

Glossary

A

Access - See Public access.

Acquisition of land - Obtaining full ownership rights by donation, purchase, exchange or condemnation.

Acre equivalent - A unit of measure for structural and nonstructural wildlife habitat improvements converted to acres. One water = 640 acre equivalents (AcEq). Five acre equivalents are counted for every acre fenced, clearcut, seeded/planted and prescribed burn.

Acres of final removal (FREM) - A constraint used in FORPLAN to specify the minimum or maximum acres of suitable timber to be harvested by analysis area or forest-wide during any time period to insure lands to be regenerated do not exceed the Forest's manpower budget abilities to restock the area within 5 years of final harvest.

Acre-foot - A measurement of water volume. The volume of water that would cover one acre to a depth of one foot, equal to 43,660 cubic feet or 325,851 gallons.

Activity - Actions, measures, or treatments that are undertaken which directly or indirectly produce, enhance, or maintain forest and rangeland outputs or achieve administrative or environmental objectives.

Administration - Execution of an organizational policy to reach predetermined objectives.

Administrative unit - All the National Forest System lands for which one Forest Supervisor has responsibility.

Aesthetics - Pertaining to the quality of human perception of natural beauty (including sight, sound, smell, touch, taste, and movement).

Affected environment - The natural and physical environment and the relationship of people to that environment that will or may be changed by actions proposed.

Afforestation - The establishment of tree cover on an area where trees have not grown previously.

Age Class - Interval of years, commonly 20, into which trees are grouped for management. Example: 1-20 years, 21-40 years

Agriculture - A broad class of land and resource for the production of biotic crops - whether animal or plant.

Air pollution - Any substance or energy form (heat, light, noise, etc.) which alters the state of the air from what would naturally occur.

Airshed - The air encompassing a specific geographic region.

Allocation - The assignment of a land area to a particular use or uses to achieve management goals and objectives.

Allocation model - See Resource allocation models.

Allotment - See Range Allotment.

Allotment Management Plan - A 5-10 year plan for a livestock grazing allotment designed to secure the best practical use of the forage. It includes the grazing system to be practiced, areas to be revegetated and needed improvements such as water developments and fences. The grazing permittee and Forest range personnel jointly prepare the plan.

Allowable sale quantity - 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."

Alternative - In Forest planning, a mix of management prescriptions applied in specific locations to achieve a desired management emphasis as expressed in goals and objectives.

Amenity - The pleasurable, educational, or aesthetic features of the land or resources.

Analysis - In mathematics and computer science, it pertains to solving problems.

Analysis area - The basic land unit of analysis which is used to allocate and schedule management prescriptions. Each analysis area is considered to be homogenous in terms of input requirements and output response to management practices. Composed of capability areas or portions of capability areas with similar physical attributes, management costs and resource yields.

Analysis of the management situation - A determination of the ability of the planning area to supply goods and services. A phase of the planning process.

Animal unit month - The quantity of forage required by one mature cow (1,000 lbs.), or the equivalent, for one month.

Annual permittee plans - Written instructions to a grazing permittee that identifies what activities are planned and required on a range allotment during the coming grazing season. It is developed as a cooperative effort between the permittee and the Forest Service.

Arterial roads - Roads which service large land areas and usually connect with public highways or other Forest arterial roads to form an integrated network of primary travel routes. The location and standard are determined by a demand for maximum mobility and travel efficiency rather than by a specific resource management service. Usually they are developed and operated for long-term land and resource management purposes and constant service.

Aspect - The direction a slope faces (north, southeast, etc.).

AUM - See Animal unit month.

Available and suitable - See Available lands and Suitable lands.

Available lands - Those portions of the Forest not administratively excluded from use for timber harvest or livestock grazing.

Avoidance area - An area having one or more physical, environmental, institutional or statutory impediments to corridor designation.

B

Backlog - Resource jobs needing completion as directed by the deadlines in the Resource Planning Act (RPA). Includes reforestation, thinning and landline location.

Backlog reforestation - Areas needing reestablishment of tree cover due to failure of natural regeneration as a result of site conditions or lack of seed trees.

Backlog thinning - Those areas that had not previously been thinned and were in need of a precommercial thinning as of 1965.

Badlands - Regions where erosion has carved soft rocks into intricate and unique shapes and where vegetation is scanty.

Bankhead-Jones Farm Tenant Act - Authorizes the Secretary of Agriculture to develop a program of land conservation and utilization in order to correct maladjustments in land use, and to assist in controlling soil erosion; promoting

reforestation; preserving natural resources; protecting fish and wildlife; developing and protecting recreational facilities; mitigating floods; preventing impairment of dams and reservoirs; conserving surface and subsurface moisture; protecting the watersheds of navigable streams, and protecting the public's health, safety, and welfare.

Basal area - A measurement of how much of a site is occupied by trees. It is determined by measuring the square feet of the diameter of all the trees in an area of breast height (4.5 feet).

Base-in-exchange - Base-in-exchange lands are National Forest lands that have lost their wildland character. They are usually near communities and interspersed with private lands. These "base" lands are used to trade for isolated tracts of undeveloped private land that is usually surrounded by National Forest land.

Base sale schedule - A timber sale schedule formulated on the basis that the quantity of timber planned for sale and harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade, and this planned sale and harvest for any decade is not greater than the long-term sustained yield capacity.

Benefit (value) - Inclusive terms used to quantify the results of a proposed activity, project or program expressed in monetary or nonmonetary terms.

Benefit-cost analysis - An analytical approach to solving problems of choice. Benefit-cost analysis identifies for each objective that alternative which yields the greatest benefit for a given cost or that alternative which produces the required level of benefits for the lowest cost.

Benefit-cost ratio - An economic indicator of efficiency, computed by dividing benefits by cost.

Best management practice - Application of the best available demonstrated control technology, processes, measures and operating methods that are socially, economically and technically feasible for controlling soil loss or improving water quality.

Big game - Those species of mammals normally managed as a sport hunting resource, e.g., deer, turkey, elk, bear, etc.

Biological growth-potential - The average net growth attainable in a fully stocked natural forest stand.

BLM - Bureau of Land Management, U.S. Department of the Interior.

Board foot - The amount of wood in an unfinished board 1 inch thick, 12 inches long, and 12 inches wide.

Brush disposal - The reduction of wood (residue) remaining after a logging operation. Money is collected from the logging operation to pay for this reduction. The logger is often required and paid to take the residue to a road for the firewood user. Sometime it is piled and burned if not removed by the public. Sometimes it is piled and left in place as homes for wildlife. The residue is removed to control insects and make fires easier to control.

C

Cable logging - Logs are moved from their stumps to a road by a cable. They may be dragged along the ground or lifted into the air.

Calving areas (elk) - The areas, usually on spring range, where elk cows give birth to calves and tend them during their first few days or weeks.

Canopy - The more or less continuous cover of branches and foliage formed by the crowns of trees and other woody growth.

Capability - The potential of an area of land to produce resources, supply goods

and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon site conditions such as climate, slope, landform, soils, and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease.

Capital investment - An expenditure for long term additions or betterment, such as water developments, range fences, and campgrounds.

Carrying capacity (range or wildlife) - The maximum stocking rate possible without inducing damage to vegetation or related resources. It may vary from year to year on the same area due to fluctuating forage production.

Cavity nesters - Wildlife species that utilize tree cavities. Primary cavity nesters excavate their own hole. Secondary cavity nesters use natural cavities or cavities created by primary cavity nesters.

CEQ - See Council on Environmental Quality.

CFR - Code of Federal Regulations. A set of regulations that have been published in the Federal Register, and are used to govern Forest Service activities.

Cibola National Forest - The administrative title of the National Forest System lands administered by the Forest Service in Albuquerque, New Mexico. This includes the Cibola National Forest, and the Kiowa, Rita Blanca, McClellan Creek, and Black Kettle National Grasslands.

Clearcut - Removal of all standing trees over a given area of land in a single cut. Clearcut areas may occur in large or small blocks, patches or strips.

Clearcut harvest - Silvicultural system used to harvest mature trees at rotation age in one cut for the purpose of regenerating a new even-aged stand.

Climax - The culminating stage in plant succession for a given site; where the vegetation has reached a highly stable condition.

Closure - An administrative order restricting either the location, timing, or type of use in a specific area.

CMAI - See culmination of mean annual increment.

Cold-water fishery - Stream and lake waters which support predominantly cold-water species of game or food fishes (e.g., trout, salmon), which have maximum, sustained water temperature tolerances of about 70 degrees Fahrenheit in the summer.

Collector roads - Roads which serve smaller land areas and are usually connected to a Forest arterial road or public highway. They collect traffic from Forest local roads or terminal facilities. The location and standard are influenced by both long-term multi-resource service needs and travel efficiency. Forest collector roads are operated for constant service.

Commercial Forest - Forest land capable of producing merchantable timber, currently or prospectively accessible, and not withdrawn from such use. Excludes pinyon-juniper woodlands.

Commercial thinning - Thinning in tree stands with diameters greater than 5 inches for which there is a market value for pulpwood and/or small saw logs.

Commercial use - The use of products from the National Forest to make a profit.

Common variety minerals - See Minerals, common variety.

Compartment - A subdivision of Forest area used to gather information and plan future timber harvest. Its boundaries often correspond with topographic features.

Concern - See Management concern.

Conifer - A tree, usually an evergreen, that produces cones. Examples are: pinyon pine, ponderosa pine, Douglas-fir, white fir, juniper, spruce and bristlecone pine.

Consumptive use - A use of resources that reduces the supply—such as logging and mining. (See also Nonsumptive use.)

Contiguous analysis area - An analysis area confined within a single geographic area that is associated with a single issue, problem or management concern.

Controlled burn - A deliberate application of fire to an area where control is exercised. See prescribed fire.

Conventional ground skidding equipment - Machines that move along the ground on tracks or rubber tires and are used to skid (drag) logs to areas where they can be loaded on trucks and taken to a sawmill.

Cord - A unit of volume measurement containing 78 cubic feet of solid wood. Generally a stack of round or split wood measuring 4 feet wide by 4 feet high by 8 feet long.

Corridor - A linear strip of land identified for the present or future location of transportation or utility right-of-way.

Cost efficiency - The usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values but are achieved at specified levels in the least cost manner. Cost efficiency is usually measured using present net value, although use of benefit-cost ratios and rates-of-return may be appropriate.

Council on Environmental Quality - An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

Cover - Plants or plant parts, living or dead, used by wildlife for protection from predators, weather, or in which to reproduce.

Criteria - Predetermined factors for comparing alternatives to facilitate and expedite the decisionmaking process.

Critical habitat - That portion of a wild animal's habitat that is critical for the continued survival of the species.

Cubic foot - In timber management a volume is measured as a 1 foot cube of solid wood.

Culmination of mean annual increment (CMAI) - Point in time in the age of a forest stand in which the mean annual growth increment no longer increases.

Cultural resources - The physical remains (artifacts, ruins, burial mounds, petroglyphs, etc.) which represent former human cultures.

Cultural treatment - A non-commercial treatment undertaken to assist or complete regeneration or to promote the development of a forest crop, including planting, seeding, site preparation, precommercial thinning, release and pruning.

Culture - The complex whole which includes knowledge, beliefs, are, morals, customs, and any other capabilities and habitats peculiar to a society.

Cunit - Equivalent to 100 cubic feet of solid wood.

Current direction - The program level currently being used to implement the 1980 RPA program.

Cutting cycle - The planned, recurring period of time between successive cuttings or harvests in a stand of trees.

D

Data - Any recorded measurements, facts, evidence, or observations reduced to written, graphical, tabular, or computer form.

DBH - Diameter at breast height. Diameter of a tree approximately 4 ½ feet above the ground.

Decision unit - The smallest component of an alternative for which relevant inputs (costs) and outputs (benefits) are analyzed. A general term that applies to analyses at any level. Decision units may be grouped for decisionmaking into aggregates called decision variables.

Decision variable - A component of an alternative in which input costs, outputs and benefits are identified and used for analysis and decisionmaking.

DE-FORPLAN - Acronym for Direct Entry Forest Plan. A linear programming computer model used for developing and analyzing alternatives.

DEIS - See draft Environmental Impact Statement.

Demand - The quantity of a good or service called for by society at a given price.

Departure - Timber harvest schedule which deviates from the principle of nondeclining even flow by exhibiting a planned decrease in the timber sale and harvest schedule in the future. A departure is characterized as a temporary increase over the base sale schedule without impairing the Forest's long-term sustained-yield.

Desertification - The sustained decline and/or destruction of the biological productivity of arid and semiarid lands caused by manmade stresses, sometimes in conjunction with natural extreme events. Such stresses, if continued or unchecked, over the long term may lead to ecological degradation and ultimately to desert-like conditions.

Developed recreation - Use of a developed recreation site.

Developed recreation management - The administration, operation and maintenance of developed sites to established standards and management objectives.

Developed recreation rehabilitation - Rehabilitation of recreation sites and facilities that are unsafe or otherwise unsatisfactory. This work will result in returning the site to its originally designed capacity.

Developed recreation site - A distinctly defined area where facilities are provided for concentrated public use, e.g., camp grounds, picnic areas, swimming area.

Direction - See Management direction.

Directional drilling - Oil and gas well drilling at an angle to protect surface features setting over the resource to be extracted.

Discount rate - The interest rate used in plan formulation and evaluation for discounting future benefits and computing costs, or otherwise converting benefits to a common time basis.

Dispersed recreation - Recreation use which occurs outside developed sites.

District - See Ranger district.

Diversity - The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.

Draft Environmental Impact Statement (DEIS) - The version of the statement of

environmental effects required for major Federal actions under Section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for review and comment. It is a formal document which must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) Guidelines, and directives of the agency responsible for the project proposal.

Dwarf mistletoe - See mistletoe.

Dwarf mistletoe rating - The rating of a tree based on the degree of infection with dwarf mistletoe and the effect it has on growth or possible death of the tree.

E

Ecosystem - The system formed by the interaction of a group of organisms and their environment.

Edge - The place where plant communities meet or where successional stages or vegetative conditions within plant communities come together. It often contains organisms from both communities as well as those restricted to the interface area. The number of species present is often greater than the surrounding communities.

Effects - Results expected to be achieved from implementation of the alternatives relative to physical, biological, and social (cultural and economic) factors. Examples of effects are tons of sediment, pounds of forage, person-years of employment, income, etc. There are direct effects, indirect effects, and cumulative effects.

Elements - The elements relate to the activities and uses of the Forest. National and Regional planning and funding are by these elements. They are:

- Recreation
- Wilderness
- Fish and Wildlife
- Range
- Timber
- Water
- Minerals and Geology
- Human and Community Development
- Protection (law enforcement, fire, and insect and disease control)
- Lands (rights-of-way, boundaries, land trade, and acquisition)
- Soils
- Facilities (roads, trails, and buildings)

Elk calving - This usually happens between May 25 and July 10 each year, and is an extremely critical period for elk herd survival. Elk usually have their calves where there is a combination of grass, brush and thick timber. There should also be a water source within 1,000 yards.

Endangered species - A species which is in danger of extinction throughout all or a significant portion of its range—other than members of the class Insecta—and which have been designated under the provisions of the Endangered Species Act of 1973.

Endemic organism - A taxonomic category (e.g., genus, species, variety) whose natural occurrence is confined to a certain region and whose distribution is relatively limited.

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

Environmental analysis - An environmental analysis (is) made for all (Forest Service) policies, plans, programs, and projects affecting resources, other land uses, or the quality of the physical, biological, economic, and social environment.

Environmental analysis is the decision process used to determine the significance of environmental impacts. This, in turn, determines which and when environmental documents are appropriate.

Environmental analysis (is) documented in either an environmental assessment (EA) or an environmental impact statement (EIS).

Documents must present a brief explanation of the purpose and need for the action; the criteria for evaluating alternatives; the alternatives considered; the anticipated effects of implementing the alternatives; and, in most cases, the Forest Service preferred alternative.

Environmental assessment - A document which displays a comparison of the effects of a proposed project and alternatives to it on the environment.

Environmental impact statement - See Draft environmental impact statement and Final environmental impact statement.

Environmental setting - See Management situation.

Epidemic - The population level of an organism (usually insects) increases to the point of severe damage to a resource (trees).

Evapotranspiration - Process by which water moves from the soil to the atmosphere by evaporation from the soil or transpiration through plants.

Even-aged management - The application of a combination of actions that result 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 of 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 that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

Erosion - The processes whereby earthy or rocky material is worn away, loosened, dissolved and removed from any part of the earth's surface.

Erosion, natural - Wearing away of the earth's surface by natural agents under natural environmental conditions of climate, vegetation, etc., undisturbed by man.

Eyrie warden - Person assigned to locate and monitor birds of prey nests to prevent disturbance and determine reproduction success.

Exclusion area - An area having a statutory prohibition to right-of-way for lineal facilities or corridor designation.

F

Facilities - Transportation planning, road management and operation, fleet equipment and engineering services (example: administrative buildings, water and sanitation systems, sanitary landfills, dams, bridges, and communication systems).

Fawning areas - The areas, usually on spring ranges, where deer does give birth to fawns and tend them for a few days or weeks.

Feasibility - The relative advantage of managing or improving a land unit, considering its capability and suitability for specific use under the existing or projected socioeconomic climate.

Federal Register - A bulletin published daily by the Federal Government containing the schedule of hearings before Congressional and Federal Agency Committees, together with orders, proclamations, etc., released by the executive branch of the Government.

Final cut - See timber harvest.

Final Environmental Impact Statement (FEIS) - The final version of the statement of environmental effects required for major Federal actions under Section 102 of the National Environmental Policy Act (NEPA). It is a revision of the draft environmental impact statement to include published agency responses to the draft. It is a formal document which must meet legal requirements and is the document used as a basis for judicial decisions concerning compliance with NEPA.

Fire hazard - The volume, type, condition, arrangement and location of fuels (dead vegetation) that indicates the ease of starting a fire and difficulty of putting it out.

Fire risk - The probability of a fire starting from natural or manmade causes.

Firewood - Wood, either round, split or sawn, and burned primarily for heating purposes.

Fisheries habitat - Streams, lakes, and reservoirs that support fish.

Floodplain - That portion of a stream valley, adjacent to the channel which is covered, with water when the stream overflows its banks at flood stages.

Forage - All browse and nonwoody plants that are available to livestock or game animals for grazing or harvesting for feeding. The weight may be expressed as either green, air dry or oven dry. The term may also be modified as to time of production such as annual, current year's or seasonal forage production.

Forbs - Any nongrass-like plant having little or no woody material. Some people refer to these as weeds.

Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) - An Act 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 forest and rangelands and renewable resources nation-wide.

Forest development roads - Roads that are part of the Forest transportation system, which includes all existing and planned roads, as well as other special and terminal facilities designated as Forest development transportation facilities.

Forest land - Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest use. Lands developed for non-Forest use include areas for crops, improved pasture, residential or administrative areas, improved roads of any width and adjoining clearings and powerline clearings of any width.

Forest Plan - See National Forest land and resource management plan.

Forest Service - The Forest Service of the Department of Agriculture, as directed by Congress, is dedicated to the principles of multiple-use management of the Nation's forest resources for sustained yields of water, forage, wildlife, wood, and recreation. Through management of the National Forests and National Grasslands, cooperation with the States and private forest owners, and forestry research, it strives to provide increasingly greater service to a growing Nation.

The Secretary of Agriculture has assigned to the Forest Service the major responsibility of providing leadership in the management, protection, and utilization of the natural resources on all the Nation's forest and related rangelands, which cover one-third of our Nation's surface. This delegation of duties extended the basic activities of the Forest Service beyond the management of the National Forest System as authorized in the Organic Administration Act of 1897.

Included in this delegation of duties are participation on the local and national level in designating national priorities in proper land use, formulation of selected programs that carry out broad management objectives, establishment of a pattern of cooperative Federal forestry policies and programs whose cost-sharing provisions with the respective States will assure the maximum contribution of environmental, social, and economic benefits to present and future generations.

Forest Service activities that accomplish these objectives include three major areas of operation:

1. Management, protection, and development of the 187-million acres of National Forest to produce a continuous flow of economic and social values from the water, forage, wildlife, wood, and recreation resources thereon.
2. Cooperation with State foresters, owners of private forest lands, wood processors, and private and public agencies. This cooperation extends the Nation's forest inventory by improving the quality and increasing the quantity of goods and services produced, through more scientific management and utilization of timber resources.
3. Research functions that directly or indirectly support the above activities and the management of the country's forest and rangelands in general.

Forest standard - A performance criterion indicating acceptable norms or specifications that actions must meet to maintain the minimum conditions for a particular resource. This type of standard applies to all areas of the Forest regardless of the other management area direction applied.

Forest Supervisor - The official responsible for administering the National Forest System lands in a Forest Service administrative unit. He or she reports to the Regional Forester.

FREM - See acres of final removal.

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

Fuel loading - The amount of wood, grasses, and brush down on the ground.

Fuels - Anything within the Forest that will burn. Usually live and dead woody vegetation, e.g., grass, shrubs, trees.

Fuel treatment - The rearrangement or disposal of fuels to reduce the fire hazard. Fuels are defined as both living and dead vegetative materials consumable by fire.

Full capacity range - Rangelands that are accessible to livestock, produce forage or have inherent forage producing capabilities, are stable because of effective ground cover and can be grazed on a sustained yield basis under reasonable management goals.

Full service management - Management of developed sites, wilderness and dispersed areas to provide optimum service.

G

Game species - Any species of wildlife or fish normally harvested by hunters, trappers, and fishermen under state or federal Laws.

Geological area - A unit of land which has been designated by the Forest Service as containing outstanding formations or unique geological features, including caves and fossils. Areas of this type are identified and formally classified because of their recreational and educational values.

Girdling - To kill trees by cutting through the bark into the wood in a connecting

groove around the tree. This prevents the roots from getting food produced by the leaves and needles.

Goal - A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.

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

Grazing - Consumption of range or pasture forage by animals.

Grazing allotment - See Range allotment.

Grazing association - See Grazing district.

Grazing capacity - The maximum stocking rate possible without inducing damage to vegetation on related resources.

Grazing district - 1. An administrative unit of Federal range established by the Secretary of Interior under the provisions of the Taylor Grazing Act of 1934, as amended. 2. An administrative unit of state, private, or other rangelands, established under state laws.

Grazing permittee - An individual who has been granted written permission to graze for a specific period on a range allotment.

Grazing season- 1. A period of grazing to obtain optimum use of the forage resource. 2. On public lands an established period for which grazing permits are issued.

Ground water - Water in a saturated zone of a geologic stratum.

Growing stock level (GSL) - The stand density level, usually expressed as number of trees per acre or basal area per acre in square feet, required to maintain an optimum growth through the life of a stand. Trees per acre at 10 inch dbh and above equals the square foot basal area per acre.

GSL - See growing stock level.

Guideline - An indication or outline of policy or conduct.

H

Habitat - The natural environment of a plant or animal. The locality where the organism may generally be found and where all essentials for its development and existence are present. Habitats are described by their geographical boundaries, or with such terms as "shady woodlands," "banks of streams," "dry hillsides," etc.

Habitat diversity - See Wildlife habitat diversity.

Herbage - Herbs taken collectively, usually used in the same sense as forage, except that it may include material not palatable to grazing or browsing animals.

Herbicide - A chemical compound used to kill or control growth of undesirable plant species.

Host (Campground) - A person or persons serving as a volunteer at a developed recreation site. A camp site and available utilities are provided for the Host throughout the recreation season. The volunteer serves without pay and is present at the site to provide informational services to the public. The Host does not have cleanup, maintenance, or law enforcement responsibilities.

Human resource programs - Government programs aimed at employing people of a

variety of age classes for different types of jobs. These include such programs at:

- College Work Study Program
- Comprehensive Employment and Training Act (CETA)
- Cooperative Education Program
- Senior Conservation Employment Program (SCEP)
- Stay in School Program
- Summer Student Employment Program
- Volunteer Program
- Young Adult Conservation Corp (YACC)
- Youth Conservation Corp (YCC)

Goal - A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.

I

Improvement - Manmade developments such as roads, trails, fences, stock tanks, pipelines, power and telephone lines, survey monuments, and ditches.

Immature sawtimber - Trees that are nine inches in diameter and larger at breast height (dbh) but have not reached full development.

Improved range management - A system of range management to place the condition of the vegetation in an upward trend. This can result in benefits to other resources such as water, forage production, wildlife habitat and soils.

Indicator species - A wildlife species whose presence in a certain location or situation at a give population level indicates a particular environmental condition. Population changes are believed to indicate effects of management activities on a number of other wildlife species.

Information notice - A letter attached to a mineral lease advising applicant that constraints in addition to standard stipulations in lease may be added once a drilling plan is submitted.

Input/output analysis - A systematic technique for qualitatively analyzing the interdependence of producing and consuming units in an economy. It studies the interrelationship between products offered in the market place. It is a useful tool for separating the component parts of an economy to determine the influence of each on the other for short run forecasting and policy guidance.

Insect and disease - Forest insects and diseases are surveyed, monitored and sometimes controlled by the Forest Insect and Disease Management (FIDM) branch of the Forest Service. Forest diseases are usually not controllable except by removing the infected trees. There are many kinds of damaging forest insects, some of which are controlled by spraying insecticides or natural biological agents.

Integrated pest management - A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed. The information considered in selecting appropriate strategies includes the impact of the unregulated pest population on various resource values, alternative regulatory tactics and strategies, and benefit/cost estimates for these alternative strategies. Regulatory strategies are based on sound silvicultural practices and ecology of the pest-host system and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides. A basic principle in the choice of strategy is that it be ecologically compatible or acceptable.

Integrated stand management - Integrated stand management will be used to design timber sales. Using an integrated stand management approach managers design sales that optimize the harmonious relationships of timber, wildlife, forage, soil, water, recreation, and cultural resources. By establishing equitable distribution of special habitat conditions throughout the proposed harvest area, a carefully designed mosaic of structural stages and contrasting stand conditions is created. By mapping and tracking individual Forest stands, continuity of management is established. Several alternatives are to be designed that include a variety of prescriptions.

A timber stand refers to a community of trees, 10 to 100 acres in size with similar characteristics which differentiate it from other communities of trees. Each timber sale area consists of a number of stands, some of which are considered possible cutting units. A cutting unit is an area which may receive specific harvest treatment. Cutting units may consist of one or more individual stands or may be part of a larger stand.

About three years before the scheduled date of a sale, a reconnaissance is to be completed and possible cutting units are to be developed. Cutting unit boundaries are established by means of a field reconnaissance. Cutting unit boundaries may redefine stand boundaries to facilitate management objectives such as visual quality, dwarf mistletoe management, or activities such as fuels management and timber harvest. Cutting units are assembled into various configurations, using recommendations from appropriate resource specialists that are on interdisciplinary team, to create a range of timber sale alternatives. Each alternative is designed to achieve one or more objectives. Cutting units are distributed spacially to create desired age-class distribution, lessen the area impacted by timber management activities, to provide habitat diversity for wildlife or to protect other resource values such as recreation and cultural resources. All cutting units having high priority for treatment may be selected, without regard to their distribution, to achieve the objectives of another alternative. Stands not selected for treatment may be scheduled for entry in subsequent ten year timber sale programs.

The interdisciplinary team determines the effects of each alternative on all resources. A preferred alternative is developed from the various alternatives based on the assessment of which is most effective in addressing the overall needs of the resources. The stand conditions are tracked through time which provides a continuity of management direction.

Intensive range management system - A grazing system that considers all environmental and social needs of a specific land area. These are recorded in long range management plans for allotments.

Interdisciplinary team - A group of individuals with different training assembled to solve a problem or perform a task.

Intermediate development level - A level of modification for developed recreation sites. Modification is moderate, equally protecting both site and users. Generally, facilities are made of native materials and vehicle traffic controls

are inconspicuous. Roads may be hard surfaced and trails formalized. Development density is about three family units per acre. Forest environment is essentially natural.

Interpretive services - Information services designed to present inspirational, educational, and recreational values to Forest visitors to provide the utmost in understanding, appreciation and enjoyment from their Forest experience.

Irretrievable resource commitment - Allocation decision causing loss of production or use of renewable resource.

Irreversible resource commitment - Allocation decision affecting nonrenewable resources--soil, minerals and cultural resources--causing permanent loss of these resources.

Issue - See Public issue.

K

K-V funds - In 1930, Congress passed the Knutson - Vandenberg Act (K-V Act) to authorize collection of funds (K-V funds) for reforestation and timber stand improvement work on areas cut over by a timber sale. The National Forest Management Act of 1976 provides for using these funds for multi-resource improvements within timber sale areas.

L

Land acquisition (purchases) - There is an active land purchase program on the Cibola. This program uses funds collected under the auspices of the Land and Water Conservation Fund Act, to purchase private lands within designated wilderness and relatively undeveloped private lands for recreational purposes.

The purchase program briefly works as follows:

A private landowner offers to sell a tract of land to the Forest Service. If the tract is within an approved Recreation Acquisition Composite and if purchase funds are available, the land is appraised to estimate its market value. The appraisal process estimates the highest price which a property would bring if exposed for sale in the open market.

The Forest Service then purchases a title insurance policy to insure there are no title problems associated with the tract being acquired.

Forest Service attorneys then review the case and all associated documents to be sure that all legal requirements are being met and there are no defects in the title. The seller is then paid for the land and a warranty deed is issued by the private landowner.

Land exchange - The conveyance of non-Federal land or interest in the land to the United States in exchange for National Forest System land or interest in the land.

Landing - A location along a road where logs are piled for loading onto a truck.

Landline location - Location of Forest property boundaries.

Landownership adjustments (land exchanges) - Land exchanges involve the trading of a tract of National Forest land for a tract of private land having equal value.

The Forest land, which is traded to private ownership, is usually located close to or within a community. Consequently, this type of land has lost its wild land character and is better suited to be in private ownership.

The private lands which are acquired through an exchange are ordinarily isolated tracts within the Forest. They are undeveloped and wild land in character, so they are well suited for National Forest purposes.

The land exchange program allows for the consolidation of private holdings, and for community expansion through the transfer of Forest land to private ownership. It also provides for the addition of desirable private land within the Forest to the National Forest system.

Land exchanges are strictly regulated by various Laws and resultant regulations.

Some of the restrictions involved in the exchange program are as follows:

1. The exchange must benefit the public interest.
2. The lands being exchanged must be equal in value.
3. The lands being exchanged must be within the same state.
4. The private lands being acquired must be within the proclaimed boundaries of an established National Forest.
5. The Forest lands being traded cannot be encumbered by mining claims.
6. The Forest lands being traded cannot contain habitat for threatened and/or endangered plant and animal species.
7. The selected lands cannot be in a floodplain or have a high flood hazard.
8. The selected lands must be free of significant cultural resources such as archeological sites and paleontological deposits.
9. The selected lands must not contain significant mineral deposits.

The land exchange process, much simplified, works as follows:

A private landowner approaches a Cibola official, ordinarily a District Ranger, with a land exchange proposal. This proposal will state what Forest land the landowner wishes to acquire and what private land he is willing to trade.

Cibola officials review the proposal to make sure that it meets the nine restrictions and criteria stated earlier. The exchange proposal is then sent to the Regional Forester with appropriate recommendations.

The offered and selected tracts are then appraised, using recent private land sales as a basis for establishing the value of both tracts. The acreage of these tracts often has to be adjusted so that the value of both tracts are equal.

At this point the private landowner must furnish proof of a clear title to the land which he is trading to the Forest Service. This is done through a title insurance policy.

The case is then closely reviewed by agency attorneys to insure that all legal requirements are met.

The case is then approved, and the private landowner transfers title of the offered land to the United States with a warranty deed.

The Bureau of Land Management, Department of Interior, then issues a patent to transfer the Forest Service land to the private landowner.

Landownership adjustment schedule - A document that is prepared for each Ranger District on the Cibola. It lists private lands that are desirable for acquisition into the National Forest. It also lists National Forest lands that have lost their wild land character and can be traded into private ownership.

The schedule is then used as the governing document for the Cibola's land exchange program.

Law enforcement training levels -

Level I (8 hours): A general orientation for all employees as to law enforcement philosophy and their personal responsibilities as nonlaw enforcement personnel.

Level II (40 hours): The basic law enforcement training for personnel involved in enforcement of Federal regulations. This course is required before anyone is authorized to issue violation notices.

Level III (80 hours): Provides beginning criminal investigation skills and understanding of District level responsibilities.

Level IV (120 hours): Advanced criminal investigation training.

Laws - The major legislation authorizing activities of the Forest Service, U.S. Department of Agriculture are:

1891: Creative Act. Created the National Forest System by authorizing the President to establish Forest Reserves, comprising forest and rangelands in the public domain.

1897: Organic Administrative Act. Provided for the protection and management of the Forest Reserves, within the Department of the Interior. Granted the right of entry to persons for prospecting, locating, and developing mineral resources, in accordance with provisions of the U.S. Mining Laws. Authorized the sale of dead, matured, or large growth of trees, at not less than appraised value.

1905: Transfer Act. Transferred the Forest Reserves for the Department of the Interior to the Department of Agriculture.

1911: Weeks Law. Authorized purchase of lands to be administered as National Forest lands, for timber production and regulations of flow of navigable streams.

1924: Clarke-McNary Act. Established basis for cooperation of the Forest Service with State Foresters in fire prevention and suppression, and in the procurement, production, and distribution of forest-tree seeds and plants for reforestation and afforestation purposes. Authorized aid to farmers in forestry activities.

1928: McSweeney-McNary Act: Authorized basic forestry research providing for cooperation with others, and established Forest Service regional forest experiment stations, for conducting fire, silvicultural, and other forest-management investigations.

1930: Knutson-Vandenberg Act. Required purchasers of National Forest timber to deposit money, in addition to timber stumpage payments, to cover cost to the United States of replanting harvested areas and removing undesirable trees from the areas.

1937: Bankhead-Jones Farm Tenant Act. Established National Grasslands of 3.8 million acres, and authorized other land conservation and land utilization activities in management of acquired lands.

1947: Forest Pest Control Act. Authorized Secretary of Agriculture to cooperate with others in conducting surveys on forest lands to detect and appraise forest insect pests and tree diseases and to determine control measures. Control measures applied to non-Federal lands were to be financed cooperatively.

1950: Cooperative Forest Management Act. Authorized Secretary to cooperate with State Foresters in providing technical management and marketing services to private landowners and operators and wood processors.

1955: Agricultural Experiment Stations Act. Consolidated authorizations for appropriations of Federal funds to support agricultural experiment stations in states and territories and provided for regional projects.

1960: Multiple Use-Sustained Yield Act. Reemphasizes basic concept that the National Forests are to be administered for outdoor recreation, watershed, range, timber, and wildlife and fish purposes. Reaffirmed the right to develop mineral resources.

1962: Cooperative Forestry Research Act. (McIntire-Stennis) Made funds available to states on matching basis to help carry out research at land grant institutions and state-supported forestry schools.

1964: Wilderness Act. Established the National Wilderness Preservation System. Nucleus of the system in 1964 was the 10 million acres of wilderness, that had been so designated by the Forest Service since 1924, when the nation's first wilderness was established in New Mexico. Provided for study of additional wildernesses.

1965: Land and Water Conservation Fund Act. Established a system of financing federal grants of monies to states for recreation and various recreation programs. The Forest Service and other Federal agencies were authorized to purchase lands and water areas primarily suited for recreational development. Funds were to be derived from motorboat fuels taxes, admission and user fees in National Park and National Forest areas, and surplus property sales.

1968: National Trails Systems Act. Established a national system of recreation and scenic trails and designated Appalachian and Pacific Crest Trails as initial components in system. Provided for studies leading to establishment of other national recreation and national scenic trails.

1968: Wild and Scenic Rivers Act. Designated certain rivers in Nation as having outstanding scenic, geologic, recreation, cultural, or other attributes meriting the retention of each river in a free-flowing condition, through protected corridors. Initial components were designated and study of other rivers provided for.

1970: National Environmental Policy Act of 1969. Declared it to be a national policy to encourage harmony between man and his environment and established a Council on Environmental Quality. Required all Federal agencies to prepare a report on environmental impact of planned programs or actions by the agency, and to suggest alternative actions.

1970: Youth Conservation Corps Act. Provided for the summer employment of youths from ages 15 to 18 and the establishment of regional Corps Centers. The youths so enrolled were to be employed for conserving, developing, preserving, or maintaining public lands administered by the Departments of the Interior and Agriculture.

1973: Forestry Incentives Act. Shared the cost of tree planting and forest management with small landowners. Federal share of these costs ranged from 50 to 75 percent, distributed through Agricultural Stabilization and Conservation Committees. Landowner had to have forest management plan for property, prepared through State Forester's office.

1974: Forest and Rangeland Renewable Resources Planning Act (PL 93-378). A planning and budgetary procedure act that required Forest Service to prepare long-range programs for the National Forest System for the next 40 years in 10-year stages. It included administration, roads and trails, research, and cooperative programs. Report due December 1975 from Secretary of Agriculture must give assessment of present and anticipated supply and demand needs, an inventory of present and potential resource opportunities, plus an annual progress report.

1974: Woodsy Owl Campaign. Authorized Secretary of Agriculture to license the manufacture and distribution of Woodsy Owl merchandise and to collect royalty

fees for such licensed use, and to protect unauthorized use of the antipollution symbol.

1976: National Forest Management Act. Amends the 1974 Forest and Rangeland Renewable Resources Planning Act (RPA) and gives more specific direction.

Lifestyle - A characteristic way of living which may be an individual variant within the cultural mainstream or may be an individual expression of a subculture. "Lifestyles" are generally expressed through the means of economic sustenance, dwelling site and type, group associations, and social practices such as family form, religious practices, sexual mores, style of dress and type of diet.

Limited surface occupancy - Stipulation(s) added to standard mineral lease specifying limitation(s) on specific area(s).

Local roads - Local roads are usually one-lane roads constructed to serve a dominant use or resource. Local roads do not access large land areas since they are more site specific than arterial and collector roads.

Locatable minerals - See Minerals, locatable.

Long-term effects - Those effects which will be significant beyond the RPA planning horizon for 50 years.

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

LTSYC - See long-term sustained yield capacity.

M

M - Thousand.

MM - Million.

MBF - One thousand board feet.

MMBF - One million board feet.

Management area - It has common direction throughout that differs from neighboring areas. The entire Forest is divided into management areas. Each is described and policies and prescriptions relating to their use are listed.

Some are similar in vegetation, soils, climate and topography. Others may have different soils and vegetation but the same management direction, such as wilderness and ski areas.

Management area standard and guidelines - Management practices selected and scheduled for application in a specific area to attain multiple use and other goals and objectives.

Management concern - An issue, problem, or a condition which constrains the range of management practices identified by the Forest Service in the planning process.

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

Management indicator species - See indicator species.

Management intensity - A management practice or combination of management practices and associated costs designed to obtain different levels of goods and services.

Management opportunity - A statement of general actions, measures, or treatments that address a public issue or management concern in a favorable way.

Management practice - A specific activity, measure, course of action, or treatment.

Management prescription - Management practices and intensity selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives.

Management situation - A comprehensive statement of the planning area resources, its history, past and present uses, and a review of the public's concerns with the area.

Management standards and guidelines - See Standard and Guideline.

Mast - The fruit of trees suitable as food or livestock and wildlife.

Mature sawtimber - Trees that have attained full development and the growth rate has leveled off.

Maximum potential - The maximum potential output level that can be attained.

Mean annual increment - The total increment of merchantable volume growth per acre, up to a given age, divided by that age. Culmination of mean annual increment is the stand age where the mean annual increment of growth is greatest or reaches its highest point.

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

Mineral entry - Filing a mining claim on public land to obtain the right to any minerals it may contain.

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

Mineral leases - A document issued by the Bureau of Land Management, Department of Interior, for the removal of certain minerals not locatable by mining claims. Leases are used for the development and removal of oil and gas, coal, and uranium on acquired lands.

Mineral production - Extraction of mineral deposits.

Mineral withdrawal - Public lands withdrawn from mineral entry under the General Mining Laws and the mineral leasing laws. Lands withdrawn usually have unique features which are highly valued by the public or are needed for administrative purposes.

Minerals, common variety - Deposits which—although they may have value for use in trade, manufacture, the sciences, or in the mechanical or ornamental arts—do not possess a distinct, special economic value. May include sand, stone, gravel, pumicite, cinders, pumice (except that occurring in pieces of two inches on a side), clay, and petrified wood.

Minerals, leasable - Coal, oil, gas, phosphate, sodium, potassium, oil shale, sulphur (in Louisiana and New Mexico), and geothermal steam.

Minerals, locatable - Those hard rock minerals which are mined and processed for the recovery of metals. May include certain nonmetallic minerals and uncommon varieties of mineral materials such as valuable and distinctive deposits of limestone or silica. May include any solid, natural inorganic substance occurring in the crust of the earth, except for the common varieties of mineral materials and leasable minerals.

Minimum viable population - A wildlife population of sufficiently large size to assure its continuous existence within the area of concern without the introduction of individuals from outside the area.

Mining claim - That portion of the public estate held of mining purposes in which

the right of exclusive possession of locatable mineral deposits is vested in the locator of a deposit.

Mining claim, patented - A mining claim to which a patent has been secured from the Government by compliance with the laws relating to such claims.

Mining patent - The patent is a legal document which conveys the title to the ground (i.e., ownership) to the claim's owner.

Mistletoe - The mistletoes are parasitic plants that cause injury to their woody hosts. The two types of mistletoe found in New Mexico are dwarf mistletoes and true mistletoes. Dwarf mistletoes live on conifers only, while true mistletoes occur on conifer and hardwood trees and shrubs. The parasitic mistletoes withdraw essential nutrients and water from their host tree resulting in injury and sometimes tree mortality.

In New Mexico, dwarf mistletoes attach ponderosa pine, southwestern white pine, pinyon, Douglas-fir, Engelmann spruce, and blue spruce while true mistletoes are found on several species of juniper, numerous species of oak, and other hardwoods. The mistletoe plant varies in color from green to red-green. Dwarf mistletoe plants vary in size from an inconspicuous bud-like structure protruding through the tree bark to shoots nearly a foot long. True mistletoe plants vary in size from several inches to several feet in length. Symptoms of mistletoe infection include swelling at infection sites and the formation of witches' brooms.

Dwarf mistletoes are spread by explosive fruits which shoot seeds 20 to 30 feet into the surrounding area. True mistletoes are spread by birds that feed on the mistletoe berries. The seeds from the berries pass through the bird unharmed and are thus spread in the bird feces.

Branches on mistletoe-infected trees may be pruned to reduce damage to the tree and to reduce further spread of the parasite. No chemical or biological controls are available for mistletoe control.

Mott - A group of trees.

Multiple use - 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; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

N

National Environmental Policy Act (NEPA) - An act declaring a National policy to encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and the biosphere and stimulate the health and welfare of man, 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 Danger Rating System (NFDRS) - System used to rate current and expected fire danger from low to extreme based upon weather, fuels and risk.

National Forest Land and Resource Management Plan - A plan developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all resource management activities and establishes management standards and guidelines for the National Forest System lands of a given National Forest.

National Forest Management Act (NFMA) - A law passed in 1976 that amends the

Forest and Rangeland Renewable Resources Planning Act and requires the preparation of Forest plans.

National Forest System land - National Forests, National Grasslands, and other related lands for which the Forest Service is assigned administrative responsibility.

National Recreation Trails - Trails designated by the Secretary of the Interior or the Secretary of Agriculture as part of the national system of trails authorized by the National Trails System Act. National Recreation Trails provide a variety of outdoor recreation uses in or reasonably accessible to urban areas.

National Register of Historic Places - A list (maintained by the National Park Service) of areas which have been designated as being of historical significance. The Register includes places of local and state significance as well as those of value to the Nation.

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

National Wilderness Preservation System - Pristine Federal lands designated by the Wilderness Act of 1964 and subsequent wilderness legislation. Generally these lands are untouched by "works of man."

Natural prescribed fire - See Prescribed fire.

NEPA - See National Environmental Policy Act.

Nest and escape trees - A group of six to nine trees usually 14 inches dbh or larger with interlocking branches. The escape trees provide a means of escape for Abert and red squirrels. The squirrels will not climb the nest tree when returning, but rather a nearby escape tree--then travel through the branches (canopy) to the nest.

Net public benefits - An expression used to signify 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. The maximization of net public benefits to be derived from management of units of the National Forest System is consistent with the principles of multiple use and sustained yield.

NFMA - See National Forest Management Act.

No action alternative - The most likely condition expected to exist in the future if current management direction would continue unchanged.

No surface occupancy - Stipulation added to standard mineral lease permitting extraction but prohibiting occupancy of the surface of the lease.

Nonconsumptive use - Use of a resource that does not reduce the supply, such as many types of recreation. (See also Consumptive use.)

Noncontiguous use - Use of a resource that does not reduce the supply, such as many types of recreation. (See also Consumptive use.)

Noncontiguous analysis area - An analysis area consisting of many parcels of biologically homogeneous land scattered throughout the Forest.

Nondeclining even flow or yield - Refers to a harvest schedule in which the harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade of planning period.

Nongame wildlife - Species of animals which are not managed as a sport hunting or fishing resource.

Non-point source pollution - The Environmental Protection Agency defines non-point

source pollution in terms of activities rather than specific conveyances. Non-point sources of pollution are the result of activities which are initiated or caused by natural processes, including precipitation, drainage, seepage, percolation, and runoff; or is not traceable to any discreet or identifiable facility. The term silvicultural non-point source includes activities inherent to forest management which accelerate the effects of natural processes. Such activities include nursery operations, site preparation, reforestation and subsequent culture, thinning, prescribed burning, pest and fire control, harvesting operations, and the construction and maintenance of roads and other transportation systems associated with these activities.

Non-structural range improvement - Practices and treatments undertaken to improve range and involving construction of improvements.

O

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

Obliterate - The action needed to close an unneeded road and return the land to production.

Occupancy trespass - The illegal occupation or possession of National Forest land or property.

Old growth - The final successional stage of a stand of trees. Characterized by a high degree of decadence because of declining health and vigor. Tree ages are in excess of 120 years.

On site soil loss - The movement of soil from the point at which it was formed to another location.

Opportunity - See Management opportunity.

ORV - Off-road vehicle. This includes all mechanical means of transportation; passenger cars, 4-wheel drive pickups, trail bikes, snowmobiles or other ground transportation vehicles that are capable of traveling overland where no roads exist.

ORV closure - An administration order restricting a land area to specified types of off-road vehicle travel yearlong.

ORV restriction - An administrative order restricting a land area to specified types of off-road vehicle travel during specific seasons or conditions.

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

Overmature sawtimber - Trees that are past the age of full development. Growth rate is declining and the trees can be more susceptible to attack by insects or disease. The age that this occurs depends on species of tree and the quality of site on which it is growing.

Overstory - The portion of trees in a forest which forms the upper most layer of foliage.

Overstory modification - Removal of 80 percent or more of the overstory to increase production of grass and browse for utilization by livestock and wildlife.

P

Pack In-Pack Out - A program to encourage the public to assist in keeping wilderness areas, dispersed areas and some developed sites clean of litter and trash. Visitors are required to remove their own trash.

PAOT (People at one time) - The number of people that can use a recreation opportunity at any one time without substantially diminishing the quality of the experience sought after.

Particulates - Small particles which are suspended in the air and generally are considered pollutants.

Pasture - An area, generally enclosed, providing grass and other growing herbage suitable as food for grazing animals.

Patented land - Public lands conveyed to private ownership most commonly by homestead, mining or land exchange laws.

Perennial interrupted stream - Water course containing occasional perennial surface water due to ground water interception with intervening intermittent reaches exhibiting a saturated moisture regime beneath the channel bed.

Permitted grazing - Use of a National Forest range allotment under the terms of a grazing permit.

Personal use - Normally used to describe the type of permit issued for removal of wood products (firewood, posts, poles, latillas, and Christmas trees) from National Forest land when the product is for home use and not to be resold for profit.

Pesticide - An organic or inorganic preparation used to control populations of injurious organism, plant or animal.

Planning area - The area covered by a Forest Plan.

Planning Criteria - Standards, tests, rules and guidelines by which the planning process is conducted and upon which judgments and decisions are based.

Planning horizon - The overall time period considered in the planning process that spans all activities covered in the analysis or plan and all future conditions and effects of proposed actions which would influence the planning decisions.

Planning period - Generally one decade. The time interval within the planning process horizon that is used to show incremental changes in yields, costs, effects, and benefits.

Planning questions - A major policy question of long range significance, derived from the public issues and management concerns, to be addressed when selecting among alternative Forest plans.

Planning records - A system that records decisions and activities that result from the process of developing a forest plan, revision, or significant amendment.

P&M funding - Protection and Maintenance funding is given to the Forest Service by Congress to perform its annual duties, such as: fire prevention and suppression, timber sale preparation and administration, recreation administration, range management, wildlife management and soils and watershed management.

Point source pollution - Silvicultural point source pollution is defined to be those forestry related activities in which any discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting or log storage facilities from which pollutants are discharged into the waters of the United States.

Pole timber - A tree, usually four to twelve inches in diameter at breast height (dbh) and twenty to sixty years old.

Portable water system - A spring, well, or surface water which is tested, monitored and sometimes treated with chemicals to insure that it is safe for human consumption as drinking water.

Potential natural vegetation - Vegetation that would exist today if man were removed from the scene and if resulting plant succession were telescoped into a single moment.

Potential recreation site - Areas that have been inventoried as possible locations for construction of recreation facilities in the future.

Practice - See Management practice.

Precommercial thinning - Thinning trees with diameters under 5 inches where material thinned does not have a market value. Selective cutting of trees with an objective of removing the least desirable trees and improving the spacing of remaining trees to accelerate growth.

Preferred alternative - The alternative recommended for implementation as the Forest Plan based on the evaluation completed in the planning process. (See Proposed Action).

Preparatory cut - Removal of mature trees near the rotation age in a shelterwood harvest for the purpose of opening the canopy to encourage development of cone bearing crowns for seed production on the remaining trees.

Prescribed fire - The natural (unplanned ignition) or intentional (planned ignition) application of fire to wild land fuels under such conditions as to allow the fire to be confined to a predetermined area, intensity of heat and rate of spread. Required to obtain planned resource objectives.

Prescription - This is a combination of practices with standards and guidelines that can be applied to a piece of land to reach a desired future condition. A practice is an activity such as harvesting timber, building a fence or planning. A standard and guideline limits or defines a practice. An example might be to leave three standing dead trees per acre for wildlife.

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.

Present value of benefits (PVB) - Cumulative discounted benefits to 2180.

Present value of costs (PVC) - Cumulative discounted costs to 2180.

Primitive roads - Roads constructed with no regard for grade control or designed drainage, sometimes by merely repeated driving over an area. These roads are single lane, usually with native surfacing and sometimes passable with 4-wheel drive vehicles only, especially in wet weather.

Productivity - See Site productivity.

Proposed action - Specified in the National Environmental Policy Act as the project, activity, or decision that a Federal agency intends to implement or undertake which is the subject of an environmental impact statement.

Public - The people of an area, state, or nation that can be grouped together by a commonality of interests, values, beliefs, or lifestyles.

Public access - Usually refers to a road or trail route over which a public agency claims a right-of-way available for public use.

Public issue - A subject or question of widespread public interest relating to the management of National Forest System.

Pulpwood tree - Trees that are ground up and made into pulp for paper.

Purchaser credit - A dollar amount allowed a timber purchaser for building a road. He is given credit in lieu of paying cash for timber on a given sale.

Put-to-bed - Action needed to place a local road in a low maintenance condition during a period of low use by surface stabilization, revegetation and drainage structures.

R

Range allotment - A designated area available for livestock grazing upon which a specified number, kind of livestock and season of use may be grazed under a term grazing permit. The basic land unit used to facilitate management of the range resource on National Forest System and associated lands administered by the Forest Service.

Range condition - Condition as elevated and ranked by the Forest Service is a subjective expression of the status of health of the vegetation and soil relative to their combined potential to produce a sound and stable biotic community. Soundness and stability are evaluated relative to a standard that encompasses the composition, density and vigor of the vegetation and the physical characteristics of the soil.

Vegetative Condition Classes

<u>Rating</u>	<u>Condition</u>	<u>Ecological Condition</u>
81-100	Excellent	High
61-80	Good	High
41-60	Fair	Mod. High
21-40	Poor	Mod. Low
0-20	Very poor	Low

(Table shows the cross walk between ecological condition and condition)

Range improvement - Any structure or nonstructural improvement to facilitate management of rangelands or livestock.

Rangeland - Land where the vegetation is predominantly grasses, grass-like plants, forbs, or shrubs suitable for livestock grazing and browsing.

RANGELAND model - Computer model developed by Region 3 to estimate available forage for livestock based on plant physiology, range condition class and overstory crown cover.

Range management intensity levels - A = Currently unstocked Forest allotments. B = Allotments that are currently stocked, are estimated to be not more than 20 percent overstocked, and have minimal levels of management currently being applied. These allotments need additional intensity of management applied. C = Currently stocked allotments are estimated to be no more than 20 percent overstocked if any, and have management systems being applied on the ground which should lead to resource improvement. Some stocking adjustments may still be needed upon evaluation of systems and followup production and utilization studies. D = Currently stocked allotments, are not overstocked more than 20 percent, if any, and have intensive management systems being applied on the ground to correct resource problems. Stocking level may still need verification by production and utilization studies. E - Livestock use permitted by grazing permit, permitted use does not exceed forage production, full development and management for livestock production using cost effective techniques to maximize AUM output without regard for other multiple use constraints, i.e., full range of vegetative type conversion. X - Currently stocked allotments which are either more than 20 percent overstocked, have significant resource deterioration continuing, and will require major adjustments in stocking or greatly improved and intensified management systems or both stocking adjustment and improved management.

Range management - The art and science of planning and directing range use to obtain sustained maximum animal production, consistent with perpetuation of the natural resource.

Range trend - A measured change in range condition over time. Vegetation and soils are usually measured to determine trend.

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

Raptors - They are birds of prey, such as hawks, owls, and eagles. One of the behavior characteristics of these animals is to frequently return year after year to the same nesting area. Accordingly, the nesting sites of these protected species should be retained with minimal human disturbance.

RARE II - See Roadless Area Review and Evaluation II.

Real dollar value - A monetary value which compensates for the effects of inflation.

Reconstruction - Road or trail construction activities which take place on an existing road or trail and raise the standard of the road or trail. This can include relocation of the facility in a completely new location.

Receipt shares - The portion of receipts derived from Forest Service resource management that is distributed to State and county governments, such as the Forest Service 25 percent fund payments.

Record of Decision - A document, separate from but associated with an environmental impact statement, that publicly and officially discloses the responsible official's decision on which alternative assessed in the EIS will be implemented.

Recreation improvement construction - Construction of a new recreation site including all developed site facilities, such as: toilets, picnic tables, roads, parking sites, water systems and trails.

Recreation Opportunity Spectrum (ROS) - A method of delineating types of recreation settings. There are six ROS meetings. Only the first four are evident on the Cibola National Forest. These settings are: Primitive - Essentially unmodified natural environments; Semi-Primitive Non-Motorized - Predominantly natural or natural appearing environments without motorized use; Semi-Primitive Motorized - Predominantly natural or natural appearing environments where motorized use occurs; Roaded Natural - Predominantly natural appearing environments with moderate evidence of the sights and sounds of man; Rural - Modified natural environment with facilities for special activities; Urban - substantially urbanized environment.

Recreation Visitor Day (RVD) - A unit for measuring recreation activities which aggregate 12 visitor hours. May consist of one person for 12 hours, 12 persons for one hour or any equivalent combination of continuous or intermittent recreation use by individual or groups.

Reduced service management - Management of developed sites and wilderness and dispersed acres to provide service below established standards and objectives.

Reforestation - The natural or artificial restocking of an area usually to produce timber and other wood products, but also to protect watersheds, prevent soil erosion, and improve wildlife, recreation and other natural resources. Natural reforestation includes site preparation to reduce competing vegetation and provide a mineral seed bed for seed provided by seed trees. Artificial reforestation is the planting of seedlings, cuttings or seeds by hand or mechanical means and may include site preparation.

Reforestation backlog - See backlog reforestation.

Regeneration - The term is used two ways: 1) The actual seedlings or saplings existing in a young tree stand; or 2) The act of reforesting an area.

Regeneration cutting - The removal of trees intended for the purpose of assisting regeneration already present or to make regeneration of the stand possible.

Region - For planning purposes, the standard administrative unit of the Forest Service administered by a Regional Forester.

Region 3 - The Southwest Region. A Forest Service organizational unit consisting of all National Forests in New Mexico and Arizona plus four National Grasslands in Texas, Oklahoma and New Mexico.

Regional Forester - The official responsible for administering a single Region and preparing a Regional Guide.

Regional Guide - The plan developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act on 1974, as amended, that guides all natural resource management activities and establishes management standards and guidelines for the National Forest System lands of a given region. It also disaggregates the RPA objectives assigned to the Region and to the Forest within that region.

Reintroduced wildlife - Reestablishing certain species of wildlife that were once native to the area but have been destroyed by man or man-related activities. The animals are trapped from an existing herd, then transported to a release site.

Removal cut - Removal of remaining mature trees near rotation age in a shelterwood harvest to provide full sunlight to the regenerated crop.

Research Natural Area - An area set aside by the Forest Service to preserve a representative sample of an ecological community; primarily for scientific and educational purposes. Commercial exploitation is not allowed and general public use is discouraged.

Resource - An aspect of human environment which renders possible or facilitates the satisfaction of human wants and the attainment of social objectives.

Resource allocation model - A mathematical model using linear programming which will allocate land to prescriptions and schedule implementation of those prescriptions simultaneously. The end purpose of the model is to find a schedule and allocation that meets the goals of the Forest and optimizes some objective function.

Resource element - A major Forest Service mission-oriented endeavor which fulfills statutory or executive requirements and indicates a collection of activities from the various operating programs required to accomplish the mission. The eight resource elements are recreation, wilderness, wildlife and fish, range, timber, water, minerals, and human and community development.

Responsible line officer - The Forest Service employee who has the authority to select and/or carry out a specific planning action.

Restoration plan - A plan for reclamation or improvement of land damaged beyond the point of natural recovery.

Revegetation - The reestablishment 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 man-reforestation or range reseeding.

Right-of-way - The right to pass through another person's land as obtained by condemnation or purchase.

Right-of-way acquisition - The Cibola is participating in a road and trail rights-of-way acquisition program. The purpose of this program is to provide the access needed for the administration of resource programs on the Cibola, and to provide access for the user public.

Once a landowner has agreed to grant a right-of-way to the Cibola, the proposed easement is surveyed and platted. The area is then appraised to establish the value of the right-of-way. Recent sales of private land in the area are used to help establish the value of the right-of-way. Clear title to the easement is insured through a title insurance policy which is purchased by the Forest Service.

After careful review by Forest Service officials and attorneys, the right-of-way is purchased and the seller is paid the appraised price for the easement.

The right-of-way acquisition program is hampered by the following factors:

1. The lack of willingness of private landowners to sell rights-of-way to the Forest Service.
2. The lack of adequate funding for the program.

There are provisions in the rights-of-way acquisition program which allow for the condemnation of a right-of-way. This method is used as a "last resort" when all attempts at peaceful negotiation have failed and the road cannot reasonably by-pass the private land.

Condemnation is not often used, as it is expensive, time consuming and not understood by the public. This method may have to be used more often in the future to get badly needed rights-of-way.

Riparian ecosystem - A transition between the aquatic system and the adjacent terrestrial ecosystem identified by soil characteristics and distinctive vegetation communities that require free or unbound water.

RMYLD - Acronym for Rocky Mountain Yield, a computer program used to simulate timber growth based on site index, basal area, species, mortality, mistletoe and silvicultural objectives.

Road and trail operation and management - This program deals with the proper signing, traffic counts, and other inventories of roads and trails.

Road construction - Once the need for a new road has been determined (timber sales, recreation site, etc.) a study is made to find all the alternative routes or locations for the road. Aerial photographs and contour maps are used during this phase of the project to find possible alternative locations. These routes are then located on the ground and a multi-disciplinary team reviews the routes on the ground. Each member of the team (Forester, Range Conservationist, Engineer, Soils, Scientist, Hydrologist, etc) analyze the proposed locations in relation to his field. After this review the best route or location is determined and the preliminary survey work begins. A profile of the route is made and the alignment is measured. The road design can now begin and the amount of earth to be moved is computed. The exact location of each culvert is marked after a study of the existing arroyos and streams is made. The soil characteristics may require the gravel surfacing be placed on the roadway after construction to hold up to the weight of heavy traffic. Next, plans and specifications are developed which spell out in detail exactly how the road is to be constructed. The roadway is now marked on the ground with construction stakes which tell where culverts are located, how much earth to move and where the curves are located. During this time the contract has been advertised for competitive bids from contractors in the area. The lowest bidder is usually awarded the contract to construct the road. During construction several inspectors are on the job site to insure the contractor complies with all aspects of the plans and specifications. Upon completion of the project, the newly built road is opened for public use.

Road density - The number of miles per square mile in a land area.

Road drainage - A structure within the roadway used to allow passage of a natural drainage from one side of the road to the other, remove surface water from the roadway, and to intercept and remove surface or underground water flowing towards the roadway from adjacent areas. The structure may be culverts, perforated pipes, bridges, or an earthen dike built into the roadway.

Roadless Area Review and Evaluation (RARE II) - The assessment of unroaded areas within the National Forests as potential wilderness areas. This refers to the second review which has begun in 1977 and documented in a final environmental impact statement, January 1979.

Road maintenance - Level 1 maintenance involves annual inspection to identify drainage problems in order to protect the investment and resources. The road is always closed to public use. Level 2 maintenance includes brushing, logging-out, restoring the road prism and signing necessary to provide passage for high clearance vehicles only. Traffic is usually minor and for administrative use or permittees. Level 3 maintenance provides for an average daily traffic (ADT) volume of less than 15 and provides minimal conditions for passenger cars. Level 4 maintenance covers roads with an ADT from 15 to 100. More emphasis is given to user comfort. Roads are frequently surfaced with aggregate material. Level 5 maintenance is for 100 ADT or more and is paved or has an aggregate surface to ensure safe and comfortable driving conditions.

Rollover - The second of two FORPLAN runs. The objective function of the first (output) run maximizes the output of the featured resource, e.g., sawtimber MBF or range AUMs. The second (rollover) run uses either a "minimize cost" or "maximize PNV" objective function and uses the output values obtained from the first run as constraints.

Rotation age - The period of years between initial establishment of a stand of timber and the time when it is regenerated.

Rotation grazing (rest rotation) - The range is divided into two or more pastures. They are grazed in a specific order with definite rest periods for each pasture between grazing periods.

RPA - See Forest and Rangeland Renewable Resources Planning Act.

RPA Program - The recommended direction for long range management of renewable resources of National Forest System lands. This direction serves as the basis for the Regional targets assigned to the Forest. The development of this direction is required by the Forest and Rangeland Renewable Resources Planning Act.

RVD - See Recreation Visitor Day.

S

Salables - See Minerals, common variety.

Sale schedule - The quantity of timber planned for sale by time period from an area of suitable land covered by a forest plan. The first period, usually a decade, of the selected sale schedule provides the allowable sale quantity. Future periods are shown to establish that long-term sustained yield will be achieved and maintained.

SALT - Acronym for Strata Analysis Level and Timing option, a computer program used to develop DE-FORPLAN timber yield tables from RMYLD simulations.

Salvage harvest - Removal of dead or dying trees resulting from insect and disease epidemics or wildfire.

Sanitation harvest - Removal of dead or dying trees to prevent spread of insects or disease.

Satisfactory range allotments - Allotments with management intensities A - D. Stocking is at capacity or in no case more than 20 percent overstocked. Range and watershed conditions are stable or improving.

Satisfactory range management - The planned systematic use of the range resource to achieve optimum utilization of forage for sustained maximum animal production consistent with perpetuation of all natural resources. Factors considered in achieving satisfactory management include the kind, breed and class of livestock, type of ranch operation, permitted numbers, season of use, grazing capacity and natural features which limit optimum distribution.

Sawtimber - Trees suitable in size and quality for producing logs that can be processed into lumber. For planning purpose on the Forest, trees with a nine-inch diameter were classified as sawtimber.

Scoping - Determination of the significant issues to be addressed in an EIS.

SCORP - See State Comprehensive Outdoor Recreation Plan.

Secondary modern development level - A level of modification for developed recreation sites. Modification is heavy with facilities provided strictly for comfort and convenience of users. Construction may use synthetic materials and vehicle traffic controls are usually obvious. Artificial surfacing of roads and trails is extensive. Development density is three to five family units per acre. Forest environment is pleasing and attractive but not necessarily natural.

Sediment - Solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

Seed cut - Removal of mature trees near rotation age in a shelterwood harvest to permanently open the stand and prepare the site for regeneration from the seed trees left for that purpose.

Seedling/sapling - A forest successional stage in which trees less than five inches in diameter are the predominant vegetation.

Selection cutting - The annual or periodic removal of trees, individually or in small groups from an uneven-aged forest in order to realize the yield and establish a new crop of irregular constitution.

Sensitive - Those plants not presently listed as Threatened or Endangered by U.S. Fish and Wildlife Service but warrant special consideration by management to assure they do not become listed.

Seral - A plant and animal community which is transitional in stage of succession, being either short- or long-term. If left alone, the seral stage will pass, and another plant and animal community will replace it. Aspen represents a seral stage that would eventually be replaced by conifers such as spruce.

Shelterwood cutting - The removal of a stand of trees through a series of cuttings designed to establish a new crop with seed and protection provided by a portion of the stand.

Shelterwood harvest - Silvicultural system used to harvest mature trees at rotation age in a series of preparatory, seed and removal cuts designed to regenerate a new even-aged crop under the shelter of the old crop.

Short-term effects - Those effects which will not be significant beyond the RPA planning horizon of 50 years.

Silviculture - The science and art of growing and tending crops of forest trees.

Silvicultural prescription - Recommendations by a certified silviculturalist on the treatment needed for stands of trees based on tree species, condition of the stand, and the objective of management.

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

Site class ratings -

Site Class I - Areas that will produce a tree taller than 75 feet in 100 years.

Site Class II: Areas that will produce a tree between 55 feet and 75 feet tall in 100 years.

Site Class III - Areas that will produced a tree less than 55 feet tall in 100 years.

Site Index - How tall the better trees in a stand are when they are 100 years old.

Site preparation - Removing unwanted vegetation and debris from a site and preparing the soil before reforestation.

Site productivity - Production capability of specific areas of land.

Size class - For the purposes of Forest planning, size class refers to the intervals of tree stem diameter used for classification of timber in the Forest Plan data base: less than five-inch diameter = seedling/sapling; five to nine-inch diameter = pole timber; and greater than nine-inch diameter = saw-timber.

Skidding - Moving trees from where they were growing to a point where they are loaded on trucks and taken to a sawmill. On the Cibola this is usually done by dragging the logs with a tractor.

Skid trail - Path used to drag or transport trees from a stump to a road.

Slash - Debris left after logging, pruning, thinning, or brush cutting, and large accumulations of debris resulting from windstorms. It includes logs, bark, branches, and stumps.

Small game - Birds and small mammals normally hunted or trapped.

Snag - A standing dead tree from which the leaves and most of the branches have fallen.

Snag recruitment - Reservation of suitable live trees near death for replacement of snags in the future or killing trees to create new snags.

Social analysis - An analysis of the social (as distinct from the economic and environmental) effects of a given plan or proposal for action. Social analysis includes identification and evaluation of all pertinent desirable and undesirable consequences to all segments of society, stated in some comparable quantitative terms. It also includes a subjective analysis of social factors not expressible in quantitative terms.

Soil erosion - The detachment and movement of soil from the land surface by wind, water, or gravity.

Soil productivity - The capacity of a soil, in its normal environment, to produce a specific plant or sequence of plants under a specific system of management.

Soil survey - See Terrestrial Ecosystem Inventory.

Southwestern Region - See Region 3.

Special cutting - Logging activities in special areas, such as recreation areas and administrative sites, where other uses or values override timber production values.

Special use permits - Special uses are defined as: all use and occupancy on more than a transient basis of Cibola lands except those covered by the mining laws, or those associated with the harvesting of timber, or the grazing of livestock.

These uses include roads, all types of utilities, ski areas, cemeteries, electronic sites, and recreation residences.

These uses are ordinarily covered by one of two types of permits; either an annual or term permit.

Annual permits are for a relatively short term use and are revocable by the Forest Service. They are renewable each year by the payment of a fee.

Term permits are used to cover uses of a longer time period (up to 30 years) and having a large economic investment. Examples of when this permit would be used are large electronic transmission lines and large recreation resorts and ski areas.

An exception to the above two types of permits is when a land use is proposed by another Federal agency. This type of use is covered by a Memorandum of Understanding between the Forest Service and the other agency. This document describes the use and the responsibilities of both agencies pertaining to the use.

Some uses crossing National Forest land, such as major highways, pipelines, powerlines, railroads, and canals may be covered by an easement issued by a Federal agency other than the Forest Service. Issuance of these easements are governed by specific legislation relating to these types of uses.

There is ordinarily a fee collected for a special use. An exception to this rule is in the case of political subdivisions such as states, counties, and cities. They ordinarily qualify for a free permit since their special uses are usually for the public benefit.

Special use fees are most commonly based on a percentage of the value of Cibola land occupied.

Some large specialized uses, such as ski areas, have a fee levied on a percentage of their gross sales in proportion to their original investment in improvements, fixtures and equipment needed to generate income.

Special use permits are prepared, issued, and administered in such a way that Cibola resources are protected, public safety is insured and a fair monetary return is insured for the Federal Government.

Special uses - Special use permits.

Stand - A group of trees on a minimum of 1 acre of forest land that is at least 10 percent stocked by forest trees of any size.

Stand condition class - Classification of a stand based on damage, quality, stocking, age and size of trees.

Standard - Performance criteria indicating acceptable norms or specifications that actions must meet. A principle requiring a specific level of attainment, a rule to measure against.

Standard stipulations - Constraints added to all mineral leases to protect resource from unnecessary disturbance. Fire, erosion control, payment for damages, cattleguards, pollution, camp construction, Plan of Operation, environmental analysis, protection of threatened and endangered species and cultural resources are covered.

State Comprehensive Outdoor Recreation Plan (SCORP) - Plan prepared by the State which identifies recreation supply and demand and recommends future development actions.

State Historic Preservation Officer (SHPO) - This person is in charge of the National and State Register of historical places. The register lists the Nation's and State's official properties of historic and cultural value worthy of preservation. It describes publicly and privately owned districts, sites,

buildings, structures, and objects that are significant in American and State history, architecture, archeology, and culture.

Stocking rate - Range management usage. The actual number of animals, expressed in either animal units or animal unit months, on a specific area at a specific time.

Stock tank - An earthen livestock or wildlife watering facility normally constructed in a natural drainage by excavating a pit to collect overland water flow.

Structural range improvement - Improvement requiring construction or installation to improve the range, facilitate management, or control distribution and movement of livestock.

Stumpage value - To arrive at this value the Forest Service starts with the price of wood at the lumber yard and subtracts all the costs of getting the tree from stump to lumber.

Suitability - The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices.

Suitable lands - Lands which are appropriate for the application of certain resource management practices as determined by an analysis of the economic and environmental consequences and the alternative uses foregone.

Supply potential - The output production possible from available resources.

Sustained yield of products and services - The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the National Forest System without impairment of the productivity of the land.

System road - A road that is part of the permanent transportation system for the forest and periodically receives maintenance.

T

Targets - Objectives assigned to the Forest by the Regional Plan.

Temporary roads - Temporary roads are low-level roads constructed for a single purpose and short-term use. Once use of the road has been completed, it is obliterated, and the land it occupied is returned to production.

Terrestrial Ecosystem Inventory - Systematic inventory based on the concept that within the landscape there are naturally occurring ecosystems with unique sets of properties. These terrestrial ecosystems form a continuum and can be recognized at different levels in classification systems. The soils component of the ecosystem is inventoried through the use of "Soil Taxonomy," USDA Soil Conservation Service Handbook #436, and the "Terrestrial Ecosystem Vadose and Phreatic Survey Procedure," a Forest Service handbook. The vegetation component of the ecosystem is inventoried through the use of the International Classification and Mapping of Vegetation, UNESCO, and the above mentioned Forest Service handbook. The terrestrial ecosystem inventory is sometimes referred to as "soil survey" in the planning documents.

Thinning - Cutting made in an immature stand to accelerate diameter growth and improve form of remaining trees.

Threatened and endangered species - See Threatened species and Endangered species.

Threatened species - Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range and which has been designated in the Federal Register by the Secretary of the Interior as a threatened species.

Tiering - Refers to the coverage of general matters in broad environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses such as regional or basin wide program statements or ultimately site-specified statements), incorporating by reference the general discussions and concentrating solely on the issues specific to the statement in question.

Timber - A general term for the major woody growth of vegetation in a forest area.

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. The term "timber production" does not include production of fuelwood.

Timber stand improvement (TSI) - Cuttings made in an immature stand to accelerate diameter growth and improve the form of the trees that remain.

Topography - The configuration of a land surface including its relief, elevation and the position of its natural and man-made features.

Trailhead - The parking, signing, and other facilities available at the terminus of a trail.

Trail maintenance levels - The extent of maintenance done on trails will vary with the maintenance level assigned to that trail.

These maintenance levels are defined as follows:

Level I. This level is basic protection work to keep damage to the adjacent land to a minimum and provide for user safety. Drainage work is emphasized. Signs advising users of trail condition or restriction will be installed and maintained.

Level II. This level is preservation maintenance used on long term trails to perpetuate the pathway in its present location; but cannot or should not budget sufficient maintenance funds to provide for user convenience. Trails in this level are maintained at sufficient cycles to protect the investment and to prevent deferred work from adding to the backlog of other needed reconstruction work.

Level III. This is the highest level of trail maintenance and the full spectrum of service to meet management objectives for the trail type is met in this level. Maintenance is more frequent and complete than other levels.

Transportation system - All existing and planned roads and trails needed to access the Forest.

Travelway - An unconstructed two-track road resulting from repeated cross-country travel.

Trick tank - A livestock or wildlife watering facility that collects precipitation and drains it into a storage tank. The water is then transferred by pipeline to a drinking tub.

TSI - See Timber Stand Improvement.

Turkey nesting and other habitat requirements - Turkey nesting activity generally occurs in late April, May and early June in the ponderosa pine type. Turkey will usually nest within one-half mile of water. Nesting habitat can be enhanced by leaving two logging slash or thinning slash piles per acre and seeding tall species of grasses in disturbed areas. The slash piles per acre and seeding tall species of grasses in disturbed areas. The slash piles should be within one-half mile of water.

The tall grasses provide seed heads above deep snow for adult turkey during critical winter periods and slash piles provide additional nesting sites for the ground-nesting turkey.

Turkey roost trees - Turkeys prefer to roost in tall, mature, or overmature flat top ponderosa pine trees (16-42 inch dbh) on easterly and southerly exposures. Trees with relatively open crowns and large horizontal branches 20-30 feet from the ground receive the heaviest use. The roost site is a small group of trees, averaging 13 per acre with the above characteristics and sparse ground cover.

Turkey droppings can be found under roost sites and during the winter when turkeys are grouped together in large flocks, dropping accumulations become quite noticeable. Roosts are generally within one-fourth to one-half mile of water. Sites are used at irregular intervals, as the same group of turkeys will employ several roost sites.

U

Unclassified area - Refers to the classification of lands for the purpose of establishing utility corridors. It is that land area not previously classified as an exclusion area, avoidance area, window or corridor.

Understory - The trees occupying the lower level of a stand that has at least two size and age classes.

Uneven-aged management - The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes to provide a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to retain 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 soil loss equation (USLE) - Empirical erosion model that computes long-term average soil losses from sheet and mill erosion under specified conditions.

Unpalatable species - In range management usage, plant species that are not readily eaten by animals.

Unsatisfactory range allotments - Allotments with management intensity of X. Stocking is at least 20 percent overstocked. Range and watershed conditions are deteriorating at a rate which will cause significant management changes and/or investments to correct.

Use season - That period of time developed recreation sites are open for public use, with routine maintenance, cleanup, and operation on a scheduled basis.

USF&WLS - U. S. Fish and Wildlife Service, Department of Interior.

Utilization standards - The specifications, such as: length, diameter, board foot volume and defect of a log. If a log meets the minimum standards, it must be removed from the woods and hauled to a sawmill for scaling.

V

Vegetative manipulation - The change of one vegetation type to another. This is most often from pinyon-juniper or sagebrush to grass. It can be done by a tractor, chemicals, or fire. Usually, this is done to increase forage for livestock and can be a beneficial tool for wildlife.

Vegetative type - A community of different plants named after one or more of the dominant plants. The ponderosa pine vegetation type has the same plant species in many different locations on the Cibola.

Viable population - A wildlife species population large enough to maintain its existence.

Viewshed corridor - The seen or potentially seen area from a travel route irrespective of vegetation. Typical foreground distance zone is 0 to ¼ or ½ mile, middle ground zone is 3 to 5 miles and background is beyond.

Visual absorption capability (VAC) - An estimate of the relative ability of the landscape to accept management manipulations without significantly affecting its visual character. It is a measure of the relative capability of the land to absorb visual change.

Visual Quality Objective (VQO) - Measurable standards for the management of visual resources of the landscape. Refers to the degree of acceptable alterations of the characteristic landscape based on the importance of aesthetics. Visual Quality Level (VQL) was the title given during the inventory. Because of intensive review in this process, the levels will now be called "Objectives" for the land. Objectives used in the Plan are:

Preservation - provides for ecological change only.

Retention - Man's activities are generally not evident to the casual visitor.

Partial Retention - In general man's activities may be evident but must be subordinate to the characteristic landscape.

Modification - Man's activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color and texture. Man's activities should appear as natural occurrences when viewed from foreground or middle ground.

Maximum Modification - Man's activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.

Visual resource - The composite of basic terrain, geological features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

Visual variety class - A classification system for establishing visual landscape categories according to the relative importance of the visual features.

Volunteer program - A volunteer is a nonpaid person who gives his or her time and talent to further the mission of the Forest Service.

Volunteers are recruited, trained and accepted without regard to Civil Service laws, rules or regulations.

Handicapped persons will be considered for appropriate jobs. Except for incidental expenses volunteers do not receive salary from the Forest Service.

W

Warm-water fishery - Stream and lake waters which support fishes with a maximum summer temperature tolerance of about 80 degrees Fahrenheit. Bluegills, catfish, and largemouth bass are examples.

Water-rights - The legal right(s), to use water for a specified purpose and in a given manner. The term is usually applied to the right to divert or store water for an out-of-stream use, such as irrigation, domestic or municipal water supply.

Watershed - The area that contributes water to a drainage or stream.

Water yield - That portion of the annual precipitation which contributes to stream flow and recharge of the ground water table.

Weeks Act - Passed in 1911, it set up the National Forest Reservation Commission and authorized the Secretary of Agriculture to purchase land for addition to the National Forest System, provided that such purchases were approved by the Commission and by the states in which they were made.

Wetlands - Any area that is more or less regularly wet or flooded. Where the water table stands at or above the land surface for at least part of the year.

Wild and Scenic Rivers Act - Declares that it is a policy of the United States that certain selected rivers which, with their immediate environments, possess outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved for the benefit and enjoyment of present and future generations.

Wilderness - All National Forest lands included in the National Wilderness Preservation System; an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.

Wilderness Act - Established a National Wilderness Preservation System to be composed of Federally-owned areas designated by Congress, administered for use and enjoyment as Wilderness, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.

Wildfire - Any fire on wild lands other than one intentionally set for management purposes and confined to a predetermined area.

Wildlife - All nondomesticated mammals, birds, reptiles, and amphibians living in a natural environment, including both game species and nongame species. Animals, or their progeny, which once were domesticated but escaped captivity and are running wild (i.e., feral animals), such as horses, burros, and hogs, are not considered wildlife.

Wildlife habitat diversity - The distribution and abundance of different plant and animal communities and species within a specific area.

Wilding - A naturally grown seedling (small tree).

Window - A critical segment of terrain through which rights-of-way could pass in traversing from points of origin to destination.

Withdrawal - An order removing specific land areas from availability for certain uses.

Woodland - Pinyon and juniper forests usually growing on drier sites in the low elevations (less than 8,000 feet).