

## APPENDIX G

# GLOSSARY

The words defined in the Glossary apply both to this Forest Plan and the accompanying Environmental Impact Statement.

**100-year Flood Level:** The outermost and uppermost level reached by the waters of an event statistically calculated to occur on an average of once every 100 years.

**Access:** The opportunity to approach, enter and make use of public or private lands.

**Accessible:** In reference to people with disabilities, this term has specific legal meaning. The Uniform Federal Accessibility Standards (UFAS) defines a facility or site as "accessible" when it complies with standards and can be approached, entered, and used by physically challenged people. To be truly accessible, programs and facilities must offer a challenged person the opportunity to achieve experiences similar to those offered to others.

**Acre-foot:** A water measurement term equal to the amount of water that would cover an area of one acre to a depth of one foot (43,560 cubic feet).

**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.

**Activity Area:** An area of land impacted by a management activity or activities. Actual size will depend on the type of monitoring being conducted.

**Adequate Access:** A route and method of access onto nonfederal land or mining claims on federal land that provide reasonable use, enjoyment and claims consistent with similarly situated nonfederal lands and resources. Use and enjoyment of these lands and claims must also minimize damage or disturbance to National Forest System lands and resources (36 CFR 251.111). The authorizing officer prior to issuing any access authorization must also ensure that:

- (1) the landowner has demonstrated a lack of any existing routes of access available by deed or under state or local law,
- (2) the route is so located and constructed as to minimize adverse impacts on soils, fish and wildlife, scenic resources, heritage resources, threatened and endangered species, and other values of the federal land, and
- (3) when access routes exist across the adjacent nonfederal lands or the best route as determined by the authorizing officer is across nonfederal land, the applicant landowner demonstrates that all legal recourse to obtain reasonable access across adjacent nonfederal lands has been exhausted or has little chance of success.

**Adopted Visual Quality Objectives (Adopted VQO):** The VQO to be achieved as a result of management direction identified in the approved Forest Plan. Adopted VQOs represent the visual resource objective for the Forest Land Management Plan period, normally 10 years (FSH 2309.22).

**Age Class:** Groups of trees or shrubs approximately the same age.

**Air Quality Classes:** Classification established under the "Prevention of Significant Deterioration" portion of the Clean Air Act, which limits the amount of air pollution considered significant within an area. Class I applies to areas where almost any change in air quality would be significant; Class II applies to areas where the deterioration normally accompanying moderate, well-controlled growth would be permitted; Class III applies to areas where industrial deterioration would generally be allowed.

**Air Quality Related Values:** A feature or property of an area that is or has potential to be affected in some way by air pollution. General categories are: Flora, Fauna, Soil, Water, Cultural/Historic resources, Odor and Visibility.

**Airshed:** A geographic area which, because of topography, meteorology, and climate, routinely shares the same air mass. For this document, political/civil boundaries (Forests, Wilderness, counties) were also used to a lesser extent where physical boundaries were not apparent.

**All Terrain Vehicle (ATV):** Any motorized off-highway vehicle 50 inches or less in width having a dry weight of 600 pounds or less, traveling on three or more low pressure tires, having a seat designed to be straddled by the operator and handlebars for steering control.

**All-weather Road:** A road capable of being utilized during all weather conditions with only minor or short-term restrictions.

**Allotment [Range Management]:** A designated area of land available for livestock grazing upon which a specified number and kind of livestock may be grazed under a range allotment management plan. It is the basic land unit used to facilitate management of the range resource on National Forest System lands administered by the Forest Service.

**Allotment Management Plan (AMP):** The document containing the action program needed to manage the range resource for livestock utilization and possibly wildlife utilization while considering the soil, watershed, wildlife, recreation, timber and other resources on lands within a range allotment.

**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 quantity is usually expressed on an annual basis as the average annual, allowable sale quantity.

**Alluvium:** Clay, silt, sand, gravel or other rock materials transported by flowing water, and deposited in comparatively recent geologic time as sorted or semi sorted sediment in riverbeds, estuaries, floodplains, lakes and shores, and in fans at the base of mountain slopes.

**Ambient Air:** That air, external to buildings, encompassing or surrounding a specific region.

**Ambient Air Quality Standard:** The prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

**American National Standards Institute (ANSI):** Standards set by the ANSI represent general agreements among the maker, the seller and user groups as to the best current practices with regard to some specific problem or product.

**AMP:** (See "Allotment Management Plan.")

**Animal Unit Month (AUM):** The tenure of one animal-unit (considered to be one mature 1,000-pound cow or the equivalent based on the average daily forage consumption of 26 pounds of dry matter per day) for a period of one month (Society of Range Management 1974).

**Application for Permit to Drill (APD):** An application to drill an oil or gas well on a federal lease, submitted by a lessee or operator to the BLM. The APD consists of a Drilling Plan that discusses downhole specifications and procedures and is reviewed by the BLM, and a Surface Use Plan of Operations (SUPO) that examines surface uses, including access roads, well-site layout, cut/fill diagrams, reclamation procedures, production facility locations, etc., and is reviewed by the Forest Service. 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/or Forest Service.

**Appropriate Suppression Response:** The planned strategy for suppression action in terms of kind, amount and timing on a wildfire which most efficiently meets fire management direction under current and expected burning conditions. The response may range from a strategy of prompt control to one of surveillance.

**Aquatic Ecosystem:** An ecosystem (biological and physical components and their interactions) in which water is the principal medium (Odum 1971). Examples include wetlands, streams, lakes, reservoirs and areas with plants or animals characteristic of either permanent or seasonal inundated soils.

**Area of Critical Environmental Concern (ACEC):** An area established through the planning process as provided in Forest Plan where special management attention is required when such areas are developed or used or where no development is required to protect and prevent irreparable damage to important historic, cultural or scenic values, or to fish and wildlife resources or other natural systems or processes, or to protect life and afford safety from natural hazards.

**Area of Potential Effects:** The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist.

**Arterial Road:** (See "Road Functional Classification.")

**Artificial Regeneration:** The renewal of a tree crop by seeding or planting.

**ASQ:** (See "Allowable Sale Quantity.")

**AUM:** (See "Animal Unit Month.")

**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.

**Available Lands [Oil and Gas]:** National Forest and Grassland administratively available for federal oil and gas leasing (see Appendix F of FEIS for additional information).

**Average Annual Cut:** The volume of timber harvested in a decade, divided by 10, which is used as a basis for comparison of alternatives, not as a measure of nondeclining yield.

**Average Maximum Density (AMD):** The greatest average density of stands or trees that occur in natural undisturbed stands of a given quadratic mean diameter.

**Background:** A term used in visual management to describe that part of a scene or landscape that is farthest from the viewer, usually three miles to infinity from the observer.

**Bank Stability Criteria:** Factors used in the determination of bank stability. Such factors may include: density and vigor of vegetation, evidence of past or current gullying or slumping, presence of objects that may deflect water into the banks, presence and size of rocks, and distance to break-in slope.

**Barriers [Soils and Watershed]:** Temporary structures used to control erosion, such as silt fences, straw bales, rock check dams and felled logs.

**Basal Area [Timber Resource]:** The cross-sectional area of a stand of trees measured at breast height. The area is expressed in square feet per acre.

**Bedload [Watershed and Fisheries]:** Sand, silt and gravel, or soil and rock debris rolled along the bottom of a stream by the moving water. The particles of this material have a density or grain size that prevents movement far above or for a long distance out of contact with the stream bed under natural flow conditions.

**Benefiting Function:** This concept relates to the source of funding for the support needed to conduct integrated resource management projects. Congress has approved the Forest Service's proposal to require that the benefiting or primary purpose program for specific activities pay for the coordination and other support to successfully complete a project.

**Benthic Macro invertebrates:** Large invertebrates commonly found on or in the substrate of streams and lakes. Some species (e.g. caddisfly and stonefly) utilize aquatic habitats during a portion of their life histories. Because of their dependence on aquatic habitat, many species can be used as indicators of water quality.

**Best Management Practices (BMPs):** Land management methods, measures or practices intended to minimize or reduce water pollution. Usually, BMPs are applied as a system of practices rather than a single practice. BMPs are selected on the basis of site-specific conditions that reflect natural background conditions and political, social, economic and technical feasibility.

**Big Game:** Certain wildlife that may be hunted for sport under state laws and regulations. On the ARNF-PNG, these animals include elk, mule deer, white-tailed deer, antelope, moose, mountain lion, black bear, bighorn sheep and mountain goat.

**Biological Control Agents:** Natural organisms, such as insects, diseases, parasites and predators, that reduce pest populations of insects, diseases and noxious weeds.

**Biological Control Methods:** Use of natural organisms, such as insects, diseases, parasites and predators, to reduce pest populations of insects, diseases or weeds. Methods may include importation and release, conservation of native natural-enemy species, and augmentation (supplementation through rearing and release or genetic improvement) of biological control agents.

**Biological Diversity:** The full variety of life in an area, including the ecosystems, plant and animal communities, species and genes, and the processes through which individual organisms interact with one another and with their environments (Rocky Mountain Regional Guide 1992).

**Biological Evaluations:** As defined by FSM 2670.5, a biological evaluation is a documented Forest Service review of Forest Service programs or activities in sufficient detail to determine how an action or proposed action may affect any threatened, endangered, proposed or sensitive species. FSM 2672.4 identifies biological evaluation objectives and standards.

**BMPs:** (See "Best Management Practices.")

**Board Foot:** A unit of timber measurement equaling the amount of wood contained in a board 1 inch thick, 12 inches long and 12 inches wide.

**Bogs:** Areas of ground saturated with water and decayed vegetation.

**Boulders:** Rounded or angular rocks greater than 24 inches in diameter.

**Broadcast Treatments:** The uniform application of a pesticide over an entire area.

**Browse:** That part of the current leaf and twig growth of shrubs, woody vines and trees available

for animal consumption (Schwarz et al. 1976).

**Budget Line Items (BLIs):** Categories within most accounts that identify the purpose, projects, or types of activities financed. Another name for budget activities.

**Burning Period:** That part of each 24-hour period when fires spread most rapidly, typically from 10:00 am to sundown.

**Canopy, Canopy Closure (Canopy Cover), Canopy Layer:**

Canopy: The cover by vegetation and/ or branches. Often, but not always restricted to the tree layer or greater than six feet tall.

Canopy Closure/Cover: The percentage of the ground and/or sky covered by vegetation and/or branches. These are perceived from a human point of view perpendicular to flat ground.

Canopy Layer: Cover by vegetation and branches in different height intervals. These intervals are often defined in terms of vegetation, such as herbaceous or grass/forbs less than two feet tall, shrubs less than six feet tall, and overstory greater than six feet tall.

**Capital Investment:** Money spent for replacing, expanding, improving or constructing facilities or long-term assets, either tangible or intangible.

**Carrying Capacity [Wildlife and Livestock Grazing]:** The maximum number of animals that can be supported in a given environment without deteriorating that environment.

**Cavity Nesting Species:** Wildlife species that depend on cavities in trees for their shelter and/or nesting. These species include primary cavity nesters, such as woodpeckers, which excavate cavities in soft or decayed wood for nesting, and secondary cavity nesters that typically nest in natural cavities or those excavated by another species.

**Cavity Sites:** Portions of trees that can be excavated by primary cavity nesters or that contain natural cavities.

**CFR:** Code of Federal Regulations.

**Chain:** A unit of length equal to 66 feet.

**Channel:** A passage, either naturally or artificially created, that periodically or continuously contains moving water, or that forms a connecting link between two bodies of water. River, creek, run, branch and tributary are some of the terms used to describe natural channels. Natural channels may be single or braided. Canal and floodway are some of the terms used to describe artificial channels.

**Channel Capacity:** The ability of the channel flow to carry sediment downstream and through the system so that no net aggradation (buildup) of the channel results.

**Channel Classification Criteria:** Criteria used in determining stream type. For example, the Rosgen Classification System (1985) classifies streams into A through D based on stream channel slope and into 1 through 6 based on the dominant particle size of channel materials. Other factors considered include: channel entrenchment, valley confinement, sinuosity, width/depth ratio, and whether channels are single- or multiple-thread channels. Using this information, it is possible to determine whether the channel is currently in the condition it should be in.

**Channel Condition:** The condition of the channel refers to the stability of the channel determined through field observation of several factors. Channel condition is not stagnant and changes in response to climatic events as well as land management activities. To be meaningful, the condition must be considered over time.

**Channel Cross-sectional Areas:** A channel's cross section includes the floodplain as well as the channel banks and channel bottom.

**Channel Migration:** Channel migration is the movement of a stream or river channel within a floodplain area usually over an extended period of time.

**Chemical Agent:** A manufactured chemical compound.

**Chlorinated Hydrocarbons:** A class of stable, broad-spectrum, synthetic pesticides, such as DDT, Dieldrin, Aldrin, Endrin, Lindane and Chlordane.

**Class I Area:** A geographic area designated for the most stringent degree of protection from future degradation of air quality. The Clean Air Act designates as mandatory Class I areas each National Park over 6,000 acres and each Wilderness over 5,000 acres in existence as of August 7, 1977. Subsequent additions of lands to those Class I wildernesses are also considered to be Class I areas.

**Class II Area:** A geographic area designated for a moderate degree of protection from future degradation of air quality. Moderate increases in new pollution may be permitted. All wildernesses designated after August 7, 1977 and all those in existences as of August 7, 1977 that were smaller than 5,000 acres and all other National Forest Lands are automatically Class II areas.

**Classified Lands:** Lands classified by laws or regulations; such as Wilderness, RARE II, and Wild and Scenic Rivers.

**Clearcut, Clearcutting:** The harvesting in one cut of all trees in an area. The area harvested may be a patch, stand or strip.

**Clone:** A group of plants, (for example, quaking aspen) growing in close association, derived by asexual reproduction from a single parent plant.

**Closed Road:** An intermittent service road in Maintenance Level 1 that is closed to all vehicular traffic for more than one year. The closure may be ordered under the regulation 36 CFR 261.

**CMAI:** (See "Culmination Mean Annual Increment.")

**COA:** (See "Condition of Approval.")

**Coarse Gravel:** Rounded rocks generally  $\frac{3}{4}$  of an inch to 3 inches in diameter.

**Cobbles:** Rounded rocks between 3 and 10 inches in diameter.

**Code of Federal Regulations (CFR):** The listing of various regulations pertaining to management and administration of the National Forest and National Grassland.

**Collectors:** (See "Road Functional Classification.")

**Commercial Thinning:** (See "Thinning.")

**Commercial Timber Sales:** The selling of timber from National Forest System lands for the manufacture of commercial products such as lumber, plywood, etc.

**Common Variety Mineral Materials:** (See "Common Variety Minerals.")

**Common Variety Minerals:** Deposits that do not possess a distinctly special economic value, although they may have value for use in trade or manufacture. These minerals include sand, stone, gravel, pumicite, cinders and pumice.

**Community:** Any assembly of organisms living together.

**Community (Social):** The people who reside in one locality and are subject to the same laws, or who have common interests, etc.

**Community cohesion (Social):** The degree of unity and cooperation between community groups which is usually reduced when people of diverse backgrounds enter the community.

**Community lifestyles:** The ways in which residents conduct their everyday routines and how the way they live is associated with the National Forest.

**Community of Interest:** A term used to describe a planning technique that uses a public participation technique to identify community needs, issues important to communities, and working relationships necessary to resolve planning problems.

**Community stability:** A community's capacity to handle change without major hardships or disruptions to component groups or institutions. Measurement of community stability requires identification of the types and rate of proposed change and an assessment of the community's capacity to accommodate that level of change.

**Compacted Soil:** (See "Soil Compaction.")

**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 development on a lease.

**Cone Crop:** The annual production of cones.

**Confluence:** The point where two streams join together.

**Congressionally Designated (or Classified) Areas:** Lands within the boundaries of a component of the National Wilderness Preservation System, National Wild and Scenic River System, National Trails System, National Monuments, Recreation and Scenic Areas within the National Forest System, and similar areas designated by Congressional legislation (36 CFR 251.111).

**Conifer:** A group of cone-bearing trees, mostly evergreen, such as the pine, spruce and juniper.

**Consent Denials:** (See "Deny Consent.")

**Consent to Issuance of Leases:** (See "Consent for Oil and Gas Leasing.")

**Constant Service [Roads]:** A long-term facility (road) developed and operated for continuous or annual recurrent service.

**Construction (Roads):** The displacement of vegetation, soil and rock, and the installation of human-made structures involved in the process of building a complete, permanent road facility. The activities occur at a location, or corridor, that is not currently occupied by a road.

**Contingency Plan:** A back-up plan of action for implementation when actions described in the primary plan are no longer appropriate. On prescribed fires, these are the actions to be taken if the fire is declared out of prescription.

**Controlled Surface Use (CSU):** A type of supplemental stipulation used to provide additional natural resource protection when standard oil and gas lease terms are not sufficient. CSU stipulations are used where oil and gas development and occupancy are authorized, but special resource values or concerns require that lease activities be strictly controlled and/or modified. Examples could be additional requirements to protect visual resources or mitigate effects on 40-60 percent slopes.

**Convert [Vegetation]:** To change the dominant vegetative species or growth form, such as grass/forb, through vegetative management.

**Convey:** To transfer or deliver to another. To pass or transmit the title to property from one to another. To transfer property through the title to property by deed, bill of sale, or instrument under seal.

**Coppice, Coppice System (Vegetation Management):** Sprout method; a system in which the crops originate mainly from suckers, roots or stumps.

**Coppice with Standards [Aspen Management]:** A coppice system in which selected stems are retained as standards at each felling to form an uneven-aged overstory removed selectively on a rotation constituting some multiple of the coppice rotation.

**Cord:** A unit of gross volume measurement for stacked roundwood based on external dimensions; generally implies a stack of 4 feet by 4 feet vertical cross sections 8 feet long (128 stacked cubic feet).

**Corduroy [Trail Construction]:** A corduroy is similar to a puncheon, and is built out of native logs for soft areas of trails. Sill logs are laid perpendicular to the roadway, and spaced at fairly close intervals. Stringer logs are notched longitudinally onto the top of the first layer of logs. Log or split-log decking may or may not be installed.

**Corridors, Forested:** Areas (at least 20 acres and 300 feet wide) of relatively dense trees (40 percent or more crown closure in poles, mature or old growth) with gaps or interruptions of other conditions no wider than 300 feet.

**Corridors, Open:** Areas (at least 300 feet wide) of grass, forbs, shrubs or rock with gaps or interruptions of other conditions no wider than 300 feet.

**Corridor [Utility or Rights-of-Way]:** A linear strip of land defined for the present or future location of transportation or utility rights-of-way within its boundaries.

**Cost Effective:** Achieving specified outputs or objectives under given conditions for the least cost.

**Cost Efficient:** A comparative measure of economic efficiency determined by maximizing the present net worth or value of an alternative, subject to meeting the objectives of the alternative.

**Council on Environmental Quality (CEQ):** An advisory council to the President established by the National Environmental Policy Act of 1969.

**Cover Type:** The dominant land surface, including both vegetation and nonvegetation. Vegetation cover types are named for one plant species or nonvegetated condition presently (not potentially) dominant, using canopy or foliage cover as the measure of dominance. In several cases, sites with different species dominant have been lumped together into one cover type; codominance is not necessarily implied.

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

**Critical Habitat** (Concerning federally listed Threatened, Endangered and Proposed Species): Habitat of federally listed threatened or endangered species where those physical and biological features essential to conservation of the species are found and which may require special management considerations or protection. This habitat may currently be occupied or determined by the Secretary of the Interior to be essential for areas outside the species' current range.

**Crown [Vegetation]:** The upper part of a tree or other woody plant carrying the main branch system and foliage, and surmounting at the crown base a more or less clean stem.

**Crown Closure:** (See "Canopy Cover.")

**Crown Density:** The thickness, both spatially in depth and in closeness of growth (compaction), of an individual crown, such as its opacity as measured by its shade density.

**Crown Height:** For a standing tree, crown height is the vertical distance from ground level to the base of the crown, measured either to the lowest, live branch-whorl or to the lowest live branch, excluding shoots arising spontaneously from buds on the stem of a woody plant or to a point halfway between.

**Cubic Foot:** A unit of measure usually referring to wood volume (1 foot wide x 1 foot long x 1 foot thick).

**Cull Logs:** Logs that do not meet commercial specifications due to defects in the wood.

**Culmination Mean Annual Increment (CMAI):** The point at which a tree or stand achieves its greatest average growth, based on expected growth, according to the management systems and utilization standards assumed in the Forest Plan.

**Cultural Properties:** (See "Historic Property.")

**Cultural Resources:** (See "Heritage Resources.")

**Cumulative Effects:** Collective results of past, present and reasonably foreseeable future actions, regardless of which agency or person undertakes the actions.

**Cut-to-length Harvest:** Trees cut to specified lengths in the woods and transported to the landing by way of a forwarder, which is a machine that loads and carries logs.

**Cutover Area:** Timber stands that have been cut.

**Cutting Cycle:** The planned, recurring lapse in time between successive cutting in a timber stand.

**D.B.H.:** (See "Diameter at Breast Height.")

**Deadfall [Vegetation]:** A fallen dead tree.

**Decadence [Vegetation]:** A process, condition or period of deterioration or decline. Deterioration of vigor, especially as related to a vegetative community.

**Decision Documents:** Documents that provide the criteria and information used in the formulation and evaluation of alternatives and the preferred alternative.

**Decking Areas:** (See "Landing.")

**Decks:** Cut timber, sawlogs or cull logs removed from logging units and stacked.

**Defensible Fuel Profile Zone (DFPZ):** A strategically located corridor or patch in the landscape where the vertical and horizontal fuel profile has been broken up, reducing the likelihood of extreme fire behavior; e.g., stand-replacement fires.

**Deferred Rotation [Grazing]:** Discontinuance of grazing on various parts of a range in succeeding years, which allows each part of the range to rest successively during the growing season to permit seed production, establishment of seedlings or restoration of plant vigor. Each rested part of range is grazed during the year. Two, but usually three or more, separate grazing units are required.

**Design Capacity:** The maximum theoretical amount of use a developed recreational site was built to accommodate. This is usually expressed in PAOTs (Persons at One Time).

**Design Standard [Recreation]:** Approved design and construction specifications for recreational facilities, which includes specified materials, colors and dimensions.

**Designated Wild and Scenic River:** A river which is part of the National Wild and Scenic River System.

**Desired Condition:** (See "Desired Future Condition.")

**Desired Future Condition, Desired Ecological Condition:** The combination of desirable attributes to be attained in the future by management of a national forest. For scenery management, desired future condition is comprised of interrelated components, including desired travelways, desired use areas, desired landscape character and desired scenic condition.

**Detrimental Compaction (Soils):** A 15 percent increase in bulk density from the average undisturbed density or bulk density values that exceed a threshold value, which varies from 1.25 g/cc for silt and clay to 1.6 g/cc for sand and loamy sand. Refer to FSM 2509.18, R2 Supplement, page 2.

**Detrimental Erosion:** Sheet, rill and gully erosion. Sheet is the loss of soil from the soil surface. Rill and gully erosion are erosion channels greater than 3/4 inch in diameter.

**Detrimental Displacement:** The removal of soil from a continuous area of 100 square feet or more.

**Detrimental Puddling:** Occurs in conjunction with detrimental compaction.

**Developed Recreation:** This type of recreation is dependent on facilities provided to enhance recreational opportunities in concentrated use areas. Examples include campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts and buildings.

**Developed Recreation Sites:** Relatively small, distinctly defined areas where facilities are provided for concentrated public use, such as campgrounds, picnic areas and swimming beaches.

**Development Well and Full Field Development [Leasable Minerals]:**

Development Well: Well drilled in proven territory in a field to complete a pattern of production.

Full Field Development: The drilling of the necessary development wells and associated field facilities, including roads, production facilities, pipelines, injection wells and power lines.

**Development Roads:** (See "Forest Development Roads.")

**Diameter at Breast Height (D.B.H.):** The diameter of a standing tree at a point 4 feet, 6 inches from ground level.

**Direct Effects:** Results of an action occurring when and where that action takes place.

**Direction 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.

**Discovery Well [Oil and Gas]:** A well that yields commercial quantities of oil and gas.

**Discretionary Authority :** (See "Discretionary `No Lease'.")

**Discretionary "No Lease" [Oil and Gas]:** Forest Service discretionary authority to remove sensitive resource lands from oil and gas leasing. Authority must be based on sound management justification. The Federal Onshore Oil and Gas Leasing Reform Act of 1987 expanded the Forest Service authority to include a "discretion" to consent on all National Forest System lands with leasable minerals. According to the Reform Act, the BLM may not issue an oil and gas lease on National Forest System lands without consent from the Forest Service.

**Dispersed Recreation:** This type of recreational use requires few, if any, improvements and may occur over a wide area. This type of recreation involves activities related to roads, trails and undeveloped waterways and beaches. The activities do not necessarily take place on or adjacent to a road, trail, or waterway, only in conjunction with them. Activities are often day-use oriented and include hunting, fishing, boating, off-road vehicle use, hiking and others.

**Distance Zones and Seen Areas:** Areas of landscapes viewed by specified distances from the observer (foreground, middle ground or background). Used as a frame of reference with which to discuss landscape characteristics of management activities.

**Diversity:** Diversity refers to plant and animal communities and species within the planning area. This term comes from the National Forest Management Act (219.27).

**Down and Dead Woody Material, Down Logs, Down Woody Material (Vegetation):** Woody material, from any source, that is dead and lying on the forest floor.

**Draft Environmental Impact Statement (DEIS):** The statement of environmental effects required for major federal actions under Section 102 of the National Environmental Policy Act and released to the public and other agencies for comment and review.

**Duff:** The more or less firm organic layer on top of mineral soil, consisting of fallen vegetative matter in the process of decomposition, including everything from pure humus below the surface to litter on the surface.

**Dump [Minerals]:** A large heap of rock or refuse, usually the waste product resulting from mining operations.

**Dump and Tailings Stability:** Dump and tailings refer to the placement of waste material after raw minerals or ore have been processed. Tailings are separated as refuse or separately treated as inferior in quality or value. Stability refers to the resistance to change or dislodgement that dump and tailings piles have to forces of nature.

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

**Ecoregion:** A continuous geographic area over which the macro-climate is sufficiently uniform to permit development of similar ecosystems on sites with similar properties. Ecoregions contain multiple landscapes with different spatial patterns of ecosystems.

**Ecosystem:** Living organisms interacting with each other and with their physical environment, usually described as an area for which it is meaningful to address these interrelationships.

**Ecosystem Management:** The use of an ecological approach to achieve the multiple-use management of national forests and grasslands by blending the needs of people and

environmental values in such a way that national forests and grasslands represent diverse, healthy, productive and sustainable ecosystems.

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

**Edge:** The place where plant communities meet or where successional stages or vegetative conditions within plant communities come together (Thomas 1979).

**Effective Ground Cover:** All living and dead herbaceous and woody materials in contact with the ground and all rocks greater than 3/4 of an inch in diameter that can effectively stop erosion.

**Effects [Heritage Resources]:** Impacts to the characteristics that qualify a heritage resource for the National Register of Historic Places. These can include alterations in location, setting, use, design, materials, feeling and association. Adverse effects include: (1) physical destruction or damage, (2) isolation from or alteration of setting, (3) introduction of visual, audible or atmospheric elements, (4) physical deterioration from neglect or from any action, and (5) transfer, lease or sale.

**Egress:** Path by which a person goes out; exit. The means or act of going out. Often used with the word "access."

**EIS:** (See "Environmental Impact Statement.")

**Eligible [Heritage Resources]:** Indicates a specific heritage resource qualifies for or is already listed in the National Register of Historic Places.

**Eligible Wild and Scenic River:** Candidate river that is free flowing and contains at least one outstandingly remarkable value.

**Encroachments:** Improvements occupied or used on National Forest System lands without authorization.

**Endangered Species:** Any species of animal or plant in danger of extinction throughout all or a significant portion of its range and so designated by the Secretary of Interior according to the Endangered Species Act, as amended.

**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. It is prepared first in draft or review form and then in a final form. An impact statement includes the following points: (1) the environmental impact of the proposed action, (2) any adverse impacts that cannot be avoided by the action, (3) the alternative courses of actions, (4) the relationships between local short-term use of the human environment and the

maintenance and enhancement of long-term productivity, and (5) a description of the irreversible and irretrievable commitment of resources, which would occur if the action were accomplished.

**Ephemeral Streams:** (1) A stream or portion of a stream that flows briefly in direct response to precipitation in the immediate vicinity, and whose channel is at all times above the water table. (2) Ephemeral areas drain water to intermittent stream channels. These carry the water to perennial streams, which flow to the watershed outlet. Any sediment created by soil erosion during logging or road-building activities can be carried by way of the ephemeral, intermittent and perennial stream channels to the watershed outlet. Ephemeral areas generally occur above the upper reaches of intermittent streams. Since they can direct water into intermittent stream channels, care should be taken to minimize disturbing soil in these areas.

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

**Erosion Hazard Rating:** The probability of soil loss resulting from complete removal of vegetation and litter. It is an interpretation based on potential soil loss.

**Escaped Fire:** A fire which has exceeded, or is anticipated to exceed, preplanned initial action capabilities or the fire management direction.

**Escape Route [Fire Management]:** A path of travel to get away from danger, such as the threat of wildfire.

**Essential Habitat:** Those areas designated by the Regional Forester as possessing the same characteristics as critical habitat without having been declared as critical habitat by the Secretary of the Interior. The term includes habitats necessary to meet recovery objectives for endangered, threatened and proposed species and those habitats necessary to maintain viable populations of sensitive species.

**Evaluation:** The analysis and interpretation of information collected through monitoring of Forest Plan implementation.

**Evapotranspiration:** The sum total of water lost from the land by evaporation and plant transpiration. Transpiration is loss of water in vapor form from a plant.

**EVC:** (See "Existing Visual Condition.")

**Even-aged (Vegetation):** A forest stand composed of trees having no or relatively minor differences in age.

**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. Managed even-aged forests are characterized by a distribution of stands of varying ages (and therefore, tree sizes) throughout the forest area. The difference in age between trees forming the main canopy level on a stand

usually does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time of harvest. Clearcut, shelterwood or seed-tree cutting methods may produce even-aged stands.

**Even-flow [Timber]:** Maintaining a relatively constant supply of timber from decade to decade.

**Excavators [Wildlife]:** Bird species that excavate nest cavities in trees.

**Exception [Oil and Gas]:** 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 applies.

**Executive Order:** An order or regulation issued by the President or some administrative authority under his or her direction.

**Existing Road System:** All existing roads, owned or administered by various agencies, that are wholly or partly within or adjacent to and serving the National Forests and other areas administered by the Forest Service, or intermingled private lands (ref: FSM 7705.21). These roads may or may not be included on the current Forest Transportation Inventory, but are evident on the ground as meeting the definition of a road.

**Existing Visual Condition (EVC):** The present state of the visual condition, which is measured in degrees of deviation from the natural appearance of the landscape. EVC ratings are established to give the land manager an indication of the current level of visual quality and visual evidence of management activities. EVC levels are as follows:

Level 1: Areas in which only ecological change has taken place except for trails needed for access. They appear to be untouched by human activities.

Level 2: Areas in which changes in the landscape are not visually evident to the average person unless pointed out. They appear to be unnoticed.

Level 3: Areas in which changes in the landscape are noticed by the average forest visitor, but they do not attract attention. The natural appearance of the landscape still remains dominant. They appear to be minor disturbances.

Level 4: Areas in which changes in the landscape are easily noticed by the average forest visitor and may attract some attention. They appear to be disturbances but resemble natural patterns.

Level 5: Areas in which changes in the landscape are strong and would be obvious to the average forest visitor. These changes stand out as a dominating impression of the landscape. Yet they are shaped so that they might resemble natural patterns when viewed from 3-5 miles or more distant. They appear to be major disturbances.

Level 6: Areas in which changes in the landscape are in glaring contrast to the natural appearance. Almost all forest visitors would be displeased with the effect. They appear to be drastic disturbances.

**Expanded Budget Line Items (EBLIs):** A further disaggregation of financed budget activities that are identified for accountability purposes by the Congress. The Forest Service allocates

funds to field units in these categories and compares planned to actual expenditures as part of it's Congressional intent analysis.

**Exploration and Wildcat Wells [Oil and Gas]:** Wells drilled to test for the presence of oil or gas in a previously undeveloped area. Nine out of ten wildcats are dry holes.

**Facility:** Structures needed to support the management, protection and utilization of the National Forests, including buildings, utility systems, dams and other construction features. There are three categories of facilities: recreation, administrative and permitted.

**Federal Land Policy and Management Easements:** Federal Land Policy and Management Act (FLPMA) easements are issued when requested by landowners who are entitled to access. This is a special-use authorization for a right-of-way that conveys a conditional interest in National Forest System land.

**Fee Site [Recreation]:** A Forest Service recreational area in which users must pay a fee. Fee sites must meet certain standards and provide certain facilities.

**Fee Title [Landownership]:** The full and complete possessory ownership of a parcel of land. An inheritable estate. The greatest interest in property that a person can have.

**Fen:** Low-lying marshy land, partially covered with water.

**Final Cutting:** (1) Generally, removal of the last trees left in a stand. (2) Removal of the last seed bearers or shelter trees after regeneration is considered to be established. Under a shelterwood method, final cutting is the last removal cutting.

**Fire Dependent:** An ecosystem evolving under periodic perturbations by fire and that consequently depends on periodic fires for normal ecosystem functioning.

Fire-maintained: Ecosystems where light fires reduce the occurrence of destructive fires by selectively thinning and pruning the vegetation and removing the buildup of dead fuels.

Fire-initiated: Ecosystems where infrequent catastrophic fires simultaneously terminate and initiate long-lived species.

**Fire Management:** All activities required for the protection of wildland values from fire and the use of fire to meet land management goals and objectives.

**Fire Management Plan (FMP):** The fire implementation schedule that documents the fire management program and direction for the approved Forest Plan alternative.

**Fire Regime:** The kind of fire activity (e.g., frequency and intensity, severity) that characterizes a specific location.

**Fire Resource Advisor:** A representative of the unit manager assigned to an Incident Management Team to advise them on issues and concerns specific to the area of the incident.

The Resource Advisor should be familiar with the land, resources at risk, local political concerns, Land Management Plan and policy directions and have some knowledge of fire suppression strategies and tactics applicable to the incident.

**Fire Severity:** Fire impact on the organism, community, or ecosystem.

High-severity: A high-severity fire is one that burns through the overstory and consumes large woody surface fuels, or removes the entire duff layer, or both, over much of the area. Heat from the fire impacts the upper soil layer and often consumes the incorporated soil organic matter. Such a fire may kill most (>70%) or all overstory trees and return the community to the beginning of secondary succession.

Moderate-severity: A moderate-severity fire burns in surface fuels but may involve a tree understory as well. It consumes litter, upper duff, understory plants, and foliage on understory trees. Individual and groups of overstory trees may torch out if ladders exist.

Low-severity: A low-severity fire is one that has minimum impact on the site. It burns in surface fuels only the litter, herbaceous fuels, and foliage and small twigs on woody undergrowth. Very little heat travels downward through the duff.

**Firewood:** (See "Fuelwood.")

**Fiscal Year (FY):** Within the Forest Service, the fiscal year includes October 1 to September 30. The Fiscal Year is referred to by the calendar year beginning January 1. For example, October 1, 1991, to September 30, 1992, is referred to as Fiscal Year 1992.

**Fisheries Habitat:** Streams, lakes and reservoirs that contain and support fish.

**Flame Length:** An indicator of fire intensity measured from the base of the flame to the tip of the flame.

**Fledging:** The period during which young birds leave the nest to learn to fly and forage.

**Flood Hazard Reduction:** Steps taken to reduce the potential of hazard from high flows. These steps may include: (1) ensuring that channel width has not been narrowed either directly by the placement of material on the inside of banks or effectively by the placement of objects within the channel or potentially by undermining trees or other objects that fall into the channels, (2) ensuring that channel depth has not been lessened and (3) ensuring that trees have not fallen across the channel in such a way as to increase the potential of formations of dams caused by debris.

**Floodplain:** That portion of a river valley, adjacent to the channel, which is built of sediments deposited during the present regimen of the stream and covered with water when the river overflows its banks at flood stages.

**Floodway:** That portion of the floodplain effective in carrying flow, within which this 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).

**Forage:** Vegetation used for food by wildlife, particularly ungulate wildlife and domestic livestock (Thomas et al. 1979).

**Forbs:** Any herbaceous plant other than those in the grass, sedge and rush families. For example, any nongrass-like plant that has little or no woody material (Wildland Planning Glossary 1976).

**Foreground:** A term used in visual management to describe that part of a scene or landscape that is nearest to the viewer, usually within one-quarter to one-half mile from the observer.

**Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA):** An Act of Congress requiring the preparation of a program for the management of the National Forests' renewable resources, and of land and resource management plans for units of the National Forest System. It also requires a continuing inventory of all National Forest System lands and renewable resources.

**Forest Development Roads:** A Forest road under the jurisdiction of the Forest Service. Forest Development roads are not intended to meet the transportation needs of the public at large. Generally, these are roads constructed to a standard to serve expected traffic generated by resource management. Although generally open and available for public use, the Forest Service may restrict or control use to meet specific management direction.

**Forest Development Trails:** As defined in 36 CFR 212.1 and 261.2, those trails wholly or partly within or adjacent to and serving the National Forests and other areas administered by the Forest Service that have been included in the Forest Development Transportation Plan. A trail is a pathway for purposes of travel by foot, stock or trail vehicle.

**Forest Development Transportation Facility:** An access road, trail, waterway, or airfield wholly or partly within, or adjacent to, and serving a National Forest System and other lands administered by the Forest Service, which has been included in the Forest Development Transportation Plan.

**Forest Development Transportation Plan:** The plan for the system of access roads, trails and airfields needed for the protection, administration and utilization of the National Forests and other lands administered by the Forest Service, or the development and use of resources upon which communities within or adjacent to the National Forests are dependent (36 CFR 212.1).

**Forest Development Transportation System:** Those facilities, Forest Development roads, trails, and airfields in the transportation network and under Forest Service jurisdiction.

**Forest Facility Master Plan:** The plan that depicts the development and management of the Forest's facilities. This includes current volume of business and projections for the future, locations for needed skills to perform program work, existing administrative sites and proposed locations of new sites, and management strategies concerning consolidation or sharing services between units (FSM 7312.1).

**Forest Plan Amendment:** Formal alteration of the Forest Plan by modification, deletion or addition based upon nonsignificant changes. Nonsignificant changes are minor modifications of management direction. Significant changes are major alternations of specific management prescription direction or land use designations. Unlike a complete Plan revision; an amendment addresses only the issues that trigger a need for change. Amendments must satisfy both NFMA and NEPA procedural requirements, including appropriate public notification.

**Forest Supervisor:** Official responsible for administering the Arapaho and Roosevelt National Forests and Pawnee National Grassland. The Forest Supervisor reports to the Regional Forester.

**Forest System Roads:** Roads that are part of the Forest Development Transportation System, which includes all existing and planned roads, as well as other special and terminal facilities designated as part of the Forest Development Transportation System.

**Forest Visitor Map:** Forest Visitor Maps depict detailed information concerning National Forests, National Recreation Areas and Special Interest Areas. The format is an entire National Forest or entire subdivision thereof. Forest Visitor Maps are available to the public at a price that reimburses the cost of printing and distribution.

**Forested Area:** Land at least 10 percent of which is occupied by trees of any size or formerly having had such tree cover, and not currently developed for nonforest use. Lands developed for nonforest use include areas for crops, improved pastures, residential or administrative areas, improved roads of any width, and adjoining road clearing and power line clearing of any width.

**FORPLAN Model:** A linear programming system used for developing and analyzing Forest planning alternatives.

**Forwarders [Timber Management]:** Mechanized equipment used to move logs from the stump to the landing on slopes generally less than 35 percent.

**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 here considered fossils. Fossils of scientific value may occur within or in association with such materials.

**Fourth-order Watersheds:** (See "Watershed.")

**Four-wheel-drive Way [Roads]:** A Forest Development road included in the Forest Development Transportation Plan and commonly used by four-wheel-drive, high-clearance vehicles with a width greater than 50 inches.

**Fragmentation:** Reduction of habitat through loss of functional habitat and the isolation of the remaining patches within an ecosystem (Grumbine 1992).

**FSH:** Forest Service Handbook.

**FSM:** Forest Service Manual.

**Fuels:** Combustible plant material, both living and dead, that is capable of burning in a wildland situation.

Activity: Fuels resulting from or altered by forestry practices, such as timber harvest or thinning.

Natural: Fuels resulting from natural processes and not directly generated or altered by land management practices.

**Fuel Loading:** The quantity of fuel in a given area, usually expressed in tons per acre or pounds per square foot.

**Fuel Profile:** The mosaic of fuel as it occurs on an area of land over time and space.

Most Cost-Efficient Fuel Profile: The fuel profile that minimizes the sum of pre-suppression cost, including fuel treatment, suppression cost, and net value change.

**Fuel Profile Flammability:** The intensity (flame length) a given fuel profile will burn at the 90th percentile weather.

**Fuel Treatment:** Any manipulation or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control, including lopping, chipping, crushing, piling and burning (syn. fuel modification).

**Fuels:** The organic materials that will support the start and spread of a fire: duff, litter, grass, weeds, forbs, brush, trees and dead woody materials.

**Fuelwood:** Round, split or sawed wood cut into short lengths for burning as fuel.

**Full-Time Equivalent (FTE):** The equivalent of a work year that consists of one or more persons working a total of 2080 hours.

**FY:** (See "Fiscal Year.")

**General Mining Law:** (See "Mining Law of 1872.")

**Genetic Diversity:** The genetic variation present in individuals, populations or species.

**Geographic Information System (GIS):** Computer hardware and software that permits overlaying physical, biological, social, and economic information for display on maps.

**Geologic Hazard Rating:** (See "Mass Wasting.")

**Geophysical Prospecting:** Prospecting for minerals, mineral fuels or the nature of the Earth's

materials by measuring the various physical properties of the rocks, and interpreting the results in terms of geologic feature 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.

**Geothermal Resources:** Of or relating to the heat of the Earth's interior.

**Goods and Services:** The various outputs, including on-site uses, produced from forest and rangeland resources (36 CFR 219.3).

**Grant:** A grant passes some estate or interest, corporeal or incorporeal, in the lands that it embraces. To give or permit as a right or privilege, such as a grant of route authority.

**Grass/Forb, Grass/Forb Stage (Structural Stage 1):** An early forest successional stage during which grasses and forbs are the dominant vegetation, and nonforest sites where grasses and forbs are the dominant cover types (e.g. meadows, grasslands, and prairies).

**Grazing Capacity:** The maximum number of livestock under management that a given range area is capable of supporting within guidelines found in the allotment management plan.

**Green Slash:** Wood residue left on the ground after logging that still contains moist phloem tissue and wood and may be susceptible to attack by bark beetles, generally within one year after cutting.

**Groomed Snowmobile Route:** A snow covered route over which machines operate to pack and smooth the snow for snowmobile use.

**Groundwater:** Water within the Earth that supplies wells and springs. Specifically, water in the zone of saturation where all openings in soils and rocks are filled; the upper surface level forms the water table.

**Group Selection:** A silvicultural system in which the canopy is opened, by group cuttings, so as to create fairly evenly distributed gaps that are enlarged by subsequent cuttings as the groups of regeneration develop; regeneration is mainly natural, though young seedlings may be planted and the resultant crop is more or less uneven-aged.

**Growing Season:** The months of the year a species of vegetation grows.

**HABCAP:** A model designed to evaluate the capability of habitats to support a variety of wildlife species based on the combination of forest ecosystems and structural stages.

**Habitat:** The sum total of environmental conditions of a specific place occupied by a wildlife species or a population of such species (Thomas 1979).

**Habitat Effectiveness:** The degree to which habitat is free of human disturbance and available for wildlife to use. Effective habitat is mostly undisturbed land area which is buffered (at least 300 feet in essentially all situations) from regular motorized and nonmotorized use of roads and trails (11 more people or vehicle trips per week).

**Habitat Type:** Plant association based on climax overstory species and in indicator understory species.

**Half Lives:** The time required for half of a chemical agent to undergo decay to a neutral chemical compound.

**Hard Snags:** A dead or partially dead tree composed primarily of sound wood, particularly sound sapwood, which is generally merchantable (Thomas et al. 1979).

**Hardened Sites [Recreation]:** Developed recreation sites where techniques have been used to protect natural resources (soil, water, vegetation, etc.) from overuse. For example, vehicles may be confined to roads by barriers, or gravel and pavement may be placed on roads, walkways and under picnic tables.

**Hardwood:** Pertains to broadleaf trees or shrubs.

**Hazard Reduction:** (See "Fuel Treatment.")

**Herbaceous Fuels:** Grasses, forbs and other plants that contain little woody tissue.

**Herbicide:** A chemical substance used for killing plants.

**Heritage Resources:** The physical remains (including but not limited to artifacts, structures, landscape modifications, rock art, trails or roads) and conceptual content or context (as a setting for legendary, historic or prehistoric events, such as a sacred area for native peoples) of an area.

**Historic Property:** Any prehistoric or historic district, site, building, structure or object included in or eligible for inclusion in the National Register. This term includes artifacts, records and remains related to and located within such properties (36 CFR 800.2 (e)).

**Horizontal Diversity:** The diversity in an area that results from the number and arrangement of plant communities or successional stages or both; the greater their number, the greater the horizontal diversity. Also, the greater the amount of edge, the higher the degree of horizontal diversity (Thomas et al. 1979).

**Human-caused Risk [Fire Management]:** A number related to the potential of fire starts originating from human activities to which a protection unit will be exposed during the rating period.

**Humus:** The more or less stable portion of the soil's organic matter near the surface that remains after the major portion of plant or animal residues have decomposed.

**IDT:** (See "Interdisciplinary Team.")

**Ignition:** The initiation of combustion.

Planned: A fire started by a scheduled, deliberate management action (see management ignited).

Unplanned: A fire started at random by either natural or human causes or a deliberate incendiary fire.

**Impact [Economic]:** The change, positive or negative, in economic conditions, including distribution and stability of employment and income in affected local, regional, and national economies, which directly or indirectly results from an activity, project, or program.

**IMPLAN PRO Model:** An input-output model that performs the economic impact analysis which is used to evaluate the employment and income impacts associated with the proposed output and activity levels for each of the land management planning alternatives.

**Implementation:** Those activities necessary to initiate the actions in the approved land and resource management plan.

**Inactive Raptor Nest:** A raptor nest where no discernible activity has been observed for five years.

**Indigenous Species:** Animals or plants that originated in the area in which they are found; for example, animals or plants that were not introduced after frontier settlement and that naturally occur in an area.

**Indirect Effects:** Results of an action occurring at a location other than where the action takes place and/or later in time, but in the reasonably foreseeable future.

**Infrastructure:** The facilities, utilities and transportation systems needed to meet public and administrative needs.

**Ingress:** The act or right to enter; access; entrance.

**Inholdings:** Lands within the proclaimed boundaries of a National Forest that are owned by some other agency, organization or individual.

**Initial Attack:** Initial action; the prompt, preplanned response to a wildfire to meet fire management direction.

**Insect and Disease Epidemics:** High population levels of insect or disease pests that cause substantial injury to plant or animal hosts.

**Insect and Disease Suppression:** Management practices applied to reduce insect and disease pest populations or damage. Insect and disease suppression includes actions taken to limit the spread of pests or to reduce susceptibility of hosts in imminent danger of being attacked.

**Insecticide:** A chemical or biological agent formulated to kill insects.

**Instream Fisheries Habitat:** Cumulative physical (e.g., temperature or channel morphology) and biological (e.g., invertebrate communities, vegetation) components that affect the quality of stream habitat. This instream habitat is also affected by inputs from the adjacent terrestrial ecosystems.

**Instream Flow:** The amount of water set aside and not available for development. It is water left in the river or stream for beneficial use by fish and wildlife, and for consideration of water quality, recreation and aesthetic requirements. As a beneficial use, instream water is a demand that must compete with other uses, such as irrigation, mining, municipal water supply (Bovee 1975).

**Instream Flow Standards:** Channel flow required to allow for good fisheries habitat.

**Integrated Pest Management (IPM):** A process for evaluating and selecting a program from available techniques to reduce pest populations in an ecologically, economically and socially acceptable manner. Programs may include one or a combination of available techniques, which may include the use of pesticides, cultural or silvicultural treatments, biological control agents, host resistance, genetic control, mechanical destruction or trapping, and behavioral chemicals including attractants and repellants.

**Interdisciplinary Team (IDT):** A group of individuals with different specialized training assembled to solve a problem or perform a task. The team is assembled out of recognition that no one discipline is sufficiently broad to adequately solve the problem. Through interaction, participants bring different points of view and a broader range of expertise to bear on the problem.

**Interest [Landownership]:** A general term to denote a right, claim, title or legal share in real estate (Black 1979).

**Interior Forest:** Areas of relatively dense (40 percent or more crown closure) and large trees (mature or old growth) that are buffered (at least 300 feet) from temperature, light and humidity differences of sizable openings, and also from human disturbance of regularly used roads and trails (11 or more people or vehicle trips per week).

**Intermediate Cut [Timber Management]:** Any removal of trees from a stand between the time of their regeneration and the final harvest.

**Intermittent Service [Roads]:** A facility developed and operated for periodic service and closed for more than one year between periods of use.

**Intermittent Stream:** (1) A stream that flows only 50 to 90 percent of the year when it receives water from some surface source such as melting snow. (2) A stream that does not flow continuously, as when water losses from evaporation or seepage exceed the available streamflow.

**Intermix:** (See "Wildland/Urban Interface.")

**Intermodal Surface Transportation Efficiency Act (ISTEA):** On December 18, 1991, the President signed the Intermodal Surface Transportation Efficiency Act (ISTEA), which provides authorizations for highways, highway safety, and mass transportation for the ensuing six years. The purpose of the Act is "to develop a National Intermodal Transportation System that is economically efficient, environmentally sound, provides for the foundation for the Nation to compete in the global economy and will move people and goods in an energy efficient manner."

**Interpretation:** An educational activity or opportunity designed to provide first hand experience rather than providing just factual information. To provide opportunities to explore feelings, provide sensitivity to beauty, allow discovery, or a sense of wonder or stimulate a desire to know about a variety of ideas and topics including the interrelationships of the environment, how to minimize impacts on resources and to promote understanding of the agency and its programs.

**Inventoried Roadless Areas (IRA):** Roadless Areas that were analyzed in the Revision for possible recommendation to Congress for wilderness designation, and found to meet the criteria for wilderness as defined in the Wilderness Act of 1964. IRAs are "capable" of designation.

**IPM:** (See "Integrated Pest Management.")

**Ips [Pine Engraver Beetle]:** A genus of bark beetle that feeds beneath the bark of pines, typically killing branches, tops or entire trees. These beetles often breed in logging slash or attack stressed and injured pines.

**Irregular Shelterwood [Timber Management]:** A silvicultural method characterized by a relatively long regeneration period during which some of the trees of the overwood are retained to complete growth to optimum size and quality. The trees reserved may be the best and most vigorous of the dominants, as in typical shelterwood cuttings. They may also be trees of the lower crown classes that have grown slowly in the past, but are capable of rapid growth if released. In either case, the reserved trees tend to hamper the development of regeneration beneath them so that the new stand will have a distribution of ages broader than that of truly even-aged stands.

**Irretrievable, Irretrievable Commitments:** Applies to losses of production or use of renewable natural resources for a period of time. For example, road construction leads to an irretrievable loss of the productivity of the land under which the road is located. If the road is later obliterated, the land may eventually become productive again. The production lost is irretrievable, but the action is not irreversible.

**Irreversible, Irreversible Commitments:** Decisions causing changes that cannot be reversed. For example, if an area is mined, that area cannot, at a later date, be allocated to some other resource activities, such as Wilderness. Once mined, the ability of that area to meet Wilderness criteria, for instance, has been irreversibly lost. Irreversible commitments often apply to nonrenewable resources, such as minerals and heritage resources.

**Jurisdiction [Transportation]:** The legal right to control or regulate use of a transportation facility. Jurisdiction requires authority, but not necessarily ownership. The authority to construct or maintain a road may be derived from fee title, and easement, or some other similar method.

**Key Grazing Areas:** That portion of a pasture or grazing unit which, because of its nature, location and grazing use, serves to control the pattern of grazing use for the pasture as a whole.

**Key Management Species [Grazing]:** Major forage species on which management should be based.

**Keystone Species:** Animals which, by virtue of their presence, alter the structure of a community (Krebs 1978).

**Known Geologic Structures (KGS):** A trap in which an accumulation of oil and gas has been discovered by drilling and which is determined to be productive. Its limits include all acreage that is presumptively productive.

**Knutson-Vandenberg Act:** Legislation authorizing the collection of money from timber sale receipts for reforestation, stand improvements, and other resource improvement or mitigation projects on timber sale areas.

**Land Exchange:** The conveyance of nonfederal land or interests to the United States in exchange for National Forest System land or interests in land.

**Land Management Plan:** A plan developed for an individual National Forest's renewable resource goals, objectives, standards, and guidelines for environmentally sound management of those resources in a given period of time. The plan is supported by analysis of the management situation, including demand and supply conditions for resources and services, production potentials, and use and development opportunities.

**Land Ownership Adjustments:** Lands acquired through purchase, donation, exchange, transfer, sale, grant, and selection.

**Landline [Land Survey]:** For Forest Plan purposes, National Forest property boundaries.

**Landing [Timber Management]:** Any place where round timber is assembled for further transport.

**Landscape [Scenic Resources]:** A portion of the Earth's surface, including its landform, rockforms, waterforms, vegetative patterns, structures, character, and condition.

**Landscape [Silviculture]:** The primary unit of analysis for silviculture. A landscape for purposes of silviculture is a diversity unit or a fourth-order watershed.

**Landscape Scale:** A heterogenous land area composed of a cluster of interacting ecosystems that are repeated in similar form throughout. Landscapes vary in size from many thousands of acres to only a few acres (Forman and Godron 1986).

**Leaders [Vegetation]:** The terminal topmost shoots characteristic of the growth of certain plants or trees.

**Leasable Minerals:** Those minerals or materials designated as leasable under the Minerals Leasing Act of 1920. They include coal, phosphate, asphalt, sulphur, potassium, sodium minerals and oil and gas. Geothermal resources are also leasable under the Geothermal Stream Act of 1970.

**Lease [Oil and Gas]:** An oil and gas lease grants the right to explore, develop, extract and dispose of a specific mineral or minerals in lands covered by the lease, subject to various terms and conditions. Oil and gas leases are issued by the Bureau of Land Management (BLM), Department of Interior. On National Forest System lands, leases are issued with Forest Service authorization.

**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 alteration 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 Notice [Oil and Gas]:** Provides more detailed information concerning limitations that already exist in law, lease terms, regulations or operational orders. A Lease Notice also addresses special items the lessee would need to consider when planning operations, but does not impose new or additional restrictions. Lease Notices attached to leases should not be confused with Formal Information Notices or Notice to Lessee.

**Lease Stipulations [Oil and Gas]:** Additional specific terms and conditions that change the manner in which an operation may be conducted on a lease or that modify the lease rights granted.

**Leasehold [Oil and Gas]:** The area described in a federal oil and gas lease.

**Lessee [Oil and Gas]:** A person or entity holding record title in an oil and gas lease issued by the United States.

**Limits of Acceptable Change (LAC):** A process of deciding what kind of resource conditions are acceptable and prescribing actions to protect or achieve these conditions.

**Litter [Vegetation]:** A surface layer of loose organic debris consisting of freshly fallen or slightly decomposed organic materials.

**Local Roads:** (See "Road Functional Classification.")

**Locatable [Minerals]:** Minerals or mineral materials subject to claim and development under the Mining Law of 1872, as amended. Generally includes metallic minerals, such as gold and silver, and other materials not subject to lease or sale, like some bentonite, limestone, talc, ziolites, etc.

**Location [Minerals]:** Perfecting the right to a mining claim by discovery of a valuable mineral, monumenting the corners, completing discovery work, posting a notice of location and recording the claim.

**Logging Debris:** Unmerchantable tree parts, like crowns, rotted logs and uprooted stumps, that remain after harvest.

**Logging Slash:** The wood residue left on the ground after harvesting. It includes unused logs, uprooted stumps, broken or uprooted stems, tops, branches and leaves.

**Log Landing:** (See "Landing.")

**Long-term [Transportation] Facility:** A facility developed and operated for long-term land management and resource utilization needs and which may be operated for constant or intermittent service.

**Lopped, Lopping [Timber Management]:** Cutting off one or more branches of a tree, whether standing, dead or fallen.

**Lopping and Scattering:** Lopping logging debris and spreading it more or less evenly on the ground.

**Maintenance [Transportation Management]:** The upkeep of the entire Forest Development Transportation Facility, including surfaces and shoulders, parking and side areas, structures, and such traffic control devices as are necessary for its safe and efficient utilization.

**Maintenance Levels:** (See "Road Maintenance Level.")

**Managed Season [Recreation]:** That period of time during which developed recreational sites are open for public use, with routine maintenance, cleanup and operation on a scheduled basis.

**Management Ignited:** An ignition put into place by a planned, deliberate management action.

**Management Indicator Communities (MICs):** Existing and potential old growth forests, interior forests, young to mature forest structural stages, openings within and adjacent to forests such as alpine or foothills grass/shrublands, aspen riparian areas, wetlands and aquatic

environments in the Forests; and short-grass prairie, mid-grass prairie, prairie dog towns, riparian areas, wetland and aquatic environments in the Grassland. These plant and animal communities are used to predict changes and effects by alternative in an EIS, and are monitored and evaluated during Forest Plan implementation.

**Management Indicator Species (MIS):** Selected animals or plants from MICs whose population changes are believed to indicate the effects of management activities on other species. Keystone or meaningful indicator MISs are used to predict changes and effects, and related to habitat changes of MICs.

**Management Objectives:** Clearly stated objectives describing the intended post-management status of an area. Typically, objectives are disclosed in the NEPA documentation.

**Mass Movement:** Down-slope movement of a portion of the land's surface, such as a single landslide or the gradual, simultaneous downhill movement of the whole mass of loose earthen material on a slope face.

**Mass Movement Potential:** The potential for gravity-induced movement over a portion of land surface. Mass movement is an interaction of geologic material, topography, climate and vegetation.

**Mass Wasting:** A general term for a variety of processes by which large masses of earthen material are moved by gravity either slowly or quickly from one place to another. Slow displacements include slumping and soil creep. Rapid movements include slope failures, landslides, debris flows and rock slides. Ratings:

Slight: Management practices are not limited by special precautions to maintain slope stability. Slope gradients are under 40 percent.

Moderate: Management practices that disturb the land surface will be limited by precautionary measures to maintain slope stability. Slope gradients are usually in the 40 to 60 percent range. However, there is no evidence of past slope failure.

Severe: Management practices are severely limited. Slope gradients are more than 60 percent and evidence of past mass wasting usually exists. Special on-site investigations are required prior to ground-disturbing activities, and higher costs for design and construction can be anticipated to achieve adequate resource protection.

**Maximum Manageable Area (MMA):** The geographic limits of acceptable burned area for a "prescription control" wildland fire management strategy, based on either land and resource management constraints or the fire management organization's capability and representing a reasonably defensible location from a fire management standpoint.

**Maximum Modification:** (See "Visual Quality Objectives.")

**MBF:** Thousand board feet.

**MCF:** Thousand cubic feet.

**Meadow:** An area of perennial, herbaceous vegetation, usually grass or grass-like. A natural opening in a forest, generally at higher elevations, that produces exceptional levels of herbaceous plants, which is usually a consequence of high soil/water content, or a perched water table. Generally, a prairie grassland will occupy a convex surface, while a meadow will occupy a concave surface.

**Mechanized Vehicle:** Refers to any conveyance that is mechanical.

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

**Middle ground [Visual Management]:** A term used in visual management to describe that part of a scene or landscape that lies between the foreground and background, usually within one-quarter mile to three miles from the observer.

**Midstory [Vegetation]:** Vegetative layer 10 to 40 feet tall between the overstory trees and ground layer. May consist of trees and/or shrubs.

**Mineral Development:** The activities and facilities associated with extracting mineral deposits.

**Mineral Entry:** Claiming public lands administered by the Forest Service under the Mining Law of 1872 for the purpose of developing mineral deposits. May also refer to mineral exploration and development under the mineral leasing laws and the Material Sale Act of 1947.

**Mineral Withdrawal:** The exclusion of locatable mineral deposits from mineral entry on areas required for administrative sites by the Forest Service and other areas highly valued by the public. Public lands withdrawn from entry under the General Mining Laws and/or the Mineral Leasing Laws.

**Mineral Estate [Mineral Rights]:** The ownership of minerals, including rights necessary for access, exploration, development and transportation operations.

**Mineral Exploration:** The search for valuable minerals on lands open to mineral entry.

**Mineral Material:** Common varieties of sand, building stone, gravel, clay, rock, etc., obtainable under the Minerals Act of 1947, as amended.

**Mineral Material Permit:** A document used for sale transactions of common variety, salable minerals.

**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 deposit and the likelihood of its occurrence. The likelihood of occurrence for oil and gas is classified as follows:

**High potential:** Describes the geologic environment that is highly favorable for discovering oil and gas resources. The area is on or near a producing field and evidence exists that the geologic conditions of the reservoir, source and trap necessary for the accumulation of oil and gas are present.

**Moderate potential:** Refers to the environment that is favorable for the occurrence of undiscovered oil and gas resources; however, one of the geologic conditions necessary for the accumulation of oil or gas may be absent.

**Low potential:** Refers to an environment that is not favorable for the accumulation of oil and gas as indicated by geologic, geochemical and geophysical characteristics. Evidence exists that one of the geologic conditions necessary for the accumulation of oil or gas is absent.

**Unknown potential:** Refers to the region for which geologic information is insufficient to otherwise categorize potential. This category should be limited to specific areas for which there is a true lack of data and should not be used as a substitute for performing the interpretation.

**Mineral Production:** The extraction of mineral deposits.

**Minimum Stocking Standard [Timber Management]:** The stocking that must be present on regenerated areas before a new stand can be considered established. Minimum stocking is normally stated in terms of number of trees per acre and tree-stem heights by species.

**Mining Claims:** That portion of the public estate held for mining purposes in which the right of exclusive possession of locatable mineral deposits is vested in the locator of a deposit.

**Mining Law of 1872:** Provides for claiming and gaining title to locatable minerals on public lands. Also referred to as the "General Mining Law" or "Mining Law."

**Mining Patents:** (See "Patented Claim.")

**Mitigation:** Includes (a) avoiding the impact altogether by not taking certain action or parts of an action, (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation, (c) rectifying the impacts by repairing, rehabilitating or restoring the affected environment, (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, (e) compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.20).

**Mitigation [Heritage Resources]:** Actions taken to reduce or eliminate effects caused to heritage resources. Avoidance is not considered a mitigation measure.

**MMBF:** Million board feet.

**MMCF:** Million cubic feet.

**Moderately Well-drained Soil:** Water is removed somewhat slowly during some period of the year. The soils are wet for a short time within the rooting zone.

**Modification:** (See "Visual Quality Objectives.")

**Moisture Regime [Soils]:** The presence or absence of groundwater or water held at a tension of less than 15 bars in the soil or in specified horizons by periods of the year.

**Monitoring:** The sample collection and analysis of information regarding Forest Plan management practices to determine how well objectives have been met, as well as the effects of those management practices on the land and environment.

**Motorized Recreation:** A recreational opportunity provided through the use of a motorized vehicle. This includes travel on and off highways, Forest roads, and four-wheel-drive primitive roads and trails. Travel regulations may be established for the protection of forest resources, to minimize use conflicts and to promote user safety.

**MOU:** (See "Memorandum of Understanding.")

**Multi-storied Stands:** Plant communities having two or more recognizable canopy layers or height levels.

**Multiple Use:** According to the Multiple-use Sustained-yield Act of 1960, multiple use is the management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; such management makes the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions. Some lands will be used for less than all of the resources. Harmonious and coordinated management of the various resources is employed, each with the other, without impairment of the productivity of the land. Consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

**Mycorrhizae:** The phenomenon of the probably symbiotic or least nonparasitic association between the root or rhizome of a green plant and a fungus. Also, the structure so produced, for example, by the combination of the modified rootlet with fungal tissue.

**National Ambient Air Quality Standards:** Legal limits of atmospheric pollution established by the EPA, as the concentration limits needed to protect all of the public against adverse effects on public health and welfare, with an adequate safety margin. Primary standards are those related to health effects; secondary standards are designed to protect the public welfare from effects such as visibility reduction, soiling, material damage and nuisances.

**National Environmental Policy Act of 1969 (NEPA):** An act declaring a national policy to encourage productive harmony between people and their environment, to promote efforts that will prevent or eliminate damage to the environment and the biosphere and simulate the health and welfare of people, to enrich the understanding of the ecological systems and natural resources important to the nation and to establish a Council on Environmental Quality.

**National Fire Management Analysis System (NFMAS):** A broad umbrella process to help fire managers identify the most efficient fire program meeting the direction in the Forest Plan. This includes information for the planning record on program composition, annual programmed costs, emergency firefighting costs, expected resource impacts and net value change.

**National Forest Management Act (NFMA):** A law passed in 1976 amending the Forest and Rangeland Renewable Resources Planning Act that requires the preparation of Regional and Forest Plans and the preparation of regulations to guide that development.

**National Forest Road and Trails Act Easements:** Easements granted to public road agencies for the construction, maintenance and jurisdiction of public roads over National Forest System lands.

**National Forest System (NFS) Land:** Federal lands designated by Executive Order or statute as National Forests, National Grasslands or Purchase Units, or other lands under the administration of the Forest Service.

**National Register of Historic Places (NRHP):** A list of heritage resources that have local, state or national significance maintained by the Secretary of the Interior.

**Native Seed:** Seeds of plants considered indigenous to the ARNF-PNG.

**Native Species:** (See "Indigenous Species.")

**Natural Background Water Pollutants:** A nutrient or substance that may occur naturally in water resources. Although generally present in insignificant amounts, a nutrient or substance could cause undesired environmental effects if the amount present was to increase.

**Natural Ignition:** An ignition started at random by any natural cause, primarily lightning.

**Natural Regeneration:** The renewal of a tree crop by natural means without seeding or planting done by people. The new crop is grown from self-sewn seed or by vegetative means, such as root suckers.

**NCSS (National Cooperative Soil Survey):** A nationwide partnership of federal, regional, state and local agencies and institutions. This partnership works together to cooperatively investigate, inventory, document, classify and interpret soils and disseminate, publish and promote use of information about soils of the United States.

**Nest Initiation:** Beginning stages of nesting. May include courtship behavior, nest territory defense and/or nest building.

**Net Public Benefit:** The overall long-term value to the nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not. Net public benefits are measured by both quantitative and qualitative criteria rather than a single measure or index.

**Net Value Change (NVC):** The sum of the changes in resource values on a land area that results from increases (benefits) and decreases (damages) in resource outputs as a consequence of fire.

**No Adverse Effect [Heritage Resources]:** When the effect on a heritage resource would not be considered harmful to those characteristics that qualify the property for inclusion in the National Register.

**No Surface Occupancy (NSO) [Oil and Gas]:** A fluid mineral leasing stipulation that prohibits occupancy or disturbance on all or part of the land surface to protect special values or uses. The NSO stipulation includes stipulations that may have been worded as "No Surface Use/Occupancy," "No Surface Disturbance," "Conditional NSO" and "Surface Disturbance or Surface Occupancy Restriction by Location." The lessee may develop the oil and gas or geothermal resources under leases restricted by this stipulation through use of directional or horizontal drilling from sites outside the no-surface-occupancy area.

**Nonmotorized Activities:** Activities that do not incorporate the use of a motor, engine or other non-living power source. This includes such machines as aircraft, hovercraft, motorboats, automobiles, motor bikes, snowmobiles, bulldozers, chainsaws, rock drills and generators.

**Nonnative Species:** Animals or plants not endemic to the ARNF-PNG that were introduced following frontier settlement. Nonnative species are also called "exotic species."

**Nontarget Vegetation [Integrated Pest Management]:** Plants that are not the object of control and management actions.

**Nonwithdrawn Lands [Minerals]:** Lands that are not withdrawn from mineral entry under the mining laws or other executive or administrative rulings.

**Notice of Intent [Minerals]:** Written notice to the affected Ranger District by those who intend to engage in mining activity on the Forest, of proposed prospecting, exploration, mining and mineral processing activities.

**Noxious Weeds:** Those plant species designated as weeds by federal or state laws. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host for serious insects or diseases, and generally non-native (FSM 2080).

**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.

**Obliteration [Transportation]:** The reclamation and/or restoration of the land occupied by a transportation facility for purposes other than transportation.

**Off-Highway Vehicle (OHV):** Specialized motor vehicle designed to travel off highways and cross country on rough, challenging routes. Vehicles such as ATVs, motorcycles, and snowmobiles which are generally restricted from an not licensed for highway use.

**Off-Road Vehicle (ORV):** See "Off-Highway Vehicle."

**Off-Highway Vehicle Route:** A road or trail that is designated and signed for OHV travel.

**Old Growth:** Old growth is typically distinguished from younger growth by several of the following attributes: large trees for species and site; variation of tree sizes and spacing; standing and down dead trees; decadence in the form of broken or deformed tops, or bole and root decay; multiple canopy layers; and gaps in the tree canopy and understory patchiness (Mehl 1992). Minimum prerequisites for a site to be classified as old growth are large live trees some of which are old and declining, either snags or fallen trees, and greater than 20 percent canopy closure (Lowry 1992).

**Open Road or Trail:** Travelways open to public use.

**Openings [Tree Canopy]:** The hole created by removing the majority of trees.

**Operations [Oil and Gas]:** Surface-disturbing activities conducted on a leasehold on National Forest System lands pursuant to a currently approved surface-use plan of operations. Including but not limited to exploration, development and production of oil and gas resources and reclamation of surface resources.

**Operator [Oil and Gas]:** Any person or entity, including but not limited to the lessee or owner of the operating rights, who has stated in writing to the authorized Forest officer the intent to be responsible under the terms of the lease for the operations conducted on the leased lands or a portion of it.

**Order III Soil Survey:** Mapping of soils at a 1:24000 scale. Level of soil detail is typically at the family or series level.

**Order Four:** (See "Watershed Order" and "Stream Order.")

**Organic Administration Act of 1897:** An Act of Congress which specifies the purpose for which forest reserves might be established and provided for their protection.

**ORV:** Off-Road Vehicle. (See "Off-Highway Vehicle.")

**Outputs:** The goods, end products or services purchased, consumed or utilized directly by people. Outputs are goods, services, products and concerns produced by activities that are measurable and capable of being used to determine the effectiveness of programs and activities in meeting objectives. A broad term used to describe any result, product or service that a process or activity actually produces.

**Overstory:** The dominant portion of vegetation in a forest forming the uppermost foliage layer.

**PM 10:** Particles with an aerodynamic diameter smaller than ten micrometers. Particles this size and smaller have shown to cause problems with human health.

**PM 2.5:** Particles with an aerodynamic diameter smaller than two and a half micrometers. Particles this size and smaller have shown to cause problems with human health.

**Partial Retention:** (See "Visual Quality Objectives.")

**Passport in Time:** A nationwide Forest Service program that provides opportunities for hands-on public involvement in heritage resources management, such as archeological excavations, historical research and oral history collection.

**Patented Claim:** A claim for which title has passed from the federal government to the mining claimant under the Mining Law of 1872.

**Patents:** The instrument with which the federal government grants public lands to an individual. A land patent is muniment of title issued by the federal government for the conveyance of some portion of the public domain under the 1872 Mining Law.

**Payment in Lieu of Taxes [PILT]:** Payments to local or State governments based on ownership of Federal land and not directly dependent on production of outputs or receipt sharing. Specifically, they include payments made under the Payments in Lieu of Taxes Act of 1976, P.L. 94-565 Stat. 2662; 31 U.S.C. 1601-1607 (Note these payments are in addition to payments made from gross receipts from forest products made under the Twenty-Five Percent Fund Act of May 1908).

**Peak Flow:** The highest discharge of water recorded over a specified period of time at a given stream location. Often thought of in terms of spring snowmelt and/or summer, fall or winter rainy-season flows. Also called "maximum flow."

**Permitted Grazing:** Use of a National Forest System range allotment under the terms of a grazing permit.

**Perennial Stream:** A stream that flows year round.

**Person-Year:** (See "Full-Time Equivalent.")

**Persons-At-One-Time (PAOT):** A recreational-capacity measurement term indicating the number of people who can use a facility or area at one time.

**Pesticide:** A chemical agent formulated to kill or suppress insects, plants or animals.

**pH:** The degree of acidity or alkalinity.

**Pheromone Traps [Integrated Pest Management]:** Containers designed to attract and catch or kill a particular insect species through use of a lure containing a chemical attractant scent.

**Pine Engraver Beetle:** (See "Ips.")

**Plant Associations:** A kind of plant community represented by stands occurring in places where environments are so closely similar that there is a high degree of floristic uniformity in all layers.

**Plant Communities:** Assemblage of plant species living in an area. It is an organized unit to the extent that it has characteristics in addition to the individuals and populations, and functions as a unit (Odum 1971).

**Playa:** Shallow desert or prairie basin into which water drains after rainstorms or as snow melts, but does not have natural external drainage ways.

**Pollution:** The presence of matter or energy whose nature, location or quantity produces undesired environmental effects.

**Potential Natural Community (PNC):** A taxonomic unit of vegetation classification. The biotic community that would be established under present environmental conditions if all successional sequences were completed without additional human-caused disturbance. Natural disturbances, such as drought, flood, wildfire, grazing by native fauna, insect and disease, are inherent in the development of potential natural communities, which may include naturalized, non-native species (Rangeland Analysis and Management Work Group 1993).

**Potential Natural Vegetation (PNV):** A historical term originally defined by A.W. Kuchler as the stable vegetation community, which could occupy a site under current climatic conditions without further influence by humans. Often used interchangeably with Potential Natural Community (Rangeland Analysis and Management Work Group 1993).

**Prairie:** A tract of level to hilly land that has a dominance of grasses and forbs, has a scarcity of shrubs and is treeless. The natural plant community consists of various mixtures of mid- and short-growing native species.

**Precambrian:** Period of geologic time extending from more than 3,600 to about 570 million years ago.

**Precommercial Cutting:** (See "Thinning.")

**Preparation Cut [Silviculture]:** A timber harvest method that removes trees near the end of a rotation so as to open the canopy and enlarge the crowns of seed bearers to improve conditions for seed production and natural regeneration, as typically in a shelterwood method.

**Preparedness Plans:** An interagency plan providing for timely recognition of approaching critical fire situations, priority setting, the deployment of forces and other actions to respond to those situations.

**Prescribed Burning:** Application of fire to wildland fuels in either their natural or modified state, under specified environmental conditions, that allows the fire to be confined to a predetermined area and, at the same time, to produce the fireline intensity and severity required to attain planned resource management objectives.

**Prescribed Fire:** A fire burning within prescription, resulting from planned or unplanned ignition.

**Prescribed Fire Implementation Plan:** The site-specific operational plan, approved by the appropriate line officer, that specifies burn objectives, prescription criteria, and implementation procedures for executing a prescribed fire.

**Prescription [Fire Management]:** A written statement defining objectives to be attained as well as the fire behavior characteristics and effects under which the fire will be allowed to burn, generally expressed as acceptable ranges of the various indices, and the limit of the geographic area to be covered.

**Present Net Value (PNV):** The difference between the discounted value (benefits) of all outputs to which monetary values or established market prices are assigned and the total discounted costs of managing the planning area.

**Preservation [Visual Management]:** (See "Visual Quality Objective.")

**President's Advisory Council on Historic Preservation (ACHP):** An advisory group appointed by the President of the United States to aid the State Historic Preservation Officer and federal agencies in complying with the National Historic Preservation Act.

**Pre-suppression [Fire Management]:** Activities required in advance of fire occurrence to ensure an effective suppression action. It includes (1) recruiting and training fire forces, (2) planning and organizing attack methods, (3) procuring and maintaining fire equipment, and (4) maintaining structural improvements necessary for the fire program.

**Primitive Recreation:** Those types of recreational activities associated with unroaded areas, e.g. hiking, backpacking, cross-country travel.

**Primitive Roads:** Roads constructed with no regard for grade control or designed drainage, sometimes being merely repeatedly over an area. These roads are of single lane, usually with native surfacing and usable with four-wheel drive vehicles or OHVs only.

**Products Other than Logs (POL), Products Other Than Sawlogs, Products Other Than Sawtimber Products such as posts, poles and fiber from trees or parts of trees less than sawlog size:** POL usually include trees greater than 5 inches diameter breast height (4.5 feet from ground level) and less than 7.9 inches diameter breast height, with tops of trees greater than 4 inches to less than 6 inches in diameter.

**Program:** A set of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishment.

**Program Development and Budgeting:** The process through which activities for the Forest are proposed and funded.

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

**Project:** One or more site-specific activities designed to accomplish a specific on-the-ground purpose or result. Projects are tiered to the Forest Plan and will have further site-specific analysis.

**Pruning:** Cutting away of superfluous growth from any plant so as to improve its growth.

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

**Puncheon [Transportation]:** Puncheon walkways and bridges are typically built for trails out of native logs for the purpose of crossing wet areas. Sill logs are laid perpendicular to the centerline. Stringers are placed on top of the sill logs. Split-log decking may or may not be installed on top of the stringers.

**Quadratic Mean Diameter [Silviculture]:** The diameter of the average tree in a stand determined from the basal area. Basal area divided by the number of trees per acre equals the average basal area per tree (ABAT).

**Range Analysis:** Systematic acquisition and evaluation of rangeland resources data needed for allotment management planning and overall land management (Rangeland Analysis and Management Work Group 1993).

**Range Condition:** (1) A rangeland is considered to be in satisfactory condition when the desired condition is being met or short-term objectives are being achieved (vegetation management status) to move the rangeland toward the desired condition (trend). Unsatisfactory condition is when the desired condition is not being met and short-term objectives are not being achieved (vegetation management status) to move the rangeland toward the desired condition (trend). (2) Historically, range condition has usually been defined in one of two ways: (a) a generic term relating to present status of a unit of range in terms of specific values or potentials. Specific values or potentials must be stated. (b) The present state of vegetation of a range site in relation to the climax (natural potential) plant community for that site. It is an expression of the relative

degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the climax plant community for the site.

**Range of Natural Variation (RNV):** The spectrum of conditions possible in ecosystem composition, structure and function considering both temporal and spatial factors (Kaufmann, et. al. 1994).

**Ranger District:** Administrative subdivisions of the Forest supervised by a District Ranger who reports to the Forest Supervisor.

**Raptor Habitat:** Habitat required by eagles, hawks, falcons or owls, especially for nesting.

**Raptor Nests:** Any active nest of eagles, hawks, falcons or owls.

**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 Capacity:** The number of people who can take advantage of the supply of recreational opportunities at one time without substantially diminishing the quality of the recreation experience or the resources.

**Recreation Development Scale:** Classification using a 1 to 5 scale of the level of development in camp and picnic sites as to the types of recreational opportunities and modifications to the environment that can be expected. The scales are:

Minimum Site Modification: Rustic or rudimentary improvements designed for protection of the site rather than comfort of the users. Use of synthetic materials excluded. Minimum controls are subtle. Spacing informal and extended to minimize contacts between users. Motorized access not provided or permitted.

Little Site Modification: Rustic or rudimentary improvements designed primarily for protection of the site rather than the comfort of the users. Use of synthetic materials avoided. Minimum controls are subtle. Little obvious regimentation. Spacing informal and extended to minimize contacts between users. Motorized access provided or permitted. Primary access over primitive roads. Interpretive services informal, almost subliminal.

Site Modification Moderate: Facilities about equal for protection of site and comfort of users. Contemporary/rustic design of improvements are usually based on use of native materials. Inconspicuous vehicular traffic controls usually provided. Roads may be hard surfaced and trails formalized. Development density about three family units per acre. Primary access may

be over high-standard roads. Interpretive services informal, but generally direct.

**Site Heavily Modified:** Some facilities designed strictly for comfort and convenience of users. Luxury facilities not provided. Facility design may incorporate synthetic materials. Extensive use of artificial surfacing of roads and trails. Vehicular traffic control usually obvious. Primary access usually over paved roads. Development density of three to five family units per acre. Plant materials usually native. Interpretive services often formal or structured.

**High Degree of Site Modification:** Facilities mostly designed for comfort and convenience of users and usually include flush toilets; may include showers, bathhouses, laundry facilities and electrical hookups. Synthetic materials commonly used. Formal walks or surfaced trails. Regimentation of users is obvious. Access usually by high-speed highways. Development density of five or more family units per acre. Plant materials may be foreign to the environment. Formal interpretive services usually available. Designs formalized and architecture may be contemporary. Mowed lawns and clipped shrubs not unusual.

**Recreation Facilities:** Facilities constructed or placed in areas to provide for safe, enjoyable developed recreation opportunities and includes structures such as picnic tables, fire rings, grills, toilets, water hydrants, parking spaces, tent pads and interpretive signing.

**Recreation Information Management (RIM):** A computer-oriented system for the organization and management of information concerning recreation use, occupancy, and management of National Forest System lands.

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

**Recreation Opportunity Spectrum (ROS):** A system for planning and managing recreational resources that categorizes recreation opportunities into seven classes. Each class is defined in terms of the degree to which it satisfies certain recreational experience needs based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area and the relative density of recreation use. The seven classes are:

**Primitive:** Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.

**Semiprimitive Nonmotorized:** Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Motorized recreation use is not permitted, but temporary primitive roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on nonmotorized recreational experience opportunities.

**Semiprimitive Motorized:** Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but

there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Primitive roads and trails are designated for OHV use.

**Roaded Natural:** Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of people. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.

**Roaded Modified:** Area is characterized by a mixture of natural appearing and substantially modified environments. The impacts of resource management activities such as timber harvest and prescribed fire are obvious and dominate portions of the area. There are opportunities to get away from others but with easy access providing a feeling of independence and freedom with little challenge and risk. Conventional motorized access is common and is incorporated into road design and maintenance.

**Urban:** Characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resource modification and utilization practices are often used to enhance specific recreational activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans are predominant on the site. Large numbers of users can be expected both on the site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.

**Recreation Residences:** Houses or cabins on National Forest System land under permit that are not the primary residence of the owner. The term includes only those residences that occupy planned, approved tracts or those groups established for recreation residence use.

**Recreation Support Facilities:** Facilities constructed or placed in areas to provide for safe enjoyable dispersed recreation opportunities and includes developments such as trailheads, trails, roads, boat ramps, parking and directional signing.

**Recreation Visitor Day (RVD):** A unit for measuring recreational activities, which aggregates 12 visitor hours. This may consist of one person for 12 hours, 12 persons for one hour or any equivalent combination of continuous or intermittent recreation use by individuals or groups. Recreation visitor days are used to measure recreational production or output capacity.

**Reforestation:** Re-establishment of a tree crop on forested land.

**Regeneration [Silviculture]:** The renewal of vegetation whether by natural or artificial means. Also, the new growth itself.

**Region:** An administrative unit within the National Forest System. The United States is divided into nine geographic regions. Each region has a headquarters office and is supervised by a Regional Forester. Within each region are National Forests and other lands of the Forest Service.

**Regional Forester:** The official responsible for administering a single region.

**Rehabilitation:** Actions taken to restore or reclaim site productivity, water quality or other values.

**Release [Silviculture]:** Freeing a tree or group of trees from more immediate competition by cutting.

**Release and Weeding:** All work done to free desirable trees, less desirable trees or grasses and other forms of vegetative growth from competition with overstory trees. It includes incidental disease control work and release of natural and artificial regeneration.

**Removal Cut [Final Cut]:** A harvest method that removes the last seed-bearing trees after regeneration is considered to be established under a shelterwood method.

**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 Research Natural Area was established to protect.

**Resource Values:** The tangible and intangible worth of forest resources.

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

**Rest Rotation [Grazing]:** An intensive system of management whereby grazing is deferred on various parts of the range during succeeding years, which allows the deferred part complete rest for one year. Two, but usually three or more, separate grazing units are required.

**Restoration [Facilities]:** Work necessary to restore a facility to the original constructed condition or to an acceptable condition concerning any damage resulting from natural or human causes, which exceeds that which normally occurs during annual maintenance.

**Retention [Vegetation Management]:** To keep the existing extent of a vegetative component. Usually refers to a species, such as aspen, birch or bur oak.

**Retention [Visual Management]:** (See "Visual Quality Objectives.")

**Revegetation:** The re-establishment and development of a plant cover. This may take place naturally through the reproductive processes of the existing flora or artificially through the direct action of reforestation or reseedling.

**Rights-of-way:** Land authorized to be used or occupied for the construction, operation, maintenance and termination of a project or facility passing over, upon, under or through such land (36 CFR 251.51). The privilege that one person or persons particularly described may have of passing over the land of another in some particular line (FSH 2709.12).

**Rights-of-way Corridors:** A linear strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries.

**Rill Erosion:** An erosion process during which numerous small channels several inches deep are formed; occurs mainly on bare soil.

**Riparian:** Of, pertaining to, or situated on the banks of a stream, body of water, or other perennial aquatic environments.

**Riparian Zone/Area:** An area identified by the presence of vegetation that requires free or unbound water or conditions more moist than normally found in the area (Minore and Smith 1971, Franklin and Dryness 1973).

**RNA:** (See "Research Natural Area.")

**Road:** A general term denoting a way with at least two wheel tracks for purposes of travel by vehicles greater than 50 inches in width.

**Road Density:** Road density refers to the miles of road per square mile. There are different road densities depending on what road types are being considered. These densities include:

Forest Development Road Density: The miles of Forest Development Roads per square mile. This is the road density of the road system managed by the Forest for resource management.

Open Road Density: The miles of Forest Development Road and other private and public roads and highways open for public travel.

Wheel-track Density: The miles of established wheel tracks per square mile. Wheel tracks are not managed as part of the Forest Development Road System and are formed by repeated travel off system roads by Forest users.

**Road Functional Classification:** The way in which a road serves land and resource management needs and the character of service it provides. Functional classifications for roads are forest arterial, forest collector, and forest local.

Forest Arterial Road: Provides service to large land areas and usually connects with public highways or other Forest arterial roads to form an integrated network of primary travel routes. The location and standard are often determined by a demand for maximum mobility and travel efficiency rather than specific resource management service. It is usually developed and operated for long-term land and resource management purposes and constant service (FSM 7710.51).

Forest Collector Road: Serves smaller land areas than a Forest arterial road and is usually connected to a Forest arterial or public highway. Collects traffic from Forest local roads and/or terminal facilities. The location and standard are influenced by both long-term multi-resource service needs, as well as travel efficiency. May be operated for either constant or intermittent service, depending on land use and resource management objectives for the area served by the facility (FSM 7710.51).

**Forest Local Road:** Connects terminal facilities with Forest collector or Forest arterial roads or public highways. The location and standard are usually controlled by a specific resource activity rather than travel efficiency. Forest local roads may be developed and operated for either long- or short-term service (FSM 7710.51).

**Road Maintenance Level:** Defines the level of service provided by, and maintenance required for, a specific road, consistent with road management objectives and maintenance criteria (FSH 7709.58, Section 12.3). The maintenance levels are:

**Maintenance Level 1:** Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period is one year or longer. Basic custodial maintenance is performed.

**Maintenance Level 2:** Assigned to roads open for use by high-clearance vehicles. Passenger car traffic is not a consideration.

**Maintenance Level 3:** Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities.

**Maintenance Level 4:** Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds.

**Maintenance Level 5:** Assigned to roads that provide a high degree of user comfort and convenience. Normally, roads are double-laned and paved, or aggregate-surfaced with dust abatement.

**Road Prism:** Equivalent to the term "roadway." The portion of the road within the limits of excavation and embankment, including slope rounding. A similar term is "road template," the shape and cross-sectional dimensions of the roadway to be constructed as defined by the construction staking notes and the characteristics of the typical sections.

**Roadless Area:** An undeveloped area without evident roads that have been constructed and maintained by mechanical means. Roadless areas greater than 5,000 acres, or any acreage if adjacent to an existing Wilderness, were analyzed in the Revision for possible recommendation to Congress for wilderness designation. See also "Inventoried Roadless Areas."

**Roadless Area Review and Evaluation II (RARE II):** The national inventory of roadless and undeveloped areas within the National Forests and Grasslands. This refers to the second such assessment, which was documented in the Final Environmental Statement of the Roadless Area Review and Evaluation, January, 1979.

**Roadside Corridors:** A passageway that frames a road or travelway. The corridor includes the viewing area and facilities, which may be within the immediate roadside area or part of a sweeping distance panorama.

**Roadway:** (See "Road Prism.")

**Rocky Mountain Region:** The Forest Service organizational unit consisting of Colorado, Wyoming, part of South Dakota, Nebraska and Kansas. Also called Region 2.

**Rodenticide:** A chemical agent formulated to kill rodents.

**Root Reserves:** Carbohydrates stored by perennial plants, like mountain mahogany, which are used in growth until photosynthesis begins.

**ROS:** (See "Recreation Opportunity Spectrum.")

**Rotation, Rotation Age [Silviculture]:** The planned number of years between the formation or regeneration of a stand of trees and its final cutting at a specified age.

**Roundwood, Roundwood Products:** Logs, bolts or other round sections cut from trees for industrial or consumer uses. (Pulpwood, fuelwood, poles, posts, etc.)

**RPA Assessment and Program:** The RPA Assessment is prepared every 10 years and describes the potential of the nation's forests and rangelands to provide a sustained flow of goods and services. The RPA Program is prepared every five years to chart the long-term course of Forest Service management of the National Forests, assistance to state and private landowners, and research. An RPA Assessment is prepared in response to Sections 3 and 4 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA)(16 U.S.C. 1601).

**Rubble land:** Land areas dominated by rock fragments, cobbles and stones.

**Rural Development:** A partnership or program designed to enrich the cultural life, to enhance the environment, to provide employment and to improve living conditions 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.

**Salable Minerals:** Salable minerals include common varieties of sand, stone, gravel, pumice, pumicite, cinders and clay. In general, these minerals are of widespread occurrence and are of relatively low unit value. They are generally used for construction materials and for road building purposes. Disposal of these minerals is by special-use authorization by the Forest Service. Also known as common variety minerals or mineral materials.

**Salvage Sale (Harvest):** A timber sale where the primary reason for entry is that most of the trees are insect-infested, are dying or damaged, or are dead standing or down, and they can still be useful as logs, firewood, or other wood products.

**Salvage Sale Fund:** A special fund available for preparing salvage sales, partial salvage sales, other qualified sales, and for administering salvage sales and partial salvage sales. The fund is intended to permit an increase in the volume of salvage sales beyond those normally financed by appropriated funds and to prepare sales lost or damaged as a result of fires, insect infestations, and other causes.

**Salvage of Dead Material:** (See "Salvage Harvest.")

**Sanitation Cutting, Sanitation Harvest [Silviculture]:** The removal of trees occupied by insect or disease pests to reduce pest populations and limit their spread.

**SASEM:** Simple Approach Smoke Estimation Model developed by the U.S. Bureau of Land Management. A model designed as a screening tool for analyzing air quality impacts of prescribed fires.

**Saturated Soils:** Soil condition during which all the spaces between soil particles are filled with water.

**Sawtimber:** Trees suitable in size and quality for producing logs that can be processed into lumber. For planning purposes, trees with an eight-inch diameter or more are classified as sawtimber.

**Scarify:** To abrade, scratch or modify the surface of the ground to expose mineral soil.

**Scenery:** General appearance of a place, general appearance of a landscape, or features of a landscape.

**Scenic:** Of or relating to landscape scenery, pertaining to natural or natural-appearing scenery; constituting or affording pleasant views of natural landscape attributes or positive cultural elements.

**Scenic Areas:** Places of outstanding or matchless beauty which require special management to preserve these qualities. They may be established under regulation 36 CFR 294.1 whenever lands possessing outstanding or unique natural beauty warrant this classification

**Scenic Easement:** An interest in the land that allows the easement holder specified uses or rights without actual ownership of the land; in this case, control of the use of land adjacent to public highways, parks and rivers. It may provide something attractive to look at within the easement area, an open area to look through to see something attractive beyond the easement itself, or a screen to block out an unsightly view beyond the easement area.

**Scenic Quality:** The essential attributes of landscape that when viewed by people, elicit psychological and physiological benefits to individuals and, therefore, to society in general.

**Scenic Resources [formerly Visual Resources]:** The composition of basic terrain, geologic features, water features, vegetative patterns and land-rise effects that typify a land unit and influence the visual appeal the unit may have for visitors.

**Season-long Grazing:** Allowing livestock to graze a single pasture throughout one grazing season.

**Second Growth [Silviculture]:** Forest growth that has become established after some disturbance with the previous forest stand; for example, cutting, serious fire or insect attack.

**Sediment:** Material suspended in water or that has been deposited in streams and lakes.

**Sediment Load:** The solid material transported by a stream and expressed as the dry weight of all sediment that passes a given point in a given period of time.

**Sediment Yield:** Amount of sediment leaving an analysis area and entering a channel.

**Seed Cutting [Silviculture]:** A harvest method that removes all mature trees from a stand except for selected seed-bearing trees retained on the site to provide a seed source for stand regeneration. In a two-step shelterwood cutting method, the first of the shelterwood cuttings.

**Seed Tree, Seed-tree Cutting:** Small number of seed-bearing trees left singly or in small groups after timber harvest to provide seed for regeneration of the site.

**Seeps:** A spot where water or petroleum flows from the earth, often forming the source of a small stream.

**Selection Cut [Silviculture]:** A harvest method that periodically removes mature trees individually or in small groups from an uneven-aged forest. By this method, both regeneration cutting and tending of immature stand components are accomplished at each entry.

**Self-sustaining Fish Population:** A reproducing fish population that does not require supplemental hatchery stocking.

**Sensitive Receptor:** An element of an AQRV that is most sensitive to or first modified by anthropogenic (people induced) air pollution. For example the sensitive receptor for visibility might be a specific view. Changes in the contrast, visual range or coloration are examples of the sensitive receptor indicator. For water it may be a specific lake. The receptor would be the change in the lakes pH, acid-neutralizing capacity, anions, cat ions or dissolved oxygen.

**Sensitive Species:** Those plant and animal species identified by the Regional Forester for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density; (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution (FSM 2670.5.19).

**Sensitivity Level [Visuals]:** A measure of people's concern for the scenic quality of the National Forests. Three sensitivity levels are employed, each identifying a different level of user concern for the visual environment: Level 1 (highest sensitivity), Level 2 (average sensitivity), and Level 3 (lowest sensitivity).

**Seral:** A biotic community that is in a developmental, transitory stage in an ecological succession.

**Seral Stages:** The sequence of a plant community's successional stages to potential natural vegetation.

**Severely Burned Soil:** A condition in which 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.

**Shelterwood, Shelterwood Method [Silviculture]:** A harvest method in which a portion of the mature stand is retained as a source of seed and/or protection during the period of regeneration. The mature stand is removed in two or more cuttings commonly termed seed cutting and removal cutting. The seed cutting may or may not be preceded by a preparatory cutting.

**Short-term Transportation Facility:** A facility developed and operated for a limited period of time that will cease to exist as a transportation facility after the purpose for which it was constructed is completed and the occupied land is reclaimed and managed for natural resource purposes.

**SHPO:** (See "State Historic Preservation Officer.")

**Significant Change [Soils]:** Change in productivity of the land as indicated by changes in soil properties that are expected to result in a reduced productive capacity over the planning horizon. Based on available research and current technology, a guideline of 15 percent reduction in inherent soil productivity potential is used as a basis for setting threshold values for measurable or observable soil properties or conditions. The threshold values, along with area extent limits, will serve as an early warning signal of reduced productive capacity. A more stringent basis than 15 percent can be used where appropriate and documented.

**Silvicultural System:** A management process that tends, harvests and replaces forests, resulting in a forest of distinctive form with a desired condition.

**Silvicultural Treatment:** A management practice that utilizes a method of tree culture, harvest or replacement (see "Single-tree Selection," "Shelterwood Method," "Group Selection," "Even-aged Management," "Uneven-aged Management," and "Clearcutting.")

**Silviculture:** Generally, the science and art of tree management, based on the study of the life history and general characteristics of forest trees and stands, with particular reference to local factors; more particularly, the theory and practice of controlling the establishment, composition, constitution and growth of forests for desired conditions.

**Single-tree Selection [Silviculture]:** A harvest method that develops and maintains uneven-aged stands by removal of selected trees from specified age classes over the entire stand area in order to meet a predetermined goal of age distribution and species in the remaining stand.

**Single Track:** A term used for trails identified for OHV and other trail vehicles, referring to one land of tread.

**Site:** An area considered in terms of its physical and/or biological environment; for example, a riparian zone, a homogenous stand of vegetation, or a campground.

**Site Index:** A measure of the relative productive capacity of an area for growing trees. Measurement is based on height of the dominant trees in a stand at a given age.

**Site Preparation [Silviculture]:** The activity that prepares a site for natural regeneration or the planting of seedlings. The objective is to create a favorable environment for establishing and growing the desired vegetation classes. Treatments could include chemical, mechanical or fire.

**Site Productivity:** Production capability of specific areas of land.

**Skid Trails [Timber Management]:** Any way, more or less prepared, over which logs are dragged. Any road or trail leading from stump to landing.

**Skidding [Timber Management]:** Moving logs from the stump to a collecting point.

**Slash [Timber Management]:** The residue left on the ground after harvesting, sanitation operations, windstorm or fire. It includes such material as unutilized logs, uprooted stumps, broken or uprooted stems, tops, branches and leaves.

**Slope-stability Examinations:** Used to look at the resistance of an inclined surface, or areas of suspected mass-wasting potential.

**Snag:** Standing dead tree or standing portion, 8 inches in diameter or 6 feet tall or larger, from which at least the leaves and smaller branches have fallen.

**Snag-dependent Species:** (See "Cavity Nesting Species.")

**Social Environment:** Includes the social role Forest and Grassland resources play to those people living in and adjacent to the National Forests and National Grasslands.

**Social Groups:** Groups that can be expected to react in the same general manner to various policies and decisions made by the Forest Service. These groups include:

Long-time residents: Families with traditionally rural-conservative philosophies more closely tied to the timber, mining or leasing, and grazing uses of the forest and grassland.

Part-time residents: Families that permanently reside in predominately urban areas, but live part time on land adjacent to or within National Forest boundaries.

Local business people: People who are dependent on National Forest programs and products.

Regional recreationists: People who live in metropolitan areas and recreate in the Forest and Grassland.

Former urban residents: People who have moved from urban areas to areas adjacent to or within National Forest boundaries in search of a quite, more rural atmosphere.

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

**Soft Snags:** A snag composed primarily of wood in advanced stages of decay and deterioration, particularly in the sapwood (outer) portions.

**Softwood:** A conventional term for both the timber and the trees belonging to the evergreen group, as the pine, spruce, fir, etc.

**Soil Compaction:** A physical change in soil properties that results in a decrease in porosity and an increase in soil-bulk density and strength.

**Soil Erosion:** The detachment and movement of soil from the land surface by water or wind. Soil erosion and sediment are not the same (See "Sediment").

**Soil Productivity:** The inherent capacity of a soil to support the growth of specified plants, plant communities or a sequence of plant communities. Soil productivity may be expressed in terms of volume or weight/unit area/year, percent plant cover or other measures of biomass accumulation.

**Soil Surveys:** The systematic examination, description, classification and mapping of soils in an area.

**Soil Quality and Health:** The capacity of a soil to function within ecosystem boundaries, to sustain biological productivity, to maintain environmental quality and to promote plant and animal health. (From *Defining Soil Quality for a Sustainable Environment*, pg. 7)

**Special-use Application:** A written request for use of National Forest System lands.

**Special-use Authorization, Special-use Permits:** A permit, term permit, lease or easement that allows occupancy or use rights or privileges on National Forest System lands (36 CFR 261.2).

**Special Uses:** Improvements or activities owned or carried out by private individuals, corporations or other business entities on National Forest System lands under the authorization of a permit.

**Species Richness:** A measurement of expression of the number of species of plants or animals present in an area; the more species present, the higher the degree of species richness (Thomas, et. al. 1979).

**Split-estate Lands [Minerals]:** Lands that do not have both the mineral rights and the surface owned by one party. The most common split estate is federal ownership of mineral rights on lands to which someone else holds ownership. In such instances, the federal government can lease the oil and gas rights without the surface owner's consent. Other split-estate lands may be federal ownership, but with the mineral rights owned by a private party or federal ownership, but with some percentage of the mineral rights owned by a private party.

**Spot Road Improvement:** Repair to a relatively short section of road or spot to rectify an unsafe condition or to improve a poorly constructed, high-maintenance situation.

**Stabilization [Heritage Resources]:** The process of arresting the deterioration of a damaged heritage resource in order to prevent further damage from occurring. Stabilization may include reconstructing portions of the heritage resource.

**Stand:** A plant community possessing sufficient uniformity as regards to vegetation type, age class, risk class, vigor, stand class and stocking class, which distinguishes it from adjacent communities.

**Stand-replacement Fire:** A fire that kills all or most living overstory trees in a forest and initiates secondary succession or regrowth. Synonymous to "crown fire."

**Stand Risk Rating [Insects]:** A ranking of relative forest stand conditions that reflects the degree of susceptibility to attack by a particular insect species and the potential level of damage if an outbreak occurs. It does not indicate where or when an infestation will actually occur. For mountain pine beetles in ponderosa pine, a computer model exists to determine low-, medium- and high-risk stands based on measures of stand structure, average basal area and average tree diameter.

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

**Stipulation [Oil and Gas]:** A provision that modifies standard lease rights attached to and made a part of the lease.

**Stream Order:** A classification of the relative position of streams in a channel network. Each nonbranching channel segment is designated as a first-order stream. The channel segment below the confluence of two first-order streams is designated a second-order stream. A second-order stream has only first-order tributaries. The channel segment below the confluence of two second-order streams is designated a third-order stream. (Also see Watershed Order. )

**Structural Stages:** Any of several developmental stages of tree stands described in terms of tree age and the extent of canopy closure they create (Hoover and Wills 1987). They include:

Structural Stage 1 (Grass/Forb): Forest openings created by disturbance, such as fire.

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 DBH, 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 Structural Stage 3. Also classified by the same canopy closure categories as Structural Stage 3.

Structural Stage 5 (Old Growth): See Old Growth.

**Stumpage (stumpage value):** The value of timber as it stands uncut, in terms of an amount per unit of volume.

**Subdivisions:** Areas of previously undeveloped land divided into individual home sites and/or blocks of lots.

**Successional Stages (Seral Stages):** The relatively transitory communities that replace one another during development toward a potential natural community (Odum 1971).

**Sundry Notice [Oil and Gas]:** Standard form to modify and/or approve well operations subsequent to an approved application to Permit to Drill, in accordance with Forest Service regulations.

**Superior Trees:** Trees selected for their desirable traits, such as height, growth and form.

**Surface Occupancy [Minerals]:** The occupancy of a mining claim with structures, like a residence or storage facility, present. When approved, occupancy will be identified in the operating plan.

**Surface Management Agency [Minerals]:** Any agency with jurisdiction over the surface above federally owned minerals.

**Suspended Sediment:** The very fine soil particles that remain in suspension in water for a considerable period of time without contact with the stream's or river's channel bottom.

**Sustainability:** The ability of an ecosystem to maintain its organization and autonomy over time, including, but not limited, to maintenance of ecological processes, biological diversity, and productivity.

**Sustainable Development:** Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

**Sustainable Forestry:** The collection of actions people use to conserve, augment, modify, or replace features of the forest so as to perpetuate desired qualities over time.

**Sustained Yield:** The amount of renewable resources that can be produced continuously at a given intensity of management.

**System Trail:** A trail recognized by the National Forest as a part of the total trail system which is numbered, identified on maps, and receives scheduled maintenance.

**Tailings [Minerals]:** The parts or a part of any incoherent or fluid material separated as refuse or separately treated as inferior in quality or value; leaving; remainders; dregs. The sand, gravel and cobbles that pass through the sluices in hydraulic mining were formerly generally designated as tailings, but of late years in states and U.S. legislative documents they have been called mining debris or simply debris.

**Tailings Disposal [Minerals]:** The act of disposing or placing of ore material after completion of processing.

**Talus Slopes:** The accumulation of broken rocks that occurs at the base of cliffs or other steep slopes.

**Temporary Facility:** Any structure or other human-made improvement that can be readily and completely dismantled and removed from the site when the authorized use terminates.

**Temporary Roads:** (See "Short-term Transportation Facility.")

**Thinning [Silviculture]:** The practice of removing some of the trees in a stand to meet desired conditions. Two types of thinning may be done:

Pre-commercial, Non-commercial: Removing trees that are too small to make a merchantable product.

Commercial: Removing trees that have reached sufficient size to be manufactured into a product and to improve tree spacing and promote more rapid growth.

**Threatened Species:** Any species likely to become endangered within the foreseeable future throughout all or a significant portion of its range and that has been designated in the Federal Register by the Secretary of Interior according to the Endangered Species Act as amended.

**Three-step Shelterwood [Silviculture]:** A harvest method that provides a source of seed and/or protection for regeneration; the old crop (shelterwood) is removed in three successive shelterwood cuttings usually termed preparation, seed and overstory removal cuts.

**Timber:** A general term applied to tree stands that provide a wood-fiber product.

**Timber Production:** The purposeful growing, tending, harvesting and regeneration of regulated crops of trees to be cut into logs, bolts or other round sections for industrial or consumer use, except fuelwood.

**Timber Stand Improvement (TSI):** The elimination or suppression of the less desirable vegetation in favor of the more desirable tree growth, such as thinning, cleaning, weeding and release cuttings.

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

**Title Claim:** A claim of land as a person's own, based on any reasonable evidence that establishes the person's actual use of the land as though the person had obtained ownership in fee (FSH 5509.1105). A claim of land as a person's own, based on any reasonable evidence that establishes the person's actual use of the land as though the person had full title thereto from the time the person obtained ownership of the abutting land (36 CFR 254.31).

**Traffic Service Level (TSL):** A road's significant traffic characteristics and operating conditions. The levels reflect a number of factors, such as speed, travel time, traffic interruptions, freedom to maneuver, safe driving and comfort, convenience and operating costs. These factors, in turn, affect design elements, such as number of lanes, turnouts, pacing, lane widths, type of driving surface, sight distances, design speed, clearance, horizontal and vertical alignment, curve widening and turnarounds.

**Trail:** A general term denoting a way for purposes of travel by foot, stock or trail vehicle.

**Trail Vehicle:** Vehicle designed to operate on natural surfaced trails and rough terrain such as motorcycles, ATVs, and mountain bicycles.

**Trailheads:** The parking, signing and other facilities available at the beginning of a trail.

**Transportation Facility:** Any developed facility to enhance or allow travel between two points. Transportation facilities include airports, highways, trails, railroads and other facilities.

**Transportation System:** All roads needed to manage and administer Forest resources. A road network.

**Transportation/Utility Corridor:** A linear strip of land identified for the present location of transportation or utility rights-of-way within its boundaries.

**Travel Corridor:** A strip of land that includes up to a maximum of 1,000 feet for major roads (500 feet either side of the road's centerline) or 500 feet for major trails (250 feet either side of the trail's centerline); travel corridors form a passageway that allows travelers to experience and interact with the quality and character of the landscape. (See "Corridors, Forested" and "Corridors, Open" for wildlife.)

**Travel Management:** Travel management is the movement of people and products to and through national forests and grasslands. It connects many different varieties of users and multiple uses on National Forest System lands (Report of the National Access and Travel Management Team 1992).

**Travel Order:** A travel management decision issued by the responsible official to restrict, prohibit or allow the use of a described area or facility to entry or mode of travel.

**Travelway:** A road or trail that may be either open or closed to public use.

**Treated Area:** Area on which management, like timber harvesting or prescribed burning, occurs.

**Tree Improvement:** (See "Timber Stand Improvement.")

**Twenty-Five Percent Fund Act of 1908:** This act provided that twenty-five percent of all moneys received during any fiscal year from each national forest shall be paid, at the end of each year, by the Secretary of the Treasury to the state in which each national forest is located. This money goes to the counties based on the proportion of the national forest in the respective

counties. This payment is in addition to the payments in lieu of taxes made under the Payment in Lieu of Taxes Act of 1976.

**Two-step Shelterwood [Silviculture]:** A harvest method that provides a source of seed and/or protection for regeneration; the old crop (shelterwood) is removed in two successive shelterwood cuttings, usually termed seed and overstory removal cuts.

**Unacceptable Modification [Visuals]:** Management activities that totally dominate the characteristic landscape in a contrasting fashion, which does not blend or complement the natural landscape characteristics at any viewing distance.

**Understory [Vegetation]:** The lowest layer of vegetation in a forest or shrub community composed of grass, forbs, shrubs and trees less than 10 feet tall. Vegetation growing under the tree canopy.

**Uneven-aged [Silviculture]:** A forested area composed of intermingled trees that differ markedly in age. Normally three or more age classes are represented.

**Uneven-aged Management [Silviculture]:** The application of a combination of actions needed to simultaneously maintain tall, continuous cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes to provide a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to be retained within each area, thereby maintaining a planned distribution of size classes. Cutting methods that develop and maintain uneven-aged stands are single-tree selection and group selection.

**Universal Design:** Universal design is a relatively new approach that considers the needs of all users—children, the elderly, and people with mobility, sensory, cognitive, and temporary disabilities. In this approach, aspects and elements of accessibility are incorporated in the earliest planning stages and are designed to blend into the natural environment. The goal of universal design is to develop facilities, programs, and services that foster a sense of dignity, independence, and social integration for all visitors.

**Universal Soil Loss Equation (USLE):** The USLE is an erosion model designed to predict average soil losses from sheet and rill erosion. The USLE does not predict deposition, nor compute sediment yields from gully, stream-bank and stream-bed erosion. USLE was developed by the Agricultural Research Service in cooperation with the Soil Conservation Service and state experiment stations.

**Utilization Levels [Range]:** The portion of the current year's forage production by weight consumed or trampled by livestock. Utilization levels are usually expressed as a percentage.

**Utilization Standards [Timber]:** Standards guiding the removal of timber. They are measured in terms of diameter at breast height (DBH) and top of the tree inside the bark (the top diameter inside the bark or DIB) and the percentages of soundness of the wood.

**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.

**Values at Risk:** Any or all natural resources, improvements or other values that may be jeopardized if a fire occurs.

**Vegetation Treatment:** Any human activities undertaken to modify the existing condition of the vegetation.

**Vegetative Buffer Strips:** Strips of grass or other erosion-resisting vegetation between areas of ground disturbance and areas needing protection from sedimentation.

**Vegetative Management, Vegetative Manipulation, Vegetative Treatment:** Any activities undertaken to modify the existing condition of the vegetation.

**Vertical Diversity:** The diversity in an area that results from the complexity of the above-ground structure of the vegetation; the more tiers of vegetation or the more diverse the species makeup, or both, the higher the degree of vertical diversity (Thomas et al. 1979).

**Viable Population:** Group of individuals of a particular species that produces enough offspring for long-term persistence and adaptation of the species or population in a given place (Soule 1987). 36 CFR 219.19 defines a viable population for planning purposes as one that has the estimated numbers and distribution of reproductive individuals to insure that a continued viable population is well distributed in the planning area. Planning area is further defined by 36 CFR 219.3 as the area of the National Forest System covered by a regional guide or forest plan. Direction from the Forest Service Manual (FSM 2670.5) defines a viable population as one which has the estimated numbers and distribution of reproductive individuals to ensure the continued existence of the species throughout its existing range (or range required to meet recovery for listed species) within the planning area.

**Visual Absorption Capability (VAC):** The inherent capability of the landscape to support management activities without significantly affecting its visual character. Rated as high, moderate and low:

High (H): High visual capability to absorb change.

Moderate (M): Moderate visual capability to absorb change.

Low (L): Low visual capability to absorb change.

**Visual Quality, Visual Quality Objectives (VQO):** A set of measurable goals for the management of the Forest's visual resources. The stated goals are: preservation, retention, partial retention, modification and maximum modification. Except for "preservation," each goal describes a different degree of acceptable human-induced alterations of the natural-appearing landscape based on the importance of aesthetics:

Preservation: There are no management activities in areas with this VQO; it is applied to classified Wilderness, Wild Rivers and any administratively designated natural area where only ecological change is allowed. Such minor, localized features as trails and campsites are allowed.

Retention: Management activities are not evident; they blend well with the natural landscape and are barely discernible. Timber harvest and roading may occur in areas with a VQO of retention, but they must be designed to appear natural and unnoticeable. This VQO is generally applied to areas in the foreground of sensitive viewing areas.

**Partial Retention:** Alterations to the natural landscape may be apparent, but they are visually subordinate to natural features. Management activities such as timber harvest and roading may occur, but must be designed so they blend into the natural landscape.

**Modification:** Management activities may be visually dominant. They must be harmonious with features of the natural landscape, in their size, form, and linear characteristics.

Recreation developments, timber harvest units, and roads are examples of elements that may be found in a landscape that meets this VQO. Alterations to the landscape may not be in glaring contrast to natural forms.

**Maximum Modification:** Human activity may dominate the characteristic landscape, but should appear as a natural occurrence when viewed as background.

For areas of the Forest that do not meet the visual quality objectives established for them, two short-term management prescriptions are defined:

**Rehabilitation:** Management activities, within specific sites or project areas, which resulted in undesirable visual impacts to the natural landscape, may be treated to bring them back to a desired visual quality objective.

**Enhancement:** Management activities planned with the express purpose of increasing positive visual variety where little variety now exists within a relatively large block of land such as a Management Area.

**Visual Resource:** The composition of basic terrain, geologic features, water features, vegetative patterns and land-rise effects that typify a land unit and influence the visual appeal the unit may have for visitors.

**Waiver [Oil and Gas]:** Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

**Walk-in Fishery:** Areas managed for semiprimitive, nonmotorized access to fishing in order to protect riparian ecosystems. Areas managed in such a manner will be designated on the recreation map and at the specific sites.

**Waste Dumps Minerals:** The area where the overburden or non-ore material is placed. This material is derived from materials removed in gaining access to the targeted ore. Any dirt or rock that has been removed from its original location by mining operations.

**Watershed:** The area of land, bounded by a divide, that drains water, sediment and dissolved materials to a common outlet at some point along a stream channel (Dunne and Leopold 1978), or to a lake, reservoir or other body of water. Also called drainage basin or catchment.

**Watershed Order or Level:** The number assigned to an entire drainage basin contributing to the stream segment of a given order and bearing an identical designation; for example, a first-order watershed contains all of the drainage area of a first-order stream. Also called basin order. (See also "Watershed" and "Stream Order.")

**6th Level Watersheds:** A watershed coded with a 12-digit code, typically 10,000 to 30,000 acres in size.

**Waters of the United States:** Waters used for navigation and all other waters such as lakes, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, and their tributaries (33 CFR 328.3(a) and 40 CFR 230.3(s)).

**Water Rights:** Rights given by state and federal governments for the diversion and use of water.

**Water Table:** The upper surface of the groundwater or that level below which the soil is saturated with water.

**Water Yield:** (1) The measured output of surface water, usually measured in acre-feet. (2) The runoff from a watershed, including groundwater outflow.

**Water Yield Treatments:** Land management methods that affect the amount and/or timing of water yield. For example, certain harvest methods increase the likelihood that there will be increased water yield. Other management approaches, such as protecting and enhancing riparian areas, increase the likelihood that water flow will be sustained for a longer period of time.

**Way:** Nonsystem travel routes which are illegally created by both nonmotorized and motorized users traveling off FDRs and FDTs.

**Weeding [Silviculture]:** A silvicultural operation eliminating or suppressing undesirable vegetation, mainly herbaceous, during the seedling stage of a forest crop so as to reduce competition with the seedling stand.

**Wetlands:** Those areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds (FSM 2527.05).

**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.

**Wildcat Well [Oil and Gas]:** A well drilled in an area where oil and gas have not been previously discovered.

**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.

**Wildfire:** Any wildland fire not designated and managed as a prescribed fire within an approved prescription. All wildfires will be given an appropriate suppression action.

**Wildland Fire Management Strategy:** Overall plan for managing unplanned ignitions, with consideration given to the values threatened, potential fire behavior, legal constraints and the natural resources management objectives. All wildland fires will be controlled by one of three strategies:

- **Direct Control:** The immediate and complete extinguishment of a wildfire. Usually this control is restricted to new fire starts, to steady-state fires that have not reached large sizes, and to selected portions of large fires. Direct control also includes exposure protection in which critical resources such as houses are shielded from a fire. Typically, the goals, vision, and management direction of the ARF does not warrant this fire management strategy. The costs, risks, and implementation of direct control strategies will be shared by the local stakeholders who require this strategy to maintain their social/economic values.
- **Perimeter Control:** A strategy that seeks to confine the active zone that is responsible for fire spread. Actual fireline location (i.e., direct vs. indirect) will be selected to minimize the combined cost of suppression and the values that could be lost in a fire. The benefits of fire's effects may also be used to determine location.
- **Prescription Control:** The fire is considered to be controlled as long as it burns within specified geographic boundaries and predetermined burning properties. These parameters are contained within a written prescription. The prescription allows those fires to continue to burn that are seen as advancing management goals.

Each Geographic Area identifies the Wildland Fire Management Strategies.

**Wildland/Urban interface [Intermix]:** An area where urban encroachment into adjacent wildland areas is increasing the complexity and magnitude of problems related to all aspects of natural resource management and protection, including increased fire risks, unauthorized use, and littering.

**Windows on the Past:** A nationwide Forest Service program designed to highlight heritage resources and to provide for public education and interpretation of the nation's heritage resources.

**Windthrow:** The act of trees being uprooted by the wind.

**Winter Range:** The area available to and generally used by resident species, especially big game, through the winter season. Also important to a variety of other species during spring, summer and fall.

**Withdrawal [Minerals]:** An action that restricts the use of public land and segregates the land from the operation of some or all of the public land and mineral laws.