Appendix

G

MEDICINE BOW NATIONAL FOREST

Revised Land and Resource Management Plan

Appendix G
Glossary

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Abiotic The nonliving material components of the environment such as air, rocks, soil particles, inorganic compounds, coal, peat, plant litter, etc. (1)

Acre/foot The volume of water or solids that will cover 1 acre to a depth of 1 foot (43,560 cubic feet or 1,233.5 cubic meter). (44)

Activity A measure, course of action, or treatment to directly or indirectly produce, enhance, or maintain forest and rangeland outputs or to achieve administrative or environmental quality objectives. (18)

Activity Area An area of land impacted by a management activity or activities. It can range from a few acres to an entire watershed. It is commonly a timber sale-cutting unit, a burn unit, or a pasture in an allotment.

Activity Fuel Fuel resulting from, or altered by, management practices such as timber harvesting, thinning, or road construction. (FSM 5105)

Adaptive Management The process of implementing policy decisions incrementally, so that changes can be made if the desired results are not being achieved. It is a process similar to a scientific experiment in that predictions and assumptions in management plans are tested and experience and new scientific findings are used as the basis to improve resource management practices and future planning. (18)

Age Class A distinct aggregation of trees originating from a single natural event or regeneration activity, or grouping of trees, e.g. 10-year age class, as used in inventory or management. (20)

Allotment Management Plan (AMP) A document that specifies the actions to be taken on individual allotments to manage and protect the rangeland resources and reach the stated set of objectives. (46)

Allowable Sale Quantity (ASQ) The quantity of timber that may be sold from the area of suitable land covered by the forest plan for a time period specified by the plan. This allowable sale quantity (ASQ) is usually expressed on an annual basis as the "average annual allowable sale quantity." (FSM 1900)

Animal Unit Month (AUM) The amount of forage required by a one thousand (1,000) pound cow, or the equivalent, for one month. (18)

Aquatic Ecosystem Waters of the United States, that serve as habitat for interrelated and interacting communities and populations of plants and animals. (40 CFR 230.3) Waters of the United States, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals. (FSM 2526.05)

Application (Oil and Gas) A written request, petition, or offer to lease lands for the purpose of oil and gas exploration and/or the right of extraction.

Application for Permit to Drill (APD) An application to drill a well, submitted by a lessee or operator to the BLM. The APD consists of a Drilling Plan, reviewed by the BLM and a Surface Use Plan of Operation (SUPO), reviewed by the Forest Service. The Drilling Plan discusses down hole drilling specifications and procedures. The Surface Use Plan of Operation examines surface uses, including access roads, well-site layout, cut/fill diagrams, reclamation procedures, production facility locations, etc. The approved APD is a contract between the operator and the federal government and cannot be changed or modified unless authorized by the BLM and Forest Service.

Appropriate Fire Management Response Specific actions taken in response to a wildland fire to implement protection and fire use objectives (FSM 5105)

Artificial Regeneration (Reproduction) An age class created by direct seeding or by planting seedlings or cuttings. (20)

Attitudes, Beliefs and Values Preferences, expectations and opinions people have for forests and the management and use of particular areas. Differing values and expectations have resulted in polarized perceptions that a healthy environment requires protection of lands from human influence, or increased attention to environmental quality presents a threat to employment, economy or life-style. (32)

Authorized Forest Officer The Forest Service employee delegated the authority to perform specific duties; generally a regional forester, forest supervisor, district ranger, or minerals staff officer.

Availability (Oil and Gas) Availability of National Forest System lands, including national grasslands, for oil and gas leasing. Availability refers to lands that have not been formally prohibited from oil and gas leasing activities.

Available Lands (Oil and Gas) Any lands subject to oil and gas leasing under the Minerals Leasing Act.

Basal Area The area of the cross section of a tree stem, including the bark, generally at breast height (4.5 feet above the ground). (20)

Base Sale Schedule A timber sale schedule formulated on the basis that the quantity of timber planned for sale and harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade and that this

planned sale and harvest for any decade is not greater than the long-term sustained-yield capacity. This definition expresses the principle of nondeclining flow.

Best Management Practices Known as BMPs, they are methods, measures, or practices selected by an agency to meet its nonpoint pollution source control needs. Such practices include, but are not limited to, structural and nonstructural control, standard operating procedures, and required maintenance procedures. They can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants to a waterway. (18)

Biological Diversity The variety of life forms and processes within an area. Included in the consideration of diversity are the complexities of genetic variation, number and distribution of species, and the ways in which the variety of biologic communities interact and function. (18)

Biotic All the natural living organisms in a planning area and their life processes. (1)

Board Foot A unit of measure represented by a board 1-foot square and 1 inch thick. (18)

Bridge A road or trail structure, including supports, erected over and depression or an obstruction, such as water, a road, a trail, or railway, and having a deck for carrying traffic or other loads. (41)

Broad-Scale Assessment A synthesis of current scientific knowledge, including a description of uncertainties and assumptions, to provide an understanding of past and present conditions and future trends, and a characterization of ecological, social and economic components within an area. (45)

Bureau of Land Management (BLM) An agency in the U.S. Department of Interior.

Candidate Species A species being considered for listing as a federally endangered or threatened species. (15) (28)

Canopy The foliar cover if a forest stand consisting of one or several layers. (20)

Canopy Closure see Crown Cover

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. (11) (28)

Catastrophic Fire A fire that has significant negative impacts on the health and productivity of ecosystems and other human values. (18)

Carr wet ground shrub communities

CFR Code of Federal Regulations.

Chaparral Forests of heavily branched, dwarfed trees or shrubs, usually evergreen, the crown canopy of which at maturity covers more than 50% of the ground and whose primary value is watershed protection. The more common chaparral constituents are species of *Quercus*, *Cercocarpus*, *Garrya*, *Ceanothus*, *Arcotostaphylos*, and *Adenostoma*. Types dominated by such shrubs as *Artemisia*, *Chrysothamnus*, *Purshia*, *Gutierrezia*, or semidesert species are not commonly considered chaparral. (37)

Chargeable Volume All volume included in the growth and yield projections for the selected management prescriptions used to arrive at the allowable sale quantity, based on regional utilization standards. Consistent with the definition of timber production, planned production of fuelwood is not included in the allowable sale quantity and therefore is nonchargeable. (19)

Classification The assignment of points, or sample units, to a finite number of discrete types, usually based on an analysis of many variables (e.g., vegetation classification, soil classification). (22)

Clean Air Act An Act of Congress established to protect and enhance the quality of the Nation's air through air pollution prevention and control. (18)

Clean Water Act An Act of Congress that establishes policy to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. (18)

Clearcutting, Clearcutting with Reserves see Regeneration (Reproduction) Method

Climate Generalized statement of the prevailing weather conditions at a given place, based on statistics of a long period of record. Includes seasonality of temperature and moisture. (22)

Climax Community The final or stable biotic community in a developmental series (sere); it is self-perpetuating and in equilibrium with the physical habitat. (1) (5)

Closed Circulation System A system of equipment for drilling oil and gas wells that uses tanks instead of surface pits to contain all drilling fluids and cuttings. The fluid and cuttings are disposed of off-site in a manner consistent with state law.

Coarse Woody Debris Any piece(s) of dead woody material, e.g., dead boles, limbs, and large root masses on the ground or in streams. (45)

Coles Classification Dispersed campsite inventory process to determine physical and social conditions and appropriate mitigation.

Condition Class Condition class is defined in terms of departure from the historic fire regime, as determined by the number of missed fire return intervals, with respect to the historic fire return interval, and the current structure and composition of the system resulting from alterations to the disturbance regime. The relative risk of fire-

caused losses of key system components increases for each respectively higher numbered condition class, with little or low risk at the Class 1 level.

Condition class[1] descriptions.

Condition Class	Fire Regimes
1	Fire regimes are within the historical range and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within their historical range.
2	Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity and landscape patterns. Vegetation attributes have been moderately altered from their historical range.
3	Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, and severity and landscape patterns. Vegetation attributes have been significantly altered from their historical range.
[1]Current conditions are a function of the degree of departure from historical fire regimes resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, and canopy closure. One or more of the following activities may have caused this departure: fire suppression; timber harvesting; grazing; introduction and establishment of exotic plant species, insects, or disease (introduced or native); or other past management activities.	

Commercial Forest Land Forest land that is producing, or is capable of producing, crops of industrial wood and (a) has not been withdrawn by Congress, the Secretary, or the Chief; (b) existing technology and knowledge is available to ensure timber production without irreversible damage to soils productivity, or watershed conditions; and (c) existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance that adequate restocking can be attained within 5 years after final harvesting. (19)

Common Variety Minerals Category of minerals including varieties of sand, gravel, stone, pumicite, cinders, pumice (except that occurring in pieces over 2 inches on a side), clay, and petrified wood; authorized under the 1947 Materials Act and the 1955 Multiple Surface Use Act for sale as "salable minerals". (FSM 2800)

Community An aggregation of living organisms having mutual relationships among themselves and to their environment (2)

Community Cohesion the degree of unity and cooperation between community groups. (32)

Community Stability whether a community can absorb social change. (32)

Composition The constituent elements of an entity, e.g., the species that constitute a plant community. (22)

Condition of Approval (COA) Conditions or provisions (requirements) under which an Application for a Permit to Drill or a Sundry Notice is approved for oil and gas leasing.

Confine a Fire To limit fire spread within a predetermined area principally by use of natural or preconstructed barriers or environmental surveillance under appropriate conditions. (FSM 5105)

Connected Disturbed Area High runoff areas like roads and other disturbed soils that discharge surface runoff into a stream or lake. Such areas that do not discharge onto a stream or lake are not connected disturbed areas. (36)

Connectivity Condition in which the spatial arrangement of land cover types allows organisms and ecological processes (such as disturbance) to move across the landscape. Connectivity is the opposite of fragmentation. (22) (28)

Consent for Oil and Gas Leasing A consent by the Forest Service for oil and gas leasing on a specified parcel of National Forest System lands, including national grasslands. It grants the right to explore, develop, extract and dispose of specific minerals in lands covered by the lease, subject to various terms and conditions.

Conservation The careful protection, utilization and planned management of resources to prevent their depletion, exploitation, destruction, or waste. (25) (28)

Consultation A formal interaction between the U.S. Fish and Wildlife Service and another federal agency when it is determined that the agency's action may affect a species that has been listed as threatened or endangered or its critical habitat. (28)

Contain a Fire To surround a fire, and any spot fires therefrom with control line as needed, which can reasonably be expected to check the fire's spread under prevailing and predicted conditions. (FSM 5105)

Control a Fire To complete the control line around a fire, any spot fires therefrom, and any interior islands to be saved; to burn out any unburned area adjacent to the fire side of the control line and to cool down all hot spots that are immediate threats to the control line, until the line can reasonably be expected to hold under foreseeable conditions. (FSM 5105)

Controlled Surface Use (CSU) A fluid mineral leasing stipulation that allows use and occupancy (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights.

Coppice, Coppice With Reserves, Coppice Method see Regeneration Method

Corridor A linear strip of land which has ecological, technical, economic, social, or similar advantages over other areas for the present or future location of transportation or utility rights-of-way within its boundaries. (11) (28)

Corridors, Landscape The landscape elements that connect similar patches through a dissimilar matrix or aggregation of patches. (4)

Cover Vegetation used by wildlife protection from predators, or to mitigate weather conditions, or to reproduce. May also refer to the protection of soil and the shading provided to herbs and forbs by vegetation. (28)

Created Opening A treated forest area 10 basal area or less.

Critical Habitat Under the Endangered Species Act, critical habitat is defined as 1) the specific areas within the geographic area occupied by a federally listed species on which are found physical and biological features essential to the conservation of the species, and that may require special management considerations or protection, and 2) specific areas outside the geographic area occupied by a listed species, when it is determined that such areas are essential for the conservation of the species. (28)

Crown The part of a tree or woody plant bearing live branches and foliage. (20)

Crown Cover The ground area covered by the crowns of trees or woody vegetation as delimited by the vertical projection of crown perimeters and commonly expressed as a percent of total ground area (synonym CANOPY COVER). (20)

Crown Thinning see Thinning

Cubic Foot A unit for measuring wood equivalent to a cube with 12-inch sides. (18)

Culmination of Mean Annual Increment (CMAI) The age at which the average annual growth is greatest for a stand of trees. Mean annual increment is expressed in cubic feet measure and is based on expected growth according to the management intensities and utilization standards assumed in accordance with 36 CFR 219.16(a)(2)(i) and (ii). Culmination of mean annual increment (CMAI) includes regeneration harvest yields and any additional yields from planned intermediate harvests. (19)

Cultural Resource The remains of sites, structures, or objects used by humans at least fifty (50) years ago (historical), or predating the European entrance (archaeological). (18)

Cumulative Effects Analysis An analysis of the effects on the environment which results from the incremental impact of a proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7). (2) (22)

Cumulative Impact The impact on the environment that results from the incremental effects of the action when added to other past, present, and reasonably foreseeable future actions regardless of the source (federal or nonfederal agencies, individuals). Cumulative effects can result from individually minor but collectively significant actions taking place over time.

Cutting Cycle The planned interval between partial harvests in an uneven-aged stand (see Thinning Interval). (20)

Deferred Maintenance Maintenance that was not performed when it should have been or when it was scheduled and which, 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 decrease in 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. (Financial Health - Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Defoliators Insects that feed on foliage and act to remove some or all of the foliage from a tree, shrub, or herb. (28)

Designated Over-the-snow Routes Marked or groomed and marked snowmobile trails as mapped on the latest version of the State of Wyoming Snowmobile Trails map.

Desired Condition Also referred to as: Desired Future Condition or Desired Ecological condition. A portrayal of the land or resource conditions which are expected to result if goals and objectives are fully achieved. (draft regulations at 36 CRF part 219).

Detrimental Soil Compaction A 15 percent (%) increase in bulk density from the average density; or bulk density that exceeds: 1.25 g/cc for silt and clay; 1.30 g/cc for silty clay, silty clay loam and silt loam and clay loam; 1.50g/cc for sandy loam, sandy clay loam, and sandy clay; and 1.60 g/cc for sand and loamy sand. (R2 FSH 2509.18-92-1)

Detrimental Soil Displacement The removal of soil from a continuous area of 100 square feet or more. (R2 FSH 2509.18-92-1)

Detrimental Soil Erosion The general loss of soil from the soil surface (sheet erosion); or erosion channels greater than one inch deep (rills and gullies). (R2 FSH 2509.18-92-1)

Developed Recreation Recreational uses that depend on facilities, and therefore occur in areas of concentrated use. Examples include campgrounds and ski areas. Facilities in these areas might include roads, parking lots, picnic tables, drinking water, toilets, ski lifts, and buildings. (45)

Direct Control is associated with urban development and high value areas and is defined as the immediate and complete extinguishments of a wildfire. Direct control also includes exposure protection in which critical resources, such as houses, are shielded from the fire.

Direct Effects Environmental effects caused by an action and that occur at the same time and place.

Directional Drilling (Oil and Gas) Drilling boreholes with the directional course of the hole planned before drilling. Such holes are usually drilled with rotary equipment at an angle to the vertical and are useful in avoiding obstacles or in reaching side areas or the mineral estate beneath a restricted surface.

Dispersal The movement, usually one way and on any time scale, of plants or animals from their point of origin to another location where they subsequently produce offspring. (28)

Dispersed Recreation Recreational uses that do not depend on facilities, and are not concentrated. (45)

Disturbance A discrete event, either natural or human induced, that causes a change in the existing condition of an ecological system. (21)

Diversity, Compositional The variation in types of landscape elements or vegetation types, their relative proportions within the landscape, their degree of rarity or commonness. (4)

Diversity, Process Relates to the variety of landscape flows, functions and processes present. (4)

Diversity, Structural The variation in sizes and shapes of landscape elements, as well as diversity of pattern (heterogeneity). (4)

Drainage (Oil and Gas) 1) Drainage occurs when oil and gas migrates in the subsurface from areas of high pressure to areas of lower pressure, such as is found near a producing well. 2) Production of migrated oil and gas without compensation to the owner and/or lessee from whose estate the hydrocarbons moved is called drainage.

Dynamic Equilibrium The precept that attributes of a land unit or stream show continual adjustment among forms and processes and vary in a balanced range about an average over a period of years in between episodic "reset" events. (36)

Easement A right held by one person to make use of another's land for a limited purpose, such as a special-use authorization for a right-of-way that conveys a limited interest in National Forest System land and is compensable according to its terms.

Ecological Approach Natural resource planning and management activities that assure consideration of the relationship between all organisms (including humans) and their environment. (21)

Ecological Process The actions or events that link organisms (including humans) and their environment, such as disturbance, successional development, nutrient cycling, carbon sequestration, productivity, and decay. (21)

Ecological Unit A mapped landscape unit designed to meet management objectives, comprised of one or more ecological types. (3)

Ecology From Greek oikos, meaning "house" or "place to live;" literally the study of organisms at home. Also, the science of the interrelationships or organisms or group of organisms with their environment. (2)

Economic Efficiency The usefulness of inputs (costs) to produce outputs (benefits) and effects when all costs and benefits that can be identified and valued are included in the computations. Economic efficiency is usually measured using present net value calculations. The use of benefit/cost ratios, incremental analysis, and rates of return may also be appropriate measures. (18)

Ecoregion 1) a large landscape area that has relatively consistent patterns of topography, geology, soils, vegetation, natural processes, and climate. 2) A continuous geographic area over which the macroclimate is sufficiently uniform to permit develop of similar ecosystems on sites with similar properties. Ecoregions contain multiple landscapes with different spatial patterns of ecosystems. (21)

Ecosystem 1) an area where plants, animals and other organisms interact with each other and the non-living physical environment, including soil and air [Shinneman *et al.* 2000] 2) A community of living plants and animals interacting with each other and with their physical environment. A geographic area where it is meaningful to address the interrelationships with human social systems, sources of energy, and the ecological processes that shape change over time. (18)

Ecosystem Composition The constituent elements of an ecosystem; for example the plant species within an ecosystem. (18)

Ecosystem Function The flow of mineral nutrients, water, energy, or species within an ecosystem. (18)

Ecosystem Functions, (Processes) The major processes of ecosystems that regulate or influence the structure, composition and pattern. These include nutrient cycles, energy flows, trophic levels (food chains), diversity patterns in time/space development and evolution, cybernetics (control), hydrologic cycles and weathering processes. (2)

Ecosystem Health An ecosystem in which the structure, composition, and function ensure the maintenance of biological diversity, biotic integrity, and ecological processes over time. (18)

Ecosystem Management The management of natural resources to maintain or restore the sustainability of ecosystems, thereby providing multiple benefits to present and future generations. (18)

Ecosystems Approach The "system" in ecosystem embodies three fundamental concepts: designating the physical boundary of the system and its parts; understanding the interactions of the parts as a functioning whole; and understanding the relation between the system and its context. We define "context" to mean both the external factors that influence the system and also internal information that must be synthesized to be understood at the scale of the defined system. For a continental ecosystem, global air pollution and population growth are examples of external context and local political processes and endangered species are examples of internal context. (23)

Ecosystem Sustainability The ability of an ecosystem to sustain diversity, productivity, resilience to stress, health, renewability, yields of desired values, resource uses, products, or services from an ecosystem while maintaining the integrity of the ecosystem over time. (18)

Edaphic Of or pertaining to the soil; resulting from or influenced by factors inherent in the soil or other substrate, rather than by climatic factors. (14)

Effective Ground Cover All living and dead herbaceous and woody materials in contact with the ground and all rocks greater than 3/4 inch in diameter. (FSH 2509.18)

Elk use potential A scaled representation of maximum possible use by elk. (16)

Emergency repairs One or more of a variety of operations on a producing well designed to reestablish or maintain production or to prohibit or mitigate environmental risks and risks to human health, such as those that might be caused by leaking equipment. Emergency repairs are those immediately necessary to ensure that producing operations are in continuous compliance with laws, regulations, policies, management plan direction, and permit requirements. Examples of emergency repairs related to maintaining production and conservation of the mineral resource include, but are not limited to, pump engine repairs and adjustments; heater treater and dehydration unit repairs and adjustments; fracturing, acidizing, and hot oil treatments; squeezing cement; replacing or repairing a bottom hole assembly, tubing, or rods; and repairing leaks, such as from a stuffing box, casing head, flowline, pipeline, heater treater, dehydration unit, or collection tanks or pits. Emergency repairs related to environmental and/or human health and safety risks include, but are not limited to, pump engine repairs and adjustments, squeezing cement; and repairing leaks, such as from a s stuffing box, casing head, flowline, pipeline, heater treater, dehydration unit, or collection tanks or pits. Emergency repairs may or may not require the use of a workover rig and may be completed in a few hours or several days, depending on the nature of the emergency.

Endangered Species Any species of animals or plants listed as "endangered" by the U.S. Fish and Wildlife Service and in danger of extinction throughout all or a significant part of its habitat. (18)

Endangered Species Act An act of Congress that sets a policy for conserving species (and their critical habitat) of fish, wildlife, and plants that are in danger of or threatened with extinction. The Act also sets forward procedures for implementation. (18)

Endemic (n. Endemism) Restricted to a specified region or locality. (15)

Environment All the biotic and abiotic factors of a site. (6)

Environmental Analysis An analysis of alternative actions and their predictable short and long-term environmental effects, which include physical, biological, economic, social, and environmental design factors and their interactions.

Environmental Assessment A concise public document, for which a federal agency is responsible, that serves to:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.
- Aid an agency's compliance with the National Environmental Policy Act when no environmental impact statement is necessary.
- Facilitate the preparation of an environmental impact statement when one is necessary.

Environmentally Acceptable Commodity Production The management and production of desired yields of natural resources while meeting standards for protection of environmental values, including guidelines for management practices and aesthetic conditions. (2)

Environmental Impact Statement (EIS) A document prepared by a federal agency in which anticipated environmental effects of a planned course of action or development are evaluated. A federal statute (Section 102 of the National Environmental Policy Act of 1969) requires that such statements be prepared. An EIS is prepared first in draft or review form and then in a final form and includes the following points:

- The environmental impact of the proposed action.
- Any adverse impacts that cannot be avoided by the action.
- The alternative course of action.
- The relationship between local short-term use of the human environment and the maintenance and enhancement of long-term productivity.
- A description of the irreversible and irretrievable commitment of resources that would occur if the action was accomplished.

Ephemeral Stream Channel Streams that contain running water only sporadically, such as during and following storm events. (28)

Equilibrium Oscillation around a central position; e.g., condition in which the relative frequency and spatial pattern of land cover types remain relatively constant over a specified period of time. (22)

Erosion The wearing away of the land surface by running water, wind, ice, gravity, or other geological activities.

Exemption (Oil and Gas leasing) Case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply.

Even-aged Management The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration, and is harvested. (33)

Even-Aged Methods See Regeneration Method.

Even-Aged Stand A stand of trees containing a single age class in which the range of tree ages is usually less than 20 percent of rotation. (20)

Even-Aged System A planned sequence of treatments designed to maintain and regenerate a stand with one age class. The range of tree ages is usually less than 20 percent of the rotation (see Clearcutting, Seed Tree, Shelterwood, Coppice).

Exotic Species Species which occur in a given place, area, or region as the result of direct or indirect, deliberate or accidental introduction of the species by humans, and for which introduction has permitted the species to cross a natural barrier to dispersal. (15)

Extent The breadth of a study area, a map, or the length of a time series. (22)

Extinct No longer existing. (15)

Extirpation The elimination of a species from a particular area. (28)

Facility Structures needed to support the management, protection, and utilization of the national forests and national grasslands, including building, utility systems, and other construction features. There are three categories of facilities: recreation, administrative, and permitted.

Farm Bill 1990 Farm Bill is the common name for a collection of Acts passed by the 101st Congress in 1990 such as the Forest Stewardship Act, Agricultural Development and Trade Act, National Forest-Dependent Rural Communities Economic Diversification Act, and the Global Climate Change Prevention Act. (18)

Fell Field An area where vegetation is scant and scattered, and the ground is bare and rock-covered.

Fire break A natural or constructed barrier to stop or check fires that may occur, or to provide a control line from which to work. (45)

Fire Management Plan A strategic plan that defines a program to manage wildland and prescribed fires and documents the Fire Management Program in the approved land use plan. This plan is supplemented by operational plans such as preparedness plans, preplanned dispatch plans, prescribed fire plans, prevention plans, and operational wildland fire use plans. (45)

Fire Prevention All activities concerned with minimizing the incidence of wildfire. (18)

Fire Regime The characteristic frequency, extent, intensity, severity, and seasonality of fires in an ecosystem. (28)

Fire risk Applies to the probability of an ignition occurring as determined from historical fire record data. (45)

Fire use The combination of wildland fire use and prescribed fire applications to meet resource objectives. (45)

Floodplain The area adjacent to a stream/river channel effective in carrying flow, within which carrying capacity must be preserved and where the flood hazard is generally highest; that is, where flood depths and velocities are the greatest (FSH 2520)

Fluvial Pertaining to a river or stream. (Glossary of Geology)

Forage reserve A determination for an allotment, or a portion of an allotment, on which there is no current term permit obligation for some or all of the estimated livestock grazing capacity and where it has been determined to use the available forage for management flexibility when there is a loss of forage availability on other allotments because of factors such as drought, hail, or fire (either prescribed or wild).

Forbland Areas where the dominant cover consists of forbs (small, non-woody, herbaceous plants) (rather than grasses or shrubs).

Forest Canopy The cover of branches and foliage formed collectively by tree crowns. (15)

Forest Fragmentation Forest fragmentation is a landscape-level process in which forest tracts are progressively subdivided into smaller, geometrically more complex (initially but not necessarily ultimately), and more isolated forest fragments as a result of both natural processes and human land use activities (Harris 1984).

Forest Health See Ecosystem Health-applies to forest ecosystems. (18)

Forest Highway A forest road under the jurisdiction of , and maintained by, a public authority and open to public travel (USC: Title 23, Section 101(a)). A Forest Highway route is designated by agreement with the Forest Service, state transportation agency, and Federal Highway Administration. (45)

Forest Land Land at least 10 percent occupied by forest trees or formerly having had such tree cover and not currently developed for nonforest use. Lands developed for nonforest use include areas for crops, improved pasture, residential, or administrative areas, improved roads of any width, and adjoining road clearing and powerline clearing of any width. (FSM 1900). (19)

Forest Land Not Suitable for Timber Production Lands not selected for timber production in the Forest Plan alternative because of the fact that: (a) the multiple-use objectives for the alternative preclude timber production, (b) other management objectives for the alternative limit timber production activities to the point where it is not possible to meet management requirements set forth in 36 CFR 219.27; or (c) the lands are not cost-efficient, over the planning horizon, in meeting forest objectives that include timber production. In the preferred alternative and Forest Plan, designate lands not appropriate for timber production as unsuitable. (19)

Forest Management The practical application of scientific, economic, and social principals to the administration and working of a forest for specified objectives. (15)

Forest Pests Native, introduced, or exotic plants or animals that conflict with ecosystem sustainability and management objectives. (18)

Forest Plan (Forest Land and Resource Management Plan) A document which guides all natural resource management activity and establishes management standards and guidelines for a National Forest, embodying the provisions of the National Forest Management Act (1976). (22) (28) See also, Land Management Plan. (18)

Forest Road As defined in 23 U.S.C. 101, any road wholly or partly within, or adjacent to, and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. (41)

Forest Supervisor Official responsible for administering any particular national forest. Forest supervisors report to regional foresters.

Forest Transportation Facility A classified road, designated trail, or designated airfield, including bridges, culverts, parking lots, log transfer facilities, safety devices, and other transportation network appurtenances under Forest Service jurisdiction that is wholly or partly within or adjacent to National Forest System lands (36 CFR 212.1). (41)

Forest Transportation System Management The planning, inventory, analysis, classification, record-keeping, scheduling, construction, reconstruction, maintenance, decommissioning, and other operations undertaken to achieve environmentally sound, safe, and cost effective access for use, protection, administration, and management of NFS lands. (41)

Forest Trees Woody plants having a well-developed stem and usually more than 12 feet in height at maturity. (19)

Forest Type A category or class of forest defined by its vegetation (species composition) and/or locality. (15)

Forested stringer A narrow band of trees that is an outcropping of a forested stand, sometimes connecting patches of habitat. (45)

Fossil The remains or traces of an organism or assemblage of organisms that have been preserved by natural processes in the Earth's crust. Minerals, such as oil and gas, coal, oil shale, bitumen, lignite, asphaltum and tar sands, phosphate, limestone, diatomaceous earth, uranium, and vanadium, while they may be of biologic origin, are not her considered fossils. Fossils of scientific value may occur within or in association with such minerals.

Frost Boil An irregular landform caused by the periodic freezing and thawing of the soil.

Fuelwood Wood that is round, split, or sawn and/or otherwise generally refuse material cut into short lengths or chipped for burning. (19)

Function The flow of mineral nutrients, water, energy, or species. (22) (28)

GAP The GAP is a biological diversity inventory being conducted by the National Biological Survey. This inventory will provide scientific biological information to Federal, State, and local agencies for planning purposes. Gaps in ecological information are also being identified as part of this project. (18)

Geographic Information System (GIS) An organized collection of computer hardware, software, geographic data and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information. (31)

Geophysical Operation Prospecting for minerals or mineral fuels by measuring the various physical properties of the rocks and interpreting the results in terms of geologic features or the economic deposits sought. Physical measurements are taken at the surface, concerning the differences in the density, electrical resistance, or magnetic properties of the rocks. There are four main methods employed in geophysical prospecting: gravitational, magnetic, electrical, and seismic, with several modifications of each.

Goods and Services The various outputs produced by forest and rangeland renewable resources. The tangible and intangible values of which are expressed in market and nonmarket terms. (11)

Grazing Allotment A designated area of land available for livestock grazing upon which a specified number and kind of livestock may graze for a certain period. (18)

Greenhouse Effect The sequence of phenomena comprising the absorption of solar radiation, its conversion and re-admission in the infrared, and the absorption of the radiation by atmospheric ozone, water vapor, and carbon dioxide, preventing its dissipation into space and resulting in a steady, gradual rise in the temperature of the atmosphere. (18)

Groomed Over-the-Snow Route A route or trail, usually intended for snowmobiling, dogsledding, snow-catting, or cross-country skiing, on which the snow surface is packed, leveled or scarified, usually by means of equipment towed behind a snowmobile or snowcat, and with or without "set tracks." (45)

Group Selection, Group Selection with Reserves See Regeneration Methods

Guilds A group of organisms that share a common food resource, nesting site, etc. (15, paraphrased)

Habitat The environment in which an organism lives. (10) (15) (28) (18)

Habitat Capability Capability of an area, given the conditions of topography, vegetation, water, and climate, to support a number of adult individuals of a species, subspecies, or group of species. (18)

Habitat Effectiveness Percentage of available habitat that is usable by deer or elk outside the hunting season. (16)

Habitat Type Place where an animal or plant normally lives, often characterized by a dominant plant form or physical characteristic. (22)

Hiding Cover Vegetation capable of hiding 90 percent of a standing adult elk from the view of a human at a distance equal to or less than 200 feet. (16)

Highway Includes all highways that are part of the National Highway System. (45)

Human Dimension An integral component of ecosystem management that recognizes people are part of ecosystems, that people's pursuits of past, present, and future desires, needs and values (including perceptions, beliefs, attitudes and values) have and will continue to influence ecosystems and that ecosystem management must include consideration of the physical, emotional, mental, spiritual, social, cultural and economic well-being of people and communities. (21)

Inadequate Snow Cover When continuous snow depth is not enough to ensure protection of vegetation and soil resources.

Indicator Species Species that indicate the presence of certain environmental conditions, seral stages, or previous treatment. One or more plant species selected to indicate a certain level of grazing use. (6)

Indirect Effects Environmental effects caused by an action but resulting later in time or farther away in place, yet which are still reasonably foreseeable.

Infrastructure The facilities, utilities, and transportation systems needed to meet public and administrative needs. (18)

Integrated Pest Management A process for selecting strategies to regulate a forest pest in which all aspects of a pest-host system are studied and weighed, including the impact on various resource values and the ecological acceptability of the strategy. (18)

Intermittent Stream Channel Any non-permanent flowing drainage feature having a definable channel and evidence of scour or deposition. This includes what are sometimes referred to as ephemeral streams if they meet these two criteria. (28)

Inventoried Roadless Area Undeveloped areas typically exceeding 5,000 acres that met the minimum criteria for wilderness consideration under the Wilderness Act and that were inventoried during the Forest Service's Roadless Areas Review and Evaluation (RARE II) process, subsequent assessments, or forest planning. These areas are identified in a set of inventoried roadless area maps, contained in Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2, dated November 2000, which are held at the National headquarters office of the Forest Service.

Irregular Shelterwood Cut Also Irregular Shelterwood Method, Preparatory, Seed Removal, and Final Irregular Shelterwood Removal Cut, see Two Aged.

Key Indicators Key indicators are specific items used for comparing the effects of a given alternative. They are selected based on their ability to show the level at which a given alternative is affecting the natural resources on the Forest. They are generally measurable directly/or may be estimated based on identified criteria.

Knutson-Vandenberg Funds (KV) Funds deposited by timber sale purchasers to the Federal Treasury. These funds are available to the Forest Service for wildlife and fisheries, timber, soil, air, and watershed restoration and enhancement projects, within the timber sale areas. These projects are approved prior to selling of the timber sales. Project approval is documented in timber sale area betterment plans. (18)

Land and Water Conservation Fund (LWCF) The goal of the LWCF Act of 1965 is to assist in preserving, developing, and assuring, accessibility to all citizens of the United States of America ... such quality and quantity of outdoor recreation resources as may be available and to strengthen the health and vitality of the citizens

by providing funds for, and authorizing ... the federal acquisition and development of certain lands and other areas. (18)

Landowner Person who has title to land recognized by the prevailing legal system.

Landscape A distinct association of land types that exhibit a unique combination of local climate, landform, topography, geomorphic process, surficial geology, soil, biota, and human influences. Landscapes are generally of a size that the eye can comprehend in a single view. (18)

Lead Agency The agency or agencies preparing or having taken the primary responsibility for preparing an environmental impact statement.

Lease A mineral lease grants the right to extract and dispose of a specific mineral or minerals in lands covered by the lease, subject to various terms and conditions. (FSM 2800)

Leasehold (Oil and Gas) The area described in a federal oil and gas lease.

Leasable Minerals Those minerals designated under the Minerals Leasing Act of 1920. They include coal, phosphate, sodium, potassium, oil, oil shale, gas, and, in some cases sulphur. Geothermal resources were added to this list by the 1970 Geothermal Steam Act. (FSM 2800)

Lease Modification (Oil and Gas) Fundamental change to the provisions of a lease stipulation either temporarily or for the term of the lease. A modification may include an exemption from or alternation to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

Lease Stipulations (Oil and Gas) Additional specific terms and conditions that modify the lease rights or change the manner in which an operation may be conducted.

Lessee (Oil and Gas) A person on entity holding record title in an oil and gas lease issued by the United States.

Linkages Route that permits movement of individual plant (by dispersal) and animals from a Landscape Unit and/or habitat type to another similar Landscape Unit and/or habitat type. (8) (15)

Livestock Management, Satisfactory Condition Satisfactory livestock management condition means the soil is adequately protected and that forage species, composition, and production are at or trending toward acceptable levels and meeting livestock forage objectives specified in an approved allotment management plan (AMP). Also includes and applies to wild horse and burro territory. (18)

Livestock Management, Unsatisfactory Condition Unsatisfactory livestock management condition means the soil is not adequately protected or the forage species, composition, and production are not at or trending toward acceptable levels for meeting livestock forage objectives. Also includes and applies to wild horse and burro territory. (18)

Locatable Minerals In general, the locatable minerals are 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, and may include any solid, natural inorganic substance occurring in the crust of the earth, except for the common varieties of mineral materials and leasable minerals. (FSM 2800)

Long-term Sustained Yield Capacity (LTSYC) The highest uniform wood yield from lands being managed for timber production that may be sustained, under a specified management intensity, consistent with multiple-use objectives. (FSM 1900). (19)

Lynx Analysis Unit (LAU) An LAU is a project analysis unit upon which direct, indirect, and cumulative effects analysis are performed. LAU boundaries should remain constant to facilitate planning and allow effective monitoring of habitat changes over time. An LAU is an area of at least the size used by an individual lynx, from about 25 to 50 square miles. (45)

Lynx Denning Habitat Habitat lynx use during parturition and rearing young until they are mobile. The common component appears to be large amounts of coarse woody debris, which provides escape and thermal cover for kittens. (45)

Lynx Diurnal Security Habitat In lynx habitat, areas that provide secure winter daytime bedding sites for lynx in highly disturbed landscapes, e.g., large developed winter recreational sites or areas of concentrated winter recreational use. (45)

Lynx foraging Habitat Habitat that supports lynx primary prey – snowshoe hare- and/or important alternate prey, especially red squirrels. The highest quality snowshoe hare habitats contain a high density of young trees or shrubs that are tall enough to protrude above the snow. (45)

Lynx Habitat Lynx occur in mesic coniferous forest that have cold, snowy winters and provide a prey base of snowshoe hare. In the Rocky Mountains, primary vegetation that contributes to lynx habitat is lodgepole pine, subalpine fir, and Engelmann spruce. In extreme northern Idaho, northeastern Washington, and northwestern Montana, cedar-hemlock habitat types may be considered primary vegetation. In central Idaho, Douglas-fir on moist sites at higher elevations may be considered primary vegetation. Secondary vegetation that, when interspersed within subalpine forests, may also contribute to lynx habitat, includes cool, moist Douglas-fir, grand fir, western larch, and aspen forests. Dry forest types (e.g. ponderosa pine, climax lodgepole pine) do not provide lynx habitat. (45)

Lynx Habitat Connectivity Cover (vegetation) in sufficient quantity and arrangement to allow for the movement of lynx. Narrow forested mountain ridges or shrub-steppe plateaus may provide a linkage between more extensive areas of lynx habitat. Wooded riparian communities may provide travel cover across otherwise open valley floors between mountain ranges, or lower elevation ponderosa pine or pinyon-juniper woodlands may link high elevation spruce-fir forests (45)

Lynx Habitat Matrix The most extensive and most connected landscape element type present, which plays the dominant role in landscape functioning or a landscape surrounding a patch. (45)

Lynx Linkage Areas Areas that provide landscape connectivity between blocks of lynx habitat. Linkage areas occur both within and between geographic areas where blocks of lynx habitat are separated by areas of non-habitat, such as basins, valleys, agricultural lands, or where lynx habitat naturally narrows between two blocks. (45)

Lynx Habitat Currently in Unsuitable Condition Areas within identified/mapped lynx habitat that are in early successional stages as a result of recent fires or vegetat5ion management, where vegetation has not developed sufficiently to support snowshoe hare populations during all seasons. Management-created openings include clearcuts and seed tree harvest units, and might include shelterwood and commercially-thinned stands depending on unit size and remaining stand composition and structure (45)

Lynx Suitable Habitat A combination of lynx denning and foraging habitat. (45)

Management To treat with care, handle or direct with skill. (25)

Management Direction A statement of multiple-use and other goals and objectives, the management prescriptions, and the associated standards and guidelines for attaining them. (11)

Management Ignited Fire (MIF) A prescribed fire resulting from a planned, deliberate management action. (FSM 5105)

Matrix The most extensive and most connected landscape element type present which plays the dominant role in landscape functioning. Also, a landscape element surrounding a patch. (22)

Mature Forest Generally used in an economic sense to indicate that a forest has attained harvest age. (15)

Mechanical Fuels Treatments Mechanical treatments include all methods of modifying the fuels profile except for fire use applications, chemical treatments and livestock grazing. Mechanical treatments include: biomass removal, biomass thinning, rearrangement, chipping, piling, felling and piling, crushing, and mastication. (45)

Memorandum of Understanding (MOU) A legal agreement between the Forest Service, other agencies, private parties, or individuals resulting from consultation between them that states specific measures they will follow to accomplish a project. A memorandum of understanding is not a fund-obligating document.

Microsite A rock outcrop, snag, seep, stream pool, and other environmental features small in scale but unique in character. (8) (15)

Mineral Development The activities and facilities associated with extracting a proven mineral deposit.

Mineral Entry Claiming public lands administered by the Forest Service, including national grasslands, under the Mining Law of 1872 for the purpose of exploiting minerals. This can also refer to a mineral exploration and development under the mineral leasing laws and the Material Sale Act of 1947.

Mineral Estate The ownership of minerals, including rights necessary for access, exploration, development, and transportation operations.

Mineral Materials Mineral materials consist of petrified wood and common varieties of sand, gravel, stone, pumice, pumicite, cinders, clay, and other similar materials. Such mineral materials include deposits which, although they have economic value, are used for agriculture, animal husbandry, building, abrasion, construction, landscaping, and similar uses. Mineral materials do not include any mineral used in manufacturing, industrial processing, or chemical operations for which no other mineral can be substituted due to unique properties giving the particular mineral a distinct and special value.

Mineral Potential The classification of lands according to the probability of undiscovered mineral resources, delineated as to the type of mineral, the extent of the expected deport, and the likelihood of its occurrence. The likelihood of occurrence for oil and gas is classified as follows:

> **High Potential:** Demonstrated existence of source rock, thermal maturation, reservoir strata possessing permeability and porosity, and traps. Demonstrated existence is defined by physical evidence or documentation in the literature.
>
> **Moderate Potential:** Geophysical or geological indications that the following may be present source rocks, thermal maturation, reservoir strata possessing permeability and porosity, and traps. Geologic indication is defined by geological inference based on indirect evidence.

Low Potential: Specific indications that one or more of the following may not be present; source rocks, thermal maturation, reservoir rock, and traps.

No Known Potential: Demonstrated absence of source rocks, thermal maturation, reservoir strata possessing permeability and porosity, and traps. Demonstrated absence is defined by physical evidence or documentation in the literature.

Mineral Production The extraction of mineral deposits.

Mineral Rights 1) **Mineral rights outstanding** are third-party rights, an interest in minerals not owned by the person or party conveying the land to the United States. It is an exception in the deed that is the result of a prior conveyance separating title of certain minerals from the surface estate. 2) **Reserved mineral rights** are the retention of ownership of all or part of the mineral rights by a person or party conveying land to the United States. Condition for the exercising of these rights have been defined in the Secretary's *Rules and Regulations to Govern Exercising of Mineral Rights Reserved in Conveyances to the United States* attached to and made a part of deeds reserving mineral rights.

Mineral Withdrawal Withholding an area of Federal land from location or entry under some the mining and mineral leasing laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area, or for reserving the area for a particular public purpose or program. (FSM 2760)

Mitigate To lessen the severity.

Mitigation Includes avoiding an impact by not taking certain actions; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitation, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments.

Mode Value occurring most frequently in a series of observations. (22)

Modification (Oil and Gas Leasing) Modifications are similar to exceptions, but broader in scope, and involve a fundamental change to the provision of the stipulation. They can be granted either temporarily or for the duration of the lease. A modification may, therefore, include an exemption from or alternation to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

Monitoring The process of collecting information to evaluate if objective and anticipated or assumed results of a management plan are being realized or if implementation is proceeding as planned. (28)

Multi-Storied Forest stands that contain trees of various heights and diameter classes and therefore support foliage at various heights in the vertical profile of the stand. (28)

Multiple Use The management of the lands and their various resource values so they are utilized in the combination that best meets the present and future needs of the American people. (10) (15) (28)

Multiple Use-Sustained Yield Act (MUSYA) Authorizes and directs that the National Forests be managed under principles of multiple use for outdoor recreation, range, timber, watershed, and wildlife and fish purposes, and to produce a sustained yield of products and services, and for other purposes. This act does not affect the use or administration of the mineral resources of National Forest lands or the use or administration of Federal lands not within National Forests. (22)

Mycorrhiza The symbiotic association between certain fungi and plant roots which enhances the uptake of water and nutrients. (20)

National Environmental Policy Act (NEPA) Declared a national policy to "encourage productive and enjoyable harmony between man and his environment". NEPA and implementing regulations by the Council on Environmental Quality specify procedure for integrating environmental considerations into agency planning. (18)

National Forest Management Act (NFMA) An Act of Congress which provides guidelines for planning and management of the National Forests. (18)

National Forest System The term used to include the National Forests, National Grasslands, and other related lands that the Forest Service has administers responsibility. (18)

National Forest System (NFS) Lands Federal lands designated by Executive order or statute as national forests, national grasslands, or purchase units, or other lands under the administration of the U.S. Forest Service.

National Forest System Road A classified road under jurisdiction of the Forest Service. The term “National Forest System road is synonymous with the term Forest Development Road used in 23 U.S.C. 205. (41)

Natural Conditions Plant and animal communities where people have not directly impacted either the plant community or the soil by such activities as logging, grazing, or cultivation. Indirect activities, such as fire suppression and air quality are part of the current environment and part of natural succession. (24)

NEPA Process Means all measures necessary for compliance with the requirements of Section 2 and Title I of NEPA.

Nest Area (Northern Goshawk) A nest tree and approximately 30 acres of surrounding habitat containing prey handling areas, perches, and roosts (Reynolds et al 1992).

New Road Construction Activity the results in the addition of forest classified or temporary road miles (36 CFR 212.1). (41)

No Lease (Oil and Gas) A decision not to lease until some future analysis determines the lands are available for leasing.

No Surface Occupancy (NSO) (Oil and Gas) A fluid mineral leasing stipulation that prohibits use or occupancy of the land surface for fluid mineral exploration or development to protect identified resource values.

Nonchargeable Volume All volume not included in the growth and yield projections for the selected management prescriptions used to arrive at the allowable sale quantity. (19)

Nonforest Land Lands that never have had or that are incapable of having 10 percent or more of the area occupied by forest trees; or lands previously having such cover and currently developed for nonforest use. (19)

Non-Lynx Habitat Areas such as lakes and openings that do not support snowshoe hare populations and are not considered to be capable of providing lynx habitat. See also Lynx Habitat and Lynx Habitat Currently in Unsuitable Condition. (45)

Not Administratively Available (Oil and Gas) Designation given to lands that have been identified in a leasing analysis as closed to leasing due to law or through exercise of management direction. They are no longer considered for any type of leasing and no further decision is required concerning those lands.

Notice of Intent Notice that an environmental impact statement will be prepared and considered. The notice briefly describes the proposed action and possible alternatives, the agency's scooping process, and the address and name of the agency to contact regarding questions about the proposed action and the environmental impact statement.

Nutrient Cycling Circulation or exchange of elements such as nitrogen and carbon between non-living and living portions of the environment. Includes all mineral and nutrient cycles involving mammals and vegetation. (28)

Objective A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define both the precise steps to be taken and the resources to be used in achieving identified goals. (18)

Off Road Vehicle (ORV) **Type 1**: "A recreational vehicle primarily designed for off-road use which is fifty (50) inches or less in width, has an unladen weight of nine hundred (900) pounds or less and is designed to be ridden astride upon a seat or saddle and to travel on at least three (3) low pressure tires." **Type 2**: "Any unlicensed motorcycle which has an unladen weight of six hundred (600) pounds or less and is designed to be ridden off road with the operator astride upon a seat or saddle and travels on two (2) tires." **Type 3**: "Any multi-wheeled motorized vehicle not required by law to be licensed and is designed for cross-country travel on or over land, sand, snow, ice or other natural terrain and which has an unladen weight of more than nine hundred (900) pounds."

Oil and Gas Lease A legal contract granting the right to explore for, develop and produce oil and gas resources for a specific period of time under certain agreed-upon terms and conditions.

Old-Growth Old growth forests are ecosystems 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 which may include tree size, accumulations of large dead woody material, number of tree top layers, species composition and ecosystem function.It can require more than 150 years for a forest stand to develop the characteristics of old growth {Mehl 1992}.

Operating Plan A written plan, approved by a forest officer and prepared by those engaged in mining activity on the national forest or national grassland. It covers prospecting, exploration, and extraction activities that will take place on National Forest System lands.

Organic Act The Organic Administration Act of 1897 specified the purposes for which forest reserves might be established and provided for their protection and management. (18)

Outdoor Recreation The various forms of recreation that take place in outdoor settings and sometimes require specialized services, equipment or facilities. Outdoor recreation activities include but are not limited to: camping, hiking, rock climbing, skiing, snow boarding, boating, horse back riding, swimming (in lakes/oceans /rivers), biking, observing nature (bird watching), hang gliding, hunting, fishing, wind surfing, etc."

Overstory Removal The cutting of trees comprising an upper canopy layer in order to release trees or other vegetation in an understory. See Clearcutting

Patch Ecosystem elements (e.g., areas of vegetation) that are relatively homogeneous internally and that differ from what surrounds them. (22) (28)

Patented Claim A claim for which title has passed from the Federal Government to the mining claimant. (FSM 2800)

Pattern The spatial arrangement of landscape elements (patches, corridors, matrix) which determines the function of a landscape as an ecological system. (22)

Perch-inhibitors Devices placed on power poles to discourage raptor perching and mortality from electrocution.

Perennial Stream Channel A stream that typically has running water on a year-round basis. (28)

Perimeter Control is a strategy that seeks to confine the active zone responsible for fire spread. In the perimeter control, the appropriate management response considers site-specific values at risk. Firelines, whether natural or constructed, are used to confine the active zone of spreading fire. Direct or indirect fireline locations are selected to minimize the combined cost of suppression and the values that could be lost in the fire.

Photosynthesis The conversion of light energy to chemical energy; the production of carbohydrates from carbon dioxide in the presence of chlorophyll by using light energy. (29)

Physical Environments Combinations of environmental factors to which the biota respond indirectly, e.g., elevation, landform, geological substrate, or soil type. (22)

Piscicide an Environmental Protection Agency certified chemical compound used to kill fish. As used in the Plan, the term refers to rotenone and antimycin, only

Plan of Operations A written plan describing mining and mineral processing activities that will likely cause a significant surface disturbance. The plan is prepared by those engaged in activities, such as prospecting, exploration, or mining, in the national forest or national grassland. This plan must be approved by a Forest Officer.

Planning Area The area of the National Forest System covered by a regional guide or a forest plan. 36 CFR 219.3

Planning Horizon In the planning process, the overall time period that spans all activities covered in the analysis or plan and all future conditions and effects of proposed actions that would influence the planning decisions. (FSM 1900) or timber resource planning purposes, the overall time period shall extend far enough into the future so that it is possible to achieve and maintain the allowable sale quantity at the long-term sustained yield capacity. In some situations, this may require that the planning horizon be long enough to provide the opportunity to access all suitable lands. (19)

Plant Association A potential natural plant community of definite floristic composition and uniform appearance. (3) (28)

Population A group of individuals with common ancestry that are much more likely to mate with one another than with individuals from another such group. (15)(28)

Population Viability Probability that a population will persist for a specified period across its range despite normal fluctuations in population and environmental conditions. (28)

Post-fledging Area (Northern Goshawk) The area of concentrated use by the goshawk family after the young leave the nest. A designated area approximately centered around the nest sites that provides hiding cover for the young and good habitat for prey species. Where available, 60% of the PFA should be in structure classes 4 and 5 (with the rest in younger age class), and canopy cover should be 50-60% (Reynolds et al 1992).

Potential Natural Community The biotic community that would be established if all successional sequences of its ecosystem were completed without additional human-caused disturbances under present environmental conditions. Grazing by native fauna, natural disturbances such as drought, floods, wildfire, insects, and disease, are inherent in the development of potential natural communities which may include naturalized non-native species. (3) (28)

Precommercial Thinning (PCT) A thinning that does not yield trees of commercial value, usually designed to reduce stocking in order to concentrate growth on the more desirable trees. (20)

Prescribed Burning (Prescribed Fire) A fire resulting from planned or unplanned ignition which is burning within acceptable ranges of a defined set of environmental parameters including wind direction, humidity, temperature, wind speed, fuel moisture, and the limit of the geographical area to be covered. (18)

Prescribed Natural Fire (PNF) A fire resulting from a natural ignition that is designated and managed as a prescribed fire. (FSM 5105)

Prescription Control Emphasizes wildland fire for resource benefits. This strategy uses unplanned ignitions within specific geographic areas, allowing fire to play its ecological role. Under prescription control, fire is considered to be controlled as long as it burns within specified geographic boundaries and predetermined burning indices. Parameters for this strategy are contained within a written prescription documented in the Fire Management Plan. Fires that are within prescription and advancing management goals in the prescription are allowed to burn. Where a fire jeopardizes investments or other critical resource values, a suppression response is expected.

Present Net Value (PNV) The difference between the discounted value (benefits) of all outputs to which monetary values or estimated prices are assigned and the total discounted value costs of managing the planning area. PNV is calculated for management activities during the environmental analysis process for all alternative

management proposals considered, and is a factor during alternative selection prior to management implementation. (18)

Primitive Road Generally road objective maintenance level 2. (FSH 7709.58) Provides an opportunity for challenge, risk, and self-reliance. Usually native surfaced.

Process Change in state of an entity. (22)

Production Pit 1) A pit on an oil and/or gas well location after well completion. 2) A pit associated with the production of oil or gas.

Products All possible goods, services, and states that society desires from the ecosystem, including commodities; services, such as recreational opportunities and clean air; and states, such as attractive landscapes, and abstract entities, such as biological diversity. Production is the flow of products, as defined above. States result from ecosystem development processes and from management actions. (23)

Program Set of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishment. (18)

Program Budget A plan that allocates annual funds, workforce ceilings, and targets among Forest Service management units to accomplish a program of activities. (18)

Province A continuous geographic area wherein species composition, both plant and animal, is more homogeneous than between adjacent areas. (8) (15) (28)

Public Access Usually refers to a road or trail route over which a public agency has secured a right-of-way for public use.

Public Forest Service Road. A National Forest System Road that is open to public travel in accordance with 23 USC 101(a). A PFSR would remain open and meet Federal Highway Safety Act requirements. Exceptions would be for scheduled seasonal closures or emergency closure needs.

Public Roads Any road or street under jurisdiction of and maintained by a public authority and open to public travel (23 U.S.C. 101(a)). (41)

Range of Variability Also known as Natural Variability, Historic Variability, or Range of Natural Variability. The observed limits of change in composition, structure, and function of an ecosystem over a specified period of time resulting from variations in the frequency, magnitude, and pattern of disturbances. (18)

Rangeland Land on which the native vegetation is predominantly grasses, grass-like plants, forbs, or shrubs suitable for grazing or browsing use. (18)

Rangeland Management Status Rangeland management status can be described by combining desired condition status with trend determinations. For example, a plant community with a similar desired condition status and a trend "away from" management objectives would be considered in unsatisfactory rangeland management status. Likewise, a not similar desired condition status with a trend "towards" objectives might be considered in satisfactory rangeland management condition.

RARE II Areas Roadless areas inventoried in the second roadless area review and evaluation (36CFR 219.17). (18)

Reasonably Foreseeable Development (RFD) (Oil and Gas) A projection of likely exploration, development, and production of oil and gas within a study area based on existing and credible geologic data, technology, economics, and activity trends.

Reclamation Returning disturbed lands to a form and productivity that will be ecologically balanced, often in conformity with a predetermined reclamation plan.

Reconstruction Construction activities performed on an existing facility. Reconstruction includes those activities that alter the facility from its originally constructed or subsequently reconstructed condition.

Recreation Opportunity Availability of a real choice for a user to participate in a preferred activity within a preferred setting in order to realize desired experiences.

Recreation Opportunity Spectrum (ROS) A planning and management tool to delineate, define, and integrate outdoor recreation settings and opportunities in land and resource management planning. ROS provides common definitions and criteria to assure consistent consideration of recreation settings and opportunities at all planning levels. An ROS inventory is required for every Forest Plan revision." see also ROS Class.

Recreation Visitor Day Twelve visit hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons. (18)

Recruitment The addition to a population from all causes (i.e., reproduction, immigration, and stocking). Recruitment may refer literally to numbers born or hatched or to numbers at a specified stage of life such as breeding age or weaning age. (28)

Reforestation The natural or artificial restocking on an area with trees (synonym Regeneration). (20)

Regeneration Seedlings or saplings existing in a stand; or the act of establishing young trees naturally or artificially (synonym Reforestation). (20)

Regeneration (Reproduction) Method A cutting method by which a new age class is created. The major methods are Clearcutting, Seed Tree, Shelterwood, Selection, and Coppice (see Harvesting Method). (20)

Coppice Methods Methods of regenerating a stand in which the majority of regeneration is from stump sprouts or root-suckers. (20)

Coppice A method of regenerating a stand in which all trees in the previous stand are cut and the majority of regeneration is from sprouts or root suckers. (20)

Coppice With Reserves A coppice method in which reserve trees are retained to attain goals other than regeneration. The method normally creates a two-aged stand. (20)

Even-Aged Methods Methods to regenerate a stand with a single age class. (20)

Clearcutting A method of regenerating an even-aged stand in which a new age class develops in a fully exposed microclimate after removal, in a single cutting, of all trees in the previous stand. Regeneration is from natural seeding, direct seeding, planted seedlings, and/or advance reproduction. Cutting may be done in groups or patches (Group or Patch Clearcutting), or in strips (Strip Clearcutting). In the Clearcutting System, the management unit or stand in which regeneration, growth, and yield are regulated consists of the individual clearcut stand (see Group Selection). When the primary source of regeneration is advance reproduction, the preferred term is Overstory Removal. (20)

Clearcutting With Reserves see Two-Aged Methods

Seed Tree An even-aged regeneration method in which the new age class develops from seeds that germinate in fully exposed micro-environments after removal of all the previous stand except a small number of trees left to provide seed. Seed trees are removed after regeneration is established. (20)

Seed Tree With Reserves see Two Aged Methods

Shelterwood A method of regenerating an even-aged stand in which a new age class develops beneath the moderated micro-environment provided by the residual trees. The sequence of treatments can include three distinct types of cuttings: 1) an optional preparatory cut to enhance conditions for seed production; 2) an establishment cut to prepare the seed bed and to create a new age class; and 3) a removal cut to release established regeneration from competition with the overwood. Cutting may be done uniformly throughout the stand (Uniform Shelterwood), in groups or patches (Group Shelterwood), or in strips (Strip Shelterwood). (20)

Shelterwood With Reserves see Two-Aged Methods

Two-Aged Methods Methods designed to maintain and regenerate a stand with two age classes. In each case the resulting stand may be two-aged or tend towards an uneven-aged condition as a consequence of both an extended period of regeneration establishment and the retention of reserve trees that may represent one or more age classes. (20)

Clearcutting With Reserves A clearcutting method in which varying numbers of reserve trees are not harvested to attain goals other than regeneration. (20)

Seed Tree With Reserves A seed Tree Method in which some or all of the seed trees are retained after regeneration has become established to attain goals other than regeneration. (20)

Shelterwood With Reserves A variant of the Shelterwood Method in which some or all of the shelter trees are retained, well beyond the normal period of retention, to attain goals other than regeneration. (20)

Irregular Shelterwood A variant of the shelterwood method in which the overwood is retained for a significant portion of the rotation. An irregular shelterwood method may include preparatory cuttings, seed cuttings, and removal cuttings as in even-aged shelterwood methods. The irregular shelterwood differs in that the final removal cut may occur later in the rotation or not at all. (20)

Uneven-Aged (Selection) Methods Methods of regenerating a forest stand, and maintaining an uneven-aged structure, by removing some trees in all size classes either singly, in small groups, or in strips. (20)

Group Selection A method of regenerating uneven-aged stands in which trees are removed, and new age classes are established, in small groups. The maximum width of groups is approximately twice the height of the mature trees, with small openings providing micro-environments suitable for tolerant regeneration and the larger openings providing conditions suitable for more intolerant regeneration. In the

Group Selection System, the management unit or stand in which regeneration, growth, and yield are regulated consists of a landscape containing an aggregation of groups (see Clearcutting). (20)

Group Selection With Reserves A variant of the Group Selection Method in which some trees within the group are not cut to attain goals other than regeneration within the group. (20)

Single Tree Selection A method of creating new age classes in uneven-aged stands in which individual trees of all size classes are removed more-or-less uniformly throughout the stand to achieve desired stand structural characteristics. (20)

Regeneration (Reproduction) Period The time between the initial regeneration cutting and the successful re-establishment of a new age class by natural means, planting, or direct seeding. (20)

Regular Uneven-Aged (Balanced) Stand A stand in which three or more distinct age classes occupy approximately equal areas and provide a balanced distribution of diameter classes. (20)

Rehabilitation Returning of land to farm use or to productivity in conformity with a prior land use plan, including a stable ecological state that does not contribute substantially to environmental deterioration and is consistent with surrounding aesthetic values. (7)

Research Natural Area (RNA) A physical or biological unit in which current natural conditions are maintained insofar as possible. These conditions are ordinarily achieved by allowing natural, physical, and biological processes to prevail without human intervention. However, under unusual circumstances, deliberate manipulation may be utilized to maintain the unique feature that the RNA was established to protect.

Resilience The ability of an ecosystem to maintain diversity, integrity and ecological processes following disturbance. (21)

Resource Value The value of an ecosystem for a particular use or benefit on an ecological type or plant association. The value may be expressed as an actual amount or a relative rating (i.e., good, fair, poor), when compared to the maximum value for an ecological type. The value of vegetation or other features for a particular use. Each use may have a separate resource value rating. The "desired plant community" to meet land use plans. (27)

Responsible Official The Forest Service employee who has the delegated authority to make a specific decision.

Restoration Actions taken to modify an ecosystem in whole or in part to achieve a desired condition. (21)

Rights-of-Way 1) Land authorized to be used or occupied for the construction, operations, maintenance, and termination of a project or facility passing over, upon, under, or through such land (36 CFR 251.51). 2) The privilege that one person or persons particularly described may have of passing over the land of another in some particular line.

Riparian The bands and adjacent areas of water bodies, water courses, seeps, and springs whose waters provide soil moisture in excess of what is locally available. This results in a more moist habitat than that found on the contiguous flood plains and uplands. Refers to land bordering a stream, lake, or tidewater, and generally implies a particular type of habitat physiognomy often characterized by an over story of trees or other large woody plants with a complex under story of other woody and/or herbaceous species.

Riparian Area Areas of the aquatic and riparian ecosystems with distinctive resource values and characteristics that can be geographically delineated. (FSM 2526)

Riparian Communities Repeating, classified, defined and recognizable assemblage of plant or animal communities associated with riparian areas.

Riparian Ecosystem A transition between the aquatic ecosystem and the adjacent terrestrial ecosystem; Identified by soil characteristics or distinctive vegetation communities that require free or unbound water. (FSM 2526)

Riparian Zone The banks and adjacent areas of water bodies, water courses, seeps and springs whose waters provide soil moisture sufficiently in excess of that otherwise available locally so as to provide a more moist habitat than that of contiguous flood plains and uplands. (5) (28)

Road A motor vehicle travelway over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary (36 CFR 212.1). (41)

> **Classified Roads** Roads wholly or partially within or adjacent to NFS lands that are determined to be needed for long-term motor vehicle access, including state, county, and privately owned roads, NFS roads, and other roads authorized by the Forest Service (36 CFR 212.1). (41)
>
> **Temporary Roads** Roads authorized by contract, permit, lease, other written authorization or emergency operation not intended to be part of the forest transportation system and not necessary for long-term management (36 CFR 212.1). (41)
>
> **Unclassified Roads** Roads on NFS 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 been designated and managed as trails; and those roads that were once under permit or other

authorization and were not decommissioned upon the termination of the authorization (35 CFR 212.1). Unclassified roads were previously called primitive roads[1] under the ROS (Recreation Opportunity Spectrum) classification. (41)

Forest Arterial Road A Forest road that provides service to large land areas and usually connects with other arterial roads or public highways. (FSH 7709.54)

Forest Collector Road A Forest road that serves smaller land areas than an arterial road. Usually connects forest arterial roads to local forest roads or terminal facilities. (FSH 7709.54)

Forest Local Road A Forest road that connects terminal facilities with forest collector, forest arterial or public highways. Usually Forest local roads are single purpose transportation facilities. (FSH 7709.54)

Road Construction The building of new vehicular transportation facilities to a specific construction standard. Includes all new road construction regardless of functional classification, resource area served, or construction source. This includes roads constructed by timber purchasers, mineral claimants or lessees, and other permittees, as well as those constructed with appropriated funds- all of which become a part of the forest development road system. (18)

Road Decommissioning Activities that result in the stabilization and restoration of unneeded roads to a more natural state (36 CFR 212.1, FSM 7703). (41) Decommissioning includes applying various treatments, which may include one or more of the following:

- Reestablishing former drainage patterns, stabilizing slopes, and restoring vegetation.
- Blocking the entrance to a road; installing water bars.
- Removing culverts, reestablishing drainage-ways, removing unstable fills, pulling back road shoulders, and scattering slash on the roadbed.
- Completely eliminating the roadbed by restoring natural contours and slopes.
- Other methods designed to meet the specific conditions associated with the unneeded roads.

Roadless Areas Undeveloped areas that meet eligibility criteria for wilderness consideration under the Wilderness Act. (36CFR 219.17) (18)

[1] In the 1986 ROS Book, primitive roads are described as those not constructed or maintained and used by vehicles not primarily intended for highway use.

Road Maintenance The ongoing upkeep of a road necessary to retain or restore the road to the approved management objective (FSM 7712.3). (41)

Road Reconstruction Activity that results in improvement or realignment of an existing classified road as defined below:

> **Road Improvement** Activity that results in an increase of an existing road's traffic service level, expands its capacity or changes its original design function. (41)
>
> **Road Realignment** Activity that results in a new location of an existing road or portions of an existing road and treatment of the old roadway (36 CFR 212.1). (41)

Roads Closed National Forest System roads that are not continuously open to motor vehicles on a yearlong basis. (18)

Roads Obliterated Roads that have been decommissioned by a method that completely eliminates the roadbed by restoring natural contours and slopes.

Roads Subject to the Highway Safety Act National Forest System roads that are open to use by the public fro standard passenger cars. This includes roads with access restricted on a seasonal basis and roads closed during extreme weather conditions or for emergencies but which are otherwise open for general public use. (41)

ROS Class (12)

> **Primitive (ROS Class) setting** is characterized by an unmodified environment of fairly large size (2,500 acres). 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. There is an extremely high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance. The area offers a high degree of challenge and risk.
>
> **Roaded Modified (ROS Class) setting** is a substantially modified natural environment. It is the direct result of intensive timber harvest, mining, or some other activity. User expectations for social and managerial settings, activities, and facilities are similar to those found in semi-primitive classes. Recreationists can expect to be able to get away from others to an area with easy access. Opportunities to feel self-reliant in building their own campsite and using motorized equipment are critical. Feelings of independence and freedom from regulations and control are also important.
>
> **Roaded Natural (ROS Class) setting** is characterized by a predominantly natural-appearing environment with moderate

evidences of sights and sounds of humans. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities. Challenge and risk opportunities associated with more primitive type recreation are not very important. Opportunities to have a high degree of interaction with the environment.

Rural (ROS Class) setting 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 are 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. Socialization with individuals and groups is prevalent, as is the convenience of sites and opportunities which are more important than the setting of the physical environment.

Semi-Primitive Motorized (ROS Class) setting 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 may be present, but are subtle. Motorized use is permitted. There is a moderate probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance.

Semi-Primitive Nonmotorized (ROS Class) setting 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 are subtle. Motorized use is not permitted. There is a high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of outdoor skills in an environment that offers challenge and risk.

Urban (ROS Class) setting is characterized by a substantially urban environment, and amenities, although the background may have natural appearing elements. Renewable resource modification and utilization practices are to enhance specific recreation activities (ski areas). Vegetative cover is often exotic and manicured. Sights and sounds 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.

Rotation In even-aged systems, the period between regeneration establishment and final cutting. (20)

RPA Assessment An analysis of present and anticipated uses, demand for, and supply of renewable resources. The Assessment is prepared every 10 years in response to the Forest and Rangeland Renewable Resources Planning Act. (18)

Rural Development The utilization, protection, and enhancement of the natural, physical, and human resources needed to make long-term improvements in rural living conditions, provide jobs and income opportunities, and enrich cultural life while maintaining and protecting the environment of rural America. In the Forest Service, rural development is accomplished through the coordinated use of available human, technical, financial, and natural resources in partnership with national, State, and local entities on initiatives for improving the conditions for citizens of rural areas. (18)

Sale Schedule The quantity of timber planned for sale by time period from the area of suitable land covered by a forest plan. The first period, usually a decade, of the selected sale schedule provides the allowable sale quantity. Future periods are shown to establish that long-term sustained yield will be achieved and maintained. (FSM 1900). For timber resource planning purposes, consider the sale schedule and allowable sale quantity to be synonymous for all periods or decades over the planning horizon.

Salvage Sale A salvage sale is timber sale where the primary reason for entry is that most of the trees are insect-infested or are dying or damaged, or the trees are dead standing or down, and they can still be useful as logs, firewood, or other wood products. Associated healthy trees in the stand can be removed to improve the whole stand, if it is efficient and desirable, in order to leave the stand in a healthier condition. (18)

Sapling A tree, usually young, that is larger than a seedling but smaller than a pole. Size varies by region. (20)

Satisfactory Livestock Forage Condition A condition in which the soil is adequately protected and the forage species composition and production meets forest

plan objectives or the trend in forage species composition and production is acceptable. (39)

Sawtimber Trees containing at least one 8-foot sawlog and meeting regional specifications for freedom from defect. Softwood trees must be at least 8 inches in diameter at breast height (4.5 feet above the ground). (Forest Standards)

Scale The level of spatial resolution perceived or considered. Also, spatial proportion, or the ratio of length on a map to true length. (22) (21)

Scenery Management System (SMS) A planning and management tool used to delineate, define, and integrate scenery resources in land and resource management planning. An SMS inventory is required for every Forest Plan revision."

Scenic Integrity An indicator of an areas visual appearance, either stated as an objective or current condition, related to the characteristic landscape."

Scenic Integrity (Existing or Objective) State of naturalness or, conversely, the state of disturbance created by human activities or alteration. Integrity is stated in degrees of deviation from the existing landscape character in a national grassland or forest. The scenic integrity levels are:

> **Very High (Unaltered): Preservation**: This level refers to landscapes where the valued landscape character is intact with only minute, if any, deviations. The existing landscape character and sense of place is expressed at the highest possible level.
>
> **High (Appears Unaltered): Retention:** This level refers to landscapes where the valued landscape character appears intact. Deviations may be present but must repeat the form, line, color, texture and pattern common to the landscape character so completely and at such scale that they are not evident.
>
> **Moderate (Slightly Altered): Partial retention**: This level refers to landscapes where the valued landscape character appears slightly altered. Noticeable deviation must remain visually subordinate to the landscape character being viewed.
>
> **Low (Moderately Altered): Modification:** This level refers to landscapes where the valued landscape character appears moderately altered. Deviations begin to dominate the valued landscape character being viewed, but they borrow valued attributes such as size, shape, vegetative type changes or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.

Very Low (Heavily Altered): Maximum Modification: This level refers to landscapes where the valued landscape character appears heavily altered. Deviations may strongly dominate the valued landscape character. They may no borrow from valued attributes such as size, shape, vegetative type changes or architectural styles within or outside of the landscape being viewed. However, deviations must be shaped and blended with the natural terrain (landforms) so that elements such as roads, and structures do not dominate the composition

Unacceptably Low: This level refers to landscapes where the valued landscape character being viewed appears extremely altered. Deviations are extremely altered. Deviations are extremely dominate and borrow little if any form, line, color, texture, pattern, or scale from the landscape character. Landscapes at this level of integrity need rehabilitation.

Scenic Resource Attributes, characteristics, and features of landscapes that provide varying responses from, and varying degrees of benefits to, humans.

Security The protection inherent in any situation that allows wildlife to remain in a defined area despite an increase in stress or disturbance associated with the hunting season or other human activities. (16)

Security Area Any area of hiding cover of at least 250 acres located over ½ mile from a motorized road or trail that is open to public use. Inclusions of vegetation not providing hiding cover may occur (like meadows, burned areas, and logged sites), if these are small and/or over one mile from an open road or trail. (16)

Seed Tree, Seed Tree With Reserves See Regeneration Methods

Selection Thinning see Thinning

Sensitive Species Selected plant and animal species for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, and significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution. Sensitive species are not included in the threatened and endangered species act. (18)

Seral A biotic community which is a developmental, transitory stage in an ecologic succession. (1)

Sere The series of stages that follow one another in an ecologic succession; a series of biotic communities that follow one another in time on any given area of the earth's surface. (1)

Severely Burned Soil The condition where most woody debris and the entire Forest floor is consumed down to bare mineral soil. Soil may have turned red due to extreme heat. Also, fine roots and organic matter are charred in the upper one-half inch of mineral soil. (FSH 2509.18)

Shade Tolerance The relative capacity of a plant to become established and grow beneath overtopping vegetation. (20)

Shelterwood, Shelterwood With Reserves See Regeneration Methods

Silviculture The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis. (20)

Silvicultural System A planned process whereby a stand is tended, harvested, and re-established. The system name is based on the number of age classes (see Even-Aged, Two-Aged, Uneven-Aged), and/or the regeneration method used (see Clearcutting, Seed Tree Shelterwood, Selection, Coppice, Coppice With Reserves). (20)

Single Tree Selection see Regeneration Methods

Site The classification of land area based on its climate, physiographic (physical geography), edaphic (soil), and biotic factors that determine its suitability and productivity for particular species and silvicultural alternatives. (9)

Site Index A measurement of actual or potential forest productivity expressed in terms of the average height of a certain number of dominants and codominants in the stand at an index age. (20)

Site Preparation A hand or mechanized manipulation of a site designed to enhance the success of regeneration. Treatments may include bedding, burning, chemical spraying, chopping, disking, drainage, raking, and scarifying. All treatments are designed to modify the soil, litter, vegetation and to create microclimate conditions conducive to the establishment and growth of desired species. (20)

Size Class Tree size recognized by distinct ranges, usually of diameter or height. (20)

Snag A standing dead tree from which the leaves and most of the branches have fallen. For wildlife habitat purposes, a snag is sometimes regarded as being at least 10 inches in diameter at breast height and at least 6 feet tall; a hard snag is composed primarily of sound wood, generally merchantable, and a soft snag is composed primarily of wood in advance stages of decay and deterioration. (20) (44)

Snowshoe Hare Habitat See lynx foraging habitat. (45)

Soil Productivity The inherent capacity of a soil for supporting growth of specified plants, plant communities, or sequence of plant communities. (FSM 2520)

Species (Biological) Reproductively isolated systems of breeding populations; (Successional) Distinctly different appearing assemblages of organisms as a consequence of species transformation; (Taxonomic) Phenotypically distinctive groups of coexisting organisms; (Microspecies) Asexually reproducing organisms, mainly bacteria, sharing a common morphology and physiology; (Biosystematic) Populations that are isolated by ecological factors rather than ethological isolation. (26) (28)

Split-estate (Minerals) Lands where the surface estate is owned by one entity and the mineral estate is owned by another.

Stand A contiguous group of trees sufficiently uniform in age class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit (see Mixed, Pure, Even-Aged and Uneven-Aged Stands). (20)

> **Mixed Stand** A stand in which there is a mixture of species. (20)
>
> **Pure Stand** A stand composed of essentially a single species. (20)
>
> **Stratified Mixture** A stand in which different species occupy different strata of the total crown canopy. (20)

Stand Composition The proportion of each tree species in a stand expressed as a percentage of either the total number, basal area, or volume of all tree species in the stand. (20)

Stand Density A quantitative, absolute measure of tree occupancy per unit of land area in such terms as numbers of trees, basal area, or volume. (20)

Stand Improvement A term comprising all intermediate cuttings made to improve the composition, structure, condition, health, and growth of even-aged or uneven-aged stands. (20)

Stand Structure The physical and temporal distribution of plants in a stand. (22)

Standard Lease Terms (SLT) The terms incorporated into every oil and gas lease. Standard lease terms require compliance with all laws and regulations to ensure protection of other energy, mineral, and surface resources. Under standard lease terms, the authorized officer has limited authority to modify the siting and design of facilities and to control the rate of development and timing of activities as well as require other mitigation under standard lease terms (BLM Form 3100-11 and 43 CFR 3101.1-23).

Stipulation (Oil and Gas) A provision that modifies standard lease rights attached to and made a part of the lease.

Stocking An indication of growing-space occupancy relative to a pre-established standard. Common indices of stocking are based on percent occupancy, basal area, relative density, and crown competition factor. (20)

Stream Reach Those components of valley segments that reflect unique channel morphological characteristics, stream size, discharge, flow duration, gradient, channel pattern, and stream type. (IRI handbook 1/27/95)

Structure The horizontal and vertical distribution of components of a forest stand including the height, diameter, crown layers and stems of trees, shrubs, herbaceous understory, snags, and down woody debris. (20)

Structural Stages (Wildlife Habitat Structural Stages) Any of several developmental stages of tree stands described in terms of tree age (size), and the extent of canopy closure they create. (34)

> **Structural Stage 1 Grass/forb:** Forest openings created by disturbances, such as fire or windthrow. Meadows and prairies are also modeled as grass/forb although succession will not move beyond this stage.
>
> **Structural Stage 2 Shrubs/seedlings:** Developmental stage dominated by tree seedlings (less than one-inch DBH) and shrub species.
>
> **Structural Stage 3 Sapling/pole:** Developmental stage dominated by young trees one to seven inches diameter breast height, 10 to 50 feet tall and usually less than 50 years old. This stage is subdivided into three canopy closure classes: (a) less than 40 percent, (b) 40 to 70 percent; and (c) greater than 70 percent.
>
> **Structural Stage 4 Mature:** Consists of trees larger and older than stage 3. Also classified by the same canopy closure categories as stage 3.
>
> **Structural Stage 5 Old growth:** This structural stage is characterized by trees at least 200 years old for spruce-fir or Douglas fir; 150 years old for lodgepole pine; or 100 years old for aspen.

Subclimax The stage in both primary and secondary series that immediately precedes the climax. An imperfect stage of development, in which the vegetation is held indefinitely either by natural or artificial factors other than climate, such grazing, burning, cutting, etc. (30)

Subnivian space A gap between the base of the snowpack and the surface of the ground.

Succession A series of dynamic changes by which organisms succeed one another through a series of plant community (seral) stages leading to potential natural community or climax. (20)

Succession (Ecological) An orderly process of biotic community development that involves changes in species, structure and community processes with time. It is reasonably directional and, therefore, predictable (9) (15) (43).

Successional Stage One in a series of usually transitory communities or developmental stages that occur on a particular site or area over a period of time. (9) (15) (28)

Summer Season lasting approximately six months (mid-May to mid-November), characterized by lack of snow or non-contiguous patches of receding snow. Summer varies from less than six months at higher elevations, to more than six months at lower elevations. In addition to varying by elevation, summer varies according to local weather.

Suitable Forest Land Land to be managed for timber production on a regulated basis. (19)

Surface Occupancy (Minerals) The occupancy of the surface with mining activities. When approved, occupancy will be identified in the operation plan.

Sustainability A concept which reflects the capacity of a dynamic ecosystem to maintain its composition, function, and structure over time, thus maintaining the productivity of the land and a diversity of plants and animals. (18)

Tentatively Suitable Forest Land Forest land that is producing or is capable of producing crops of industrial wood and: (a) has not been withdrawn by Congress, the Secretary, or the Chief; (b) existing technology and knowledge is available to ensure timber production without irreversible damage to soils productivity, or watershed conditions; (c) existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance that it is possible to restock adequately within 5 years after final harvest; and (d) adequate information is available to project responses to timber management activities.

Terrestrial Ecosystem A land based ecosystem. (See ecosystem). An interacting system of soil, geology, topography with plant and animal communities. (2)

Thinning A cultural treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or to recover potential mortality. (20)

> **Crown Thinning (Thinning From Above, High Thinning)** The removal of trees from the dominant and codominant crown classes in order to favor the best trees of those same crown classes. (20)
>
> **Free Thinning** The removal of trees to control stand spacing and favor desired trees using a combination of thinning criteria without regard to crown position. (20)
>
> **Low Thinning (Thinning From Below)** The removal of trees from the lower crown classes to favor those in the upper crown classes. (20)

Mechanical Thinning (Geometric Thinning) The thinning of trees in either even- or uneven-aged stands involving removal of trees in rows, strips, or by using fixed spacing intervals. (20)

Selection Thinning (Dominant Thinning) The removal of trees in the dominant crown class in order to favor the lower crown classes. (20)

Thinning Interval The period of time between successive thinning entries usually used in connection with even-aged stands (see Cutting Cycle). (20)

Timber Sale Program Quantity The volume of timber planned for sale during the first decade of the planning horizon. It includes the allowable sale quantity (chargeable volume) and any additional material (nonchargeable volume) planned for sale. The timber sale program quantity usually is expressed as an annual average for the first decade.

Threat An indication of something impending. An expression of intention to inflict injury or damage. (45)

Threatened Species Any species of animals or plants listed as "threatened" by the U.S. Fish and Wildlife Service and likely to become an endangered species within the foreseeable future throughout all or part of its range. (18)

Threshold The boundary between ecological states that, once crossed, is not easily reversible and results in the loss of capacity to produce commodities and satisfy values. (27)

Tiering Refers to the elimination of repetitive discussions of the same issue by referencing the general discussion in an environmental impact statement of broader scope. For example, a project environmental assessment could be tiered to the Forest Plan EIS.

Timber Production The purposeful growing, harvesting, and regeneration of regulated crops of trees for cutting into logs, bolts, or other round sections for industrial or consumer use. For purposes of Forest Planning, timber production does not include fuelwood or harvests from unsuitable lands. (FSM 1900) (19)

Timing Limitation (Seasonal Restriction) Prohibits surface use during specified time periods to protect identified resource values. The stipulation does not apply to the operation or maintenance of production facilities unless the finding analysis demonstrates the continued need for such mitigation and the insufficiency of less stringent, project-specific mitigation measures.

Tolerance The point beyond which there is high risk that potential may be permanently, impaired through changes in specified physical, chemical and biological factors brought about by management activities or natural events. (FSM 2520)

Traffic Service Level Describes the significant characteristics and operating conditions of a road (FSH 7709.56, Ch 4). (41)

Transportation Facility Jurisdiction The legal right to control or regulate use of transportation facility derived from fee title, an easement, an agreement, or other similar method. While jurisdiction required authority, it does not necessarily reflect ownership. (41)

Travelway A way for passage of vehicles, conveyances, person, or domestic livestock (stock driveways), developed by construction or use; may be referred to as a road or trail. (40)

Two-Aged Method(s) See Regeneration Method. (20)

Two-Aged Stand A stand composed of two distinct age classes that are separated in age by more than 20 percent of rotation. (20)

Two-Aged System A planned sequence of treatments designed to maintain and regenerate a stand with two age classes. (20)

Uneven-Aged Management The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes. (33)

Uneven-Aged Selection Methods See Regeneration Method. (20)

Uneven-Aged Stand A stand with trees of three or more distinct age classes, either intimately mixed or in small groups. (20)

Uneven-Aged System A planned sequence of treatments designed to maintain and regenerate a stand with three or more age classes (see Single Tree Selection, Group Selection). Silvicultural systems involving manipulation of a Forest to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter and age classes to provide a sustained yield of forest products. Cutting methods that develop and maintain uneven-aged stands are individual tree and group selection cutting methods. (20) (42)

Unroaded area Any area, without the presence of a classified road, of a size and configuration sufficient to protect the inherent characteristics associated with its roadless condition. Unroaded areas do not overlap with inventoried roadless areas.

Unsuitable Forest Land (Not Suited) Forest land not managed for timber production because: (a) Congress, the Secretary, or the Chief has withdrawn it; (b) it is not producing or capable of producing crops of industrial wood; (c) technology is not available to prevent irreversible damage to soils productivity, or watershed conditions; (d) there is no reasonable assurance based on existing technology and knowledge, that it is possible to restock lands within 5 years after final harvest, as

reflected in current research and experience; (e) there is, at present, a lack of adequate information about responses to timber management activities; or (f) timber management is inconsistent with or not cost efficient in meeting the management requirements and multiple-use objectives specified in the Forest Plan. (19)

User-Created Route Any travelway that has been created through repeated use, primarily for recreation or access purposes, and was not planned, located, designed, or constructed in accordance with Forest Service Road Specifications. (Glossary, Forest-wide Travel Management Environmental Assessment, Medicine Bow National Forest, October 2000)

Utility Corridor A designated parcel of land, either linear or areal in character, which has ecological, technical, economic, social, or similar advantages over other areas for the present and future location of transportation and/or utility rights of way within its boundaries. Utilities include but are not limited to major energy and telecommunications facilities.

Valid Existing Rights (Minerals) Legal interest that attaches to a land or mineral estate and that cannot be divested from the estate until that interest expires or is relinquished.

Viability The likelihood of continued existence in an area for a specified period of time. (10) (15)

Visual Quality Objectives (VQOs) A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape. (35) Visual Quality Objectives include:

> **Maximum Modification** Activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.
>
> **Modification** Activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.
>
> **Partial Retention** Activities may be evident but must remain subordinate to the characteristic landscape.
>
> **Preservation** Provides for ecological change only.
>
> **Retention** Activities are not evident to the casual forest visitor.

Waiver (Oil and Gas) Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

Water Influence Zone (WIZ) The water influence zone includes the geomorphic floodplain, riparian ecosystem, and inner gorge. Its minimum horizontal width (from top of each bank) is the greater of 100 feet or the mean height of mature dominant late-seral vegetation. It includes adjacent unstable and highly erodible soils. The WIZ protects interacting aquatic, riparian, and upland functions by maintaining natural processes and resilience of soil, water, and vegetation systems. (47)

Water Rights A state-controlled legal right to use the water of a natural stream or water furnished through a ditch, pipe or delivery system for general or specific purposes, such as irrigation, mining, power, or domestic use, either to its full capacity or to a measured extent or defined portion of time. (18)

Watershed The drainage basin contributing water, organic matter, dissolved nutrients, and sediments to a stream or lake. (18)

Watershed Analysis A systematic procedure for characterizing watershed and ecological processes to meet specific management and social objectives. Watershed analysis is a stratum of ecosystem management planning applied to watersheds of approximately 20 to 200 square miles. (18)

Watershed Condition Classes A relative description of the health of a watershed as measured against management objectives in terms of the factors that affect favorable conditions of water flow and soil capability. National Forest System watersheds range in size from approximately 40,000 to 180,000 acres. Each watershed is assigned to one of the three following watershed condition classes: (18)

> **Class I** Watersheds that provide a robust basis for sustained production of goods and services. The watershed management is such that no long-term changes are occurring even with major storms. Risks of management-induced deterioration in watershed condition are very low. These watersheds represent an attainable, desirable condition. They are in dynamic equilibrium as evidenced by a stable drainage network. The response to use is accommodated by the current channel network density size and process.
>
> **Class II** Watersheds that are not attaining the requirements for Class I but do not require capital investment to restore watershed conditions. Watershed conditions can be improved to Class I levels through integrated multiple-use management. This class includes watersheds where extensive land-disturbing activities are occurring or are scheduled for the near future. Class II watersheds may also include sensitive watersheds that, when subjected to impacts, can quickly fall to Class III conditions.

Class III Watersheds that require technological and economically feasible capital investments to restore watershed conditions to a level consistent with management goals. Determination of feasibility must also consider environmental, social, and economic desirability. These land treatments and structural measures are necessary to provide an improved watershed equilibrium that can then enable management, through integrated multiple-resource activities, to attain watershed condition goals.

Wetlands Areas that are inundated by surface water 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 require saturated or seasonally saturated soil conditions for growth and reproduction. (18)

Wetland Communities Plant communities that occur on sites with soils typically saturated with or covered with water most of the growing season.

Wilderness Act of 1964 Establishes a National Wilderness Preservation System to be composed of Federally owned areas designated by Congress as wilderness areas, and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness. (22)

Wilderness Area An area of undeveloped Federal land that Congress designated as wilderness and that retains its primeval character and influence, without permanent improvements or human habitation, and is protected and managed to preserve its natural conditions. An area that 1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) comprises at least 5,000 acres of land or is of sufficient size to make practicable its preservation and use in an unimpaired condition; and 4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value (Wilderness Act, 1964). (18)

Wild and Scenic Rivers Rivers or sections of rivers designated by Congressional actions under the 1968 Wild and Scenic Rivers Act, as wild, scenic, or recreational by an act of the legislature of the state or states through which they flow. Wild and Scenic Rivers may be classified and administered under one or more of the following categories:

> **Wild River areas:** Rivers or sections of rivers that are free of impoundments with watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads.
>
> **Scenic River areas:** Rivers or sections of rivers that are free of impoundments, with watersheds still largely undeveloped but accessible in places by roads.
>
> **Recreational River areas:** Rivers or sections of rivers that are readily accessible by road or railroad that may have some development along their shorelines and that may have undergone some impoundment or diversion in the past.

Wilderness Areas designated by Congressional action under the 1964 Wilderness Act or subsequent acts. Wilderness is defined as undeveloped federal land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness areas are protected and managed to preserve their natural conditions, which generally appear to be affected primarily by the forces of nature, with the imprint of human activity substantially unnoticeable. Wilderness areas have outstanding opportunities for solitude or for a primitive and confined type of recreation. They include at least 5,000 acres or are of sufficient size to make practical their preservation, enjoyment, and use in an unimpaired condition; they may contain features of scientific, educational, scenic, or historic value, as well as ecologic and geologic interest.

Wildland Fire Use The management of naturally ignited wildland fires to accomplish pre-stated resource management objectives in predefined areas of fire management plans. Operational management is described in a Wildland Fire Implementation Plan. This term replaces prescribed natural fire. (45)

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

Wildlife Habitat Structural Stage See structural stages.

Winter Season lasting approximately six months (mid-November through mid-May), and characterized by contiguous snow cover or accumulating snow cover. Winter may vary from more than six months at higher elevations, to less than six months at lower elevations. In addition to varying by elevation, winter varies according to local weather.

Winter Range The area, usually at lower elevations, used by deer and elk during the winter months. (16)

Workover One or more of a variety of remedial operations on a producing well to try to increase production. Examples of workover operations are deepening, plugging back, pulling and resetting liner, squeeze cement, and so on. *(University of Texas at Austin, Petroleum Extension Service, 1979, Dictionary of Petroleum Terms)*

Workover rig A portable servicing unit consisting of a hoist and engine mounted on a wheeled chassis with a self-erecting mast and substructure, with rotary, pump, pits, and other auxiliaries that permit handling and working a drill string or production string. *(Modified from definition of "production rig" in Dictionary of Petroleum Terms)*

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