

Acronyms and Glossary

Many definitions in this glossary are from the following sources. Some definitions are in general use within the Forest Service. Terms adequately defined in general dictionaries are not necessarily included, though some of those that are less well known are included for the convenience of the reader.

Partial Source List

- National Forest System, Land Management Planning Directives (36 CFR 219)
- Silviculture Terminology (Powell 2005)
- Dictionary of Forestry Terms (Society of American Foresters 1971)
- Wildland Planning Glossary (USDA Forest Service 1976)
- Forest Service Manual or Forest Service Handbook
- A Glossary of Terms Used in Range Management, Second Edition (Society for Range Management 1974)
- A Dictionary of Ecology, Evolution, and Systematics (Cambridge University Press 1982)
- Webster's Dictionary

A

active management: Planned, intentional actions in an area that are specifically designed to obtain a desired objective or result.

Activity: A measure, course of action, or treatment that is undertaken to directly or indirectly produce, enhance, or maintain a desired resource management condition or objective.

adaptive management: Adaptive management is the general framework encompassing the three phases of planning: assessment, plan development, and monitoring (36 CFR 219.5). This framework supports decision-making that meets management objectives while simultaneously accruing information to improve future management by adjusting the plan or plan implementation. Adaptive management is a structured, cyclical process for planning and decision-making in the face of uncertainty and changing conditions with feedback from monitoring, which includes using the planning process to actively test assumptions, track relevant conditions over time, and measure management effectiveness.

administrative site: Areas such as work centers, fire lookouts, permitted ranch headquarters, seed orchards, communication sites, utility corridors, developed campgrounds, and other areas that are occupied or used by the Forest Service during the administration of work associated with national forest lands.

administrative unit: All the Chugach National Forest System lands where one forest supervisor has responsibility. The basic geographic management area within a Forest Service Region, station, or area.

adverse effect: An action that has an apparent direct or indirect adverse effect on the conservation and recovery of a species listed as threatened or endangered. Such actions include, but are not limited to:

- Any action that directly alters, modifies, or destroys critical or essential habitats or renders occupied habitat unsuitable for use by a listed species, or that otherwise affects its productivity, survival, or mortality.

- Any action that directly results in the taking of a listed species. See Title 50 Code of Federal Regulations, Section 17.3 for an explanation of what constitutes a taking.
- Any action involving the disposal of land that is essential to achieving recovery objectives.

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.

Alaska Native Corporation: One of the regional, urban, and village native corporations formed under the Alaska Native Claims Settlement Act of 1971 (36 CFR 219.19).

alternative: In forest planning, a mix of resource outputs designed to achieve a desired management emphasis as expressed in goals and objectives, and in response to public issues or management concerns.

amendment: A formal alteration of the Forest Plan by modification, addition, or deletion. Forest Plan amendment requires an environmental analysis. Significant findings require an environmental impact statement and the amendment will follow the same procedure used for plan preparation. Insignificant findings allow the changes to be implemented following public notification. Amendments can take place at any time following plan approval.

anadromous fish: Fish that hatch in fresh water, migrate to the ocean, mature there, and return to fresh water to reproduce; for example, salmon and steelhead.

aquatic: Pertaining to water.

aquatic ecosystem: Waters that serve as habitat for interrelated and interacting communities and populations of plants and animals. The stream channel, lake or estuary bed, water, biotic communities and the habitat features that occur therein.

aquatic habitat types: The classification of instream habitat based on location within channel, patterns of water flow, and nature of flow controlling structures. Habitat is classified into a number of types according to location within the channel, patterns of water flow, and nature of flow controlling structure. Riffles are divided into three habitat types: low gradient riffles, rapids, and cascades. Pools are divided into seven types: secondary channel pools, backward pools, trench pools, plunge pools, lateral scour pools, dammed pools, and beaver ponds. Glides, the third habitat type, are intermediate in many characteristics between riffles and pools. It is recognized that as aquatic habitat types occur in various parts of the country, additional habitat types may have to be described. If necessary, the regional fishery biologist will describe and define the additional habitat types.

assessment: For the purposes of the land management planning regulation at 36 CFR part 219, an assessment is the identification and evaluation of existing information to support land management planning. Assessments are not decision-making documents, but provide current information on select topics relevant to the plan area, in the context of the broader landscape (36 CFR 219.19).

at-risk species: A term used in land management planning to refer to, collectively, the federally recognized threatened, endangered, proposed, and candidate species and species of conservation concern within a plan area.

authorized use: Specific activity or occupancy, including a ski area, historical marker, or oil and gas lease, for which a special authorization is issued.

B

background: The area after the middleground in a picture or landscape; generally over 4 miles distance from the viewer.

basin (river): In general, the area of land that drains water, sediment, and dissolved materials to a common point along a stream channel. River basins are composed of large river systems.

beneficial uses: Any of the various uses which may be made of the water, including, but not limited to, domestic water supplies, fisheries and other aquatic life, industrial water supplies, agricultural water supplies, navigation, recreation in and on the water, wildlife habitat, and aesthetics.

best management practices (BMPs): Practice or set of practices that enable a planned activity to occur while still protecting the resource managed, normally implemented, and applied during the activity rather than after the activity.

best management practices for water quality (BMPs) – Methods, measures, or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters (36 CFR 219.19).

biophysical: The combination or grouping of biological and physical components in an ecosystem.

boreal: Pertaining to cool or cold temperature regions of the northern hemisphere; the northern coniferous zone.

browse: That part of leaf and twig growth of shrubs, woody vines, and trees available for animal consumption.

Bureau of Land Management (BLM): An agency within the U.S. Department of the Interior with land management responsibility for public domain lands.

C

capability: The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils, and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease.

channel (stream): The deepest part of a stream or riverbed through which the main current of water flows.

channel morphology: The dimension (width, depth), shape and pattern (sinuous, meandering, straight) of a stream channel.

Classification: Identification of the class (wild, scenic, or recreational) that appropriately describes an eligible river or river segment, based on the criteria established in section 2(b) of the Wild and Scenic Rivers Act.

Clean Air Act of 1970: A congressional act, along with the amendments passed in 1977 and 1990, that provides authority for the Environmental Protection Agency to develop specific regulations controlling air pollution.

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

collaboration or collaborative process – A structured manner in which a collection of people, with diverse interests share knowledge, ideas, and resources, while working together in an inclusive and cooperative manner toward a common purpose. Collaboration, in the context of land management planning, falls within the full spectrum of public engagement described in the Council on Environmental

Quality's publication of October, 2007: Collaboration in NEPA—A Handbook for NEPA Practitioners (36 CFR 219.19).

compaction: Making soil hard and dense and decreasing its ability to support vegetation because the soil can hold less water and air and because roots have trouble penetrating the soil.

compatible: Capable of existing together in harmony.

connectivity: Ecological conditions that exist at several spatial and temporal scales that provide landscape linkages that permit the exchange of flow, sediments, and nutrients; the daily and seasonal movements of animals within home ranges; the dispersal and genetic interchange between populations; and the long distance range shifts of species, such as in response to climate change (36 CFR 219.19).

conservation: The protection, preservation, management, or restoration of natural environments, ecological communities, and species (36 CFR 219.19).

conserve: For the purpose of meeting the requirements of 36 CFR 219.9, to protect, preserve, manage, or restore natural environments and ecological communities to potentially avoid federally listing of proposed and candidate species (36 CFR 219.19).

constraint: A restriction or limit that must be met.

corridor: A tract of land forming a passageway. Can refer to areas of wildlife movement, boundaries along rivers, or the present or future location of transportation or utility rights-of-way within its boundaries.

cover: (1) Trees, shrubs, rocks, or other landscape features that allow an animal to conceal itself partly or fully for protection from predators, or to ameliorate conditions of weather, or in which to reproduce; (2) the area of ground covered by plants of one or more species.

cover type: A vegetation classification depicting a genus, species, group of species, or life form of tree, shrub, grass, or sedge of an area.

culture: The ideals, values, and beliefs that members of a society share to interpret experience and generate behavior that is reflected by their work and thought (Haviland 1999).

cultural resources: An object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence. Cultural resources are prehistoric, historic, archaeological, or architectural sites, structures, places, or objects and traditional cultural properties. Cultural resources include the entire spectrum of resources for which the Heritage Program is responsible, from artifacts to cultural landscapes, without regard to eligibility for listing on the National Register of Historic Places.

cumulative impacts: Cumulative impacts or effects are the impacts on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Effects and impact are synonymous (40 CFR 1508.7).

D

decommission (building): Demolition, dismantling, removal, obliteration and/or disposal of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work. This action eliminates the deferred maintenance needs for the fixed asset. Portions of an asset or component may remain if they do not cause problems nor require maintenance.

decommission (road): Permanently closing a road to vehicular use and left in a hydrological maintenance free condition. Decommissioning will include activities, such as water barring, out sloping, recontouring, decompaction of road surface, removal of drainage structures, and road barricades, as needed.

deferred maintenance: Maintenance that was not performed when it should have been or when it was scheduled and that, therefore, was put off or delayed for a future period. When allowed to accumulate without limits or consideration of useful life, deferred maintenance leads to deterioration of performance, increased costs to repair, and decreased asset value. Deferred maintenance needs may be categorized as critical or noncritical at any point in time. Continued deferral of noncritical maintenance will normally result in an increase in critical deferred maintenance. Code compliance (such as safety, ADA, OSHA, or environmental), plan direction, best management practices, biological evaluations, other regulatory or executive order compliance requirements, or applicable standards not met on schedule are considered deferred maintenance.

departure: The difference between an existing condition and the desired condition.

designated area: An area or feature identified and managed to maintain its unique special character or purpose. Some categories of designated areas may be designated only by statute and some categories may be established administratively in the land management planning process or by other administrative processes of the Federal executive branch. Examples of statutorily designated areas are national heritage areas, national recreational areas, national scenic trails, wild and scenic rivers, wilderness areas, and wilderness study areas. Examples of administratively designated areas are experimental forests, research natural areas, scenic byways, botanical areas, and significant caves (36 CFR 219.19).

designated right-of-way (ROW) corridor: A parcel of land with specific boundaries identified by law, Secretarial order, the land use planning process, or by some other management decision as being a preferred location for existing and future ROW facilities. The corridor may be suitable to accommodate more than one type of ROW use or facility or one or more ROW uses or facilities that are similar, identical, or compatible. A designated corridor may already be occupied by existing utility facilities. It has been adequately analyzed to provide for a high degree of assurance that in being identified as a “designated corridor,” it can accommodate at least one new additional utility facility.

designed use: The managed use of a trail that requires the most demanding design, construction, and maintenance parameters and that determines which design, construction, and maintenance parameters will apply to a trail.

desired conditions – For the purposes of the land management planning regulation at 36 CFR part 219, a description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates (36 CFR 219.7(e)(1)(i)). Desired conditions are achievable, and may reflect social, economic, or ecological attributes, including ecosystem processes and functions.

developed recreation: Recreation that requires facilities that in turn result in concentrated use of an area; for example, a campground. Examples of developed recreation areas are campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts, and buildings.

developed site: Facility provided for developed recreation use. See facilities.

development level: An indication of site modification based on classes in the Recreation Opportunity Spectrum. Development Level 1 equates to Primitive, with minimum site modification; 2 equates to

Semi-Primitive Motorized/Nonmotorized, with little site modification; 3 equates to Roaded, with moderate modification; 4 equates to Rural, with heavy site modification; and 5 relates to Urban, with a high degree of site modification.

diameter at breast height (DBH): A tree's diameter measured at about 4.5 feet (1.37m) above the forest floor on the uphill side of the tree. For the purposes of determining breast height, the forest floor includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line.

disease: A harmful deviation from normal functioning of physiological processes, usually pathogenic or abiotic in origin.

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

dispersed campsites: Primitive sites typically used for overnight, dispersed recreation. Usually includes a hardened area around a fire pit, a barren area, and/or user-constructed facility.

displacement: Recreation visits are considered "displaced" or no longer consumed at a site or area when practical maximum capacity thresholds of the site or area are exceeded. Visitors are assumed to completely leave the national forest rather than seek an alternative location for their activity.

disturbance: Any relatively discrete event in time that disrupts ecosystem, watershed, community, or species population structure and/or function and changes resources, substrate availability, or the physical environment (36 CFR 219.19).

disturbance regime: A description of the characteristic types of disturbance on a given landscape; the frequency, severity, and size distribution of these characteristic disturbance types; and their interactions (36 CFR 219.19).

diversity: The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan (36 CFR 219.16).

drainage: The natural or artificial removal of surface and sub-surface water from an area.

E

ecological conditions: The biological and physical environment that can affect the diversity of plant and animal communities, the persistence of native species, and the productive capacity of ecological systems. Ecological conditions include habitat and other influences on species and the environment. Examples of ecological conditions include the abundance and distribution of aquatic and terrestrial habitats, connectivity, roads and other structural developments, human uses, and invasive species (36 CFR 219.19).

ecological function: Refer to ecological processes.

ecological integrity: The quality or condition of an ecosystem when its dominant ecological characteristics (for example, composition, structure, function, connectivity, and species composition and diversity) occur within the natural range of variation and can withstand and recover from most perturbations imposed by natural environmental dynamics or human influence (36 CFR 219.19).

ecological processes: The flow and cycling of energy, materials, and organisms in an ecosystem. Examples of ecosystem processes include the carbon and hydrologic cycles, terrestrial and aquatic food webs, and plant succession, among others.

ecological status: The degree of departure of current vegetation from the potential natural vegetation, or potential natural community. Often synonymous with seral stage.

economics: A social science concerned primarily with description, distribution, and consumption of goods and services.

economic well-being: A condition that enables people to work, provide income for their families, and generate economic wealth to local communities, the region, and the nation.

economy: System of production, distribution, and consumption of economic goods.

Ecosystem: A spatially explicit, relatively homogeneous unit of the Earth that includes all interacting organisms and elements of the abiotic environment within its boundaries. An ecosystem is commonly described in terms of its:

- **Composition:** The biological elements within the different levels of biological organization, from genes and species to communities and ecosystems
- **Structure:** The organization and physical arrangement of biological elements such as, snags and down woody debris, vertical and horizontal distribution of vegetation, stream habitat complexity, landscape pattern, and connectivity
- **Function:** Ecological processes that sustain composition and structure, such as energy flow, nutrient cycling and retention, soil development and retention, predation and herbivory, and natural disturbances such as wind, fire, and floods
- **Connectivity:** (see connectivity) (36 CFR 219.19)

ecosystem diversity: The variety and relative extent of ecosystems (36 CFR 219.19).

ecosystem function (processes): Ecological processes that sustain composition and structure, such as energy flow, nutrient cycling and retention, soil development and retention, predation and herbivory, and natural disturbances such as wind, fire, and floods.

ecosystem management: The use of an ecological approach to achieve multiple-use management of public lands by blending the needs of people and environmental values in such a way that lands represent diverse, healthy, productive, and sustainable ecosystems.

ecosystem services: Benefits people obtain from ecosystems, including:

- Provisioning services, such as clean air and fresh water, energy, food, fuel, forage, wood products or fiber, and minerals;
- Regulating services, such as long term storage of carbon; climate regulation; water filtration, purification, and storage; soil stabilization; flood and drought control; and disease regulation;
- Supporting services, such as pollination, seed dispersal, soil formation, and nutrient cycling; and
- Cultural services, such as educational, aesthetic, spiritual, and cultural heritage values, recreational experiences, and tourism opportunities.

ecosystem sustainability: The ability to sustain diversity, productivity, resilience to stress, health, renewability and/or yield of desired values, resource uses, products, or services from an ecosystem, while maintaining the integrity of the ecosystem over time.

edge: An area where plant communities meet or where successional stages or vegetation conditions within the plant communities come together.

effects: Environmental changes resulting from an action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but are 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.

Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic quality, historic, cultural, economic, social, or healthy effects, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects even if on balance the agency believes that the effects will be beneficial (40 CFR 1508.8, 2).

electronic communication sites: Areas designated for the operation of equipment which transmits and receives radio signals.

endangered species: Any species that the Secretary of the Interior or the Secretary of Commerce has determined is in danger of extinction throughout all or a significant portion of its range. Endangered species are listed at 50 CFR sections 17.11, 17.12, and 224.101.

Endangered Species Act of 1973: An act that enables endangered and threatened species to be conserved. It provides a program for the conservation of such species, and takes appropriate steps to achieve the purposes of the (relevant) treaties and conventions.

Environment: All the conditions, circumstances, and influences surrounding and affecting the development of an organism, or group of organisms.

environmental impact: Used interchangeably with environmental consequence or effect.

environmental impact statement (EIS): A detailed written statement as required by section 102(2)(C) of the National Environmental Policy Act (NEPA) of 1969 (40 CFR 1508.11; 36 CFR 220). (36 CFR 219.62)

erosion: The wearing away of the land surface by the action of wind, water, or gravity.

evaluation: An essential companion activity to monitoring; the tool for translating data gathered by monitoring into useful information that could result in change or adaptive management.

F

facility: A single or contiguous group of improvements that exists to shelter or to support Forest Service programs. The term may be used in either a broad or narrow context; for example, a facility may be a ranger station compound, lookout tower, leased office, work center, separate housing area, visitor center, research laboratory, recreation complex, utility system, or telecommunications site.

facilities maintenance: Work performed to maintain serviceability or repair failures.

facilities maintenance (deferred): Work that was not performed when it should have been or when it was scheduled and has been delayed to a future period. Deferred maintenance includes actions not taken to comply with codes for health and safety, accessibility, environmental factors and other compliance requirements or applicable standards. To reduce or eliminate deferred maintenance, rehabilitation or replacement may be necessary.

- **rehabilitation:** Renovation or restoration of an existing fixed asset or any of its components in order to restore the functionality or life of the asset. Because there is no significant expansion or change of purpose for the fixed asset, the work primarily addresses deferred maintenance.
- **replacement:** Substitution or exchange of an existing fixed asset or component with one having essentially the same capacity and purpose.

- **custodial:** Replacement of nonfunctional site elements or facilities with in-kind materials or structures. Location, design, and configuration remain constant. Accessibility standards, where possible, are compatible with designated ROS settings.
- **decommission:** Demolition, dismantling, removal, obliteration, and/or disposal of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work. This action eliminates the deferred maintenance needs for the fixed asset. Portions of an asset or component may remain if they do not cause problems nor require maintenance.

federally listed species: Species that are listed in compliance with the Endangered Species Act.

fire management plan: A plan that identifies and integrates all wildland fire management and related activities within the context of approved land/resource management plans. It defines a program to manage wildland fires (wildfire, prescribed fire, and wildland fire use). The plan is supplemented by operational plans, including but limited to preparedness plans, preplanned dispatch plans, and prevention plans. Fire management plans assure that wildland fire management goals and components are coordinated.

fire suppression: All work and activities connected with fire-extinguishing operation, beginning with discovery and continuing until the fire is completely extinguished.

focal species: A small subset of species whose status permits inference to the integrity of the larger ecological system to which it belongs and provides meaningful information regarding the effectiveness of the plan in maintaining or restoring the ecological conditions to maintain the diversity of plant and animal communities in the plan area. Focal species would be commonly selected on the basis of their functional role in ecosystems (36 CFR 219.19).

forage: All browse and herbaceous foods that are available to grazing animals. It may be grazed or harvested for feeding.

forb: Broad-leafed, herbaceous, nongrass-like plant species other than true grasses, sedges, and non-woody plants; fleshy leafed plants; having little or no woody material.

forest: An area managed for the production of timber and other forest products, or maintained under woody vegetation for indirect benefits as protection of a watershed, recreation, or wildlife habitat.

Forest and Rangeland Renewable Resources Planning Act of 1974 – An act of Congress requiring the preparation of a program for the management of the national forests' renewable resources, and of land and resource management plans for units of the National Forest System. It also requires a continuing inventory of all National Forest System lands and renewable resources.

forest health: The perceived condition of a forest derived from concerns about such factors as its age, structure, composition, function, vigor, presence of unusual levels of insects and disease and resilience to disturbance.

forest land: Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest uses. Lands developed for non-forest use include areas for crops, improved pasture, residential or administrative areas, improved roads of any width and adjoining road clearing, and power line clearings of any width (36 CFR 219.19).

forest products: Special forest products include, but are not limited to, mushrooms, boughs, Christmas trees, bark, ferns (also known as fiddleheads), moss, burls, berries, cones, conks, herbs, roots, and wildflower. More traditional woody materials, such as shrub cuttings, fire wood, seedlings, transplants, and rooted saplings, are also considered special forest products. Forest botanicals products, a subset of forest products, include a wide variety of herbaceous plants and plant parts (36 CFR 223.216; 36 CFR 223.277).

Forest Service Handbook (FSH): Directives that provide detailed instructions on how to proceed with a specialized phase of a program or activity.

Forest Service Manual (FSM): A system of manuals that provides direction for Forest Service activities.

forest trail: A trail wholly or partly within or adjacent to and serving the NFS that the Forest Service determines is necessary for the protection, administration, and utilization of the NFS and the use and development of its resources (36 CFR 212.1).

fragmentation (habitat): The break-up of a large continuous land area by reducing and dividing into smaller patches isolated by areas converted to a different land type. Habitat can be fragmented by natural events or development activities.

free-flowing: A river or stream that exists or flows in natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway (16 U.S.C. §1286).

fuel: Plants, both living and dead, and woody vegetative materials capable of burning.

fuel break: Any natural or constructed barrier used to segregate, stop, and control the spread of fire, or to provide a control line from which to work.

G

game species: Any species of wildlife or fish for which seasons and bag limits have been prescribed, and which are normally harvested by hunters, trappers, and fishermen under state or federal laws, codes, and regulations.

geographic area: A spatially contiguous land area identified within the planning area. A geographic area may overlap with a management area (36 CFR 219.19).

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.

geologic: Based on geology, the study of the structure, processes, and chronology of the earth.

geologic features: Landforms or other features of significant geologic interest that may require special management to protect the special qualities, or provide interpretation to the public.

Goals: An optional plan component that are broad statements of intent, other than desired conditions, usually related to process or interaction with the public. Goals are expressed in broad, general terms, but do not include completion dates (36 CFR part 219.7(e)(2)).

goods and services: The various outputs, including on-site uses, produced from forest and rangeland resources.

Groundwater: Water in a saturated zone in a geologic stratum. Water stored below the water table where the soil (or other geologic material) is saturated.

guideline: A guideline is a constraint on project and activity decision making that allows for departure from its terms, so long as the intent of the guideline is met (§ 219.15(d)(3)). Guidelines are established to help achieve a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

H

habitat: A place that provides seasonal or year-round food, water, shelter, and other environmental conditions for an organism, community, or population of plants or animals.

habitat type: A land or aquatic unit, consisting of an aggregation of habitats having equivalent structure, function, and responses to disturbance.

harvest: (1) Felling and removal of trees from the forest; and (2) removal of game animals or fish from a population, typically by hunting or fishing.

historic properties: Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

hydroelectric: Of or relating to the production of electricity by waterpower.

hydrologic: Refers to the properties, distribution, and effects of water. Hydrology refers to the broad science of the waters of the earth, their occurrence, circulation, distribution, chemical and physical properties, and their reaction with the environment.

hydrologic function: The behavioral characteristics of a watershed described in terms of ability to sustain favorable conditions of water flow. Favorable conditions of water flow are defined in terms of water quality, quantity, and timing.

I

impacts: Refer to effects.

implement: To carry out.

indicator: A measure or measurement of an aspect of a sustainability criterion. A quantitative or qualitative variable that can be measured or described and, when observed periodically, shows trends. Indicators are quantifiable performance measures of outcomes or objectives for attaining criteria designed to assess progress toward desired conditions.

Infestation: The attack by macroscopic organisms in considerable concentration. Examples are infestations of tree crowns by budworm, timber by termites, soil or other substrates by nematodes or weeds.

infrastructure: The basic facilities, equipment, and installation needed for the functioning of a system; commonly refers to items such as roads, bridges, power facilities, and the like.

inherent capability of the plan area: The ecological capacity or ecological potential of an area characterized by the interrelationship of its physical elements, its climatic regime, and natural disturbances (36 CFR 219.19).

instream flow: Flow of water in its natural setting (as opposed to waters diverted for off-stream uses, such as industry or agriculture). Instream flow levels provided for environmental reasons enhance or maintain the habitat for riparian and aquatic life, with timing and quantities of flow characteristic of the natural setting.

interagency: Involving the Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, and/or other Federal agencies.

interdisciplinary team: A group of specialists assembled as a cohesive team with frequent interactions to solve a problem or perform a task.

intermittent streams: Streams that flow in response to a seasonally-fluctuating water table in a well-defined channel. The channel will exhibit signs of annual scour, sediment transport, and other stream channel characteristics, absent perennial flows. Intermittent streams typically flow during times of elevated water table levels, and may be dry during significant periods of the year, depending on precipitation cycles.

interpretive services: Visitor information services designed to present inspirational, educational, and recreational values to forest visitors in an effort to promote understanding, appreciation, and enjoyment of their forest experience.

invasive species – An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. A species that causes, or is likely to cause, harm and that is exotic to the ecosystem it has infested. Invasive species infest both aquatic and terrestrial areas and can be identified within any of the following four taxonomic categories: plants, vertebrates, invertebrates, and pathogens (Executive Order 13112).

inventoried roadless areas (IRAs): Areas identified on a set of inventoried roadless area maps, contained in Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2, (USDA Forest Service 2000), which are held at the Washington Office of the Forest Service, or any subsequent update or revision of those maps.

issue: A point, matter of controversy, dispute, question of public discussion, or general concern over resource management activities or land uses to be addressed or decided through the planning process. To be considered a significant environmental impact statement issue, it must be well defined, relevant to the proposed action, and within the ability of the agency to address through alternative management strategies.

K

key ecosystem characteristics:

- Are important specific elements of an ecosystem that sustain the long-term integrity of the ecosystems (FSH 1909, Chapter 10, Assessment sec. 12.14).
- Include dominant ecological characteristics of composition, structure, function, and connectivity of terrestrial, aquatic, and riparian ecosystems.
- May be stressors and possible effects of stressors.

L

land exchange: The conveyance of non-federal land or interests in the land in exchange for National Forest System land or interests in land.

land management plan: A document that provides broad strategic guidance and information for project and activity decision making in a national forest through plan components (desired conditions, suitable uses, standards, guidelines, and objectives), as required by the National Forest Management Act and the Planning Rule.

land management planning: A formal process of management planning involving four interactive steps: monitoring, assessment, decision making, and implementations as described in the Federal Code of Regulations.

landform: One of the attributes or features that make up the Earth's surface, such as a plain, mountain, or valley, as defined by its particular combination of bedrock and soils, erosion processes, and climatic influences.

Landscape: A defined area irrespective of ownership or other artificial boundaries, such as a spatial mosaic of terrestrial and aquatic ecosystems, landforms, and plant communities, repeated in similar form throughout such a defined area (36 CFR 219.19).

landscape character: Identifiable image made by particular attributes, qualities, and traits of a landscape.

Landtype: An intermediate level in the ecological classification system hierarchy that addresses land areas ranging in size from hundreds of acres up to ten thousands of acres. These units typically have similarities in landform, natural vegetative communities, and soils.

landtype association: A group of landtypes. The landtypes in the association are sufficiently homogeneous to be considered as a whole for modeling the future outputs and effects of planned management activities. Landtype associations may not follow watershed boundaries, and are defined on the basis of general similarities in climate, geology, landform, and vegetation.

large woody debris (LWD): Logs, sticks, branches, and other wood that falls into streams and rivers. This debris can influence the flow and the shape of the stream channel.

leave tree: A tree (marked to be) left standing for wildlife, seed production, etc, in an area where it might otherwise be felled.

lichens: Organisms made up of specific algae and fungi, forming identifiable crusts on soil, rocks, tree bark, and other surfaces. Lichens are primary producers in ecosystems; they contribute living material and nutrients, enrich the soil and increase soil moisture-holding capacity, and serve as food sources for certain animals. Lichens are slow growing and sensitive to chemical and physical disturbances.

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.

line officer: A Forest Service official who serves in a direct line of command from the Chief (36 CFR 219.62).

listed species: Any species of fish, wildlife, or plant officially designated as endangered or threatened by the Secretary of the Interior or Commerce. Listed species are documented in 50 CFR 17.11 and 17.12.

local population: A group of individuals that spawn or breed in a particular area; the smallest group of individuals that is known to represent an interacting reproductive unit.

long term: Generally refers to a period longer than 10 years up to 100 years.

M

Maintain: In reference to an ecological condition: To keep in existence or continuance of the desired ecological condition in terms of its desired composition, structure, and processes. Depending upon the circumstance, ecological conditions may be maintained by active or passive management or both (36 CFR 219.19).

management action: A set of management activities applied to a land area to produce a desired output.

management area: A land area identified within the planning area that has the same set of applicable plan components. A management area does not have to be spatially contiguous (36 CFR 219.19).

management direction: A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.

management practice: A specific activity, measure, course of action, or treatment.

mineral exploration: The search for valuable minerals on lands open to mineral entry.

mineral resource: A known or undiscovered concentration of naturally occurring solid, liquid, or gaseous material in or on the earth's crust in such form and amount that economic extraction of a commodity from the concentration is currently or potentially feasible.

minerals-locatable: Those hardrock minerals that are mined and processed for the recovery of metals. They also may include certain nonmetallic minerals and uncommon varieties of mineral materials, such as valuable and distinctive deposits of limestone or silica.

minerals-leasable: Coal, oil, gas, phosphate, sodium, potassium, oil shale, sulphur, and geothermal resources. All hard-rock minerals that occur on acquired lands, as opposed to public domain lands, are leasable.

minerals-materials (salable): A collective term to describe common varieties of sand, gravel, stone, pumice, pumicite, cinders, clay, and other similar materials. Common varieties do not include deposits of those materials that may be locatable.

minimum impact suppression tactics: A set of guidelines prescribing safety, fire line procedures, tools, and equipment that has the least impact on the environment during suppression and mop-up phases of fire (USDA and USDI 2003).

mining: Any activity related to the discovery, extraction, and exploration of minerals under the Mining Act of 1872 and the Mineral Leasing Act of 1920 through the use of, among other things, hydraulic equipment, pans, ground sluicing, sluice boxes, rockers, or suction dredges.

Mitigation: Actions to avoid, minimize, reduce, eliminate, or rectify the impact of a management practice.

Monitoring: A systematic process of collecting information to evaluate effects of actions or changes in conditions or relationships (36 CFR 219.19).

monitoring program: Prioritized criteria, indicators, and measures that are the means of measuring progress toward the desired conditions when conducting the annual and comprehensive evaluations.

mosaic: A pattern of vegetation in which two or more kinds of communities are interspersed in patches, such as clumps of shrubs with grassland between.

motorized equipment: Machines that use a motor, engine, or other non-living power source. This includes, but is not limited to such machines as chain saws, aircraft, snowmobiles, generators, motor boats, and motor vehicles. It does not include small battery or gas powered hand carried devices that include shavers, wristwatches, flashlights, cameras, stoves, or other similar small equipment.

multiple use: The management of all the various renewable surface resources of the NFS so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output, consistent with the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531) (36 CFR 219.19).

municipal watersheds (public supply watersheds): A watershed that serves a public water system as defined in Public Law 93-523 (Safe Drinking Water Act) or as defined in state safe drinking water

regulations. The definition does not include communities served by a well or confined groundwater unaffected by Forest Service activities.

N

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

National Environmental Policy Act (NEPA) of 1969: An act to declare a national policy which will encourage productive and enjoyable harmony between humankind and the environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity, to enrich the understanding of the ecological systems and natural resources important to the nation, and to establish a Council on Environmental Quality.

National Forest Management Act (NFMA) of 1976: A law passed in 1976 as an amendment to the Forest and Rangeland Renewable Resources Planning Act, requiring the preparation of forest plans and the preparation of regulations to guide that development.

National Forest System (NFS): All national forest lands reserved or withdrawn from the public domain of the United States; all national forest lands acquired through purchase, exchange, donation, or other means; the National Grasslands and land utilization projects administered under Title III of the Bankhead-Jones Farm Tenant Act (50 Stat. 525, 7 U.S.C. 1010-1012); and other lands, waters, or interests therein which are administered by the Forest Service or are designated for administration through the Forest Service as a part of the system.

National Forest System trail: A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a state, county, or local public road authority (36 CFR 212.1).

National Recreation Trail: Trails designated by the Secretary of the Interior or the Secretary of Agriculture as part of the national system of trails authorized by the National Trails System Act. National recreation trails provide a variety of outdoor recreation uses.

National Register of Historic Places: The Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.

National Wild and Scenic River System: Includes rivers with outstanding scenic, recreational, geological, fish and wildlife, historic, cultural or other similar values designated by Congress under the Wild and Scenic Rivers Act for preservation of their free-flowing condition. Refer to Wild and Scenic River.

National Wilderness Preservation System: All lands covered by the Wilderness Act and subsequent wilderness designations, irrespective of the department or agency having jurisdiction.

native species: An organism that was historically or is present in a particular ecosystem as a result of natural migratory or evolutionary processes; and not as a result of an accidental or deliberate introduction into that ecosystem. An organism's presence and evolution (adaptation) in an area are determined by climate, soil, and other biotic and abiotic factors (36 CFR 219.19).

natural disturbance: Periodic impact of natural events such as: fire, severe drought, insect or disease attack, or wind.

niche: A place or activity for which a an organism is best fitted.

O

objective: An objective is a concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets.

old growth forests: An ecosystem distinguished by old trees and related structural attributes. Old growth encompasses the later stages of stand development that typically differ from earlier stages in a variety of characteristics including tree size, accumulation of large dead woody material, number of canopy layers, species composition, and ecosystem function. Old growth encompasses older forests dominated by early seral species, and forests in later successional stages dominated by shade tolerant species.

on-site: A term referring to species normally found on a site under natural conditions. The same or contiguous property that may be divided by a public or private right-of-way, provided that the entrance and exit between the properties is at a crossroads intersection, and that access is by crossing, as opposed to going along the right-of-way.

optional plan component: A plan may include goals as plan components. Goals are broad statements of intent, other than desired conditions, usually related to process or interaction with the public. Goals are expressed in broad, general terms, but do not include completion dates.

outcome: The long-term results of a program activity compared to its intended purpose (Government Performance and Results Act of 1993 (5 U.S.C. 306)). Outcome is a state of being similar to long-term ecological, social, or economic condition or goal (such as the maintenance of an ecosystem's biodiversity, jobs and income, or the quality of a regions' surface water as measured by indicators).

outdoor recreation activities: Activities such as camping, picnicking, rafting, boating, hiking, rock climbing, fishing, hunting, horseback riding, and the viewing of wildlife or scenery.

outfitting: Providing through rental or livery any saddle or pack animal, vehicle or boat, tents or camping gear, or similar supplies or equipment, for pecuniary remuneration or other gain. The term guide includes the holder's employees, agents, and instructors. Pecuniary remuneration means monetary reward (Washington Office Amendment 2709.11-95-11, 41-53C).

outstanding mineral rights: Instances in which the minerals in federally-owned lands were severed prior to the transaction in which government acquired the land. Removal or extraction of these minerals must be allowed in accordance with the instrument severing the minerals from the surface and under applicable state and local laws and regulations.

outstandingly remarkable values: Term used in the Wild and Scenic Rivers Act of 1968; to qualify as outstandingly remarkable, a resource value must be a unique, rare, or exemplary feature that is significant at a regional or national level.

overstory: Portion of the trees, in a forest or in a forested stand of more than one story, forming the upper or uppermost canopy.

P

paleontological sites: Areas that contain any remains, trace, or imprint of a plant or animal that has been preserved in the earth's crust before the Holocene epoch.

parcel: Contiguous tax lots under one ownership. For the purposes of the Private LURs, rights-of-way do not divide parcels into smaller units.

participation – Activities that include a wide range of public involvement tools and processes, such as collaboration, public meetings, open houses, workshops, and comment periods (36 CFR 219.19).

partnership: Voluntary, mutually beneficial and desired arrangement between the Forest Service and another or others to accomplish mutually agreed-on objectives consistent with the agency's mission and serving the public's interest.

patch: An area of vegetation that is relatively homogeneous internally and differs from surrounding elements.

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

pattern: The spatial arrangement of landscape elements (patches, corridors, matrix) that determines the function of a landscape as an ecological system.

plan or land management plan: A document or set of documents that provide management direction for an administrative unit of the NFS developed under the requirements of the land management planning regulation at 36 CFR part 219 or a prior planning rule (36 CFR 219.19).

plan (planning) area: The NFS lands covered by a plan (36 CFR 219.19).

plan components: The parts of a land management plan that guide future project and activity decision-making. Specific plan components may apply to the entire plan area, to specific management areas or geographic areas, or to other areas as identified in the plan. Every plan must include the following plan components: Desired conditions; Objectives; Standards; Guidelines; Suitability of Lands. A plan may also include Goals as an optional component.

plan monitoring program: An essential part of the land management plan that sets out the plan monitoring questions and associated indicators, based on plan components. The plan monitoring program informs management of resources on the plan area and enables the responsible official to determine if a change in plan components or other plan content that guide management of resources on the plan area may be needed.

plan (planning) record: The documents and materials considered in the making of a forest plan, plan revision, or plan amendment.

plant and animal community: A naturally occurring assemblage of plant and animal species living within a defined area or habitat (36 CFR 219.19).

plant communities: Any grouping of plants that have some structural similarity (Johnson and Simon 1987).

point source pollution: Pollution that comes from a single identifiable source such as a smokestack, a sewer, or a pipe.

prehistoric site: An area that contains important evidence and remains of the life and activities of early societies that did not record their history.

prescribed fire: Any fire ignited by management actions to meet specific objectives.

prescription: A management pathway to achieve a desired objective(s).

primitive recreation: Those types of recreation activities associated with unroaded land, for example: hiking, backpacking, and cross-country travel.

priority heritage assets: Heritage assets of distinct public value that are or should be actively maintained and meet one or more of the following criteria:

- The significance and management priority of the property is recognized through an official designation such as listing on the National Register of Historic Places or on a State register.
- The significance and management priority of the property is recognized through prior investment in preservation, interpretation, and use.
- The significance and management priority of the property is recognized in an agency–approved management plan.
- The property exhibits critical deferred maintenance needs and those needs have been documented. Critical deferred maintenance is defined as a potential health or safety risk or imminent threat of loss of significant resource values.

private land: Land not in federal, state, or local government ownership.

productivity:– The capacity of NFS lands and their ecological systems to provide the various renewable resources in certain amounts in perpetuity. For the purposes of land management planning, productivity is an ecological term, not an economic term (36 CFR 219.19).

program: Sets of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishments.

project: An organized effort to achieve an objective identified by location, timing, activities, outputs, effects, and time period and responsibilities for executions (36 CFR 219.19).

public participation activities: Meetings, conferences, seminars, workshops, tours, written comments, survey questionnaires, and similar activities designed or held to obtain comments from the general public and specific publics.

public roads: Any road or street under the jurisdiction of and maintained by a public authority and open to public travel (23 U.S.C. §101(a)).

Q

quality of life: Refers to the satisfaction people feel for the places where they live (or may visit) and for the places they occupy as part of that experience.

R

ranger district: Administrative subdivisions of a national forest supervised by a district ranger who reports to the forest supervisor.

rare species: Any native or once-native species of wild animal which exists in small numbers.

reasonable assurance: A judgment made by the responsible official based on best available scientific information and local professional experience that practices based on existing technology and knowledge are likely to deliver the intended results. Reasonable assurance applies to average and foreseeable conditions for the area and does not constitute a guarantee to achieve the intended results.

reconstruction: Work that includes, but is not limited to, widening of roads, improving alignment, providing additional turnouts, and improving sight distance that improve the standard to which the road was originally constructed. Also undertaken to increase the capacity of the road or to provide greater traffic safety.

recovery: With respect to threatened or endangered species: The improvement in the status of a listed species to the point at which listing as federally endangered or threatened is no longer appropriate (36 CFR 219.19).

recreation: Leisure time activity, such as swimming, picnicking, boating, hunting, and fishing.

- **developed recreation:** Recreation that requires facilities that, in turn, result in concentrated use of an area. Examples of developed recreation areas are campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts, and buildings.
- **dispersed recreation:** A general term referring to recreation use outside developed recreation sites; this includes activities in primitive environments, such as scenic driving, hiking, backpacking, hunting, fishing, snowmobiling, horseback riding, cross-country skiing, and recreation.

recreation opportunity: An opportunity to participate in a specific recreation activity in a particular recreation setting to enjoy desired recreation experiences and other benefits that accrue. Recreation opportunities include non-motorized, motorized, developed, and dispersed recreation on land, water, and in the air (36 CFR 219.19).

recreation opportunity spectrum: A recreation opportunity setting is the combination of physical, biological, social, and managerial conditions that give value to a place. Thus, an opportunity includes qualities provided by-nature (vegetation; landscape, topography, scenery), qualities associated with recreational use (levels and types of use), and conditions provided by management (developments, roads, regulations). By combining variations of these qualities and conditions, management can provide a variety of opportunities for recreationists. The settings, activities, and opportunities for obtaining experiences have been arranged along a continuum or spectrum divided into six classes: primitive, semiprimitive nonmotorized, semiprimitive motorized, roaded natural, rural, and urban (40 CFR 1505.2).

- **primitive:** Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.
- **semiprimitive nonmotorized:** Area is characterized by a predominantly natural or natural appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreational experience opportunities.
- **semiprimitive motorized:** Area is characterized by a predominantly natural or natural appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions use of local primitive or collector roads with predominantly natural surfaces and trails suitable for motor bikes is permitted.
- **roaded natural:** Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of man. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities

- **rural:** Area is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities is designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.
- **urban:** Area is characterized by a substantially urbanized environment, although the background may have natural appearing elements. Resource modification and utilization practices are to enhance specific recreation activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans, on-site, are predominant. Large numbers of users can be expected, both on site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.

recreation site: Specific places in the national forest other than roads and trails that are used for recreational activities. These sites include a wide range of recreational activities and associated development. These sites include highly developed facilities, such as ski areas, resorts, and campgrounds. It also includes dispersed recreation sites that have few or no improvements but show the effects of repeated recreation use.

recreational facilities: Refers to facilities associated with or required for outdoor recreational activities and includes, but is not limited to, parks, campgrounds, hunting and fishing lodges, and interpretive displays.

recreational river: Refer to wild and scenic river.

refugia: Areas that have not been exposed to great environmental changes and disturbances undergone by the region as a whole; refugia provide conditions suitable for survival of species that may be declining elsewhere.

regeneration: The process of establishing new plant seedlings, whether by natural means or artificial measures (planting).

regulations: Generally refers to CFR, Title 36, chapter II, which covers management of the Forest Service.

rehabilitate: To repair and protect certain aspects of a system so that essential structures and functions are recovered, even though the overall system may not be exactly as it was before.

renewable energy: Energy derived from natural sources, such as sunlight, wind, rain, tides, or geothermal resources, that does not consume the resource when used.

research natural area (RNA): An area set aside by a public or private agency specifically to preserve a representative sample of an ecological community, primarily for scientific and educational purposes. In Forest Service usage, research natural areas are areas designated to ensure representative samples of as many of the major naturally occurring plant communities as possible.

resilience: The ability of an ecosystem and its component parts to absorb, or recover from the effects of disturbances through preservation, restoration, or improvement of its essential structures and functions and redundancy of ecological patterns across the landscape.

resource: Anything that is beneficial or useful, be it animal, vegetable, mineral, a location, a labor force, a view, an experience, etc. Resources, in the context of land use planning, thus vary from such commodities as timber and minerals to such amenities as scenery, scenic viewpoints, or recreation opportunities.

responsible official: The official with the authority and responsibility to oversee the planning process and to approve a plan, plan amendment, and plan revision (36 CFR 219.62).

restore: To renew by the process of restoration. See restoration (36 CFR 219.19).

resource allocation: The action of apportioning the supply of a resource to specific uses or to particular persons or organizations.

retention: A visual quality objective in which man's activities are not evident to the casual national forest visitor.

revegetation: The re-establishment and development of a plant cover. This may take place naturally through the reproductive processes of the existing flora or artificially through the direct action of humans (e.g.: afforestation and range reseeding).

revision: To make the plan new or up-to-date. Plan revision must be considered and approved in accordance with the requirements for the development and approval of a forest plan. Revisions take place every 10-15 years, but may occur more frequently if conditions or public demands change significantly.

right-of-way (ROW): Public or National Forest System lands authorized to be used or occupied pursuant to a ROW grant or special use authorization.

riparian areas: Three-dimensional ecotones [the transition zone between two adjoining communities] of interaction that include terrestrial and aquatic ecosystems that extend down into the groundwater, up above the canopy, outward across the floodplain, up the near-slopes that drain to the water, laterally into the terrestrial ecosystem, and along the water course at variable widths (36 CFR 219.19).

risk: A combination of the likelihood that a negative outcome will occur and the severity of the subsequent negative consequences (36 CFR 219.19).

road: A motor vehicle route over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary (36 CFR 212.1).

- **classified roads:** Roads wholly or partially within or adjacent to national forest lands that are determined to be needed for long-term motor vehicle access, including state roads, county roads, privately owned roads, forest roads, and other roads authorized by the Forest Service (36 CFR 212.1).
- **closed road:** A road with all use suspended year-long by an active form of facility management utilizing regulations and appropriate enforcement to secure and ensure user compliance with closure.
- **open road:** A road that has no use restrictions or regulations imposed and is available for use by vehicles at any time during the year.
- **temporary roads:** Roads authorized by contract, permit, lease, other written authorization, or emergency operation not intended to be a part of the forest transportation system and not necessary for long-term resource management (36 CFR 212.1).
- **unclassified roads:** Roads on national forest lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travelways, and off-road vehicle tracks that have not been designated and managed as a trail and those roads that were once under permit or other authorization and were not decommissioned upon the termination of the authorization (36 CFR 212.1).

road construction: Activity that results in the addition of forest classified or temporary road miles (36 CFR 212.1). New construction activities may include vegetation clearing and grubbing, earthwork,

drainage installation, instream activities, pit development or expansion, surfacing (including paving), and aggregate placement.

road management objectives: Road management objectives define the level of service provided by a National Forest System road consistent with the surrounding recreation opportunity spectrum (ROS) class.

semi-primitive nonmotorized (SPNM): Most semi-primitive nonmotorized areas do not have developed roads. All motorized traffic is prohibited. Semi-primitive nonmotorized roads provide hiking or equestrian trails on closed or decommissioned roads.

semi-primitive motorized (SPM): Semi-primitive motorized roads are generally used for four-wheel drive, logging, or ranching activities. Passenger-car use is discouraged by entrance conditions or signage. Users can expect SPM roads where there are no attractions such as viewpoints or trailheads.

roaded natural (RN): Roaded natural roads provide safe access for passenger cars. Maintenance activities generally occur annually or every two years, depending on funding and need. Forest Service clears these roads of brush and logs. Surface maintenance increases at higher levels. Because of increased speeds, turnouts are needed more frequently. Open local roads and some collector roads within RN are managed for high-clearance vehicles. In such cases, road-maintenance standards defined for SPM would be used.

rural (R): Rural is generally the highest standard of road. These arterial roads provide the main access to the national forest lands but generally lack the speeds and alignment provided by state highways. Roads are double-lane with a road-surface treatment and generally 24-feet wide. The road has center striping and often stripes marking the shoulders. Corresponds to ML 5 and Traffic Service Level A (abbreviated: 5-A).

road reconstruction: Activity that results in improvement or realignment of an existing classified road as defined below. Reconstruction activities may include vegetation clearing and grubbing, earthwork, drainage installation, instream activities, surfacing (including paving), and aggregate placement.

roundwood: Timber and fuelwood prepared in the round state - from felled trees to material trimmed, barked, and crosscut (e.g.: logs and transmission poles).

runoff: The total stream discharge of water from a watershed including surface and subsurface flow, but not groundwater. Usually expressed in acre-feet.

runoff (surface): Fresh water from precipitation and melting ice that flows on the earth's surface into nearby streams, lakes, wetlands, or reservoirs.

S

sacred site: Executive Order 13007 defines an Indian sacred site as “any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the Indian tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.”

scale: (1) The level of resolution under consideration (for example, broad-scale or fine-scale); (2) the ratio of length on a map to true length.

scenic character: A combination of the physical, biological, and cultural images that gives an area its scenic identity and contributes to its sense of place. Scenic character provides a frame of reference from which to determine scenic attractiveness and to measure scenic integrity (36 CFR 219.19).

scenic integrity objectives (SIOs) and landscape character goals: These are developed for forest plan management areas. Scenic Integrity Objectives are Very High-unaltered, High-appears unaltered, Moderate-slightly altered, and Low-moderately altered. A desired level of excellence based on physical and sociological characteristics of an area. Refers to the degree of acceptable alterations of the characteristic landscape. Objectives include Very High, High, Moderate, and Low.

- **Very High (VH)** - Generally provides for only ecological changes in natural landscapes and complete intactness of landscape character in cultural landscapes.
- **High (H)** - Human activities are not visually evident to the casual observer. Activities may only repeat attributes of form, line, color, and texture found in the existing landscape character.
- **Moderate (M)** - Landscapes appear slightly altered. Noticeable human created deviations must remain visually subordinate to the landscape character being viewed.
- **Low (L)** - Landscapes appear moderately altered. Human created deviations begin to dominate the valued landscape character being viewed but borrow from valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles outside the landscape being viewed.

scenic river areas: Refer to Wild and Scenic River.

scenic river: Refer to Wild and Scenic River.

sediment: Solid materials, both mineral and organic, in suspension or transported by water, gravity, ice, or air; may be moved and deposited away from their original position and eventually will settle to the bottom.

seep: A wet area where a seasonal high water table intersects with the ground surface. Seeps that meet the definition of a wetland are included in the riparian corridor.

self-reliance: Reliance on one's own capabilities, judgment, or resources through application of outdoor skills in an environment that offers a high degree of risk and challenge.

self-sustaining populations: Populations that are sufficiently abundant, interacting, and well-distributed in the planning area, within the bounds of their life history and distribution of the species and the capability of the landscape, to provide for their long-term persistence, resilience, and adaptability over multiple generations.

sense of place: A reference for the physical, emotional, cultural, symbolic, and spiritual aspects of people's tangible and intangible relationships with the land and the meanings associated with them.

shelterwood: The cutting of most trees, leaving those needed to produce sufficient shade to produce a new age class in a moderated microenvironment.

short term: Generally refers to a period of 10 years or less.

silvicultural system: A management process whereby forests are tended, harvested, and replaced, resulting in a forest of distinctive form. Systems are classified according to the method of carrying out the fellings that remove the mature crop and provide for regeneration and according to the type of forest thereby produced.

silviculture: The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands. Silviculture entails the manipulation of forest and woodland vegetation

in stands and on landscapes to meet the diverse needs and values of landowners and society on a sustainable basis.

site: (1) A specific location of an activity or project, such as a campground, a lake, or a stand of trees to be harvested; (2) The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined or vanished, where the location itself maintains historical or archeological value regardless of the value of any existing structure [36CFR65] (historic or archaeological definition).

snag: A standing dead tree usually greater than five feet in height and six inches in diameter at breast height (DBH).

society: A group of people who have a common homeland, are interdependent, and share a common culture.

soil: The earth material that has been so modified and acted upon by physical, chemical, and biological agents that it will support rooted plants.

soil productivity: The inherent capacity of a soil to produce plant growth, due to the soil's chemical, physical, and biological properties (such as depth, temperature, water-holding capacity, and mineral, nutrient, and organic matter content). It is often expressed by some measure of biomass accumulation.

soil quality: The capacity of a soil to function within ecosystem boundaries to sustain biological productivity, maintain environmental quality, and promote plant and animal health.

soil stability: (1) Mass stability of the soil profile or resistance to mass failure; (2) stability of the soil surface with respect to accelerated sheet, rill, and gully erosion processes.

spatial: Related to or having the nature of space.

special habitat: A habitat that has a special function not provided by plant communities and successional stages. Includes riparian zones, snags, dead and downed wood, and edges.

special use authorization: A permit, term permit lease, or easement which allows occupancy, use, rights, or privileges of National Forest System lands (36 CFR 251.51).

special use permit: A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest System lands for some special purpose.

species: A population or series of populations of organisms that can interbreed freely with each other but not with members of other species.

species composition: The species that occur on a site or in a successional stage of a plant community.

species diversity: The number of species occurring in a given area.

species groups: A group of species that are associated with the same habitat conditions. Groupings are made based on the ecological conditions necessary to maintain or, in the case of federally listed threatened or endangered species, recover each group member.

species of conservation concern: A species of conservation concern is a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area (36 CFR 219.9(c)).

spring:– A water source located where water begins to flow from the ground due to the intersection of the water table with the ground surface. Generally flows throughout the year. Springs that are the source of perennial or intermittent streams are included in the riparian corridor.

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

standard: A mandatory constraint on project and activity decision making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

stream channel: Refer to channel.

stressors: Actors that may directly or indirectly degrade or impair ecosystem composition, structure, or ecological process in a manner that may impair its ecological integrity, such as an invasive species, loss of connectivity, or the disruption of a natural disturbance regime (36 CFR 219.19).

structure: (1) Any permanent building or facility, or part thereof, such as barns, outhouses, residences, and storage sheds, including transmission line systems, substations, commercial radio transmitters, relays or repeater stations, antennas, and other electronic sites and associated structures; or (2) the size and arrangement of vegetation, both vertically and horizontally.

subbasin: A drainage area of approximately 800,000 to 1,000,000 acres, equivalent to a 4th field HUC watershed.

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

subsistence uses: The customary and traditional uses by rural Alaska residents of wild renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade (ANILCA Section 803).

subwatershed: A drainage area of approximately 20,000 acres, equivalent to a 6th-field HUC (12 digit). Hierarchically, subwatersheds (6th field HUC) are contained within watersheds (5th field HUC, which in turn are contained within a subbasin (4th field HUC).

succession: The sequential replacement over time of one plant community by another, in the absence of major disturbance. Conditions of the prior plant community or successional stage create conditions that are favorable for the establishment of the next stage. The different stages of succession are often referred to as seral stages. Developmental stages are as follows:

- **early seral:** Communities that occur early in the successional path and generally have less complex structural developmental than other successional communities. Seedling and sapling size classes are an example of early seral forests.
- **mid-seral:** Communities that occur in the middle of the successional path. For forests, this usually corresponds to the pole or medium sawtimber growth stages.
- **late-seral:** Communities that occur in the later stage of the successional path with mature, generally larger individuals, such as mature forests.

suitability of lands – A determination that specific lands within a plan area may be used, or not, for various multiple uses or activities, based on the desired conditions applicable to those lands. The

suitability of lands determinations need not be made for every use or activity, but every plan must identify those lands that are not suitable for timber production.

suitable uses: Uses that are compatible with the desired conditions and objectives for a given area that are identified as guidance for project and activity decision making and do not represent a commitment or final decision approving projects or activities.

sustainability: The capability to meet the needs of the present generation without compromising the ability of future generations to meet their needs. For the purposes of this plan “ecological sustainability” refers to the capability of ecosystems to maintain ecological integrity; “economic sustainability” refers to the capability of society to produce and consume or otherwise benefit from goods and services including contributions to jobs and market and nonmarket benefits; and “social sustainability” refers to the capability of society to support the network of relationships, traditions, culture, and activities that connect people to the land and to one another, and support vibrant communities (36 CFR 219.19).

sustainable recreation: The set of recreation settings and opportunities on the National Forest System that is ecologically, economically, and socially sustainable for present and future generations (36 CFR 219.19).

T

terrestrial: Pertaining to the land.

threatened species: Any species that the Secretary of the Interior or the Secretary of Commerce has determined is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Threatened species are listed at 50 CFR sections 17.11, 17.12, and 223.102.

timber: Wood retaining many of the recognizable characteristics of a tree: round, bark covered, and tapering, but without the limbs and leaves. In wood-industry usage, it may be standing timber (that portion of living trees with characteristics of value to the wood-using industry), or cut trees not yet processed beyond removing limbs and tops.

timber harvest: The removal of trees for wood fiber utilization and other multiple-use purposes (36 CFR 219.19).

timber production: The purposeful growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs, bolts, or other round sections for industrial or consumer use (36 CFR 219.19).

tolerance: The ability of a tree to grow satisfactorily in the shade of, and in competition with, other trees.

topography: The configuration of a land surface including its relief, elevation, and the position of its natural and human-made features.

trailhead: The transfer point between a trail and a road, water body, or airfield, which may have developments that facilitate transfer from one mode of transportation to another. For purposes of the FSTAG (FSM 2353.27), a trailhead is a site designed and developed to provide staging for trail use and does not include:

- Junctions between trails where there is no other access.
- Intersections where a trail crosses a road or users have developed an access point, but no improvements have been provided beyond minimal signage for public safety.

travel route: A route, such as a county or national forest road or river or trail, that is open for use by members of the public.

trend: As used to define range conditions, the direction of change in range or forage condition or in ecological status.

U

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

utility corridor: A parcel of land, without fixed limits or boundaries, that is being used as the location for one or more transportation or utility rights-of-way.

urban:— An area characterized by a substantially urbanized environment. The background may have natural-appearing elements.

V

vegetation management: Activities designed primarily to promote the health of forest vegetation in order to achieve desired results. Vegetation management is the practice of manipulating the species mix, age, fuel load, and /or distribution of wildland plant communities within a prescribed or designated area in order to achieve desired results. It includes prescribed burning, grazing, chemical applications, biomass harvesting, and any other economically feasible method of enhancing, retarding, modifying, transplanting, or removing the aboveground parts of plants.

viability: In general, viability means the ability of a population of a plant or animal species to persist for some specified time into the future.

viable population: A population of a species that continues to persist over the long term with sufficient distribution to be resilient and adaptable to stressors and likely future environments (36 CFR 219.19).

viewshed: The total landscape seen, or potentially seen from all or a logical part of a travel route, use area, or water body.

W

water right: A right to use surface water or ground water evidenced by a court decree or by a permit or certificate approved by the state water resources department. Statutory exempt uses of surface water and ground water are not water rights, nor are time-limited licenses. A perfected water right is defined by applicant name, source, purpose, amount (quantity, rate and duty), season of use, priority date, point of diversion, place of use, and certificate number.

water quality: A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

water yield: The measured output of the forest's streams expressed in acre-feet. The amount or volume of water that flows in a given period of time from a watershed.

watershed: A region or land area drained by a single stream, river, or drainage network; a drainage basin (36 CFR 219.19).

watershed function: The processes acting on hillslopes and stream channel within a drainage basin that control the movement of water, wood, sediment, and nutrients.

water yield: The amount of water that flows from a watershed within a specific period of time.

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

wetlands: Those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds (Executive Order 11990, Section 7c).

wild and scenic river (WSR): A river designated by Congress as part of the National Wild and Scenic Rivers System that was established in the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 (note), 1271–1287). (36 CFR 219.19) for possessing outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values.

Wilderness Act of 1964: Act which gave Congress authority to designate certain areas of public land as wilderness. It established the National Wilderness Preservation System to secure an enduring resource of wilderness.

wilderness: Any area of land designated by Congress as part of the National Wilderness Preservation System that was established in the Wilderness Act of 1964 (16 U.S.C. 1131–1136) (36 CFR 219.19).

wildfire: An unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fire where the objective is to put the fire out.

wildland: A nonurban, natural area that contains uncultivated land, timber, range, watershed, brush or grassland.

wildland fire: Any non-structure fire that occurs in vegetation or natural fuels. Wildland fire includes prescribed fire and wildfire.

wildland urban interface (WUI): The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Describes an area within or adjacent to private and public property where mitigation actions can prevent damage or loss from wildfire.

wildlife: All non-domesticated mammals, birds, reptiles, and amphibians living in a natural environment, including game species and non-game species. Animals, or their progeny (i.e., feral animals, including horses, burros, and hogs), that once were domesticated, but escaped captivity, are not considered wildlife.

wildlife habitat improvement: The manipulation or maintenance of vegetation to yield desired results in terms of habitat suitable for designated wildlife species or groups of species.

withdrawal: Water removed from the ground or diverted from a surface water source for use.