

GLOSSARY CATEGORIES

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GLOSSARY**GENERAL**

Adaptive Management. A process for continually improving management policies and practices by learning from outcomes of operation programs and new scientific information.

Assumptions (for analysis). The supposition that something is true (Webster's). Assumptions are identified at the beginning of the environmental consequences section, and, as needed, at the beginning of the program-specific environmental consequences analysis.

Best Management Practices. A set of practices which, when applied during implementation of management actions, ensures that negative impacts to natural resources are minimized. BMPs are applied based on site-specific evaluation and represent the most effective and practical means to achieve management goals for a given site.

BLM Sensitive Species. Plant or animal species that could become endangered or extirpated from a state, or within a significant portion of its range in the foreseeable future; is undergoing status review by the U.S. Fish and Wildlife Service; is undergoing significant current or predicted downward trend in habitat capability that would reduce a species' existing distribution, and/or downward trend in population or density such that federally listed, proposed, or candidate status may become necessary; typically consists of small and widely dispersed populations; inhabits ecological refugia, or specialized or unique habitats; or is state-listed, but which may be better conserved through application of BLM sensitive species status. Listing is approved by the BLM State Director, Director of the Nevada Department of Wildlife, and Director of the Department of Conservation and Natural Resources.

Biodiversity. The variety of organisms considered at all levels, from genetic variants of a single species, through arrays of species, genera, families, and still higher taxonomic levels.

Biological Diversity. The variety of all forms of life, used herein primarily in a general sense to refer to variety of both species and communities.

Biomass. Vegetative material left over from stand treatments. This term usually refers to such material that can be gathered and transported to cogeneration plants, and there utilized for production of electricity.

Candidate Species. Those plants and animals included in Federal Register "Notices of Review" that are being considered by the Fish and Wildlife Service for listing as threatened or endangered.

Cave Resource. Any naturally occurring void, cavity, recess, or system of interconnected passages beneath the surface of the earth or within a cliff or ledge, including any cave resource therein, that is large enough to permit a person to enter, whether the entrance is excavated or naturally formed. Also included is any natural pit or sinkhole.

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Climate. The average or prevailing weather conditions of a place over a period of years. (BLM Technical Reference 4400-7)

Cumulative Effect. The impact that results from identified actions when they are added to other past, present, and reasonably foreseeable future actions regardless of who undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Desired Range of Conditions. The expected outcome to be produced by implementation of the identified management actions over the period of time on which this plan is based. Synonymous with Desired Outcomes and Desired Future Conditions.

Diversity. 1) The absolute number of species in a community; species richness; 2) A measure of the number of species and their relative abundance in a community; low diversity refers to few species or unequal abundances, high diversity to many species or equal abundances.

Earnings. Wages and salaries, other labor income, and proprietor's income (including inventory valuation and capital consumption adjustments).

Ecological Analysis. A study and evaluation of the ecological system components and processes present on a given site or geographic area (e.g., watershed) with the intent of identifying 1) the degree to which the components and processes approximate what is considered to be natural and healthy conditions for this type of ecological system, and 2) the causative factors for any observed variations from healthy conditions.

Ecological Balance (also see Ecological Health). The conceptual relationship among ecological system components and processes in which the overall ecological system exists in what is considered to be a healthy condition without evidence of ongoing deterioration or changes toward some less healthy state.

Ecological Functions. Any of a wide variety of natural processes that fit within the general definition of ecological processes.

Ecological Gradients. The gradual transition in individual ecological factors, especially physical factors, from one location to another.

Ecological Health. The degree to which the integrity of the soil, vegetation, water, and air, as well as the ecological processes of an ecological system, are balanced and sustained.

Ecological Processes. The flow and cycling of energy, nutrients, and organisms in an ecological system. (See also 43 Code of Federal Regulations 4180.1(b).)

Ecological System. All the organisms in a particular region and the environment in which they live. The elements interact with each other in some way, and so are depend on each other either directly or indirectly.

Ecological Zones. Ecological systems or groups of systems that occupy particular topographic settings that are repeated at other locations of similar topographic settings throughout the region.

Ecologically Equivalent. An organism which functions in an ecological system in the same manner and with similar results to another organism even though the two may not be related or possess similar physical characteristics.

Ecology. The science of the interrelationships between organisms and their environment; from the Greek "Oikos" meaning "house" or "place to live."

Economically Viable. Possessing the promise of reasonable economic returns following consideration of investment costs and probable economic risks.

Ecosystem Approach. The ecosystem approach is the evaluation of the ecological system of both living organisms and non-living components in a defined area. This approach considers the structure, composition, function, and interrelationships of those components, as well as the societal considerations. The term ecosystem approach employs the perspective of different spatial scales with longer or shorter time frames. While the size and temporal consideration of ecological systems may vary, the watershed level is the primary scale of analysis within this RMP/EIS.

Ecosystem. The complex of a community of organisms and its environment.

Ecosystem-based Management. 1) management driven by explicit goals, executed by policies, protocols, and practices, and made adaptable by monitoring and research based on our best understanding of the ecological interactions and processes necessary to sustain ecosystem composition, structure, and function; 2) any land management system that seeks to protect viable populations of all native species, perpetuate natural-disturbance regimes on the regional scale, adopt a planning timeline of centuries, and allow human use at levels that do not result in long-term ecological degradation.

Ely Decision Area. The geographic area managed by the Ely Field Office. The area the BLM manages is approximately 11.4 million acres. The area within the boundaries of the decision area is approximately 13.9 million acres and includes National Forest, National Park, Department of Defense, Fish and Wildlife Service, state, private, etc.

Ely Field Office. The administrative unit of the BLM that manages the Ely decision area.

Endangered Species. Any species defined through the Endangered Species Act as being in danger of extinction throughout all or a significant portion of its range and published in the Federal Register.

Endemic Species. Native to, and restricted to, a particular geographical region, community type, or specific habitat.

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Environmental Assessment. A systematic analysis of site-specific BLM activities used to determine whether such activities have a significant effect on the quality of the human environment and whether a formal environmental impact statement is required and also to aid an agency's compliance with the National Environmental Policy Act when no EIS is necessary.

Environmental Impact Statement (EIS). A formal document to be filed with the Environmental Protection Agency and that considers significant environmental impacts expected from implementation of a major federal action.

Exotic Species. An organism or species that is not native to the region in which it is found. Synonym nonnative: Not native; alien; a species that has been introduced into an area.

Extirpation. The localized disappearance of a species from an area.

Fragile Ecosystems. Uncommon ecosystems of limited distribution and size that support unique sensitive/endemic species or communities; ecosystems that have low resilience to environmental stress or to disturbance.

Geographic Information System (GIS). A computer system capable of storing, analyzing, and displaying data and describing places on the earth's surface.

Goal. Broad statements about desired outcomes (e.g., maintain ecosystem health and productivity). They are not quantifiable.

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

Habitat management scales:

Large scale = RMP planning area

Mid scale = Watershed

Fine scale = Allotment, project, portion of a watershed

Hazardous Materials. Anything that poses a substantive present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Incomplete or Unavailable Information. When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an EIS and there is incomplete or unavailable information, the agency shall always make it clear that such information is lacking (Council on Environmental Quality 1502.22). These are identified at the beginning of the environmental consequences section.

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.

Indigenous. Living naturally within a given area and was part of the area's flora or fauna prior to human settlement of the region.

Introduction. Intentional or unintentional escape, release, dissemination, or placement of a species into an ecosystem as a result of human activity.

Management Framework Plan (MFP). Planning decision document prepared before the effective date of the regulations implementing the land use planning provisions of the FLPMA, which establishes, for a given area of land, land-use allocations, coordination guidelines for multiple-use, and objectives to be achieved for each class of land use or protection.

Management Guidelines Common to All Alternatives. Management guidance that applies to any and all of the alternatives, including the No Action and the agency-preferred alternative. These are identified at the beginning of the description of the alternatives.

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.

Management. Any actions or activities that are undertaken by the staff of the Ely Field Office that deal with the physical or biological resources found on Public lands within the Ely planning area or with the use of those resources.

Monitoring. Monitoring means the periodic observation and orderly collection of data to evaluate: 1) Effects of management actions; and 2) Effectiveness of actions in meeting management objectives. (43 Code of Federal Regulations 4100.0.5.) The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives. (BLM Technical Reference 4400-7)

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

Multiple Use. "The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals watershed, wildlife and fish, natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the

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resources and not necessarily to the combination of uses that will give the greatest economic return of the greatest unit output” (Federal Land Policy and Management Act).

Multiplier. A change in an economic measure resulting from a specified change in some other economic measure.

National Ambient Air Quality Standards. The allowable concentrations of air pollutants in the ambient (public outdoor) air. National ambient air quality standards are based on the air quality criteria and divided into primary standards (allowing an adequate margin of safety to protect the public health) and secondary standards (allowing an adequate margin of safety to protect the public welfare). Welfare is defined as including (but not limited to) effects on soils, water, crops, vegetation, human-made materials, animals, wildlife, weather, visibility, climate, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.

National Environmental Policy Act of 1969 (NEPA). NEPA is the basic national charter for protection of the environment. It establishes policy, sets goals, and provides means for carrying out the policy. It also contains action-forcing provisions to ensure that federal agencies follow the letter and spirit of the Act.

National Natural Landmarks. This is an area designated by the Secretary of the Interior as being of national significance to the U.S. because it is an outstanding example(s) of major biological or geological features found within the boundaries of the U.S. or its Territories or on the Outer Continental Shelf.

National significance describes an area that is one of the best examples of a biological community or geological feature within a natural region of the U.S., including terrestrial communities, landforms, geological features and processes, habitats of native plant and animal species or fossil evidence of the development of life.

This program aims to encourage and support voluntary preservation of sites that illustrate the geological and ecological history of the U.S., and to strengthen the public’s appreciation of America’s natural heritage. To be considered for National Natural Landmark status, a site must be one of the best examples of a natural region’s characteristic biotic or geologic features.

Native Species. With respect to a particular ecological system, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecological system.

Natural Resources. These include topography (consider slope and drainage patterns), soil, water courses and/or waterbodies, geological formations, vegetation (consider rare, threatened, or endangered species), and fish and wildlife (consider rare, threatened, or endangered species).

Natural System. This refers to a biological, soil, and physical environment largely, but not necessarily entirely, controlled by natural processes rather than by intensive human activity, e.g., the comparison between rangelands and tilled agricultural croplands.

Naturalized Species. An exotic or introduced species that has become established and exhibits successful reproduction in an ecosystem.

Net Value Change. The sum of the changes resulting from increases (benefits) and decreases (damages) in the value of outputs from the land area affected as the consequences of fire. An average dollar value per acre is assigned based on the change to all resources including range, watershed, wildlife, soils, and recreation.

Objective. Objectives identify specific desired conditions for resources. They can be quantified and measured and may have established timeframes for achievement (e.g., manage vegetative communities on the upland portion of the Clear Creek watershed to achieve by 2020 an average 30 to 40 percent canopy cover of sagebrush).

Permit. Authorization in writing by the authorized officer or other person authorized by the U.S. Government, and is a contract between the permittee and the U.S.

Personal Income. Employee compensation plus property income.

Physiographic Province. A geographic region with similar climatic, land form, and geologic features, and which is significantly different from adjacent regions.

Planning Criteria. Guidelines for the planning effort that serve as the sideboards.

Productivity. The potential rate of incorporation or generation of energy or organic matter (biomass) by an organism, population or trophic unit per unit time per unit area; plant productivity is termed primary production, and animal productivity is termed secondary production.

Rangeland Health. The degree to which the integrity of the soil and the ecological processes of rangeland ecosystems are sustained.

Resistance. The ability to resist; especially, the inherent capacity of a living organism (or assemblage of organisms) to resist external forces and adverse circumstances such as disease, drought, lack of nourishment, or toxic agents.

Resource. Any component of the environment that can be utilized by an organism.

Resource Advisory Council. A citizen-based group of 10 to 15 members chartered under the Federal Advisory Committee Act and appointed by the Secretary of the Interior to forward advice on public land planning and management issues to the BLM. Council membership reflects a balance of various interests concerned with the management of the public lands and users of the public lands.

Resource Management Plan (RMP). A BLM multiple-use planning document, prepared in accordance with Section 202 of the Federal Land Policy and Management Act, that:

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- Establishes resource conditions goals and objectives to be attained;
- Allocates resources and identifies allowable uses;
- Identifies land area for limited, restrictive, or exclusive uses; and
- Provides guidance for implementation of the decisions made in the plan.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. For example, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

Special Status Species. Plant or animal species that are federally listed, proposed, or candidate species; state protected species; or BLM sensitive species.

Species. A taxon of the rank species; which is the basic unit, and lowest principal category, of biological classification; in the hierarchy of biological classification, the category below genus; a group of organisms formally recognized as distinct from other groups.

Stakeholders. Stakeholders means, but is not limited to, state, Tribal, and local government agencies, academic institutions, the scientific community, nongovernmental entities including environmental, agricultural, and conservation organizations, trade groups, commercial interests, and private landowners.

Standard Operating Procedures. Synonymous with “mitigating measures”; a standard operating procedure would mitigate a potential impact. These are actions that the Ely Field Office automatically takes as part of a management action or project (e.g., flagging a new fence for visibility by wildlife and horses). These may be common to all alternatives.

Standards. The goal to be strived for.

Sustainability. The ability to maintain diversity, productivity, resilience to stress, health, renewability, and yields of desired values, resource uses, products, or services over time in an ecosystem while maintaining its integrity.

Threatened Species. Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range; listings are published in the Federal Register.

Trend. The direction of change over time, either toward or away from desired management objectives.

Upland. Terrestrial ecosystems located away from riparian zones, wetlands, springs, seeps and dry washes; ecosystems made up of vegetation not in contact with groundwater or other permanent water sources.

Urban Interface. An area where urban encroachment into adjacent wildland areas is increasing the complexity and magnitude of problems related to all aspects of natural resource management and protection, including increased fire risks, unauthorized use, and littering.

CULTURAL RESOURCES

Archaeological Resource. Any material remains of past human life or activities which are of archaeological interest. These include, but are not limited to: pottery, basketry, bottles, weapons, projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items. Nonfossilized and fossilized paleontological specimens, or any portion or piece thereof, shall not be considered archaeological resources unless found in an archaeological context. No item shall be treated as an archaeological resource unless such item is at least 100 years of age. (Archaeological Resources Protection Act of 1979: Definitions 16 USC 470bb).

Archaeological Site. A geographic locale that contains the material remains of prehistoric and/or historic human activity.

Archaeology. The reconstruction of past cultures through their material remains and the study of how cultures change over time.

Conservation for Future Use. This category is reserved for any unusual cultural property which, because of scarcity, a research potential that surpasses the current state of the art, singular historic importance, cultural importance, architectural interest, or comparable reasons, is not currently available for consideration as the subject of scientific or historical study that would result in its physical alteration. A cultural property included in this category is deemed worthy of segregation from all other land or resource uses, including cultural resources uses that would threaten the maintenance of its present condition or setting, as pertinent, and will remain in this use category until specified provisions are met in the future.

- Where the primary allocation is to Conservation for Future Use:
 - Data recovery would not be permitted
 - Scientific Use would only occur when non-destructive
 - Experimental Use would be incompatible with Conservation for Future Use
 - No new actions would be approved that would require data recovery or diminish the scientific value of the resource

Cultural Property. A definite location of past human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence (BLM Manual 8100).

Cultural Resource Inventory Classes.

Kinds of Inventory: the BLM cultural resource inventory system is composed of three kinds of inventory: Class I – existing information inventory; Class II – probabilistic field survey; and Class III – intensive field

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survey. Each is designed to provide specific cultural resource information for various planning and resource needs.

Class I – existing information inventory: a study of published and unpublished documents, records, files, registers, and other sources resulting in an analysis and synthesis of all reasonably available data. Class I inventories encompass prehistoric, historic, and ethnological/sociological elements, and are in large part chronicles of past land uses. They may have major relevance to current land use decisions.

Class II – probabilistic field survey: a statistically based sample survey designed to help characterize the probable density, diversity, and distribution of archaeological properties in a large area by interpreting the results of surveying limited and discontinuous portions of the target area (reconnaissance survey). For example, Class II level inventories are appropriate for Caves and Rockshelters, which normally can be detected with this type of sample design inventory.

Class III – intensive field survey: a continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications, by walking close-interval parallel transects until the area has been thoroughly examined.

Cultural Resources. A broad general term meaning any cultural property and any traditional lifeway value (BLM Manual 8100). It includes prehistoric, historic, ethnographic, tribal heritage, ethnohistoric, engineering, architectural, and technological resources.

Discharged from Management. This category is assigned to cultural properties that have no remaining identifiable use. Most often these are prehistoric and historic archaeological properties, such as small surface scatters of artifacts or debris, whose limited research potential is effectively exhausted as soon as they have been documented. Also, more complex archaeological properties that have had their salient information collected and preserved through mitigation or research may be discharged from management, as should cultural properties destroyed by any natural event or human activity. Properties discharged from management remain in the inventory, but they are removed from further management attention and do not constrain other land uses. Particular classes of unrecorded cultural properties may be named and described in advance as dischargeable upon documentation, but specific cultural properties must be inspected in the field and recorded before they may be discharged from management.

Experimental Use. This category may be applied to a cultural property judged well-suited for controlled experimental study, to be conducted by BLM or others concerned with the techniques of managing cultural properties, which would result in the property's alteration, possibly including loss of integrity and destruction of physical elements. Committing cultural properties or the data they contain to loss must be justified in terms of specific information that would be gained and how it would aid in the management of other cultural properties. Experimental study should aim toward understanding the kinds and rates of natural or human-caused deterioration, testing the effectiveness of protection measures, or developing new research or interpretation methods and similar kinds of practical management information. It should not be applied to cultural properties with strong research potential, traditional cultural importance, or good public use potential, if it would substantially diminish those uses.

Historic. Period wherein nonnative cultural activities took place, based primarily upon European roots, having no origin in the traditional Native American culture(s).

Historic Property. "...any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register. The term includes, for purposes of these regulations, artifacts, records, and remains that are related to and located within such properties. The term 'eligible for inclusion in the National Register' includes both properties formally determined as such by the Secretary of the Interior and all other proper-ties that meet National Register listing criteria..." {quoted from 36 CFR 900.2(e)}.

National Register of Historic Places. A register of districts, sites, buildings, structures, and objects, significant in American history, architecture, archaeology and culture, established by the "Historic Preservation Act" of 1966 and maintained by the Secretary of the Interior.

Paleontology. The study of fossils; what fossils tell us about the ecologies of the past, about evolution, and about our place, as humans, in the world. Informs us about interrelationship between the biological and geological components of ecosystems over time.

Public Use. This category may be applied to any cultural property found to be appropriate for use as an interpretative exhibit in place, or for related educational and recreational uses by members of the general public. The category may also be applied to buildings suitable for continued use or adaptive use, for example, as staff housing or administrative facilities at a visitor contact or interpretative site, or as shelter along a cross-country ski trail. Criteria to recognize Public Use at an archaeological/historic site:

- Physical evidence of public use at an archaeological site
 - evidence of display piles
 - trash
 - fire rings/campfires
 - tire tracks leading to site
 - visitor trails through site
- Monitoring of site by volunteers
- Location identified on public maps and websites, in guidebooks and newsletters

Rock Art. Petroglyphs or pictographs.

Sacred Site. Any specific, discrete, narrowly delineated location of federal land that is identified by an Indian tribe, or individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site (quoted from Executive Order 13007, Section 7 1(b)(iii)).

Scientific Use. This category applies to any cultural property determined to be available for scientific or historical study using currently available research techniques, including methods that would result in the

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property's physical alternation or destruction. The category applies almost entirely to prehistoric and historic archaeological properties, where the method of use is generally archaeological excavation, controlled surface collection, and/or controlled recordation (data recovery). Recommendations to allocate individual properties to this use must be based on documentation of the kinds of data the property is thought to contain and the data's importance for pursuing specified research topics. Properties in this category need not be conserved in the face of a research or data recovery (mitigation) proposal that would make adequate and appropriate use of the property's research importance.

Traditional Cultural Property. A cultural property that derives significance from traditional lifeway values associated with it. A traditional cultural property may qualify for the National Register if it meets the criteria and criteria exceptions at 36 Code of Federal Regulations 60.4 (BLM Manual 8100 – The Foundations for Managing Cultural Resources, page 34).

Traditional Lifeway Values. The quality of being useful in or important to the maintenance of a specified social and/or cultural group's traditional systems of (a) religious belief, (b) cultural practice, or (c) social interaction, not closely identified with definite locations. Another group's shared values are abstract, nonmaterial, ascribed ideas that one cannot know about without being told (BLM Manual 8100).

Traditional Use. This category is to be applied to any cultural resource known to be perceived by a specified social and/or cultural group as important in maintaining the cultural identity, heritage, or well-being of the group. Cultural properties assigned to this category are to be maintained in ways that recognize the importance ascribed to them and seek to accommodate their continuing traditional use.

FIRE

Appropriate Management Response. Specific actions taken in response to a wildland fire to implement protection and fire use objectives.

Emergency Stabilization. Actions taken immediately following a fire event to 1) stabilize soils against erosion, 2) protect threatened and endangered species habitats against further degradation, 3) prevent further damage to known fire-damaged historic properties, and 4) prevent invasive plant establishment.

Escaped Fire. A fire that has exceeded initial attack capabilities.

Fire Effects. The physical, biological, and ecological impact of fire on the environment.

Fire Intensity. The product of the available heat of combustion per unit area of ground and the rate of spread of the fire.

Fire Management Area. One or more parcels of land having a common set of fire management objectives.

Fire Regime. Periodicity and pattern of naturally occurring fire in a particular area or vegetative type, described in terms of frequency, biological severity, and area extent (Society of American Foresters 1996).

Fire Return Interval. The number of years between two successive fires documented in a designated area (such as the interval between two successive fire occurrences).

Fire Strategy. An overall plan of action for fighting a fire that gives regard to the most cost-efficient use of personnel and equipment in consideration of values threatened, fire behavior, legal constraints, and objectives established for resource management. Leaves decisions on the tactical use of personnel and equipment to line commanders in the suppression function.

Fire Suppression. All the work activities connected with fire-extinguishing operations, beginning with the discovery and continuing until the fire is completely extinguished.

Fuel Type. An identification association of fuel elements of distinctive species, form, size, arrangement or other characteristics that will cause a predictable rate of spread or resistance to control under specific weather conditions.

Fuels. Includes living and dead plant materials that are capable of burning.

Greenstripping. The practice of establishing or using patterns of fire-resilient vegetation and/or material to reduce wildfire occurrence and size. Examples are establishing fire-resilient vegetation adjacent to roads or railways, around or interspersed in valuable shrub stands, or within large blocks of flash fuels.

Phase 1 Fire Planning. The first phase of a two-stage fire management planning process that identifies desired resource conditions and fire management direction, including fire management strategies, which will promote achievement of resource objectives.

Prescribed Fire. Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and National Environmental Policy Act requirements must be met, prior to ignition.

Rehabilitation. The activities necessary to repair damage or disturbance caused by wildfire or the fire suppression activity.

Risk Assessment. Assessing the chance of fire starting, natural or human-caused, and its potential risk to life, resources, and property.

Values-at-risk. Any or all natural resources, improvements, or other values that may be jeopardized if a fire occurs (value-at-risk, risk of resource values).

Wildland Fire. Any nonstructure fire, other than prescribed fire, that occurs in the wildland.

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Wildland Fire Implementation Plan. A decision-making process that evaluates alternative management strategies against selected safety, environmental, social, economical, political, and resource management objectives as selected criteria for the management of wildland fire use.

Wildland Fire Situation Analysis. A decision-making process that evaluates alternative management strategies against selected safety, environmental, social, economical, political, and resource management objectives as selection criteria for suppression of a fire.

Wildland Fire Use. Any fire ignited by natural means, such as lightning, which is managed for resource benefits.

Wildland Urban Interface. The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetation fuels.

GEOLOGY AND MINERALS

Alluvium. Material deposited on the land by water, such as gravel, sand, silt, or clay.

Badlands. Steep or very steep, commonly nonstony, barren land dissected by many intermittent drainage channels, most common in semiarid and arid regions where streams are entrenched in soft geologic material. Local relief generally ranges from 25 to 500 feet. Runoff potential is very high, and geologic erosion is active.

Clay (Geology). A rock or mineral fragment of any composition finer than 0.00016 inches in diameter. Mineral: A hydrous aluminum-silicate that occurs as microscopic plates, and commonly has the ability to absorb substantial quantities of water on the surface of the plates.

Erosion (Geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains; synonymous with *natural erosion*.

Fluvial (Fluviatile) Deposit. A sedimentary deposit laid down, transported by, or suspended in, a stream.

Graben. A fault-bounded down-dropped portion of the Earth's crust.

Gravel (Geology). Fragments of rock worn by the action of air and water, larger and coarser than sand.

Hot-springs Deposit. A type of hydrothermal deposit formed in a hot-springs environment.

Hydrothermal Deposit. A mineral deposit formed by hot, mineral-laden fluids.

Igneous Rock. Rock that solidified from a molten or semimolten state. The major varieties include intrusive (solidified beneath the surface of the Earth) and volcanic (solidified on or very near the surface of the Earth).

Known Geothermal Resource Area. “An area in which the geology, nearby discoveries, competitive interest, or other indicia would, in the opinion of the Secretary, engender the belief in men who are experienced in the subject matter that the prospect for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures or money for that purpose” [43 Code of Federal Regulations 3200.0-5(k)].

Lacustrine Deposit (Geology). Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Leasable Minerals. Those minerals that are leased to individuals for their exploration and development. The leasable minerals have been subdivided into two classes, fluid and solid. Fluid minerals include oil and gas; geothermal resources and associated by-products; and oil shale, native asphalt, oil impregnated sands and any other material in which oil is recoverable only by special treatment after the deposit is mined or quarried. Solid leasable minerals are specific minerals such as coal and phosphates. All minerals on acquired lands are considered to be leasable minerals. Leasable minerals are associated with the following laws: Mineral Leasing Act of 1920, as amended and supplemented, Mineral Leasing Act for Acquired Lands of 1947, as amended, and the Geothermal Steam Act of 1970, as amended.

Limestone. A sedimentary rock consisting chiefly of calcium carbonate.

Locatable Minerals. Those that have been described as “valuable mineral deposits.” These include precious and base metal ores such as gold, silver, copper, or lead, and certain industrial minerals such as gypsum, chemical grade limestone, and chemical grade silica sand. Uncommon varieties of mineral materials such as pozzolan, pumice, decorative rock, and cinders also are regulated as locatable minerals. These minerals are regulated under the General Mining Law of 1872, as amended, and Surface Use and Occupancy Act of July 23, 1955.

Magma. Molten rock from within the Earth capable of flowing like liquid.

Metamorphosed. Rock that has been altered in composition, texture, or structure by heat and/or pressure.

Mineral Materials. Common geologic materials that include sand, gravel, and common clay. Mineral materials are sold through contract and are regulated under the Mineral Material Act of July 23, 1947, as amended, and the Surface Use and Occupancy Act of July 23, 1955.

No Surface Occupancy. A fluid mineral leasing stipulation that prohibits occupancy or disturbance on all or part of the lease surface to protect special values of uses. Lessees may explore for or exploit the fluid minerals under leases restricted by this stipulation by using directional drilling from sites outside the no surface occupancy area.

Porphyry Deposit. A large, low-grade metallic mineral deposit containing disseminated sulfide minerals (examples: copper, gold, molybdenum, or tin).

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Rhyolite. A fine-grained light-colored silica-rich igneous rock composed largely of potash feldspars and quartz.

Salable Minerals. See Mineral Materials.

Sand. (geology) A rock fragment or detrital particle between 0.0025 and 0.08 inches in diameter.

Schist. A metamorphic rock characterized by coarse-grained minerals oriented approximately parallel.

Silt (Geology). A rock fragment or detrital particle smaller than very fine sand and larger than coarse clay, ranging from 0.0024 to 0.00016 inches in diameter and commonly having a high content of clay minerals.

Slate. A compact, fine-grained, platy metamorphic rock formed from shale or claystone.

Special Stipulation. A specific operating condition or limitation added to a mineral lease to protect sensitive resources. It modifies the original terms and conditions of that lease.

Surface Occupancy. See definition for No Surface Occupancy.

Terrace (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

Upland (geology). Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Valid Existing Rights. Locatable mineral development rights that existed when the Federal Land Policy and Management Act was enacted on October 21, 1976. Some areas are segregated from entry and location under the Mining Law to protect certain values or allow certain uses. Mining claims that existed as of the effective date of the segregation may still be valid if they can meet the test of discovery of a valuable mineral required under the Mining Law. Determining the validity of mining claims located in segregated lands requires BLM to conduct a validity examination and is called a "valid existing rights" determination.

GRAZING

Active Use. The current authorized use, including livestock grazing and conservation use. Active use may constitute a portion, or all, of permitted use. Active use does not include temporary nonuse or suspended use of forage within all or a portion of an allotment.

Actual Use Data. The number of livestock, kind or class of those livestock, and time period those livestock actually grazed a specific allotment or pasture.

Animal Unit. One cow, one cow/calf pair, one horse, or five sheep.

Animal Unit Month. The forage needed to support one cow, one cow/calf pair, one horse, or five sheep for one month. Approximately 800 pounds of forage.

Authorized Use. This is the amount of use a permittee is billed for (the bill is the authorization to graze). It may or may not be the total active use. Example: If a permittee has 500 animal unit months of active use, he may only be authorized 300 animal unit months for a certain year, but cannot be authorized above 500 animal unit months. This changes from year to year, based on fluctuation of the permittees livestock herd, vegetation production, drought, etc.

Deferred Grazing. Discontinuance of grazing by livestock on an area for a specified period of time during the growing season to promote plant growth, reproduction, establishment of new plants, or restoration of vigor by old plants.

Deferred Rotation Grazing. Discontinuance of grazing on various parts of a range in succeeding years, allowing each part to rest successively during the growing season to permit seed production, establishment of seedlings, or restoration of plant vigor. Two, but usually three or more, separate units are required. Control is usually insured by unit fencing, but may be obtained by camp unit herding.

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

Ecological Site Inventory. The basic inventory of present and potential vegetation on BLM rangelands. Ecological sites are differentiated on the basis of the kind, proportion, or amount of plant species.

Forage. The plant material actually consumed by (or available to) grazing animals.

Grazing Distribution. Dispersion of livestock grazing within a management unit or area.

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.

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

Performance-based Grazing Management (Conservation Partnerships). A voluntary arrangement in which a grazing permit holder enters into a performance-based agreement with the agency aimed at promoting ecological health of an allotment. Performance-based actions would include those that help restore stream banks and wetlands, enhance water quality and quantity, improve wildlife habitat, and promote recovery of special status species. In return the permittee receives greater management flexibility and the potential for increased livestock grazing made possible by success in the conservation efforts.

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Permitted Use. The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and is expressed in animal unit months.

Range Improvement. Range improvement means an authorized physical modification or treatment that 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 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.

Residual Vegetation. Amount, cover, and species composition of the vegetation on a site after it has been grazed for a period of time.

Rest-rotation Grazing. An intensive system of management whereby grazing is deferred on various parts of the range during succeeding years, allowing the deferred part complete rest for one year. Two or more units are required. Control by fencing is usually necessary on cattle range, but may be obtained by herding on sheep ranges.

Surface Characteristics. The amount of bare ground, litter, rock, and basal cover of live vegetation, which may include cryptogams (Nevada Rangeland Monitoring Handbook).

Sustained Yield. "The achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use" (Federal Land Policy and Management Act of 1976).

LANDS, RECREATION, AND SPECIAL DESIGNATIONS

Access. The physical ability to have legal ingress to and egress from public lands via public roads or on routes having public easements.

Acquired Lands. Lands acquired for BLM administration in various ways, such as but not limited to: 1) any lands purchased by congressionally appropriated funds, 2) land donations, 3) land exchanges, 4) Land and Water Conservation Fund acquisitions, 5) land withdrawals returned to public land status through withdrawal revocations and/or relinquishments, etc., 6) split-estate acquisitions, 7) federal agency jurisdictional transfers, 8) easement acquisitions, and/or 9) lands acquired by any other means.

Area Of Critical Environmental Concern (ACEC). Area where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect humans from natural hazards.

Avoidance Areas. Areas with sensitive resource values where rights-of-way would be strongly discouraged. Authorizations made in avoidance areas would have to be compatible with the purpose for which the area was designated and not be otherwise feasible on lands outside the avoidance area.

Back-country Byway. Vehicle routes that traverse scenic corridors utilizing secondary or back-country road systems. National back-country byways are designated by the type of road and vehicle needed to travel the byway.

Closed. Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs.

Corridor. A wide strip of land within which a proposed linear facility could be located.

Designated Corridor. A parcel of land identified by law, Secretarial order, through a land use plan or by other management decision as being the preferred location for existing and future right-of-way grants and suitable to accommodate one type of right-of-way or one or more rights-of-way that are similar, identical or compatible.

Designation. The approval of a resource management plan, plan revision, or plan amendment constitutes formal designation of off-highway vehicle use areas.

Exclusion Areas. Areas with sensitive resource values where rights-of-way would be prohibited.

Extensive Recreation Management Area. Area where recreation management is less structured (than within a special recreation management area) and recreation use more dispersed with minimal regulatory constraints and where minimal recreation-related investments are required.

High Resource Values. Lands with high resource values are considered to be public lands that have the caliber of resources to qualify them for inclusion in special management areas such as ACECs, National Wild and Scenic Rivers, Wilderness Study Areas, and high resource areas such as critical wildlife habitat areas, wild horse herd areas, critical fish habitat areas, cultural site areas, threatened and endangered species habitats, etc. Long-term retention of Public lands in these special management areas is either required by law through Congressional action or identified through the land use planning process.

Integrated Use. To merge the use of each type of public land use through a series of land management practices.

Interim Management Policy. Policy for managing public lands under wilderness review. Section 603 (c) of the Federal Land Policy and Management Act of 1976 states: "During the period of review of such areas and until Congress has determined otherwise, the Secretary shall continue to manage such lands according to his authority under this Act and other applicable law in a manner so as not to impair the suitability of such areas for preservation as wilderness, subject, however, to the continuation of existing mining and grazing uses and mineral leasing in the manner and degree in which the same was being conducted on the date of

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approval of this Act: Provided, that, in managing the public lands the Secretary shall by regulation or otherwise take any action required to prevent unnecessary or undue degradation of the lands and their resources or to afford environmental protection.”

Land Use Allocations. Allocations that define allowable uses/activities, restricted uses/activities, and prohibited uses/activities. They may be expressed in terms of area such as acres or miles. Each allocation is associated with a specific management objective.

Land Use Plan. Land use plan means a resource management plan, developed under the provisions of 43 Code of Federal Regulations 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 Code of Federal Regulations 4100)

Limits of Acceptable Change. For recreation management, a nine-step process used to define the desired resource conditions for an area and to determine acceptable levels of resource change due to recreation use. The process helps to develop management actions to avoid exceeding standards.

Mechanized Vehicle. Any non-motorized vehicle capable of or designed for travel on land. An example of a mechanized vehicle is a mountain bike.

Military Operations Area. A type of low-altitude military airspace that is controlled, when active, to separate military activities from civilian air traffic. Depending on the specific military operations area, military aircraft may maneuver to altitudes as high as 18,000 feet above mean sea level, and supersonic flight may be authorized. Training activities typically include basic fighter maneuvers, air combat tactics, low-altitude tactical navigation, and simulated air-to-surface missions.

Naturalness (a primary wilderness value). An area that generally appears to have been affected primarily by the forces of nature with the imprint of people’s work substantially unnoticeable.

Off-highway Vehicle. A vehicle that can be operated off of improved and regularly maintained roads with hardened or gravel surfaces.

Off-highway Vehicle Designation:

- **Open:** Designated areas and trails where off-highway vehicles may be operated subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343.
- **Limited:** Designated areas and trails where off-highway vehicles are subject to restrictions limiting the number or types of vehicles, date, and time of use; limited to existing or designated roads and trails.
- **Closed:** Areas and trails where the use of off-highway vehicles is permanently or temporarily prohibited. Emergency use is allowed.

Off-Highway Vehicle Emphasis Area. A special recreation management area that emphasizes motorized recreation over other recreational opportunities. These are not designated off-highway vehicle open areas. Within the special recreation management area, trails and routes would be designated for motorized recreational opportunities. Off-road motorized travel would not be permitted for recreational purposes.

Patent. The instrument by which the Federal Government conveys title to the public lands.

Primary Wilderness Values. The primary or key wilderness values described in the “Wilderness Act” by which Wilderness Study Areas and designated wilderness are managed to protect and enhance the wilderness resource. Values include roadlessness, naturalness, solitude, primitive and unconfined recreation, and size.

Primitive and Unconfined Recreation (a primary wilderness value). Nonmotorized and undeveloped types of outdoor recreation activities. Refers to wilderness recreation opportunities, such as nature study, hiking, photography, backpacking, fishing, hunting, and other related activities. Does not include the use of motorized vehicles, bicycles, or other mechanized means of travel.

Public Land. Any land or interest in land owned by the U.S. and administered by the Secretary of the Interior through the BLM.

Recreation Opportunity Spectrum. A means of characterizing recreation opportunities in terms of setting, activity, and experience opportunities.

Recreation Site. An area where management actions are required to provide a specific recreation setting and activity opportunities, to protect resource values, provide public visitor safety and health, and/or to meet public recreational use demands and recreation partnership commitments. A site may or may not have permanent facilities.

Research Natural Area. An area where natural processes predominate and which is preserved for research and education. Under current BLM policy, these areas must meet the relevance and importance criteria of ACECs and are designated as ACECs.

Right-of-way. A permit or an easement authorizing the use of public land for certain specified purposes, commonly for pipelines, roads, telephone lines, electric lines, reservoirs, etc. Also, the reference to the land covered by such an easement or permit.

Road. Travel route that has been improved and maintained by mechanical means to ensure relatively regular and continuous use.

Rural Interface Areas. Areas where BLM-administered lands are adjacent to or intermingled with privately owned lands zoned for 1- to 20-acre lots, or areas that already have residential development.

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Solitude (a primary wilderness value). The state of being alone or remote from habitations; a lonely, unfrequented, or secluded place. The intent is to evaluate the opportunity for solitude in comparison to habitations of people.

Special Recreation Management Area. An area where recreation is one of the principal management objectives, where intensive recreation management is needed, and where more than minimal recreation-related investments are required.

Special Recreation Permit. Authorizations, which allow for recreational uses of the public lands and related waters. They are issued as a means to control visitor use, protect recreational and natural resources, provide for the health and safety of visitors, and as a mechanism to accommodate commercial recreational use of public lands.

Trail. A pathway usually created and maintained by human foot traffic, beasts-of-burden, livestock, or wildlife.

Visit. A unit of measure for evaluating the amount of recreational activity on public land; equivalent to one person spending any part of a day recreating on Public land.

Visual Resource Management Classes. A classification of landscapes according to the kinds of structures and changes that are acceptable to meet established visual goals (BLM).

Visual Resources. The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

Way. A trace maintained solely by the passage of vehicles which has not been improved and/or maintained by mechanical means to ensure relatively regular and continuous use.

Wilderness Inventory. A written description of resource information and data, and a map of those public lands that meet the wilderness criteria as established under Section 603 (a) of the Federal Land Policy and Management Act of 1976 and Section 2 (c) of "The Wilderness Act."

Wilderness Study Area. A roadless area or island that has been inventoried and found to have wilderness characteristics as described in section 603 of the Federal Land Policy and Management Act of 1976 and section 2 (c) of "The Wilderness Act." Wilderness Study Areas were administratively designated by BLM following evaluation of wilderness inventories.

Withdrawal. A withdrawal is a formal action that transfers total or partial jurisdiction of federal land between federal agencies, segregates (closes) federal land to some or all of the public land laws and/or mineral laws, or dedicates land for a specific public purpose. There are three major categories: Congressional, administrative, and Federal Energy Regulatory Commission withdrawals.

SOIL

Association, Soil. A group of soils geographically associated in a characteristic repeating pattern and defined and delineated as a single soil map unit.

Biological (Cryptogamic) Soil or Crust. Community of non-vascular primary producers that occur as a "crust" on the surface of soils; made up of a mixture of algae, lichens, mosses, and cyanobacteria (bluegreen algae).

Calcareous Soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

Classification, Soil. The systematic arrangement of soils into groups or categories on the basis of their characteristics.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clayey Soil. Silty clay, sandy clay, or clay.

Coarse Textured Soil. Sand or loamy sand.

Colluvium. Soil material, rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

Compaction, Soil. An increase in soil bulk density of 15 percent or more from the undisturbed level.

Complex, Soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Cryptogamic Crust. See microbial crust.

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.

Erosion (Accelerated). Erosion much more rapid than geologic erosion, occurring mainly as a result of human or animal activities or of a catastrophe in nature, such as with fire, that exposes the surface.

Fertility, Soil. The quality that enables a soil to provide plant nutrients in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tillage, and other growth factors are favorable.

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Fine Textured Soil. Sandy clay, silty clay, or clay.

Functionality, Soil. The maintaining of soil structure and texture characteristics, such as aeration, temperature, moisture, nutrition and the organisms that live in the soil.

Gravel. (Geology) Unconsolidated, rounded rock fragments greater than 0.08 inch in diameter. Sizes range from pebbles (0.008 to 2.5 inches) to cobbles (2.5 to 10 inches) to boulders (greater than 10 inches).

Horizon, Soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Map Unit. The basic system of description in a soil survey and delineation on a soil map. Can vary in level of detail.

Medium Textured Soil. Very fine sandy loam, loam, silt loam, or silt.

Microbiotic Crust. Lichens, mosses, green algae, fungi, cyanobacteria, and bacteria growing on or just below the surface of soils.

Order 3 Soil Survey. A reconnaissance survey with extensive ground truthing. Minimum delineation sizes are typically on the order of 40 to 80 acres.

Organic Matter. Plant and animal residue in the soil in various stages of decomposition.

Permeability. The quality of the soil that enables water to move downward through the profile, measured as the number of inches per hour that water moves downward through the saturated soil.

pH Value. A numerical designation of acidity and alkalinity in soil (see “reaction, soil”).

Productivity, Soil. The organic fertility or capacity of a given area or habitat.

Profile, Soil. A vertical section of the soil extending through all its horizons and into the parent material.

Quality, Soil. Soil quality is the capacity of a specific kind of soil to function, within natural or managed ecological system boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation. Changes in the capacity of soil to function are reflected in soil properties that change in response to management or climate.

Saline Soil. A soil containing soluble salts in an amount that impairs the growth of plants. A saline soil does not contain excess exchangeable sodium.

Sediment. Soil, rock particles, and organic or other debris carried from one place to another by wind, water or gravity.

Series, Soil. A nationally defined soil type set apart on distinct soil properties that affect use and management. In a soil survey, this includes a group of soils that have profiles that are almost alike, except for differences in texture of the surface layer or of the underlying material. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Silt (Soil). Individual mineral particles ranging in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class: Soil that is 80 percent or more silt and less than 12 percent clay.

Sodic (alkali) Soil. A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

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.

Structure, Soil. The arrangement of primary soil particles into compound particles or aggregates.

Survey, Soil. A field investigation resulting in a soil map showing the geographic distribution of various kinds of soil and an accompanying report that describes the soil types and interprets the findings.

Texture, Soil. The relative proportions of sand, silt, and clay particles in a mass of soil.

VEGETATION AND WOODLANDS

Annual Growth. The amount of production of new above-ground plant biomass for a given site during a given year.

Attribute. A discreet feature or characteristic of biotic or physical resources that can be measured (example: plant density, which is the number of individuals or stems per unit area).

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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. (BLM Technical Reference 4400-7)

Community Structure. Refers to the presence of multiple plant life forms (trees, shrubs, grasses, and forbs) and their relative abundance within a given vegetation community.

Conifer. A tree of the order Coniferae with cones and needle-shaped or scale-like leaves.

Control. Control means, as appropriate, eradicating, suppressing, reducing, or managing invasive species populations, preventing spread of invasive species from areas where they are present, and taking steps such as restoration of native species and habitats to reduce the effects of invasive species and to prevent further invasions.

Desired Natural Plant Community. The type of plant community which is desired for a particular ecological site. This could include native and non-native species depending on the desired land use, but as a natural plant community it must have native species adapted to the climate and soil type as dominants or co-dominants in the community.

Desired Plant Community. Of the several plant communities that may occupy a site, the one that has been identified through a management plan to best meet the plan's objectives for the site. It must protect the site as a minimum.

Deterioration or Decline (of vegetation communities). A pattern of changes in vegetation communities leading to loss of perennial understory species, reduction in overall species diversity, increase in shrub or tree dominance in communities that are not naturally shrublands or woodlands. These changes indicate that the vegetation community is approaching or undergoing a transition to another vegetation state from which conditions are not easily reversible.

Diameter at Breast Height (DBH). The diameter of a tree measured 4.5 feet above the ground.

Ecological Site. A distinctive kind of land with specific physical characteristics that differ from other kinds of land in its ability to produce a distinctive kind and amount of vegetation.

Ecological Status. The present state of vegetation of a range site in relation to the potential natural community for that site. Four classes are used to express the degree to which the production or composition of the present plant community reflects that of the potential natural community (climax):

Ecological Status (Seral stage)	Percent of Community in Climax Condition
Potential natural community	76–100
Late seral	51–75
Mid-seral	26–50
Early seral	0–25

As stated in Section 2.5.5, this concept has been superseded by state-and-transition models, which serve as the basis for vegetation management in this RMP.

Forb. Any herbaceous plant not a grass or a grasslike species.

Forest Health. The condition in which forest ecosystems sustain their complexity, diversity, resiliency, and productivity while providing for human needs and values.

Fragmentation. Process of reducing the size and connectivity of vegetated stands and/or habitat that comprise a rangeland or forest; a measure of connectivity in vegetative and/or habitat conditions across a landscape.

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 (BLM Technical Reference 4400-4).

Invasive. Describes a species which takes over a new habitat where it was not previously found, often to the detriment of species which were there before.

Invasive Species. A nonnative plant species that is capable of dominating over native or other nonnative plant species in such a way that it interferes with natural ecological processes of plant community functionality. If introduced into a plant community it does, or is likely to, cause economic harm, environmental harm, or harm to human health.

LANDFIRE Biophysical Setting Models. Predictive models developed under the LANDFIRE collaborative partnership of the USDA Forest Service, the Department of Interior, and the Nature Conservancy to describe how ecosystems function in relation to their environmental setting and various disturbances such as fire. Biophysical settings represent natural plant communities that would become established in later stages of successional development given natural ecological processes such as fire. Biophysical settings are matched one-to-one with vegetation succession models used to simulate historical reference conditions. The biophysical settings represent the vegetation that can potentially exist at a given site based on both the biophysical environment and an approximation of the historical fire regime (www.reo.gov/ecoshare/publications/documents/LANDFIRE_outputs.pdf).

Litter. The uppermost layer of organic debris on the soil surface; essentially the freshly fallen or slightly decomposed vegetal material (BLM Technical Reference 4400-4).

Maintenance of Desired Range of Conditions (Vegetation). Management of watersheds, allotments, or local sites that possess the desired plant communities in a manner to ensure continued survival and health of these desired communities. As used in the context of this RMP, maintenance activities typically focus on grazing management and other “passive” management tools as opposed to fire, chemical applications, seeding, or other “active treatment” management tools. It is important to emphasize that in dynamic natural

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systems, some type and degree of disturbance is generally necessary to maintain current conditions, whatever they may be.

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

Mechanical Treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Natural System. This refers to a biological, soil, and physical environment largely, but not necessarily entirely, controlled by natural processes rather than by intensive human activity, e.g., the comparison between rangelands and tilled agricultural croplands.

Noxious Weed. Any plant designated by a federal, state, or county government as injurious to public health, agriculture, recreation, wildlife, or property.

Nutrient, Plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil, and carbon, hydrogen, and oxygen obtained from the air and water.

Old-growth. A stage that constitutes the potential plant community, characterized by large, old trees, and capable of existing on a site given the frequency of natural disturbance events. Identification of old-growth species is dependant on the forest/woodland type. In most forest/woodland stands, old-growth tree species have large diameters relative to average, and are resilient and able to withstand natural disturbance events (i.e., fire).

Overmature Woodland. A vegetation state whereby the woodland community has crossed a threshold into a state where the canopy cover exceeds optimum percentages and the herbaceous perennial understory has been reduced to rare or absent. In this state, tree density and fuel accumulation have reached the point of promoting large hot fires.

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

Phase. A descriptor used to describe multiple identifiable plant communities within a particular state of the state-and-transition model. Communities may shift over time in a reversible manner among phases in a state in response to climate, grazing, and numerous other disturbance factors. As vegetation communities shift among phases, the vegetation and soil maintain resilience to return with similar characteristics.

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, landform, 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 groundwater recharge; develop root masses that stabilize streambank against cutting action; 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 of Healthy Conditions (vegetation). The set of primary vegetation community characteristics that determine whether a given vegetation community is considered to be "healthy" with respect to the agency goals of ecological health and resilience. Ranges of healthy conditions are based primarily on composition of perennial species present in the overstory vegetation and the presence or absence of native perennial species in the herbaceous understory.

Resilience. The ability of a natural vegetation community to recover following a disturbance such as fire with recruitment of native plants in a manner that eventually leads back to the pre-disturbance condition. Resilient communities typically exhibit perennial herbaceous understory; non-resilient communities commonly exhibit no understory or understories dominated by invasive exotic species.

Resistance. The capability to stay near equilibrium conditions with less variation in ecological processes. Resistant plant communities accommodate more outside influences. Resilience and resistance determine the stability of a state or of the various phases within a state (Swanson 2005).

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. Pertaining to, living or situated on, the banks of rivers and streams. 'Xeroriparian' refers to being situated on dry washes (ephemeral streams).

Seral Stage. The developmental phase of a forest stand or rangeland with characteristic structure and plant species composition.

Scrub. Refers to a stand of vegetation characterized by thick growth of dwarf or stunted trees and shrubs and a poor soil.

Shrub. A low woody plant.

Site Preparation. Any action taken in conjunction with a reforest effort (natural or artificial) to create an environment that is favorable for survival of suitable vegetation during the first growing season. This environment can be created by altering ground cover, soil, or microsite conditions through using biological, mechanical, or manual clearing, prescribed burns, herbicides, or a combination of methods.

Slash. The branches, bark, treetops, reject logs, and broken or uprooted trees left on the ground after logging.

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State. A descriptor used to describe a recognizable, resistant, and resilient complex of soil and vegetation for an ecological site. The plant communities within a state are different from those of other states in the state-and-transition model. When a vegetation community loses resilience and characteristic ecological processes, it crosses a threshold into another state. Such transitions are not readily reversible like the shift among phases within a state.

State and Transition Models. Models that diagram the variety of stable states for a given ecological site. Such models identify the potential array of disturbance factors affecting vegetation communities for the ecological site and are used to explain and predict vegetation changes in response to these factors. Such responses may involve a transition from one state to a different state on the ecological site.

Threshold. A point of irreversible transition to a new state. After the transition, significant management effort (e.g., seeding, herbicide control, fire control, etc.) is needed to restore the ecological processes of the other state (Swanson 2005).

Transition. The trajectory of system change between states that lead to the establishment of a new state. The transition may be reversible for a time and may become irreversible after the new state has been reached. A transition involves the loss or significant change of ecological processes such as soil capture of water, reproduction of key species or species groups, resilience after fire, etc. Lost or changed processes do not recover without intervention (Swanson 2005).

Vegetation Manipulation. Alteration of present vegetation by using fire, plowing, or other means to manipulate natural succession trends.

Weed. A plant considered undesirable, unattractive, or troublesome, usually introduced and growing without intentional cultivation.

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

Wilding. A plant growing uncultivated in the wild either as a native or an escape.

Woodland. A forest community occupied primarily by noncommercial species such as juniper, mountain mahogany, or aspen.

WATER

Aquifer. A body of rock that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells and springs.

Beneficial Use. Any of various uses of water in an area. Water may be for agricultural, domestic, or industrial use, fish spawning, recreation, wildlife habitat, or other uses.

Channeled. Refers to a drainage area in which natural meandering or repeated branching and convergence of a streambed have created deeply incised cuts, either active or abandoned, in alluvial material.

Drainage, Surface. Runoff, or surface flow of water, from an area.

Drawdown. The lowering of the water level in a well as a result of withdrawal; the reduction in head at a point caused by the withdrawal of water from an aquifer.

Ephemeral Stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no continuous supply from melting snow or other source, and its channel is above the water table at all times.

Flood Plain. A nearly level alluvial plain that borders a stream and is subject to inundation under flood-stage conditions unless protected artificially. It is usually a constructional landform built of sediment deposited during overflow and lateral migration of the stream.

Groundwater. Subsurface water that is in the zone of saturation. The top surface of the groundwater is the "water table." Source of water for wells, seepage, springs.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

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. The process by which water seeps into a soil, as influenced by soil texture, aspect, and vegetation cover.

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.

Interior Drainage. Streams with no outlet to the sea.

Intermittent Stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives groundwater discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Microsiemens Per Centimeter. A unit of measure for specific or electrical conductivity of water. Higher values reflect greater levels of dissolved conductors (e.g., sodium, calcium, or magnesium salts).

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

Perennial Stream. A stream in which water is present during all seasons of the year.

GLOSSARY

Perennial Yield. Water that is available in a shallow alluvial aquifer that can be withdrawn without creating substantial drawdown in the aquifer's water table.

Pluvial Lake. A lake formed during a period of exceptionally high rainfall (such as during a time of glacial advance during the Pleistocene epoch) and now either extinct or existing as a remnant, such as Lake Bonneville.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called groundwater runoff or seepage flow from groundwater.

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

Specific Conductance. A measurement that indicates the capacity of a sample of water to transmit an electrical current, which is associated with the concentration of ionized substances in the water.

Spring. Flowing water originating from an underground source.

Stream Channel. The hollow bed where a natural stream of surface water flows or may flow; the deepest or central part of the bed, formed by the main current and covered more or less continuously by water.

Total Dissolved Solids. Total amount of dissolved material, organic or inorganic, contained in a sample of water.

Wellhead Protection Area. The land surface area in which activities and land uses must be managed to protect the underlying ground water. A wellhead protection area is designated to protect the groundwater flowing to a well or group of wells and is represented on the land surface generally as a circular or elliptical shape around the well. In some cases, it also may be necessary to manage the activities in a recharge zone located some distance from the well.

WATERSHED

Ecological Site Description – Ecological Site Inventory is the BLM's approved and accepted rangeland vegetation/soil survey method based on current year's vegetation growth, and an Order 3 soil survey. The BLM follows the survey processes and techniques defined in the Natural Resources Conservation Service (NRCS) "National Range and Pasture Handbook", with some slight adaptations to BLM's needs.

In order to properly inventory, assess, and manage the conditions of rangelands they must be divided into basic units of study. On rangelands and some forest lands this is called an ecological site. An ecological site, according to the National Range and Pasture Handbook, is

...a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation....An ecological site is the product of all the environmental factors responsible for its development, and it has a set of key characteristics that are included in the ecological site description. Ecological sites have characteristic soils that have developed over time throughout the soil development process. The factors of soil development are parent material, climate, living organisms, topography or landscape position, and time. An ecological site has a characteristic hydrology, particularly infiltration and runoff that has developed over time. The development of the hydrology is influenced by development of the soil and plant community. An ecological site has evolved a characteristic plant community kind (cool season, warm season, grassland, shrub-grass, sedge meadow) and amount of vegetation. The development of the vegetation, the soil, and the hydrology are all interrelated. Each is influenced by the others and influences the development of the others. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species, or in total production.

Hydrologic Balance. The balance between hydrological inputs (infiltration of incident precipitation, run-on) and hydrological outputs (run-off, deep drainage) for an ecological site.

Hydrologic Subbasins. See watershed.

Hydrologic Unit. A geographic area representing part or all of a surface drainage basin or distinct hydrologic feature.

REGAP. Re-mapping under the Gap Analysis Program. The purpose of the National Gap Analysis Program (GAP) is to provide broad geographic information on the status of ordinary species (those not threatened with extinction or naturally rare) and their habitats in order to provide land managers, planners, scientists, and policy makers with the information they need to make better-informed decisions. Existing natural vegetation is mapped from satellite imagery and other records using the National Vegetation Classification System to the level of dominant or co-dominant plant species.

Restoration. Holistic actions taken to modify an ecological system to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume its resiliency to disturbances.

Site Potential. A measure of resource availability based on interactions among soils, climate, hydrology, and vegetation.

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.

GLOSSARY

WILD HORSES

Appropriate Management Level. The optimum number of wild horses that provides a thriving natural ecological balance on the public range.

Band. A group of wild horses running together or a lone wild horse.

Herd. One or more wild horse bands using the same general area.

Herd Area. Herd Areas are limited to areas of the public lands identified as being habitat used by wild horses and burros at the time of the passage of the Wild Horse and Burro Act, as amended (16 U.S.C. 1331-1340). Herd Area boundaries may only be changed when it is determined that: 1) areas once listed as Herd Areas are later found to be used only by privately owned horses or burros, or 2) the Herd Area Boundary does not correctly portray where wild horses and burros were found in 1971.

Herd Management Area. Areas within Herd Areas that are designated for management of wild horses as one of the multiple uses, where the long term maintenance and management of wild horses can occur due to adequate resources.

Herd Management Area Plan. A plan that prescribes measures for the protection, management, and control of wild horses and their habitat on one or more herd management areas, in conformance with decisions made in approved management framework or resource management plans.

Wild Horses. Unbranded and unclaimed horses that use Public land as all or part of their habitat, or that have been removed from such land by an Authorized Officer but have not lost their status under Section 3 of the "Wild Free-Roaming Horse and Burro Act."

WILDERNESS

Designated Wilderness. An area designated by Congress and defined in Section 2(c) of the Wilderness Act of 1964 as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined as an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which 1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and 4) also may contain ecological, geological, or other features of scientific, educational, scenic, or historical values.

Wilderness Study Area. A roadless area of 5,000 acres or more or a roadless island that has been inventoried and found to possess wilderness characteristics as described in Section 2(c) of the Wilderness Act of 1964.

WILDLIFE

Connectivity. A network of habitat patches linked by areas or corridors of like habitat; it affects how organisms can move through the landscape.

Cover. Any form of environmental protection that helps an animal stay alive (mainly shelter from weather and concealment from predators); any vegetation material that overlies the soil surface and protects it against erosion.

Critical Habitat. Specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation.

Crucial Habitat. Wildlife habitat vital to the existence of a particular wildlife species during a certain season of the year or period of its life.

Habitat Degradation. The pattern of changes in vegetation and other habitat components that result in loss of food supplies, water sources, cover quality, or space for a wildlife species.

Habitat Fragmentation. The division of large contiguous blocks of wildlife habitat into isolated smaller parcels separated by distances great enough to discourage wildlife movement between parcels.

Lek. An assembly area where birds, especially sage grouse, carry on display and courtship behavior.

Lek, Active. A lek that had two or more birds present during at least one of three or more visitations in a given breeding season. For a strutting ground to attain this status it must also have had two or more birds present during at least 2 years in a 5-year period (Connelly et al. 2003).

Occupied Isolated Habitat. Isolated segments of discontinuous wildlife habitat occupied by an individual wildlife species in circumstances where the habitat discontinuities prevent migration of excess population members into additional habitat segments.

Occupied Source Habitat. Wildlife habitat occupied by an individual wildlife species at population levels and under circumstances where members of the population may migrate into adjoining unoccupied habitats to expand the overall species population.

Priority Habitat. A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to priority fish and wildlife. A priority habitat may also be described by a successional stage (such as, old growth and mature forests). Alternatively, a priority habitat may consist of a specific habitat element (such as a spring, stream, or cave) of key value to priority fish and wildlife. A priority habitat may contain priority and non-priority fish and wildlife.

GLOSSARY

Priority Species. A species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels and recognized by the BLM as significant for at least one factor such as density, diversity, size, public interest, remnant character, or age.

Thermal Cover. Cover used by animals to protect them against weather.

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