. It may include live and standing dead vegetation, litter, cobble, gravel, stones and bedrock. Ground cover plus bare ground would total 100 percent.

Ground Water - Subsurface water that is in the zone of saturation. The top surface of the ground water is the "water table". Source of water for wells, seepage, springs.

Guidelines - Guidelines are livestock management practices (e.g. tools, methods, strategies and techniques) designed to achieve healthy public lands as defined by Standards and portrayed by Indicators. Guidelines are designed to provide direction, yet offer flexibility for local implementation through activity plans and grazing permits. Activity plans may add specificity to the Guidelines based on local goals and objectives as provided for in adopted manuals, handbooks and policy. Not all Guidelines fit all circumstances. Monitoring or site specific evaluation will determine if significant progress is being made towards achieving the standards, and if the appropriate guidelines are being applied.

H

Habitat - The natural abode of a plant or animal, including all biotic, climatic, and edaphic factors affecting life.

Herd Area - means the geographic area identified as having been used by a herd as its habitat in 1971.

Herd Management Area - Herd Area or portion of a Herd Area that has been designated through the planning process where horses and/or burros can be managed as a component of the public lands.

I

Indicators - Indicators are observations or measurements of physical, chemical or biological

factors used to evaluate site conditions or trends, appropriate to the potential of the site. Indicators will be used to determine whether or not Standards are being met.

Infiltration - The flow of a fluid into a substance through pores or small openings. It connotes flow into a substance in contradistinction to the word percolation.

Infiltration Rate - Maximum rate at which soil under specified conditions can absorb rain or shallow impounded water, expressed in quantity of water absorbed by the soil per unit of time, e.g., inches/hour.

Intensity (Grazing) - A reference to grazing density per unit of time.

L

Land Use Plan - Land use plan means a resource management plan, developed under the provisions of 43 CFR part 1600, or management framework plan. These plans are developed through public participation in accordance with the provisions of the Federal Land Policy and Management Act of 1976 and establish management direction for resource uses of public lands. (43 CFR 4100.5)

Litter - The uppermost layer of organic debris on the soil surface; essentially the freshly fallen or slightly decomposed vegetal material.

M

Management Objective - The objectives for which rangeland and rangeland resources are managed which includes specified uses accompanied by a description of the desired vegetation and the expected products and/or values.

Management Plan - A program of action designed to reach a given set of objectives.

Marsh - Flat, wet, treeless areas usually covered by standing water and supporting a native growth of grasses and grasslike plants.

Monitoring - The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives.

Morphology - The form and structure of an organism, with special emphasis on external features.

N

***Native Species** - A species which is a part of the indigenous fauna or flora of the area in question.

O

Overstory - The upper canopy or canopies of plants. Usually refers to trees, tall shrubs and vines.

P

Percolation - The flow of a liquid through a porous substance.

Plant Cover - (1) The plants or plant parts, living or dead, on the surface of the ground. Vegetative cover or herbage cover is composed of living plants and litter cover of dead parts of plants. (2) The area of ground cover by plants of one or more species.

Proper Functioning Condition - Riparian-Wetland areas are functioning properly when adequate vegetation, land-form, or large woody debris is present to dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. [BLM Technical Reference 1737-9]

R

Range Improvement - Range improvement means an authorized physical modification or treatment which is designed to improve production of forage; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; restore, protect and improve the condition of rangeland ecosystems to benefit livestock, wild horses and burros, and fish and wildlife. The term includes but is not limited to, structures, treatment projects, and use of mechanical devices or modifications achieved through mechanical means.

Riparian - Referring to or relating to areas adjacent to water or influenced by free water associated with streams or rivers on geologic surfaces occupying the lowest position of a watershed.

S

Seep - Wet areas, normally not flowing, arising from an underground water source.

Soil - (1) The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants. (2) The unconsolidated mineral matter on the surface of the earth that has been subjected to and influenced by genetic and environmental factors of parent material, climate (including moisture and temperature effects), macro- and micro-organisms, and topography, all acting over a period of time and producing a product - soil - that differs from the material it was derived in many physical, chemical,

biological, and morphological properties and characteristics.

Species - A taxon or rank species; in the hierarchy or biological classification, the category below genus.

Species Composition - The proportions of various plant species in relation to the total on a given area. It may be expressed in terms of cover, density, weight, etc. Synonym *Vegetative composition*.

Spring - Flowing water originating from an underground source.

T

Trend - The direction of change in ecological status or resource value rating observed over time. Trend in ecological status should be described as *toward*, or *away from* the potential natural community, or as *not apparent*. Trend in a resource value rating for a specific use should be described as *up*, *down* or *not apparent*. Trends in resource value ratings for several uses on the same site at a given time may be in different directions, and there is no necessary correlation between trends in resource value ratings and trend in ecological status. Some agencies use *trend* only in the context of *ecological status*. Syn. *range condition trend*.

U

Utilization - The proportion of current year's forage production that is consumed or destroyed by grazing animals. May refer either to a single species or to the vegetation as a whole.

W

Watershed - (1) A total area of land above a given point on a waterway that contributes runoff water to the flow at that point. (2) A major subdivision of a drainage basin.

Wetlands - Areas characterized by soils that are usually saturated or ponded, i.e., hydric soils that support mostly water loving plants (hydrophytic plants).

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