

CHAPTER 6

GLOSSARY

CHAPTER 6**GLOSSARY****A**

Active ingredient (a.i.): The chemical or biological component that kills or controls the target pest.

Activity fuel: Fuels resulting from, or altered by, forestry practices such as timber harvest or thinning, as opposed to naturally created fuels.

Adaptive management: A system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and if not, facilitating management changes that will best ensure that outcomes are met or are reevaluated.

Additive effect: A situation in which combined effects of exposure to two effects simultaneously is equal to the sum of the effects given alone.

Adverse impact: Impacts that causes harm or negative result.

Air pollutant: Any substance in the air that, if in high enough concentration, could harm humans, animals, vegetation, or material. Air pollutants may include almost any natural or artificial matter capable of being airborne, in the form of solid particles, liquid droplets, gases, or a combination of these.

Air quality: The composition of air with respect to quantities of pollution therein; used most frequently in connection with “standards” of maximum acceptable pollutant concentrations.

Allotment (grazing): Area designated for the use of a certain number and kind of livestock for a prescribed period of time.

Alternative: In an Environmental Impact Statement (EIS) or Environmental Assessment, one of a number of possible options for responding to the purpose and need for action.

Ambient air: Any unconfined portion of the atmosphere; open air and surrounding air. Often used interchangeably with “outdoor air.”

Animal Unit (AU): A standardized unit of measurement for range livestock that is equivalent to one cow, one horse, five sheep, five goats, or four reindeer, all over 6 months of age.

Animal Unit Month (AUM): The amount of feed or forage required by one animal unit grazing on a pasture for 1 month.

Appropriate Management Level: An estimate of the number of wild horses and burros that public lands can support while maintaining a thriving natural ecological balance.

Aquatic: Growing, living in, frequenting, or taking place in water; used to indicate habitat, vegetation, or wildlife in freshwater.

Areas of Critical Environmental Concern: An area within public lands that requires special management attention to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; other natural systems or processes; or to protect life or provide safety from natural hazards.

Attainment area: A geographic area that is in compliance with the National Ambient Air Quality Standards. An area considered to have air quality as good as or better than the National Ambient Air Quality Standards as defined in the Clean Air Act.

B

Baffle: A baffle is a deflector of various configuration and materials, used to create lateral erosion of a streambank in order to widen the channel and alter the meander geometry. A baffle functions by concentrating stream velocity along the opposite bank while decreasing velocity along the adjacent bank. The result is accelerated erosion of the opposite bank with a commensurate increase in sediment deposition along the adjacent bank, causing point bar formation. As the point bar becomes colonized by riparian vegetation, it becomes increasingly resistant to erosion and more effective at deflecting flow towards the opposite bank. In order to achieve the desired meander pattern, baffles must be properly sized and spaced.

Biochar: Biochar is the carbon-rich product when biomass, such as wood, manure, or leaves, is heated with little or no available oxygen. In more technical terms, biochar is produced by thermal decomposition of organic material under limited supply of oxygen, and at relatively low temperatures (less than 700° Celsius). This process often mirrors the production of charcoal, which is perhaps the most ancient industrial technology developed by humankind. However, it distinguishes itself from charcoal and similar materials by the fact that biochar is produced with the intent to be applied to soil as a means to improve soil health, to filter and retain nutrients from percolating soil water, and to provide carbon storage.

Biological Assessment (BA): A document prepared by or under the direction of a federal agency that addresses federally listed and proposed species and designated and proposed critical habitat that may be present in the action area, and evaluates the potential effects of the action on such species and habitat.

Biological crust: Thin crust of living organisms on or just below the soil surface and composed of lichens, mosses, algae, fungi, cyanobacteria, and bacteria.

Biological diversity (biodiversity): The variety and variability among living organisms and the ecological complexes in which they occur.

Broad scale: A large, regional area, such as a river basin; typically a multi-state area.

Buffer strip/zone: A strip of vegetation that is left or managed to reduce the impact that a treatment or action on one area might have on another area.

Bunchgrass: A grass having the characteristic growth habit of forming a bunch and lacking stolons or rhizomes.

C

Carrying capacity: The maximum population of a particular species that a particular region can support without hindering future generations' ability to maintain the same population.

Chaining: Vegetation removal that is accomplished by hooking a large anchor chain between two bulldozers. As the bulldozers move through the vegetation, the vegetation is knocked to the ground. Chaining kills a large percentage of the vegetation, and is often followed a year or two later by burning and/or seeding.

Class I area: Under the 1977 Clean Air Act amendments, all international parks, parks larger than 6,000 acres, and national wilderness areas larger than 5,000 acres that existed on August 7, 1977. This class provides the most protection to pristine lands by severely limiting the amount of additional air pollution that can be added to these areas.

Classical biological control: The use of agents, including invertebrate parasites and predators (usually insects, fungi, mites, and nematodes) and plant pathogens to reduce populations of invasive plants.

Clean Air Act: Establishes a mandate to reduce emissions of specific pollutants via uniform federal standards. Under the Act, the U.S. Environmental Protection Agency is responsible for setting standards and approving state implementation plans to ensure that local agencies comply with the Act. The standards set by the USEPA include primary and secondary National Ambient Air Quality Standards for six pollutants, referred to as criteria pollutants, to protect public health and welfare. The criteria pollutants are sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and particulate matter.

Climate: The composite or generally prevailing weather conditions of a region throughout the year, averaged over a series of years.

Climate change: Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. The United Nations Framework Convention on Climate Change (UNFCCC), in its Article 1, defines climate change as: 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.' The UNFCCC thus makes a distinction between climate change attributable to human activities altering the atmospheric composition, and climate variability attributable to natural causes.

Coarse woody debris: Pieces of woody material derived from tree limbs, boles, and roots in various stages of decay, generally having a diameter of at least 3 inches and a length greater than 3 feet.

Code of Federal Regulations (CFR): A codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

Consultation: Exchange of information and interactive discussion; when the "C" in consultation is capitalized it refers to consultation mandated by statute or regulation that has prescribed parties, procedures, and timelines (e.g., Consultation under National Environmental Policy Act or Section 7 of the Endangered Species Act).

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Cooperating Agency: Under Council on Environmental Quality regulations implementing NEPA, tribal, state, and local governments, as well as other federal agencies, that cooperate with the lead agency (BLM for the 3 Bars Project) in the preparation of an EIS. Agencies that have been granted cooperating agency status for preparation of the 3 Bars Project EIS are the National Park Service, Nevada Department of Wildlife, and Eureka Board of County Commissioners.

Council on Environmental Quality (CEQ): An advisory council to the President of the United States; established by the National Environmental Policy Act (NEPA) of 1969. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

Countervailing: A type of cumulative impact where negative effects are compensated for by beneficial effects.

Cover: 1) Trees, shrubs, rocks, or other landscape features that allow an animal to partly or fully conceal itself, and 2) the area of ground covered by plants of one or more species, usually expressed as a percent of the ground surface.

Criteria pollutants: Air pollutants designated by the U.S. Environmental Protection Agency as potentially harmful and for which ambient air quality standards have been set to protect the public health and welfare. The criteria pollutants are carbon monoxide, sulfur dioxide, particulate matter, nitrogen dioxide, ozone, hydrocarbons, and lead.

Cultural resources: Nonrenewable evidence of human occupation or activity as seen in any area, site, building, structure, artifact, ruin, object, work of art, architecture, or natural feature.

Culvert retrofit: A method of stabilization which consists of raising the effective invert elevation of an existing culvert without replacing the existing installed pipe. Streambed control can be achieved without the cost of a new culvert installation.

Cumulative effects: Impacts on the environment that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

D

Degradation: Physical or biological breakdown of a complex compound into simpler compounds.

Densification: As it applies to the 3 Bars Project, an increase in the density of pinyon-juniper within woodland stands due to fire exclusion and livestock grazing.

Density: The number of individuals per a given unit area.

Desired plant community: One of the several plant communities that may occupy a site that has been identified through a management plan to best meet the plan's objectives for the site.

Direct effects: Impacts on the environment that are caused by the action and occur at the same time and place.

Dispersed recreation: Recreation that does not occur in a developed recreation site; for example, hunting or backpacking.

Dispersion: The act of distributing or separating into lower concentrations or less dense units.

Disturbance: Refers to events that alter the structure, composition, or function of terrestrial or aquatic habitats.

Natural disturbances include, among others, drought, floods, wind, fires, wildlife grazing, and insects and pathogens. Human-caused disturbances include actions such as timber harvest, livestock grazing, roads, and the introduction of exotic species.

Dominant: A group of plants that by their collective size, mass, or number exerts a primary influence onto other ecosystem components.

Draft Environmental Impact Statement: The draft statement of the environmental effects of a major federal action which is required under Section 102 of the National Environmental Policy Act, and released to the public and other agencies for comment and review.

Drift: That part of a sprayed chemical that is moved by wind off a target site.

E

Early successional stage: A successional stage, or collection of stages, that occurs immediately following a disturbance.

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.

Ecological site: A type of land with specific physical characteristics that differs from other types of land in its ability to produce distinctive kinds and amounts of vegetation and its response to management.

Ecological status: The present state of vegetation of a range site in relation to the potential natural community for that site.

Ecoregion: Ecoregions are geographic areas that are delineated and defined by similar climatic conditions, geomorphology, and soils. Since these factors are relatively constant over time and strongly influence the ecology of vegetative communities, ecoregions may have similar potentials and responses to disturbance.

Ecosystem: Includes all the organisms of an area, their environment, and the linkages or interactions among all of them; all parts of an ecosystem are interrelated. The fundamental unit in ecology, containing both organisms and abiotic environments, each influencing the properties of the other and both necessary for the maintenance of life.

Ecosystem health (forest health, rangeland health, aquatic system health): A condition where the parts and functions of an ecosystem are sustained over time and where the system's capacity for self-repair is maintained, such that goals for uses, values, and services of the ecosystem are met.

Edge effect: The influence of two communities on populations in their adjoining boundary zone or ecotone, affecting the composition and density of the populations in these bordering areas.

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Effect: Environmental change resulting from a proposed action. Direct effects are caused by the action and occur at the same time and place, while indirect effects are caused by the action but are later in time or further removed in distance, although still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems. Effect and impact are synonymous as used in this document.

Encroachment: Natural succession resulting in densification or interspace in-filling, causing an understory or previously dominant species to decline.

Endangered species: Plant or animal species that are in danger of extinction throughout all or a significant part of their range.

Endemic species: Plants or animals that occur naturally in a certain region and whose distribution is relatively limited to a particular locality.

Environment: 1) The physical conditions that exist within an area (e.g., the area that will be affected by a proposed project), including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance; and 2) the sum of all external conditions that affect an organism or community to influence its development or existence.

Environmental Assessment (EA): A concise public document, for which a federal agency is responsible, that serves to: 1) briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact; 2) aid an agency's compliance with the National Environmental Policy Act when no environmental impact statement is necessary; and 3) facilitate preparation of an environmental impact statement when one is necessary.

Environmental Impact Statement (EIS): A required report for all federal actions that will lead to significant effects on the quality of the human environment. The report must be systematic and interdisciplinary, integrating the natural and social sciences as well as the design arts in planning and decision-making. The report must identify 1) the environmental impacts of the proposed action, 2) any adverse environmental effects which cannot be avoided should the proposal be implemented, 3) alternatives to the proposed action, 4) the relationship between short-term uses of human environment and the maintenance and enhancement of long-term productivity, and 5) any irreversible and ir retrievable commitments of resources which would be involved in the proposed action should it be implemented.

Erosion: The wearing away of the land surface by running water, wind, ice, gravity, or other geological activities. Erosion can be accelerated or intensified by human activities that reduce the stability of slopes or soils.

Exotic species: Includes species introduced into an area that may have adapted to the area and compete with resident native (indigenous) species.

Expansion: Occurs when vegetation, such as pinyon-juniper, expands into new areas where it was not found historically.

Evapotranspiration: Discharge of water from the earth's surface into the atmosphere by transpiration by plants during growth and by evaporation from the soil, lakes, and streams.

F

°F: Degrees Fahrenheit.

Fauna: The vertebrate and invertebrate animals of the area or region.

Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Federal Land Policy and Management Act: Law mandating that the BLM manage lands under its jurisdiction for multiple uses. Establishes guidelines for its administration and provides for the management, protection, development, and enhancement of the public lands, among other provisions.

Fertility control: A tool to decrease fertility and which, when implemented, reduces (slows) population growth rates and extends the gather cycle.

Final Environmental Impact Statement (Final EIS): A revision of the Draft Environmental Impact Statement based on public and agency comments on the draft.

Fire adapted: Plants that can withstand a certain frequency and intensity of fire.

Fire break: A fire break is a gap in vegetation or other combustible material that acts as a barrier to slow or stop the progress of a wildfire. A firebreak may occur naturally where there is a lack of vegetation, such as a river, lake, or canyon. Firebreaks may also be man-made, and many of these also serve as roads, such as a logging road, four-wheel drive trail, secondary road, or a highway.

Fire dependent: An ecosystem evolving under periodic perturbations by fire and that consequently depends on periodic fires for normal ecosystem function.

Fire intolerant: Species of plants that do not grow well with or die from the effects of too much fire.

Fire management plan: A strategic plan that defines a program to manage wildland and prescribed fires and documents the Fire Management Program in the approved land use plan. The plan is supplemented by operational procedures such as preparedness plans, preplanned dispatch plans, prescribed fire plans, and prevention plans.

Fire regime: The patterns of fire occurrences, frequency, size, severity, and sometimes vegetation and fire effects, in a given area or ecosystem.

Fire return interval: The average time between fires in a given area.

Fisheries habitat: Streams, lakes, and reservoirs that support fish populations.

Fishery: The act, process, occupation, or season of taking an aquatic species.

Floodplain: The area starting at or just above the bankfull elevation of the stream channel, where frequent flood events spill out of the channel. The floodplain is inundated relatively frequently, such as once every 1 to 3 years. The floodplain is normally a relatively flat topographic feature adjacent to the stream channel that allows floodwaters to spread out and thus dissipate energy.

GLOSSARY

Forage: Vegetation eaten by animals, especially grazing and browsing animals.

Forbs: Broad-leaved plants; includes plants that commonly are called weeds or wildflowers.

Forestland: Land where the potential natural plant community contains 10 percent or more tree canopy cover.

Formulation: The commercial mixture of both active and inactive (inert) ingredients.

Fossilization: The process of fossilizing a plant or animal that existed in some earlier age; the process of being turned to stone.

Fragmentation (habitat): The breaking-up of a habitat or cover type into smaller, disconnected parcels.

Fuel (fire): Dry, dead parts of trees, shrubs, and other vegetation that can burn readily.

Fuel break: A fuel break is a strip or block of land on which the vegetation, debris, and detritus have been reduced and/or modified to control or diminish the risk of the spread of fire crossing the strip or block of land.

Functional-at-risk: Riparian or wetland areas are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

G

Geographic Information System (GIS): An information processing technology to input, store, manipulate, analyze, and display data; a system of computer maps with corresponding site-specific information that can be combined electronically to provide reports and maps.

Great Basin: The Great Basin is defined as the area wedged between the Sierra Nevada Mountains on the west and the Wasatch branch of the Rocky Mountains on the east, and the Snake River to the north. Its southern boundary cuts across the lower tip of Nevada and the southwestern corner of Utah, where land takes on the characteristics of the Mojave and Sonora deserts. Within the region, three major plant communities grow: sagebrush, salt desert shrub, and pinyon and/or juniper woodlands.

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, seeps, and springs.

H

Habitat: The natural environment of a plant or animal, including all biotic, climatic, and soil conditions, or other environmental influences affecting living conditions. The place where an organism lives.

Habitat fragmentation: The break-up of a large land area (such as forest) into smaller patches isolated by areas converted to a different land type. The opposite of connectivity.

Hardened rock crossing: A form of low water crossing with utilizes rock to reduce the impact of vehicle and animal traffic on a stream crossing.

Hazardous fuels: In the context of wildfire includes living and dead and decaying vegetation that form a special threat of ignition and resistance to control.

Headcut: An erosional feature of some intermittent streams and perennial streams, also known as a knickpoint, where an abrupt vertical drop in a stream bed occurs. The knickpoint, where a head cut begins, can be as small as an overly-steep riffle zone or as large as a waterfall. When not flowing, the head cut will resemble a very short cliff or bluff. A small plunge pool may be present at the base of the head cut due to the high energy of falling water. As erosion of the knickpoint and the streambed continues, the head cut will migrate upstream.

Herbaceous: Non-woody plants that include grasses, grass-like plants, and forbs.

Herbicide: A chemical pesticide used to control, suppress, or kill vegetation, or severely interrupt normal growth processes.

Herbivore: An animal that feeds on plants.

Herd Area: Geographic area of the public lands identified as habitat used by wild horses and burros at the time the Wild and Free-roaming Horses and Burros Act was enacted (December 15, 1971).

Herd Management Area (HMA): Area established for wild and free-roaming horses and burros through the land use planning process. The Wild Free-roaming Horse and Burro Act of 1971 requires that wild free-roaming horses and burros be considered for management where they were found at the time Congress passed the Act. The BLM initially identified 264 areas of use as HMAs.

Hydric soil: Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. Wetland (hydrophytic) vegetation is defined as any macrophyte that grows in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water.

Hydrologic Unit Code (HUC): A hierarchical coding system developed by the U.S. Geological Survey to identify geographic boundaries of watersheds of various sizes.

Hydrophobic: Any macrophyte that grows in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water.

I

Indigenous: Living or occurring naturally in an area; native, endemic people, flora, or fauna.

Indirect effects: Impacts that are caused by an action, but are later in time or farther removed in distance, although still reasonably foreseeable.

Infilling: An increase in the density and competition as a result of encroachment by an invasive species, such as pinyon-juniper, into the native plant community, such as a sagebrush community, at a rate that exceeds the natural vegetation replacement rate.

Infiltration: The movement of water through soil pores and spaces.

Interim Management Policy for Lands under Wilderness Review: Policy for managing public lands under wilderness review. Section 603(c) of the Federal Land Policy and Management Act 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 laws 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 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.” Manual 6330 – Management of Wilderness Study Areas (WSAs), states the desire by the BLM not to approve any activity in WSAs which may impair their suitability for Wilderness designation via Congressional action.

Intermittent stream: A stream that flows only a certain times of the year when it receives water from other streams or from surface sources such as melting snow.

Invasive plants: Plants that 1) are not part of (if exotic), or are a minor component of (if native), the original plant community or communities; 2) have the potential to become a dominant or co-dominant species on the site if their future establishment and growth is not actively controlled by management interventions; or 3) are classified as exotic or noxious plants under state or federal law. Species that become dominant for only one to several years (e.g. short-term response to drought or wildfire) are not invasive plants.

Invasive species: Per Executive Order 13112, an invasive species means an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.

Invertebrate: Small animals that lack a backbone or spinal column. Spiders, insects, and worms are examples of invertebrates.

Irretrievable commitment: A term that applies to losses of production or commitment of renewable natural resources. For example, while an area is used as a ski area, some or all of the timber production there is “irretrievably” lost. If the ski area closes, timber production could resume; therefore, the loss of timber production during the time the area is devoted to skiing is irretrievable, but not irreversible, because it is possible for timber production to resume if the area is no longer used as a ski area.

Irreversible commitment: A term that applies to non-renewable resources, such as minerals and archaeological sites. Losses of these resources cannot be reversed. Irreversible effects can also refer to the effects of actions on resources that can be renewed only after a very long period of time, such as the loss of soil productivity.

Issue: A matter of controversy, dispute, or general concern over resource management activities or land uses.

J

K

Knickpoint: Sharp break in the slope of the channel due to erosion; also see Headcut.

L

Ladder fuel: Material on or near the ground that will carry fire from the ground to the crowns of trees; sagebrush, bitterbrush, and dead and down woody material.

Land management: The intentional process of planning, organizing, programming, coordinating, directing, and controlling land use actions.

Landscape: All the natural features such as grasslands, hills, forest, and water, which distinguish one part of the earth's surface from another part; usually that portion of land that the eye can comprehend in a single view, including all of its natural characteristics.

Land use allocation: The assignment of a management emphasis to particular land areas with the purpose of achieving the goals and objectives of some specified use(s) (e.g., campgrounds, wilderness, logging, and mining).

Land Use Plan: Land Use Plans are prepared in accordance with established land use planning procedures in 43 CFR § 1600 and pursuant to Federal Land Policy and Management Act. They establish goals and objectives (desired outcomes), identify the management actions needed to achieve the desired outcomes, and identify the allowable uses of the public lands.

Large woody debris: Pieces of wood that are of a large enough size to affect stream channel morphology.

Leasable minerals: Minerals that are leased to individuals for exploration and development. The leasable minerals have been subdivided into two classes, fluids 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.

Lek: A traditional place where males assemble during the mating season and engage in competitive displays that attract females. For purposes of the 3 Bars Project, lek refers to a place where male greater sage-grouse congregate to attract female sage-grouse.

Lifeways: The manner and means by which a group of people lives; their way of life. Components include language(s), subsistence strategies, religion, economic structure, physical mannerisms, and shared attitudes.

Litter: The uppermost layer of organic debris on the soil surface, which is essentially the freshly fallen or slightly decomposed vegetation material such as stems, leaves, twigs, and fruits.

Locatable minerals: Locatable minerals include precious and base metallic ores and nonmetallic minerals such as bentonite, gypsum, chemical grade limestone and chemical grade silica sand. Uncommon varieties of sand, gravel, building stone, pumice, rock and cinders are also managed as locatable minerals. Locatable minerals are acquired by a company or individual under the General Mining Law of 1872, as amended and Surface Use and Occupancy Act of July 23, 1955.

Log and fabric step fall: A structure used to control headcuts advancing through wet soil areas such as wet meadows and spring seeps. The erosive action can be stopped if a healthy mat of wet soil vegetation can become established to hold the lip of the headwall in place.

Long term: Generally refers to a period longer than 10 years.

M

Memorandum of Understanding (MOU): Usually documents an agreement reached amongst federal agencies.

Microbiotic crust: See biological crust.

Minimize: Apply best available technology, management practices, and scientific knowledge to reduce the magnitude, extent, and/or duration of impacts.

Mitigation: Steps taken to: 1) avoid an impact altogether by not taking a certain action or parts of an action; 2) minimize an impact by limiting the degree or magnitude of the action and its implementation; 3) rectify an impact by repairing, rehabilitating, or restoring the affected environment; 4) reduce or eliminate an impact over time by preserving and maintaining operations during the life of the action, and, 5) compensate for an impact by replacing or providing substitute resources or environments (40 CFR § 1508.20).

Mitigation measures: Means taken to avoid, compensate for, rectify, or reduce the potential adverse impact of an action.

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

Multiple uses: A combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources. These may include recreation, range, timber, minerals, watershed, wildlife, and fish, along with natural scenic, scientific, and historical values.

N

National Ambient Air Quality Standards (NAAQS): Standards set by the U.S. Environmental Protection Agency for the maximum levels of pollutants that can exist in the outdoor air without unacceptable effects on human health or the public welfare.

National Environmental Policy Act (NEPA): An act of Congress passed in 1969, declaring a national policy to encourage productive and enjoyable harmony between people and the environment, to promote efforts that will prevent or eliminate damage to the environment and the biosphere and stimulate the health and welfare of people, and to enrich the understanding of the ecological systems and natural resources important to the nation, among other purposes.

National Landscape Conservation System (NLCS): A single system that encompasses some of the BLM's premier land designations. By putting these lands into an organized system, the BLM hopes to increase public awareness of these areas' scientific, cultural, educational, ecological, and other values.

Native species: Species that historically occurred or currently occur in a particular ecosystem and were not introduced.

Natural community: An assemblage of organisms indigenous to an area that is characterized by distinct combinations of species occupying a common ecological zone and interacting with one another.

Natural resources: Water, soil, plants and animals, nutrients, and other resources produced by the earth's natural processes.

No action alternative: The most likely condition to exist in the future if current management direction were to continue unchanged.

Non-native species: A species living outside its native distributional range.

Non-target: Any plant, animal, or organism that a method of treatment is not aimed at, but may accidentally be injured by the treatment.

Noxious weed: A plant species designated by federal or state law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or non-native, new, or not common to the U.S.

O

Objective: A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used to achieve identified goals.

Overgrazing: Continued heavy grazing which exceeds the recovery capacity of the plant community and creates a deteriorated rangeland.

Overstory: The upper canopy layer.

P

Paleontological resources: A work of nature consisting of or containing evidence of extinct multicellular beings and includes those works or classes of works of nature designated by the regulations as paleontological resources.

Paleontology: A science dealing with the life of past geological periods as known from fossil remains.

Particulate Matter (PM): A complex mixture consisting of varying combinations of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These tiny particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil and dust.

Particulates: Solid particles or liquid droplets suspended or carried in the air.

Passive restoration: Allowing natural succession to occur in an ecosystem after removing a source of disturbance.

Pathogen: An agent such as a fungus, virus, or bacterium that causes disease.

Payments in lieu of taxes: Payments made to counties by the BLM to mitigate for losses to counties because public lands cannot be taxed.

Per capita income: Total income divided by the total population.

Perennial: A plant that lives for 2 or more years.

Perennial stream: A stream or reach of a stream that flows continuously throughout the year and whose upper surface is generally lower than the water table in the region adjoining the stream.

Permit: A revocable authorization to use public land for a specified purpose for up to 3 years.

Persistence: Refers to the length of time a compound, once introduced into the environment, stays there.

Petroglyph: An image recorded on stone, usually by prehistoric peoples, by means of carving, pecking, or otherwise incised on natural rock surfaces.

Phase class: Phases of woodland succession for pinyon-juniper. Phase I, trees are present but shrubs and herbs are the dominant vegetation that influence ecological processes (hydrologic, nutrient, and energy cycles) on the site; Phase II, trees are co-dominant with shrubs and herbs and all three vegetation layers influence ecological processes on the site; and Phase III, trees are the dominant vegetation and the primary plant layer influencing ecological processes on the site.

Phreatophytes: Plants (including, but not limited to, greasewood, rabbitbrush, and saltgrass in the 3 Bars Project area) whose root systems tap into the water table.

pH: A measure of how acidic or alkaline (basic) a solution is on a scale of 0 to 14 with 0 being very acidic, 14 being very alkaline, and 7 being neutral. The abbreviation stands for the potential of hydrogen.

Plant community: A vegetation complex, unique in its combination of plants, which occurs in particular locations under particular influences. A plant community is a reflection of integrated environmental influences on the site, such as soil, temperature, elevation, solar radiation, slope aspect, and precipitation.

Playas: Flat land surfaces underlain by fine sediment or evaporate minerals deposited from a shallow lake on the floor of a topographic depression.

PM_{2.5}: Fine particulates that measure 2.5 microns in diameter or less.

PM₁₀: Particulate matter that measures 10 microns in diameter or less.

Porosity: The ratio of the volume of void space in a material (e.g., sedimentary rock or sediments) to the volume of its mass.

Potential Natural Community: The plant community that will persist under pre-settlement disturbance regimes and climate. It is an expression of environmental factors such as topography, soil, and climate across an area where the cover type is a classification of the existing vegetation community.

Predator: An organism that captures and feeds on parts or all of a living organism of another species.

Preferred alternative: The alternative identified in an Environmental Impact Statement that has been selected by the agency as the most acceptable resolution to the problems identified in the purpose and need.

Prescribed fire: A management ignited wildland fire that burns under specified conditions and in predetermined area, and that produces the fire behavior and fire characteristics required to attain fire treatment and resource management objectives. An approved prescribed fire plan, and conformance with the National Environmental Policy Act, are required prior to ignition.

Prescribed fire projects: Includes the BLM's efforts to utilize fire as a critical natural process to maintain and restore ecosystems, rangeland, and forest lands, and to reduce the hazardous buildup of fuels that may threaten healthy lands and public safety.

Prescribed grazing: The careful application of grazing or browsing prescriptions (i.e., specified grazing intensities, seasons, frequencies, livestock species, and degrees of selectivity) to achieve natural resource objectives. Livestock production is a secondary objective when using prescribed grazing as a natural resource management tool.

Prevention of Significant Deterioration (PSD): A U.S. Environmental Protection Agency program in which state and/or federal permits are required in order to restrict emissions from new or modified sources in places where air quality already meets or exceeds primary and secondary ambient air quality standards.

Productivity: The innate capacity of an environment to support plant and animal life over time. Plant productivity is the rate of plant production within a given period of time. Soil productivity is the capacity of a soil to produce plant growth, due to the soil's chemical, physical, and biological properties.

Programmatic EIS: An area-wide EIS that provides an overview when a large-scale plan is being prepared for the management of federally administered lands on a regional or multi-regional basis.

Proper Functioning Condition: Riparian and wetland areas achieve Proper Functioning Condition when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows. This reduces erosion and improves water quality; filters sediment, captures bedload, and aids in floodplain development; improves floodwater retention and groundwater recharge; develops root masses that stabilize streambanks against cutting; develops diverse ponding and channel characteristics to provide habitat and water depth, duration, and temperature necessary for fish production, avian breeding habitat, and other uses; and support greater biodiversity.

Proposed action: A proposal by a federal agency to authorize, recommend, or implement an action.

Public lands: Any land and interest in land owned by the United States that are administered by the Secretary of the Interior through the BLM, without regard to how the United States acquired ownership, except for (1) lands located on the Outer Continental Shelf, and (2) lands held for the benefit of Indians, Aleuts, and Eskimos. Includes public domain and acquired lands.

Public scoping: A process whereby the public is given the opportunity to provide oral or written comments about the influence of a project on an individual, the community, and/or the environment.

Q

Qualitative: Traits or characteristics that relate to quality and cannot be readily measured with numbers.

Quantitative: Traits or characteristics that can be measured with numbers.

R

Radiometric dating: The use of the naturally occurring isotope of carbon-14 in radiometric dating to determine the age of organic materials.

Rangeland: Land on which the native vegetation is predominantly grasses, grass-like plants, forbs, or shrubs; not forests.

Rangeland health assessment: Assessment used to determine if rangeland conditions are achieving Land Use Plan objectives and Rangeland Health Standards and Guidelines. The Indicators of Rangeland Health—actual use, utilization, use pattern maps, ecological status, rangeland trend studies, and professional judgment—are used to evaluate conditions in accordance with BLM’s Handbook 4180, *Rangeland Health Standards*.

Raptor: Bird of prey; includes eagles, hawks, falcons, and owls.

Receptor: An ecological entity exposed to a stressor.

Recharge: Replenishment of water to an aquifer.

Record of Decision (ROD): A document separate from, but associated with, an EIS, which states the decision, identifies alternatives (specifying which were environmentally preferable), and states whether all practicable means to avoid environmental harm from the alternative have been adopted, and if not, why not.

Recovery plan: Identifies, justifies, and schedules the research and management actions necessary to reverse the decline of a species and ensure its long-term survival.

Registered herbicide: All herbicides sold or distributed in the United States must be registered by the U.S. Environmental Protection Agency, based on scientific studies, showing that they can be used without posing unreasonable risks to people or the environment.

Rehabilitation: The “repair” of an area using native and/or non-native plant species to obtain a stable plant community that will protect the area from erosion and invasion by noxious weeds.

Resident fish: Fish that spend their entire life in freshwater.

Resource Management Plan (RMP): Comprehensive land management planning document prepared by and for the BLM’s administered properties under requirements of the Federal Land Policy and Management Act. Bureau of Land Management lands in Alaska were exempted from this requirement.

Restoration: Implementation of a set of actions that promotes plant community diversity and structure and that allows plant communities to be more resilient to disturbance over the long term.

Revegetation: Establishing or re-establishing desirable plants on areas where desirable plants are absent or of inadequate density, by management alone (natural revegetation), or by seeding or transplanting (artificial revegetation).

Rights-of-way (ROW): A permit or an easement that authorizes the use of lands for certain specified purposes, such as the construction of forest access roads or a gas pipeline.

Riparian: Occurring adjacent to streams and rivers and directly influenced by water. A riparian community is characterized by certain types of vegetation, soils, hydrology, and fauna and requires free or unbound water or conditions more moist than that normally found in the area.

Risk: The likelihood that a given exposure to an item or substance that presents a certain hazard will produce illness or injury.

Risk assessment: The process of gathering data and making assumptions to estimate short- and long-term harmful effects on human health or the environment from particular products or activities.

Rock channel liner: A long, narrow one rock dam, much longer than it is wide, built in a recently incised gully bottom and used to armor the bed and/or reconnect bankfull flow with the recently abandoned floodplain.

Runoff: That part of precipitation, as well as any other flow contributions, that appears in surface streams, either perennial or intermittent.

S

Salable minerals: Salable minerals are all other common mineral materials that were not designated as leasable or locatable, and include sand, gravel, roadbed, ballast, and common clay. These are sold by contract with the federal government.

Salmonids: Fishes of the family Salmonidae, including salmon, trout, chars, whitefish, ciscoes, and grayling.

Scoping: The process by which significant issues relating to a proposal are identified for environmental analysis. Scoping includes eliciting public comment on the proposal, evaluating concerns, and developing alternatives for consideration.

Sediments: Unweathered geologic materials generally laid down by or within waterbodies; the rocks, sand, mud, silt, and clay at the bottom and along the edge of lakes, streams, and oceans.

Sedimentation: The process of forming or depositing sediment; letting solids settle out of wastewater by gravity during treatment.

Sensitive species: 1) Plant or animal species susceptible or vulnerable to activity impacts or habitat alterations, and 2) species that have appeared in the Federal Register as proposed for classification or are under consideration for official listing as endangered or threatened species.

GLOSSARY

Seral: Refers to the stages that plant communities go through during succession. Developmental stages have characteristic structure and plant species composition. In a forest, for example, early seral forest refers to seedling or sapling growth stages; mid-seral refers to pole or medium saw timber growth stages; and mature or late seral forest refers to mature and old-growth stages.

Short-term impacts: Impacts occurring during project construction and operation, and normally ceasing upon project closure and reclamation. The definition of short-term may vary for each resource.

Significant: The description of an impact that exceeds a certain threshold level. Requires consideration of both context and intensity. The significance of an action must be analyzed in several contexts, such as society as a whole, and the affected region, interests, and locality. Intensity refers to the severity of impacts, which should be weighted along with the likelihood of its occurrence.

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

Snag: A standing dead tree, usually larger than 5 feet tall and 6 inches in diameter at breast height.

Sociocultural: Of, relating to, or involving a combination of social and cultural factors.

Socioeconomic: Pertaining to, or signifying the combination or interaction of social and economic factors.

Soil adsorption: The tendency of a chemical to bind to soil particles. Adsorption occurs onto clay particles and onto both the solid and dissolved forms of organic matter.

Soil compaction: The compression of the soil profile from surface pressure, resulting in reduced air space, lower water holding capacity, and decreased plant root penetrability.

Soil horizon: A layer of soil material approximately parallel to the land surface that differs from adjacent, genetically related, layers in physical, chemical, and biological properties.

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

Solubility: Tendency of a chemical to dissolve in water.

Solitude: 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 status species: Refers to federally listed threatened, endangered, proposed, or candidate species, and species managed as sensitive species by the BLM.

Stand: A group of trees in a specific area that is sufficiently alike in composition, age, arrangement, and condition so as to be distinguishable from the forest in adjoining areas.

Standard Operating Procedures (SOPs): Procedures that would be followed by the BLM to ensure those risks to human health and the environment from treatment actions were kept to a minimum.

Step-down: Refers to the process of applying broad-scale science findings and land use decisions to site-specific areas using a hierarchical approach of understanding current resource conditions, risks, and opportunities.

Step pools and rock rundowns: A stabilization method that repairs a high energy headcut by laying back the headcut at a less steep gradient by building a series of step pools to gradually dissipate the energy of the falling water. Several structures of different types applied in sequence are often required to stabilize a headcut.

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.

Subsistence: Customary and traditional uses of wild renewable resources (plants and animals) for food, shelter, fuel, clothing, tools, etc.

Succession: A predictable process of changes in structure and composition of plant and animal communities over time. Conditions of the prior plant community or successional stage create conditions that are favorable for the establishment of the next stage. The different stages in succession are often referred to as seral stages.

Suckering: The regeneration process for aspen by developing new shoots along the root system of the parent tree. The new shoots are called root suckers.

Sustainability: (1) meeting the needs of the present without compromising the abilities of future generations to meet their needs; emphasizing and maintaining the underlying ecological processes that ensure long-term productivity of goods, services, and values without impairing productivity of the land, and (2) in commodity production, refers to the yield of a natural resource that can be produced continually at a given intensity of management.

Synergistic: A type of cumulative impact where total effect is greater than the sum of the effects taken independently.

T

Target species: Plant species of competing vegetation that is controlled in favor of desired species.

Terrestrial: Of or relating to the earth, soil, or land; inhabiting the earth or land.

Threatened species: A plant or animal species likely to become an endangered species throughout all or a significant portion of its range within the foreseeable future.

Threshold: A dose or exposure below which there is no apparent or measurable adverse effect.

Tier: In an EIS, refers to incorporating by reference the analyses in an EIS or similar document of a broader scope. For example, this *3 Bars Ecosystem and Landscape Restoration Project EIS* tiers to the *Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement*.

Total suspended particles (TSP): A method of monitoring airborne particulate matter by total weight.

Toxicity: A characteristic of a substance that makes it poisonous.

Transpiration: Water loss from plants during photosynthesis.

Trend: The direction of change in ecological status observed over time. Trend is described as toward or away from the Potential Natural Community, or as not apparent.

Tribe: Term used to designate any Indian tribe, band, nation, or other organized group or community (including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act), which is recognized as eligible for the special programs and services provided by the U.S. to Indians because of their status as Indians.

U

Understory: Plants that grow beneath the canopy of other plants. Usually refers to grasses, forbs, and low shrubs under a tree or shrub canopy.

Undesirable plants: Species classified as undesirable, noxious, harmful, exotic, injurious, or poisonous under state or federal law, but not including species listed as endangered by the Endangered Species Act, or species indigenous to the planning area.

Upland: The portion of the landscape above the valley floor or stream.

Utilization: The proportion or degree of the current year's forage production that is consumed or destroyed by animals (including insects). Utilization may refer either to a single plant species, a group of species, or to the vegetation as a whole. Utilization is synonymous with use.

V

Vane: A type of deflector that utilizes an upstream-point-barb to divert high velocity flow away from a cutbank or the outboard side of a meander bend. A vane can also be used to direct flow into the opposite bank initiating bank erosion and causing the channel to widen in that direction.

Vegetation manipulation: The selective planting or removal of protective streambank vegetation to increase or decrease the rate of erosion or deposition of material within a stream channel.

Vertebrate: An animal with a backbone. Fishes, amphibians, reptiles, birds, and mammals are vertebrates.

Visual resources: The visible physical features of a landscape.

Visual resource inventory: Visual resource inventory is an inventory based on scenic quality, sensitivity level, and distance zone criteria and indicate the overall value of landscapes.

Visual Resource Management System: The Visual Resource Management System is used by the BLM to manage visual resources on public land. Visual Resource Management objectives are established in resource management plans in conformity with land use allocations. The BLM uses the VRM System to systematically identify and evaluate visual resource values and to determine the appropriate level of scenery management. The VRM process involves 1) identifying scenic values, 2) establishing management objectives for those values through the land use planning process, and 3) designing and evaluating proposed activities to analyze effects and develop mitigation measures to meet the established VRM objectives.

W

Water quality: The interaction between various parameters that determines the usability or non-usability of water for on-site and downstream uses. Major parameters that affect water quality include: temperature, turbidity, suspended sediment, conductivity, dissolved oxygen, pH, specific ions, discharge, and fecal coliform.

Watershed: The region draining into a river, river system, or body of water.

Wattle: Erosion control wattles are used to control sediment, silt, and sand in stream channels during stream reconstruction. Wattles are frequently staked into the ground to help filter water and prevent pollution in water collection and transport areas.

Weed: A plant considered undesirable and that interferes with management objectives for a given area at a given point in time.

Weir: A structure of various material content which spans the bankfull width of a channel used to control the slope, or grade of a stream.

Wetlands: Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstance do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include habitats such as swamps, marshes, and bogs.

Wilderness: Land designated by Congress as a component of the National Wilderness Preservation System. For an area to be considered for Wilderness designation it must be roadless and possess the characteristics required by Section 2(c) of the Wilderness Act of 1964. These characteristics are: 1) naturalness - lands that are natural and primarily affected by the forces of nature; 2) roadless and having at least 5,000 acres of contiguous public lands; and 3) outstanding opportunities for solitude or primitive and unconfined types of recreation. In addition, areas may contain "supplemental values," consisting of ecological, geological, or other features of scientific, educational, scenic, or historical importance.

Wilderness Study Area: Areas that have been designated by the BLM as having wilderness characteristics, thus making them worthy of consideration by Congress for wilderness designation. While Congress considers whether to designate a Wilderness Study Area as permanent Wilderness, the BLM manages the area to prevent impairment of its suitability for wilderness designation.

Wild Free-roaming Horses and Burros: All unbranded and unclaimed horses and burros that use public lands within ten contiguous Western States as all or part of their habitat, or that have been removed from these lands by the authorized officer, or have been born of wild horses or burros in authorized BLM facilities, but have not lost their status under the Wild and Free-roaming Horses and Burros Act (16 USC § 1332 [f]).

Wildfire: Unplanned human or naturally caused fires in wildlands.

Wildland fires: Occur on wildlands, regardless of ignition source, damages, or benefits, and include wildfire and prescribed fire.

Wildland fire for resource benefit: A fire ignited by lightening, but allowed to burn within specified conditions of fuels, weather, and topography, to achieve specific objectives.

GLOSSARY

Wildland Urban Interface (WUI): An area where structures and other human development intermingle with undeveloped wildlands or vegetative fuels.

Woodland: A forest in which the trees are often small, characteristically short-boded relative to their crown depth, and forming only an open canopy with the intervening area being occupied by lower vegetation, commonly grass.

X

Xeric: Very dry region or climate; tolerating or adapted to dry conditions.

YZ

Zuni bowl: A headcut control structure which uses the principle of the natural cascade or step pool. Rather than spill water directly over a high falls, the cascade is used to build a series of smaller steps and pools thus keeping the velocity within manageable range.

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