

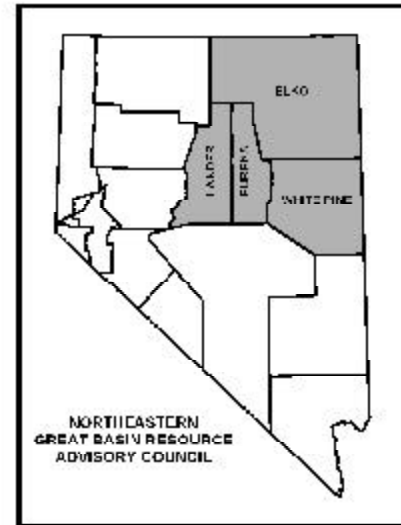
# Standards and Guidelines for Nevada's



# 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



*The shaded area represents the geographical area covered by the Northeastern Great Basin RAC.*

while providing for the viability of the livestock industry, all wildlife species and wild horses and burros in the Northeastern Great Basin Area.

## Background

Standards and Guidelines for rangeland health were approved and published in 1997 for all three Nevada RACs. In December 2000, the Northeastern Great Basin RAC approved Wild Horse and Burro Standards and Guidelines and they were incorporated into the existing rangeland health document. Vegetation Guidelines were approved in March 2004 and added as Appendix A. Off highway vehicle (OHV) Administration Guidelines were approved by all three Nevada RACs in September 2003 and are included here as well.

# NORTHEASTERN GREAT BASIN 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.

*See Appendix A for additional guidelines for vegetation management.*

**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.

*See Appendix A for additional guidelines for vegetation management.*

**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.

*See Appendix A for additional guidelines for vegetation management.*

**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.



Today, BLM works to protect and interpret the cultural resources that remain from those early days, as well as the first years of modern settlement.

**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 (e.g. 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.



Nevada's wild horse population is about 18,000 or one-half of the nation's population.

# 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.

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

**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.

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

**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*.

**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.

**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.

**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.

**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.

**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.

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

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

**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]

**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.

**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.

**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*.

**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.

# OFF HIGHWAY VEHICLE ADMINISTRATION GUIDELINES FOR NEVADA PUBLIC LANDS

## INTRODUCTION

The Nevada Northeastern Great Basin Resource Advisory Council (RAC), the Sierra Front Northwestern Great Basin RAC, and the Mojave-Southern Great Basin RAC, as chartered by the Department of the Interior, have developed Guidelines for the administration of Off-Highway Vehicle (OHV) use on public lands within the State of Nevada. These guidelines are intended to promote cooperation among user groups, to share resources, and to minimize conflicts in accordance with the Nevada Standards for Rangeland Health. While recognizing the legitimacy and necessity of OHV use on public lands, it has become necessary to define guidelines for management of OHVs to insure the protection of land health and the availability of the public lands for all multiple users. These guidelines are to assist land managers in administrative and planning decisions. Administrators may use the guidelines for managing for land health and making decisions with regard to restricting, or not restricting OHV activity. Additionally, administrators may use the educational guidelines as tools to provide training for land managers and to inform the public on OHV use issues and ethics. Planners should use these guidelines in developing timely plans for

resources and recreation use, while addressing the increasing demand for OHV use.



Nevada has hundreds of bike and ATV trails enjoyed by recreation enthusiasts.

## ON-THE-GROUND MANAGEMENT GUIDELINES

- Encourage OHV use on existing or designated roads and trails, except in closed areas, prior to land use plans being updated and road and trail inventories completed.
- Locate and manage OHV use to conserve soil functionality, vegetative cover, and watershed health. Manage OHV use to minimize the impact on the land, while maintaining OHV access.

- Manage OHV use by type, season, intensity, distribution, and/or duration to minimize the impact on plant and animal habitats. If seasonal closures become appropriate to minimize adverse OHV impact(s) on public lands resources, managers will strive to preserve public access by designating alternative routes.
- Manage OHV activities to conserve watershed and water quality.
- Monitor the impact(s) of OHV activities on all public land, water, air and other resources and uses.
- Maintain an inventory of existing road and trail systems.
- Manage OHV use to preserve cultural, historical, archeological, and paleontological resources.
- Engineer, locate, and relocate roads and trails to accommodate OHV activities while minimizing resource impacts.
- Encourage cooperation in law enforcement among all agencies.
- OHV use pursuant to a permitted activity shall be governed by the terms of the permit.
- archeological sites, wildlife, horses and burros, and mineral extractions and coordinate with other users of public lands.
- Conduct an assessment of current and future OHV demand, and plan for and balance the demand for this use with other multiple uses/users when developing all land use plans.
- Include in land use plans, social/economic effects of OHV use, including special recreation events.
- Integrate concepts of habitat connectivity into OHV planning to minimize habitat fragmentation.
- For addressing/resolving local site-specific OHV issues/concerns, use collaborative planning groups consisting of local representative(s), affected/interested group(s) and agency(s).
- Clearly identify route and area designations.
- Where land health permits, develop sustainable OHV use areas to meet current and future demands, especially for urban interface.

## **PLANNING GUIDELINES**

- In land use plans or plan amendments, designate areas as open, limited, or closed to OHV use.
- Address OHV management including land use and/or route designations, monitoring and adaptive management strategies, such as applying the Limits of Acceptable Change process, when developing new land use plans or amending existing land use plans. Work closely with local, state, tribal, and other affected parties and other resource users in OHV planning.
- Establish and maintain an inventory of existing routes and trails as part of the land use planning process.
- Provide for other resources and uses in OHV planning. This includes livestock grazing, other recreational uses,

## **EDUCATION GUIDELINES**

- Cooperatively develop/improve public outreach programs to promote trail etiquette, environmental ethics, and responsible-use stewardship ethic.
- Promote/expand/disseminate materials from programs such as, but not limited to, “Tread Lightly!” and “Leave No Trace.”
- Provide OHV management education and training for managers, staff, partners and volunteers. Training should focus on state of the art practices and be tailored to meet local needs. Encourage communication between agencies, managers, staff, partners and volunteers to share expertise and effective techniques.

- Encourage the private sector, as well as the public sector, to conduct responsible marketing of activities on public lands while avoiding the promotion of products, behaviors and services that are inconsistent with existing regulations and land use plans.
- Develop communication and environmental education plan(s). Assess all situations where OHV use may require public information and education. Develop materials and programs appropriate to each situation.
- Utilize high use areas and special events to maximize the dissemination of responsible use education materials and concepts to the public.

## APPENDIX A - VEGETATION GUIDELINES

The Nevada Northeastern Great Basin Resource Advisory Council (RAC), as chartered by the Department of the Interior, has developed Guidelines for Vegetation Management on about 16.2 million acres of public lands administered by the Bureau of Land Management within the designated geographic area of the Northeastern Great Basin within the State of Nevada.

These Vegetation Management Guidelines are intended to serve as a supplement to the Standards and Guidelines for Rangeland Health which were adopted in 1997 and later expanded to include Wild Horse and Burro Standards and Guidelines in 2000. These recommended Standards and Guidelines reflect the stated goal of improving rangeland health in the Northeastern Great



Marys River in northeastern Nevada is a prime spawning ground for Lahontan cutthroat trout.

### NON-INDIGENOUS ANNUAL

#### GRASSLANDS

##### **DEFINITIONS:**

**Cheatgrass/Annual Grass Monoculture:** Areas dominated by cheatgrass or other non-indigenous annual grass species that have crossed a threshold and lost the ability to recover naturally due to lack of perennial species.

**Cheatgrass/Annual Grass Dominant:** Recently burned areas having native perennial species present with potential for natural recovery with appropriate management of non-indigenous annual grasses.

**Cheatgrass/Annual Grass Infested:** Shrub dominated communities with a limited understory of native perennial species, but a significant amount of annual grasses, exhibiting a high potential to be converted to non-indigenous annual grass dominated ranges.

**Desired Conditions:** Communities will exhibit or be progressing toward a healthy, productive, diverse population of native and or desirable plant species, and functioning disturbance processes appropriate to the site characteristics.

##### **Guidelines Common to All:**

1. Encourage research and field trials in all non-indigenous annual grass ranges to determine effectiveness of control on recovery and rehabilitation efforts in perennial plant communities.

2. Non-indigenous annual grass monoculture and dominated ranges must follow a successional process from annual/perennial grass mix to a shrub/grass community. Large scale seeding of shrubs should be discouraged, and small scale (islands), of intensively managed shrub seedings/transplants encouraged.

**Guidelines for Cheatgrass/  
Annual Monoculture:**

1. Break up the monoculture through the use of chemical, biological, and/or mechanical means to stop the spread of the effected area especially in areas that border critical habitat. Use native and non-native desirable species known to be fire tolerant and resistant during the late summer fire season.
2. Use the best available information to determine the most effective processes to break up the monoculture, reduce the cheatgrass seed bank, and restore native plant communities.

**Guidelines for Cheatgrass  
Dominant and Cheatgrass  
Infested Ranges:**

1. Encourage innovative approaches to control cheatgrass, such as, strategically controlled grazing and the use of prescribed fire to favor production of perennial species.
2. Seed areas with perennial grass species to reduce the dominance of cheatgrass.

**Strategies:**

1. Management practices to maintain healthy ecological sites should include: prescribed fire, prescribed natural fire, mechanical manipulations, specialized prescription herbivory, chemical treatments, re-seeding, or combinations of treatments.
2. Special emphasis must be placed on management activities where public safety at wildland-urban interfaces is jeopardized.

**SALT DESERT  
SHRUBLANDS**

**DEFINITION:** Plant communities dominated by members of the Chenopodiaceae family

including: shadscale, four-wing saltbush, black and Bailey greasewoods, spiny hopsage, and white sage; with an understory including ricegrass, squirreltail, saltgrass, and other saline tolerant species.

**Desired Conditions:** Communities will exhibit or be progressing toward a healthy, productive, diverse population of native and or desirable plant species, and functioning disturbance processes appropriate to the site characteristics.

**Guidelines:**

1. Grazing should generally be limited to very early season or dormant season rather than year round. If very early season grazing is permitted or prescribed to control cheatgrass early in the spring, grazing should be terminated early enough to allow perennial plant species to set seed.
2. After disturbance such as fire, insect infestation, and periods of less than desirable grazing management, consider resting communities for an appropriate amount of time relative to moisture conditions.
3. All management and revegetation strategies must consider current site conditions and associated thresholds (i.e., current status in state-and-transition model appropriate for the site). In addition, factors such as ecological site, presence of undesirable species (e.g., invasive or noxious species), adjacent plant communities, current use or management status, and position in the watershed must be considered prior treatment application.
4. Encourage research and field trials in salt desert shrub communities to determine the best effective methods of restoration.

**Strategies:**

1. Management practices to maintain healthy ecological sites should include: prescribed fire, prescribed natural fire, mechanical manipulations, specialized prescription herbivory, chemical treatments, re-seeding, or combinations of treatments.

2. Special emphasis must be placed on management activities where public safety at wildland-urban interfaces is jeopardized.

## **SAGEBRUSH/BUNCHGRASS**

### **RANGELANDS**

**DEFINITIONS:** Plant communities dominated by one or more members of the *Artemisia* genus including Wyoming big sagebrush, low sagebrush, basin sagebrush, black sagebrush, Lahontan sagebrush, and mountain sagebrush. Herbaceous understory is dominated by perennial grasses but includes a component of annual and perennial forbs. Other shrubs may also be present.

**Desired Conditions:** Communities will exhibit or be progressing toward a healthy, productive, diverse population of native and or desirable plant species, and functioning disturbance processes appropriate to the site characteristics.

### **Guidelines:**

1. Create and maintain a diversity of sagebrush age and cover classes on the landscape through the use of prescribed fire, prescribed natural fire, mechanical, biological, and/or chemical means to provide a variety of habitats and productivity conditions.

2. Vegetation treatments should be of appropriate size to meet land management objectives. Where possible, inclusions of intact sagebrush should be left scattered within the treated area or in relatively close proximity to provide a seed source for recruitment. Distribution of residual plants will determine in part, the time period required for the successional process to proceed toward sagebrush recolonization.

3. All treatments must consider current site conditions and associated thresholds (i.e., current status in state-and-transition model appropriate for the site). In addition, factors such as ecological site, presence of undesirable species (e.g., invasive or noxious species), adjacent plant communities, current use or management status,

and position in the watershed must be considered prior to treatment application.

4. Where initial condition has a depleted herbaceous understory, vegetation treatment should include seeding with desirable species suited or adapted to site conditions. Seeding methods and dates should be appropriate to the plant materials and site conditions.

5. Where a mosaic of age and cover classes already exists, maintain landscape diversity through fuels management and periodic disturbance. Recognize the system is dynamic, and suitability of the plant community for any given specie or group of species will change over time. Maintenance of diverse habitat conditions will provide a continuous suite of seasonal habitats over time.

6. Where pinyon pine and/or juniper trees have encroached into sagebrush communities, use best management practices to remove trees and re-establish understory species.

### **Strategies:**

1. Management practices to maintain healthy ecological sites should include: prescribed fire, prescribed natural fire, mechanical manipulations, specialized prescription herbivory, chemical treatments, re-seeding, or combinations of treatments.

2. Special emphasis must be placed on management activities where public safety at wildland-urban interfaces is jeopardized.

## **NOXIOUS WEEDS**

### **DEFINITIONS:**

**Noxious weed monoculture:** Areas that have lost the ability to recover naturally due to lack of native perennial species.

**Noxious weed dominant:** Areas having native perennial species present with potential for natural recovery if noxious weeds are controlled.

**Noxious weed infested:** Plant communities with a limited understory of perennial species and a high potential to be converted to noxious weed dominant.

**Desired Conditions:** Communities will exhibit or be progressing toward a healthy, productive, diverse population of native and or desirable plant species, and functioning disturbance processes appropriate to the site characteristics.

**Guidelines Common to All:**

1. Encourage research and field trials in all noxious weed rangelands to determine effectiveness of noxious weed control in the recovery process of restoring perennial plant communities.
2. Noxious weed monoculture and noxious weed dominant ranges must follow a successional process from grass/grass mix to a shrub community. Use best management practices to return site to best approximation of site potential.

**Guidelines for Noxious Weed**

**Monoculture:**

1. Break up monoculture using an Integrated Weed Management approach that combines chemical, biological, and/or mechanical means to reduce spread of affected area, especially in areas that border critical habitat or other sensitive sites. Treatment regime should be based on ecology and phenology of the noxious species.
2. Use best available information to determine the most effective process to break up continuity and rehabilitate native plant communities, recognizing that beneficial, introduced species may provide excellent interim benefits.

**Guidelines for Noxious Weed**

**Dominant and Infested**

**Rangelands:**

1. Encourage practices to eliminate new noxious species entry and limit current infestations to existing levels.
2. Utilize an Integrated Weed Management approach, that consists of chemical, biological, and/or mechanical means to control noxious species.
3. Encourage innovative approaches to control noxious species, such as strategically controlled grazing and use of prescribed and prescribed

natural fire to favor production of native perennial species.

4. Seed areas with perennial species to reduce dominance of noxious species.

**PINYON-JUNIPER**  
**WOODLANDS**

**DEFINITION:** Plant communities dominated by one or both species of Utah juniper and/or single leaf pinyon pine. Pinyon pine generally dominates at higher and juniper at lower elevations. Herbaceous understory is dominated by perennial grasses but includes a component of annual and perennial forbs. Shrubs may also be present. In the past, woodlands were generally restricted to sites with very low fire frequency such as rocky ridges and steep slopes with little soil development.

**Desired Conditions:** Woodland communities will exhibit or be progressing toward a healthy, productive, diverse population of native and or desirable plant species, and functioning disturbance processes appropriate to the site characteristics. Healthy, sustainable pinyon and juniper woodlands will be maintained on appropriate soil types as identified by Natural Resource Conservation Service soil surveys within appropriate Major Land Resource Areas (MLRAs).

**Guidelines:**

- 1 Woodlands will exhibit a combination of successional stages based on differing pinyon and juniper species composition, age structure, and understory composition appropriate to site characteristics on a watershed, or portion of a watershed.
2. Woodlands will be separated from other ecological sites by an ecotone interface zone, rather than a well-defined edge. Woodlands should not encroach outside of soil sites correlated with woodland communities.
3. Woodland stand structure should not, under normal conditions support catastrophic, stand replacing fires. Community species

composition and proportionalities should follow Natural Resource Conservation guidelines appropriate to the site.

4. All management and revegetation strategies must consider current site conditions and associated thresholds (i.e., current status in state-and-transition model appropriate for the site). In addition, factors such as ecological site, presence of undesirable species (e.g., invasive or noxious species), adjacent plant communities, current use or management status, and position in the watershed must be considered prior treatment application.

**Strategies:**

1. Management practices to maintain healthy woodlands should include: prescribed fire, prescribed natural fire, mechanical manipulations, specialized prescription herbivory, chemical treatments, or combinations of treatments.
2. Special emphasis must be placed on management activities where public safety at wildland-urban interfaces is jeopardized.

**REHABILITATION AND REVEGETATION STRATEGIES**

Re-vegetation includes natural recovery as well as direct management actions.

**General Guidelines for Rehabilitation and Revegetation:**

1. On burned areas, allow natural regeneration when it is determined that populations of native perennial grasses, forbs, and shrubs are sufficient to re-vegetate the site.
2. Where appropriate, rest rehabilitated and naturally regenerating areas to allow recovery and establishment of perennial plant species based upon objectives and ecological site potential.
3. Determine to what extent re-vegetation success may be site specific and may depend on soil moisture, rainfall, elevation, soil type, slope, aspect, previous vegetative community (i.e. native vegetation or cheatgrass prior to a fire),

- type of seeding, aerial vs. drill seeding etc., seed mixtures, and post seeding management.
4. Use native plant species for rehabilitation except where native species are not available in sufficient quantities; native plant species cannot maintain or achieve the standard; or non-native plant species provide for enhanced protection of native habitats or soil resources.
  5. To the extent possible, obtain seeds that are: source identified; or commercial varieties; and meet agency standards.

Note: In emergency situations and with agency approval, seeds may be obtained with lower standards to meet rehabilitation requirements.

6. Establish protocols for pre- and post rehabilitation/restoration monitoring to assist in future evaluation methods. Assemble a team to evaluate multi-district historical data on restoration/rehabilitation projects.

**Strategies:**

1. On burned areas greater than 1,000 acres, limit sagebrush seeding to no more than 10-20% of the burned area, distributed over no less than 5 locations within the burned area.
2. Enhance sagebrush and other shrub species germination and establishment by utilizing available and appropriate water conservation strategies (e.g., snow fence, surface imprinting, and mulching).
3. On older, large burned areas where previous sagebrush establishment efforts were unsuccessful, interseed sagebrush on areas where perennial grasses have established. Limit seeding to no more than 20% of the area, distributed over no less than 5 locations within the area.
4. Rehabilitation of perennial, introduced grass seedings (e.g., crested wheatgrass) should include grazing treatments at appropriate levels to reduce abundance and competition potential. Reductions can be followed by interseeding with sagebrush as well as native grasses and forbs. Encourage early season grazing and removal to promote seed production and increase native species.



5. Rehabilitation of decadent sagebrush communities should be promoted by using appropriate tools to reduce sagebrush, followed by direct seeding operations. Scale should be appropriate to management objectives.
6. Rehabilitation of pinyon-juniper encroached sagebrush communities should be promoted using appropriate tools to reduce trees, followed by direct seeding operations. Scale should be appropriate to management objectives.

**MINED-LAND REVEGETATION  
GUIDELINES FOR THE NEVADA  
DIVISION OF ENVIRONMENTAL  
PROTECTION, BLM AND FOREST  
SERVICE**

**Reclaimed Desired Plant Communities for Mining Operation Disturbances**

Reclamation goals for mining disturbances are 1. stabilize the site, and 2) establish a productive community based on the applicable land use plan and designated post-mining land uses. To meet these goals, a Reclaimed Desired Plant Community (RDPC) should be selected for use on the disturbed mine sites. A RDPC is defined as: A perennial plant community established on a disturbed site which contributes to stability through management and land treatment, and which produces that type and amount of vegetation necessary to meet or exceed both the land use and activity plan objective established for the site.

Several RDPCs may be selected based on site-specific revegetation goals and variable site characteristics for the mining disturbances. When selecting RDPCs, major alterations in reconstructed soils and the subsequent effect of this on the site's capability to establish and sustain the desired vegetation must be considered. A RDPC must have a reasonable chance for success when making the selection.

The plant community for the RDPC should be diverse, and when appropriate for the site should include grasses, forbs, shrubs and/or trees. The RDPC shall be comprised of species

native to the area, or introduced species where the need is documented for inclusion to achieve the approved post-mining land use. The RDPC must meet the requirements of applicable State and Federal seed, poisonous and noxious plants, and introduced species laws or regulations. All RDPCs must be approved by the agencies. Plants for RDPCs may be selected using one or more of the following methods:

1. Select existing vegetation types around the mine site to represent the varied RDPCs.
2. Use test plots, demonstration areas, or areas concurrently reclaimed within the mine site or within similar representative areas from adjacent mines to serve as the RDPCs as long as they meet the reclamation goal.
3. For areas where existing vegetative types adjacent to the mine area are severely disturbed or where test plots or demonstration areas are not reasonable alternatives, RDPCs may be selected using appropriate ecological or range site descriptions or other technical sources.

**Guidelines for Successful Revegetation**

The revegetation release criteria for reclaimed mine sites will be to achieve as close to 100 percent of the perennial plant cover of selected comparison areas as possible. The comparison or reference areas will be selected from representative plant communities adjacent to the mine site, test plots or demonstration areas or, as appropriate, representative ecological or range site descriptions. As approved by the agencies, the selected plant communities or reference areas must have a reasonable chance for success on the mine site. Each plan-of-operations shall identify the site-specific release criteria in the reclamation plan or permit. The agencies may also require specific release standards for individual plant species or vegetative types (grasses, forbs, shrubs, trees). Cover would be estimated using a method as described in Sampling Vegetation Attributes, Interagency Technical Reference, 1996, BLM/RS/ST-96/002+1730 or other acceptable technical methods.



# STANDARD AND GUIDELINES IMPLEMENTATION PROCESS

Upon approval of the Standards and Guidelines by the Secretary of the Interior, permits and leases shall contain terms and conditions that ensure conformance with the approved Standards and Guidelines.

The implementation process for Standards and Guidelines will occur under two separate processes as described below:

1. During the supervision and/or monitoring of an allotment, if it is determined that the existing terms and conditions of a grazing permit are not in conformance with the approved standards and Guidelines and that livestock grazing was determined to be a significant factor in the non-attainment of a standard, then as soon as possible, or no later than the start of the next grazing year, the terms and conditions of the permit/lease will be modified to ensure that the grazing management practices or the levels of the grazing use will be in conformance with the Standards and/or Guidelines. The modification of the terms and conditions of the permit/lease will be implemented by agreement and/or by decision.

2. The allotment evaluation process will continue to be the process used to determine if existing multiple uses for allotments are meeting or making progress towards meeting land use plan objectives, allotment specific objectives, Rangeland Program Summary objectives and land use plan decisions, in addition to the Standards and Guidelines for grazing administration.

Additionally, allotment specific objectives may have to be developed or amended, objectives in the land use plans further

quantified at the allotment specific level, and terms and conditions of permits changed or revised to reflect the Standards and Guidelines. Allotment evaluations will continue to be completed based on district priorities.

- a. The allotment evaluation consists of or involves:
  - 1) The evaluation of current grazing use by all users (livestock, wild horses, wildlife) based on monitoring data analysis and interpretation;
  - 2) Recommendations to change or adjust grazing systems;
  - 3) Recommendations to change or adjust stocking levels; and
  - 4) Establishment of stocking levels for wild horses.
- b. The allotment evaluation also serves as the basis for either issuing multiple use decisions, agreements, or a no-change determination. Multiple use decisions are prepared subsequent to completion of land use plans and are based on the attainment or non-attainment of objectives established in the land use plans and allotment evaluations.

During the evaluation process, the existing terms and conditions of a permit will be evaluated to determine if they are in conformance with the approved Standards and Guidelines. If it is determined that the existing terms and conditions are not in conformance and that livestock grazing was a significant factor in the non-attainment, then as soon as possible or no later than the start of the next grazing year, the terms and conditions of the permit/lease will be modified to ensure that the grazing management practices or the levels of grazing use will be in conformance.

At the conclusion of the evaluation process, the multiple use decision process will continue to be used to establish:

- 1) The terms and conditions of the grazing permits;
- 2) The appropriate management level for wild horses and burros that occur within the allotment; and
- 3) Any recommendations for wildlife populations or habitat management actions required if it is determined that these actions are necessary.

The preamble to the final regulations contains additional information regarding what action BLM would take upon becoming aware that a standard is not being met. The following preamble language is found on page 9956 of the Federal Register notice:

“... The Department intends that failing to comply with a standard in an isolated area would not necessarily result in corrective action.

“The Department recognizes that it will sometimes be a long-term process to restore rangelands to proper functioning condition. The Department intends that Standards and Guidelines will result in a balance of sustainable development and multiple use along with progress towards attaining healthy, properly functioning rangelands. For that reason, wording has been adopted in the final rule that will require the authorized officer to take appropriate action upon determining that existing grazing management practices are failing to ensure appropriate progress toward the fulfillment of standards...”

“In some areas, it may take many years to achieve healthy rangelands, as evidenced by the fundamentals, established standards, and guidelines. The Department recognizes, that in some cases, trends may be hard to even document in the first year. The Department will use a variety of data, including monitoring records, assessments, and knowledge of the locale to assist in making the “significant progress” determination.”

The acceptance of progress toward reaching the desired end state is also addressed in the regulatory text in 43 CFR 4180.1 Fundamentals of Rangeland Health which includes the “making significant progress toward” language in each of the four fundamentals.

The concept of “making progress toward” is a specific consideration when determining a course of action during implementation. Determining whether a standard is being met is a distinctly different concept from determining whether progress is being made toward or away from the standard. Determining a course of action is then dependent on a variety of factors, one of which is whether progress is being made toward the standard.

With regard to actions, it is the BLM’s policy and intent to work in a collaborative manner to achieve or maintain the Standards necessary for healthy, productive rangelands. It is not the policy or intent of the BLM to arbitrarily and immediately remove all livestock from an entire allotment based solely on finding a range site that is not meeting a standard. As a practical matter, the BLM has neither policy, intent, desire nor capability to arbitrarily remove all livestock where acceptable progress is being made toward meeting the Standards.



In Nevada, there are about 800 grazing allotments on 47 million acres of public land.

## **GEOGRAPHICAL AREA COVERED BY THE STANDARDS AND GUIDELINES**

The three Resource Advisory Council (RAC) areas in Nevada are based on combinations of major land resource areas as developed by the Natural Resource Conservation Service for Nevada. This land classification system is recognized by the Bureau of Land Management, the Forest Service and other agencies as a basis for ecosystem data collection and analysis. The soil, vegetal and geophysical characteristics of each of the three areas are different and the text offered by the three RACs incorporates their understanding of the differing physical and biological needs of the rangeland ecosystems.

Recognition of these differences is critical to the successful protection of rangelands in Nevada. As a result of basing the RAC boundaries according to an ecosystem approach

as opposed to strictly an administrative or jurisdictional approach, the RAC's advice and recommendations are more relevant to the on-the-ground management of natural resources. The area covered by the Standards and Guidelines is as follows. Adjustments will be made for grazing allotments that overlap the boundaries between the RAC areas.

The Northeastern Great Basin Resource Advisory Council recommends actions to the Nevada BLM State Director for all or portions of Elko, White Pine, Eureka, and Lander Counties. This includes all of the Elko District and portions of the Ely and Battle Mountain Districts. The Standards and Guidelines would apply to lands within the Owyhee High Plateau and Central Nevada Basin and Range major land resource areas as defined by the Natural Resource Conservation Service.



Group tours a riparian habitat area in northeastern Nevada.

# BLM Nevada Offices

## **NEVADA STATE OFFICE**

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## **NAT'L WILD HORSE & BURRO CENTER AT PALOMINO VALLEY**

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