

## **APPENDIX A: GLOSSARY**

### **A**

Accelerated erosion – Erosion in excess of what is considered natural rates, often a result of human influence or activities.

Affected environment – The physical and human-related environment that is sensitive to changes resulting from the proposed actions.

Airshed – A geographic area that, due to topography, meteorology, and climate, shares the same air.

Alternative – One of a number of possible options for responding to the purpose and need for action.

Analysis area – One or more areas grouped for purposes of analysis based on common impacts, effects, and social or economic factors.

Aquatic – Living or growing in or on body of water.

### **B**

Benefit/cost ratio – A comparison of the beneficial value of an action to its cost of implementation. The higher the benefit to cost ratio, the more economically sound an action is considered.

Best Management Practices (BMPs) – Programs, practices, policies and procedures, and structures or activities that have been shown to be effective in management and protection of a given resource. This term is most often used in regard to water quality and soil protection.

Big game – Large wild animals that are hunted for sport and food. This hunting is controlled by state wildlife agencies. Big game animals found on the Pike and San Isabel NF include mule deer, elk, and bighorn sheep.

Biological diversity (Biodiversity) – The relative distribution and abundance of different plant and animal communities within an area.

Buffer – A land area that is designated to block or absorb unwanted impacts to the area beyond the buffer. Buffers along streams can greatly reduce any changes or impacts to stream water quality, temperature, or stream stability.

### **C**

Candidate species – Plant and animal species being considered for listing as endangered or threatened, in the opinion of the US Fish & Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration (NOAA). Category 1 candidate species are groups for which the USFWS or National Marine Fisheries Service (NMFS) have sufficient information to support listing proposals; category 2 candidate species are those for which available information indicates a possible problem, but that need further study to determine the need for listing.

Clean Water Act – An Act of Congress, which establishes policy to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

**Community** – A group of plants and animals living in a specific region under relatively similar conditions.

**Composition (species)** – The species that make up a plant or animal community, and their relative abundance.

**Connectivity** – The arrangement of habitat that allows organisms and ecological processes to move across the landscape. Patches of similar habitats are either close together or connected by corridors of appropriate vegetation (or live stream channels). Opposite of fragmentation.

**Corridor (landscape)** – Landscape element that connects similar patches of habitat through an area with different characteristics. For example, streamside vegetation may create a corridor of willows and hardwoods between meadows or through a conifer forest.

**Council on Environmental Quality (CEQ)** – An advisory council to the President, established by NEPA. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

**Cover type** – The current or existing vegetation of an area, described by the dominant vegetation.

**Critical habitat** – An area occupied by a threatened or endangered species “on which are found those physical and biological features (1) essential to the conservation of the species, and (2) which may require special management consideration or protection” (16 USC 1532 [5] [A] [I] 1988).

**Crucial habitat** – Habitat on which a species depends for survival.

**Cultural resources** – Those remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, and natural features that were of importance in human events. These consist of (1) physical remains, (2) areas where significant human events occurred, even though evidence of the event no longer remains, and (3) the environment immediately surrounding the resources.

**Cumulative effect** – The impact on the environment that results from the incremental impact of the action when added to other action. Cumulative impacts can also result from individually minor, but collectively significant, actions taking place over a period of time.

**Cut slope** – That portion of the slope that is excavated for trails or roads.

## **D**

**Decommissioning** – Some of the roads are discussed in terms of “decommissioning”. This term is used to refer to a specific type of road closure. On a decommissioned road, access would be controlled by means of a moderately sized berm or “tank trap” impassable to vehicles but capable of being easily bulldozed to permit vehicle passage if the road is reopened in the future. For all decommissioned roads, water bars are installed, the roadbed is seeded, all culverts are removed, and self-maintaining cross road drainage is provided.

**Degradation** – 1) A process of transition from a higher to a lower quality; also, 2) the state or condition of being degraded.

**Denning habitat or sites** – Habitat and locations used by mammals during reproduction and rearing of their young, when the young are highly dependent on adults for survival.

**Design criteria** – Design standards implemented in order to reduce or avoid impacts, including but not limited to BMPs, Standard Operating Procedures, and Standards and Guidelines.

**Detrimental disturbance** – Detrimental disturbance to soil is the alteration of natural soil characteristics that results in immediate or prolonged loss of soil productivity and soil-hydrologic conditions. This can occur from soil that has been displaced, compacted, or severely burned. Determination of DD excludes existing or planned classified transportation facilities, dedicated trails, and landings, mining dumps or excavations, parking areas, developed campgrounds, and other dedicated facilities.

**Developed recreation** – Recreation dependent on facilities provided to enhance recreation opportunities in concentrated use areas. Examples are ski areas, resorts, and campgrounds.

**Direct effects** – Effects caused by the action and occur at the same time and place.

**Dispersed recreation** – Recreation that occurs outside of developed recreation sites requiring few, if any, facilities or other improvements, and includes such activities as hunting, hiking, viewing scenery, and cross-country skiing.

**Disturbance** – Any event, such as wildfire or a timber sale, that alters the structure, composition, or function of an ecosystem.

**Diversity** – Relative degree of abundance of wildlife species, plant species, ecological communities, habitats, or habit features per unit of area.

## **E**

**Earth modifying activities** – Planned activities which change the form or character of the earth's surface. These include such activities as plowing, leveling, excavation, and structure or facility construction.

**Easement** – An interest in land that gives the owner of the easement the right to use another person's real property for a specific purpose.

**Ecosystem** – A naturally occurring, self-maintained system of living and non-living interacting parts that are organized into biophysical and human dimension components.

**Ecosystem health** – A condition where the components and functions of an ecosystem are sustained over time and where the system's capacity for self-repair is maintained, such that goals for ecosystem uses, values, and services are met.

**Effects (or impacts)** – Environmental consequences (the scientific and analytical basis for comparison of alternatives) because of a proposed action. Effects may be either direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable, or cumulative.

**Emergent vegetation** – Vegetation that is rooted below the water surface and which extends above the water surface.

**Endangered species** – Designated by the U.S. Fish and Wildlife Service or National Marine Fisheries Service, an animal or plant species that has been given federal protection status because it is in danger of extinction throughout all or a significant portion of its natural range.

**Endangered Species Act (ESA)** – An act passed by Congress in 1973 intended to protect species and subspecies of plants and animals that are of “aesthetic, ecological, educational, historical, recreational, and scientific value”. It may also protect the listed species’ critical habitat, the geographic area occupied by or essential to the species. The U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) share authority to list endangered species, determine critical habitat, and develop species’ recovery plans.

**Environmental Assessment (EA)** – A concise public document which serves to: a) briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a finding of No Significant Impact; b) aid an agency’s compliance with NEPA when no EIS is necessary.

**Ephemeral streams** – Streams that flow only as a direct response to rainfall of snowmelt events. They have no base flow.

**Erosion** – The detachment and transport of individual soil, earth, or rock particles by wind, water, or gravity.

**Essential habitat** – Used to describe habitat of listed species under ESA, but not designated as “critical habitat”. Essential habitat has all the important elements of habitat necessary to sustain a species.

**Exotic species** – Animals or plants that have been introduced from a distant place and are non-native to the area of introduction.

## **F**

**Fine sediment** – Or surface fines. Mineral and organic particles smaller than 6.3 millimeters in diameter.

**Fire Management Plan** – A site-specific plan for managing fire on a property. The plan should include risk assessment, suppression guidelines, partnerships, control measures, controlled burn guidelines, fuel management, and other fire management actions.

**Floodplain** – The lowland and relatively flat areas adjoining inland and coastal waters, including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

**Forage** – All browse and non-woody plants that are available to livestock or wildlife for grazing or harvested for feeding.

**Forbs** – Any herbaceous plant other than true grasses, sedges, or rushes.

**Forest development road** – A road wholly or partially within or adjacent to a National Forest System boundary that is necessary for the protection, administration, and use of National Forest lands, which the Forest Service has authorized and over which the agency maintains jurisdiction.

## **G**

**Geographic Information System (GIS)** – A data management system with computer hardware and software functions for the input, storage, analysis, and output of mappable data and associated information.

**Grassland** – An area of grass or grass-like vegetation, such as a prairie or meadow.

**Ground cover** – Ground cover consists of vegetation, litter, and rock fragments in contact with the soil. It also consists of perennial canopy cover that is within three feet of the ground, including leaves and branches that persist for more than a year. Minimum amounts of ground cover needed to protect soil from erosion are a function of soil properties, slope gradient and length, and erosivity (precipitation factor), and need to be determined locally.

**Groundwater** – Subsurface waters in a zone of saturation which are or can be brought to the surface of the ground or to surface waters through wells, springs, seeps, or other discharge areas. (from CDPHE Regulation #41)

## **H**

**Habitat** – 1) Specific set of physical conditions that surround single species, groups of species, or a large community; 2) place or type of site in which an animal or plant naturally or normally occurs.

**Heritage resources** – Property, plant, and equipment of historical, natural, educational, artistic, or architectural significance. See also Cultural Resources.

**Hydrologic cycle** – Also called a water cycle, it is the process of water evaporating, condensing, falling to the ground as precipitation, and returning to the ocean as run-off.

## **I**

**Indirect effect** – Effects caused by the action, but occurring later in time or further removed in place.

**Interagency Agreement** – An agreement between two agencies which outlines the roles and responsibilities of the agencies in a collaborative action.

**Interdisciplinary (ID) team** – A group of professional specialists with expertise in different resources that collaborate to develop and evaluate management alternatives.

**Intermittent stream** – A stream or portion of a stream that flows only in direct response to precipitation or seasonal run-off, and that receives little or no water from springs or other permanent sources. Unlike ephemeral streams, an intermittent has well-defined channel and banks, and it may seasonally be below the water table.

**Irretrievable** – Applies to losses of production, harvest, or a commitment of renewable natural resources. For example, some or all of the timber production from an area is irretrievably lost during a time an area is used as a winter sports (recreation) site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

**Irreversible** – Applies primarily to the use of nonrenewable resources, such as minerals, or cultural resources, or to those factors that are renewable only over long-time spans, such as soil productivity. Irreversible also includes loss of future options.

**Issue** – A public or agency concern about a specific action or area that is addressed in the NEPA process.

## **L**

Land use – Activities undertaken on a particular tract or parcel of land. Uses may include recreation, agriculture, livestock grazing, wildlife management, open space, rights-of-way, mining.

Landslide-prone – Land that has a probability of mass movement greater than or equal to 10 percent during a period of 100 years.

## **M**

Maintenance level – See Road Maintenance.

Management area – Geographic areas, not necessarily contiguous, which have common management direction, consistent with the Forest Plan allocations.

Management direction – A statement of multiple use and other goals and objectives, along with the associated management prescriptions and standards and guidelines to direct resource management.

Management Indicator Species (MIS) – Representative species whose habitat conditions or population changes are used to assess the impacts of management activities on similar species in a particular area. MIS are generally presumed to be sensitive to habitat changes.

Management prescriptions – A set of land and resource management policies that, as expressed through Standards and Guidelines, creates the Desired Future Condition over time.

Mitigation measure – A measure or action taken to reduce the adverse impacts to the environment from implementation of a project or another action. Such measures may include avoidance, replacement, restoration, relocation, timing of operations, etc.

Monitoring – The process of collecting information to evaluate if objectives and anticipated results of a management plan are being realized, or if implementation is proceeding as planned.

## **N**

National Environmental Policy Act (NEPA) Process – An interdisciplinary process, which concentrates decision making around issues, concerns, alternatives, and the effects of alternatives on the environment.

National Historic Preservation Act (NHPA) – Establishes the legal and administrative context within which local historic preservation commissions relate to, and participate in the national historic program. The policy is to promote conditions in which historic properties can be preserved in harmony with modern society, and fulfill modern society need.

Native plant – A plant native to a specific region where it grows naturally and where it evolved before the arrival of European settlers in the late 1700s.

No action (alternative) – The most likely condition expected to exist if current management practices continue unchanged. The analysis of this alternative is required for federal actions under NEPA.

Noxious weed – An alien plant that is invasive and undesirable and declared a noxious weed by the State or County and which generally meets one or more of the following criteria: a) aggressively invades or is physically damaging to economic crops or native plant communities; b) is detrimental to the environmentally sound management of natural or agricultural

ecosystems; c) is poisonous to livestock; d) is a carrier of detrimental insects, diseases, or parasites.

NRHP (National Register of Historic Places) – List of cultural resources that have local, state, or national significance maintained by the Secretary of the Interior.

## **O**

Obliteration – Obliteration of an existing road would involve removal of all culverts, establishing permanent drainages, and recontouring of the road surface.

Optimum habitat – The amount and arrangement of cover and forage that results in the greatest level of production that is consistent with other resource requirements.

Overstory – The trees or shrubs which make up the canopy of a vegetative type.

## **P**

Perennial stream – A stream that typically maintains year-round surface flow, except possibly during extreme periods of drought. A perennial stream receives its water from springs or other permanent sources, and the water table usually stands at a higher level than the floor of the stream.

Permeability – The capacity for transmitting a fluid.

Pioneers (plants) – Plants that are among the first to appear in an area that has been devoid of vegetation (e.g., the first plants to appear after a fire or on the newly exposed shore after the level of a reservoir drops). Many of these plants are often considered weeds.

Prescribed burn – A planned vegetative manipulation using fire to meet certain resource management objectives. The fire is ignited and managed so as to control its intensity and spread.

Prescriptions – Management practices selected and scheduled for application on a designated area to attain specific goals and objectives.

Primitive (P) – Interaction between users is very low and evidence of other users is minimal. Motorized use within the area is not permitted.

Private road – A road under private ownership authorized by an easement to a private party, or a road which provides access pursuant to a reserved or private right.

Proposed action – A proposal made by the Forest Service to authorize, recommend, or implement an action to meet a specific purpose and need.

Public road – A road open to public travel that is under the jurisdiction of and maintained by a public authority such as states, counties, and local communities.

## **R**

Recreation activity – Recreation activity is a leisure-time pursuit that a person participates in voluntarily to secure a pleasurable experience.

**Recreation experience** – Recreation experience is the psychological and physiological response to participating in a particular recreation activity in a specific recreation setting. Recreationists consume a recreation experience (activity + setting = experience).

**Recreation facilities** – Those facilities constructed or installed for public recreational use or for support of such use. These facilities may include, but are not limited to, buildings and other structures (such as park headquarters, visitor centers, maintenance shops, shelters, kiosks, etc.) campgrounds, picnic grounds, boat docks and ramps, electrical lines, water systems, roads, parking areas, sewer systems, signs, trash facilities, boundary and interior fencing, etc.

**Recreation opportunity** – Recreation opportunity is the opportunity for a person to participate in a particular activity in a specific setting to realize a particular type of experience and subsequent benefits.

**Recreation setting** – Recreation setting is a geographic location composed of physical, social, and managerial attributes where a person participates in a particular activity to have a specific type of recreation experience. Managers manage the recreation setting.

**Restricted road** – A National Forest road or segment that is restricted from a certain type of use or all uses during certain seasons of the year or yearlong. The use being restricted and the time period must be specified. The closure is legal when the Forest Supervisor has issued and posted an order in accordance with 36 CFR 261.

**Riparian areas or zones** – Terrestrial areas where the vegetation complex and microclimate conditions are products of the combined presence and influence of perennial and/or intermittent water, associated with high water tables, and soils that exhibit some wetness characteristics.

**Road maintenance** – The upkeep of the entire Transportation System including surface and shoulders, parking and side areas, structures and such traffic control devices as are necessary for its safe and efficient utilization.

**Roaded Natural (RN)** – A natural, or natural appearing, environment of moderate size with moderate evidence of the sights and sounds of humans. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate high, with evidence of other users prevalent. Motorized use is allowed.

**Roadless area** – A National Forest-system area which is larger than 5,000 acres or, if smaller than 5,000 acres, is contiguous to a designated Wilderness or primitive area; contains no roads, and has been inventoried by the Forest Service for possible inclusion into the wilderness preservation system.

**Route** – A road and/or a trail – often used as a collective term for both roads and trails.

**Rural (R)** – An area characterized by a substantially modified natural environment. The sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities for intensified motorized use and parking areas are available.

## **S**

**Scoping** – The procedures by which the agencies determine the extent of analysis necessary for a proposed action, i.e., the range of actions, alternatives, and impacts to be addressed, identification of significant issues related to a proposed action, and establishing the depth of environmental analysis, data, and task assignment.

**Seasonal closure** – A seasonal restriction stipulation that prohibits surface use during specified time periods to protect identified resource values.

**Sediment** – Any material carried in suspension by water, which will ultimately settle to the bottom. Sediment has two main sources; from the channel itself, and from upslope areas.

**Sedimentation** – The act or process of depositing soil particles which are suspended in water.

**Semi-Primitive Motorized (SPM)** – A natural, or natural appearing, environment of moderate to large size. Interaction between users in this setting is low, but there is often evidence of other users. Local roads used for other resource management activities may be present.

**Semi-Primitive Non-Motorized (SPNM)** – A natural, or natural appearing, environment of moderate to large size. The concentration of users is low, but there is often evidence of other users. No roads are present.

**Sensitive species** – A plant or animal species, subspecies, or variety for which a Federal or State agency has determined there is a concern for the species viability, as evidenced by a significant current or predicted downward trend in the population or habitat.

**Seral** – A biotic community that is in a development, transitory stage in ecological succession.

**Setbacks** – The distance activities that pose a potential threat to the environment must be separated from the feature they threaten (e.g., the proper linear distance that an oil well must be from a flowing stream).

**Shrubland** – An area of vegetation where shrubs or bushes are the dominate plants present.

**Small game** – Those wildlife species defined as small game by the respective State fish and wildlife agencies. They include small game birds, small game mammals, and other small game.

**Soil** – A dynamic natural body on the surface of the earth in which plants grow; it is composed of mineral, organic, and living materials.

**Soil compaction** – Compaction is a physical change in soil properties that results when pore spaces are reduced in size and soil becomes denser. Compaction generally occurs when a load is applied to the soil, such as when heavy equipment makes several passes that compress the soil. For Forest management, soils are considered to be detrimentally compacted when there is a 10-12 percent reduction in soil porosity. Because porosity is difficult to measure, soil bulk density is typically used as a surrogate. See (FSH 2509.18) for relationship between soil porosity and soil bulk density).

**Soil displacement** – The movement of soil from one place to another by mechanical forces such as digging, blade pushing, wheels or hooves churning, or logs being dragged.

**Soil erosion** – Soil erosion is the detachment and transport of soil particles or aggregates by wind, water, or gravity. Management practices may increase soil erosion hazard when they remove ground cover and detach soil particles.

**Spawning** – The act of fish reproduction. The mixing of the sperm of a male fish and the eggs of a female fish.

**Special use permit** – A special use authorization that provides permission, without conveying an interest in land, to occupy and use National Forest System lands or facilities for specific purposes, and which is both revocable and terminable.

**Species of concern** – Taxa for which further biological research and field study are needed to resolve their conservation status (USFWS).

**Standards and guides** – Written instructions prepared by Federal and State agencies outlining how work is to be accomplished and actions that need to be taken.

**State Historic Preservation Officer (SHPO)** – A person appointed by a state's governor to administer the State Historic Preservation Program.

**Substrate** – The streambed that is composed of mud, sand, gravel, and/or boulders.

**Subwatershed** – A subdivision within a watershed.

**Succession** – The progressive changes in plant communities toward climax habitat.

**Suitable recreation acres** - Suitable recreation acres are those acres within a project or planning area that can or will accommodate some type and level of recreation use. Unsuitable recreation acres may be those acres that include security closures, pose public safety hazards, contain sensitive wildlife habitat or heritage sites, have incompatible industrial activity, or are inaccessible because of topography or private land.

**Summer range** – The area essential for big game to carry out their reproductive cycles.

**Surface water** – Water, whether flowing or standing, which is present at the ground's surface (as opposed to ground water).

## **T**

**Temporary road** – A subset of a road, a temporary road is authorized by contract, permit, lease, other written authorization or emergency operation, not intended to be part of the Forest transportation system and not necessarily for long-term resource management

**Threatened species** – Designated by the U.S. Fish and Wildlife Service or National Marine Fisheries Service; a plant or animal species given federal protection because it is likely to become endangered throughout all or a specific portion of its range within the foreseeable future.

**Trail** – A travel way, either motorized or non-motorized, less than 50 inches in width.

## **U**

**Unauthorized use** – Use of land or associated resources which is not permitted or otherwise allowed by virtue of applicable grants, conveyances, deeds, reservations, licenses, and/or permits etc.

**Unclassified road** – A road that is not constructed, maintained, or intended for long-term highway use, such as, roads constructed for temporary access and other remnants of short-term use roads associated with fire suppression, timber harvest, and oil, gas, or mineral activities, as well as travel ways resulting from off-road vehicle use.

**Understory** – Plants growing beneath a canopy of other plants; usually refers to grasses, forbs, and low shrubs under a tree or brush canopy.

## **V**

**Vegetative community** – 1) Plant association with immediately distinguishable characteristics based upon and named after apparent dominant plant species (e.g., grassland, shrubland, woodland, forest, etc.); also, 2) Vegetative type.

**Visitor (recreation) capacity** – Visitor capacity is the supply, or prescribed number, of recreation opportunities that can be accommodated in a particular area.

**Visual Quality Objectives (VQOs)** – A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alternation of the characteristic landscape. “Preservation” VQO provides for ecological change only.

## **W**

**Water Influence Zone (WIZ)** – Includes the geomorphic floodplain, riparian ecosystem, and inner gorge. Its minimum horizontal width (from top of each bank) is the greater of 100 feet or the mean height of mature dominant late-seral vegetation. It includes adjacent unstable and highly-erodible soils.

**Water quality** – Refers to the chemical, physical, or biological characteristics that describe the conditions of a river, stream, or lake.

**Water yield** – The measured output of the Forest’s streams.

**Waterbar** – An earthen barrier across a road or trail used to divert water and reduce erosion. It is usually designed to allow limited vehicle passage for roads and unlimited passage for trails.

**Waterfowl** – Swimming birds often associated with freshwater. This term includes all species of ducks, mergansers, geese, and brant.

**Watershed** – Region or area drained by surface and groundwater flow in rivers, streams, or other surface channels. A smaller watershed can be wholly contained within a larger one, as watersheds are hierarchal in structure.

**Wetlands** – Land areas that are wet at least for part of the year, are poorly drained, and are characterized by hydrophytic vegetation, hydric soils, and wetland hydrology. Examples of wetlands include swamps, marshes, and bogs.

**Wildfire** – Any wildfire not designated and managed as a prescribed fire with an approved prescription.

**Winter range** – An area or areas where animals (usually ungulates such as elk, deer, bighorn sheep) concentrate due to favorable winter weather conditions. Conditions are often influenced by snow depth, and the availability of forage and thermal cover.

**Woodland** – Land having a cover of trees and shrubs of such nature that the woody vegetation is not generally valuable for timber.

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