

# Chapter 4

## Consultation, Coordination, Glossary, and Index

PREPARERS.....	4-2
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## Preparers

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Contribution: Smoke Management Report

Experience: Forest Service – 25 years in wildland fire and fuels management

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Contribution: Logging Systems, Unit Design, Roads Analysis

Education: Bachelor of Science degree in Forest Management from the University of Washington

Experience: Forest Service – 30 years in timber sale planning, preparation, sale administration, natural resources, logging systems, and fire

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Contribution: Interdisciplinary Team Leader

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Contribution: Fire/Fuels Cumulative Effects

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Contribution: Economics

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Experience: Forest Service – 27 years in forest planning and operations research, including transportation planning and forest analysis

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Contribution: Recreation/Trails

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Contribution: Range: Grazing and Non-Forested Vegetation

Education: Bachelor of Arts in Public Relations from Susquehanna University; pre-graduate work in Environmental, Population, and Organismic Biology, University of Colorado-Boulder; Master of Science Degree in Rangeland and Ecosystem Science, Colorado State University

Experience: National Park Service – two years natural resource management - wildlife, range, resources, noxious weed management; Bureau of Land Management – one year – permit administration and rangeland resources; Forest Service – one year permit administration and rangeland resources

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Contribution: Wildlife  
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Contribution: Review of snag retention guidelines  
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Forest Service – 16 years in wildlife biology at District, Forest, Region, and Washington Office levels

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Experience: Industrial Forestry – 1.4 years, Forest Service – 28 years in silviculture, timber, and related resources. Certified Silviculturist since 1985

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Contribution: Fisheries  
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Experience: Forest Service, Confederated Tribes of Warm Springs, Oregon Department of Fish and Wildlife, and Consultant – 14 years

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Contribution: Hydrology / Soils  
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Experience: Forest Service – 4 years in hydrology and engineering

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Contribution: Road Reconstruction  
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Contribution: Fire / Fuels  
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Experience: Forest Service – 18 years in fire and fuels management, hotshots, district fire  
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Contribution: LEAD: GIS Maps and Analysis  
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Contribution: Heritage Resources  
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Experience: Forest Service – 17 years in cultural resource survey and management; University of  
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***David L. Walter, USDA Forest Service, Fremont-Winema National Forests, Klamath Falls Work Center, Civil Engineering Technician***

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Contribution: Sensitive Plants and Noxious Weeds  
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District Ranger - 6 years; Interdisciplinary Team Leader/Project Manager – 3 years;  
Forest NEPA Coordinator – 5 years; Forest Land Management Planning – 4 years

***Desiderio C. Zamudio, USDA Forest Service, Fremont-Winema National Forests and USDI Bureau of Land Management, Lakeview District, Soil Scientist***

Contribution: Soil Geography and Conditions

Education: Bachelor of Science in Soil and Water Science from the University of California, Davis and a Master of Science in Hydrology and Hydrogeology from the University of Nevada, Reno.

Experience: Forest Service and Bureau of Land Management – 22 years in soil and water topics, water projects in forest and rangelands, three published soil surveys and ecological guides, cooperative research projects, and interagency cadres.

## List of Agencies, Organizations, and Individuals To Whom the Draft EIS, Summary, or Web Availability Notification Was Sent

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Curtis L. Wicks Contracting  
D.R. Johnson Lumber Company, Gerald Keck  
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Oregon Dept. of Fish and Wildlife, Habitat Conservation Division	USDA TDP, EAD, Deputy Director, Animal and Plant Health Inspection Service
Oregon Dept. of Forestry	USDA Forest Service - Bend-Fort Rock Ranger District
Oregon Dept. of Forestry, Resources Library	USDA Forest Service - Deschutes National Forest
Oregon Dept. of Geology and Mineral Industries, Dennis Olmstead	USDA Forest Service - Crescent Ranger District
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Oregon Hunters Association	USDA Office of Civil Rights, Policy and Planning Division
Oregon Natural Desert Association	USDA OPA Publication Stockroom
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Silver Lake Mercantile and Motel	
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Smith, Mary Baker and Colin	
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USDA National Agricultural Library	

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[http://www.psw.fs.fed.us/Tech\\_Pub/Documents/gtr-181/029\\_Agee.pdf](http://www.psw.fs.fed.us/Tech_Pub/Documents/gtr-181/029_Agee.pdf)
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## GLOSSARY

### A

**ACCESS** - Usually refers to a road or trail route over which a public agency claims a right-of-way for public use; a way of approach.

**ACRE-FOOT** - A measure of water or sediment volume, equal to the amount that would cover an area of one acre to a depth of one foot (325,851 gallons).

**ACTIVITY** - An action, measure or treatment undertaken that directly or indirectly produces, enhances, or maintains forest and rangeland outputs, or achieves administrative or environmental quality objectives. An activity can generate multiple outputs.

**ACTIVITY FUELS** - Fuels generated or altered by a management activity.

**ADMINISTRATIVE UNIT** - An area under the administration of one line officer, such as a District Ranger, Forest Supervisor, or Regional Forester.

**AGE CLASS** - An interval, usually 10 to 20 years, into which the age ranges of vegetation are divided for classification or use.

**AGE GROUP DISTRIBUTION** - Age class distribution; the location and/or proportionate representation of different age classes in a forest.

**AIRSHED** - A geographic area that, because of topography, meteorology, and climate, shares the same air.

**ALLOCATION** - See LAND USE ALLOCATION or RESOURCE ALLOCATION.

**ALLOTMENT** - See RANGE ALLOTMENT.

**ALLOWABLE SALE QUANTITY (ASQ)** - The quantity of timber that may be sold, from the area of suitable land covered by the Forest Plan, for a time period specified by the Plan. This quantity is usually expressed on an annual basis as the "average annual allowable sale quantity."

**ALL TERRAIN VEHICLE (ATV)** - A vehicle characterized by its ability to negotiate most kinds of terrain, by virtue of traction devices such as wide tracks, large, low-pressure rubber tires and/or four-wheel drive.

**ALTERNATIVE** - One of several policies, plans, or projects proposed for decision-making.

**AMENITY** - An object, feature, quality, or experience that gives pleasure or is pleasing to the mind or senses. The terms "amenity values" or "amenity resources" are typically used in land management planning to describe those resources for which monetary values are not or cannot be established (such as clean air and water, or scenic quality).

**ANIMAL UNIT MONTH (AUM)** - The amount of forage required by one mature (1,000 lb.) cow or its equivalent for one month (based upon average forage consumption of 26 lbs. dry matter per day).

Animal Month is one month's use and occupancy of the range by one animal. For grazing fee purposes, it is a month's use and occupancy of range by one weaned or adult cow with or without calf, bull, steer, heifer, horse, burro, or mule, or 5 sheep or goats. Forage consumption by other animals is converted to AUMs from animal months by the following factors:

mature cow	= 1.0AUM
mature sheep	= 0.2 AUM
one horse	= 1.2AUM
cow/calf	= 1.32 AUM
ewe/lamb	= 0.3AUM

**AQUATIC ECOSYSTEMS** - Stream channels, lakes, marshes or ponds, and the plant and animal communities they support.

**ARTERIAL ROAD** - Primary traffic route serving a large area and providing travel efficiency for many activities. Arterial roads are non-project roads, usually built with Agency funds.

**ARTIFACT** - An object made or modified by humans.

**ASSIGNED VALUES** - Monetary values given to non-market resources, based on estimates from comparable market transactions. For example, the benefits of dispersed recreation are given assigned monetary values for their production.

## B

**BACKGROUND** - In visual management terminology, refers to the visible terrain beyond the foreground and middleground where individual trees are not visible, but are blended into the total fabric of the stand. Also a portion of a view beyond three to five miles from the observer, and as far as the eye can detect objects.

**BALD EAGLE MANAGEMENT AREAS (BEMAs)** - Areas managed for the protection of the threatened and endangered bald eagle. BEMAs provide nesting and roosting habitat for the bird on each plot.

**BASAL AREA** - The area of the cross-section of a tree stem near the base, generally at breast height and inclusive of bark.

**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. (This definition expresses the principle of non-declining flow.)

**BENCHMARK** - The analytical basis from which the alternatives were developed; the use of assessed land capability as a basis from which to estimate the effects of alternative patterns of management on the land.

**BENEFIT** - The value of the expected outputs.

**BEST MANAGEMENT PRACTICES (BMP)** - A practice or combination of practices that is the most effective and practical means (including technological, economic, and institutional considerations) of preventing or reducing negative environmental impacts that may result from resource management activities. For example, Best Management Practices are used to reduce the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

**BIG GAME** - Large mammals hunted for sport. On the Fremont National Forest these include animals such as deer, elk, antelope, and bear.

**BIG GAME SUMMER RANGE** - A range, usually at higher elevation, used by deer and elk during the summer. Summer ranges are usually much more extensive than winter ranges.

**BIG GAME WINTER RANGE** - A range, usually at lower elevation, used by migratory deer and elk during

the winter months; usually more clearly defined and smaller than summer ranges.

**BOARD FOOT (BF)** - The amount of wood equivalent to a piece of wood one foot by one foot by one inch thick.

### **BOARD FOOT/CUBIC FOOT CONVERSION**

**RATIO** - Both board foot and cubic foot volumes can be determined for timber stands. The number of board feet per cubic foot of volume varies with tree species, diameter, height, and form factors.

**BROWSE** - Twigs, leaves, and young shoots of trees and shrubs on which animals feed; in particular, those shrubs that are used by big game animals for food.

**BUREAU OF LAND MANAGEMENT (BLM)** - An agency within the Department of the Interior, with land management responsibility for the Public Domain lands.

## C

**CABLE LOGGING** - Refers to methods used to skid or pull logs to a central landing or collection area by a cable connected to a remote power source.

**CANOPY** - The more-or-less continuous cover of branches and foliage formed collectively by the crown of adjacent trees and other woody growth.

**CAPABILITY AREA** - Geographic delineations used to describe characteristics of the land and resources in integrated forest planning. Capability areas may be synonymous with ecological land units, ecosystems, or land response units.

**CAPITAL INVESTMENT COSTS** - Those costs associated with construction or development of improvements; includes such costs as road construction, reforestation, campground construction, and range improvements.

**CARRYING CAPACITY** - **1)** The number of organisms of a given species and quality that can survive in, without causing deterioration of, a given ecosystem through the least favorable environmental conditions that occur within a stated interval of time. **2)** In recreation, refers to the number of people that can occupy an area for a given social and experience goal. **3)** In range, refers to the maximum stocking rate possible on a given range without causing deterioration to vegetation or related resources.

**CAVITY** - The hollow excavated in trees by birds or other natural phenomena, used for roosting and reproduction by many birds and mammals.

**CHARACTERISTIC LANDSCAPE** - In reference to the U.S.D.A. Forest Service visual management system; the overall impression created by a landscape's unique combination of visual features (land, vegetation, water, structures), as seen in terms of form, line, color, and texture; synonymous with "visual landscape character."

**CHARGEABLE VOLUME** - All volume included in the growth and yield projections for the selected management prescriptions used to arrive at the allowable sale quantity, based on regional utilization standards.

**CLEARCUTTING** - The cutting method that describes the silviculture system in which the old crop is cleared over a considerable area at one time. Regeneration then occurs from (a) natural seeding from adjacent stands, (b) seed contained in the slash or logging debris, (c) advance growth, or (d) planting or direct seeding. An even-aged forest usually results.

**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 location, timing, or type of use in a specific area.

**CODE OF FEDERAL REGULATIONS (CFR)** - A codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the federal government.

**COLLECTOR ROADS** - Roads constructed to serve two or more elements but which do not fit into the other two categories (arterial or local). These roads serve smaller land areas, are usually connected to a Forest arterial or public highway, and are operated for constant service. They collect traffic from Forest roads or terminal facilities

**COMMERCIAL THINNING** - Any type of tree thinning that produces merchantable material at least equal in value to the direct costs of harvesting.

**COMMODITIES** - Transportable resources with commercial value; all resource products that are articles of commerce.

**COMMUNITY STABILITY** - A community's capacity to handle change without major hardships or disruptions to component groups or institutions. Measurement of community stability requires identification of the type

and rate of proposed change and an assessment of the community's capacity to accommodate that level of change.

**COMPACTION** - The packing together of soil particles by forces exerted at the soil surface, resulting in increased soil density.

**COMPOSITE** - In reference to planning for special areas under the Land and Water Conservation Act of 1965, an area identified as having unique recreation and/or fish and wildlife values.

**COMPOSITE PLAN** - A documented analysis that, at one time, was required to justify the use of Land and Water Conservation Funds for acquisition of private lands within a designated composite.

**CONDITION CLASS** - 1) Timber: a grouping of timber strata into size-age-stocking classes for Forest planning. 2) Range: one of a series of arbitrary categories used to classify range conditions, usually expressed as excellent, good, fair, or poor.

**CONSUMPTIVE USE** - A use of resources that reduces the supply, such as logging and mining. See also NON-CONSUMPTIVE USE.

**CONVERSION PERIOD** - The duration of a change from one silvicultural system to another or from one tree species to another.

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

**COST EFFECTIVENESS** - Achieving specified outputs or objectives under given conditions for the least cost.

**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 costly manner. Cost efficiency is usually measured using present net value, although use of benefit-cost ratios and internal rate-of-return may be appropriate.

**COST SENSITIVITY ANALYSIS** - A type of analysis done to estimate how a particular problem's solution would change if the costs were increased or decreased.

**COUNCIL ON ENVIRONMENTAL QUALITY (CEQ)** - 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/FORAGE RATIO** - The mixture of cover and forage areas on a unit of land, expressed as a ratio. The optimum cover/forage mix for deer on summer range is 60:40.

**CREATED OPENING** - An opening in the forest created by the silvicultural practices of: final removal harvest of shelterwood; clearcutting; seed tree cutting; or group selection cutting.

**CROWN HEIGHT** - In a standing tree, the vertical distance from ground level to the base of the crown, measured either to the lowest live branch whorl, or to the lowest live branch (excluding shoots arising spontaneously from buds on the stem of a woody plant), or to a point halfway between.

**CUBIC FOOT (CF)** - The amount of timber equivalent to a piece of wood one foot by one foot by one foot.

**CULMINATION OF MEAN ANNUAL INCREMENT (CMAI)** - The age at which average annual growth is greatest for a stand of trees. Mean annual increment is expressed in cubic feet measure, and is based upon expected growth according to the management intensities and utilization standards assumed in accordance with 36 CFR 219.16(a)(2)(1) and (ii). Culmination of mean annual increment includes regeneration harvest yields and any additional yields from planned intermediate harvests.

**CULTURAL RESOURCE** - The remains of sites, structures, or objects used by humans in the past-historic or prehistoric.

**CUMULATIVE EFFECTS OR IMPACTS** - Cumulative effect or impact is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

**CUMULATIVE WATERSHED EFFECTS (CWE)** - Measurable impacts on physical watershed conditions resulting from the combined effects of a variety of forest management activities. The elements that are considered in the cumulative watershed effects analysis are roads, soils, canopy, riparian vegetation, channel, pools, large

wood, temperature, sediment, and fish passage. Each of these elements is assigned a functionality rating. These elements are combined with the overall condition of the uplands, riparian area, and stream channels. The findings from this information are tempered with the subwatershed sensitivity, uncertainty, and risk and result in an overall functionality of each subwatershed

## D

**DATA** - Any recorded measurements, facts, evidence, or observations reduced to written, graphical, tabular, or computer form. The term implies reliability, and therefore provides an explanation of source, type, precision and accuracy.

**DECOMMISSION** - Activity that results in the stabilization and restoration of unneeded roads to a more natural state.

**DEER WINTER RANGE** - See BIG GAME WINTER RANGE.

**DE FACTO OUTPUTS** - Resource outputs produced from lands not necessarily being managed or allocated for the specific production of these outputs. De facto resource outputs are most commonly recreation and wildlife opportunities. For example, an area may not be allocated to emphasize recreation management and, in fact, may be scheduled for timber harvest in a later decade; however, the area can usually continue to provide recreation opportunities until it is entered for harvesting.

**DEMAND** - The quantity of goods or services called for at various prices, holding other factors constant.

**DEPARTURE** - A sale schedule that deviates from the principle of non-declining flow by exhibiting a planned decrease in the sale schedule at any time during the planning horizon. A departure is characterized by a temporary increase, usually in the beginning decade(s) of the planning horizon, over the base sale schedule originally established. This increase does not impair the future attainment of the long-term sustained yield capacity.

**DEPENDENT COMMUNITIES** - Communities whose social, economic, or political life would change in important respects if market or non-market outputs from the National Forests were substantially decreased.

**DESIGN STANDARD** - Approved design and construction specifications used mainly for recreation facilities and roads-includes specified materials, colors, dimensions, etc.

## E

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

**DEVELOPED RECREATION SITE** - Relatively small, distinctly defined areas where facilities are provided for concentrated public use; e.g. campgrounds, picnic areas, swimming areas, and downhill ski areas.

**DIAMETER AT BREAST HEIGHT (dbh)** - The diameter of a tree measured 4 feet 6 inches above the ground.

**DISCOUNT RATE** - An interest rate that represents the cost or time value of money in determining the present value of future costs and benefits.

**DISCOUNTING** - An adjustment, using a discount rate, for the value of money over time so that costs and benefits occurring in the future are reduced to a common time, usually the present, for comparison.

**DISPERSED RECREATION** - A general term referring to recreation use outside developed recreation sites; this includes activities such as scenic driving, hiking, backpacking, hunting, fishing, snowmobiling, horseback riding, cross-country skiing, and recreation in primitive environments.

**DISTANCE ZONE** - One of three categories used in the Visual Management System to divide a view into near and far components. The three categories are: (1) foreground, (2) middleground, and (3) background.

**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 draft statement of environmental effects that is required for major federal actions under Section 102 of the National Environmental Policy Act, and released to the public and other agencies for comment and review.

**DUFF** - Organic matter in various stages of decomposition on the floor of the forest.

**EARLY FOREST SUCCESSION** - The early stage or condition of a plant community that occurs during its development from bare ground to climax.

**EARNED HARVEST EFFECT** - A concept that considers the effects of future management techniques that will accelerate future growth, as a factoring in shaping present or current management harvest designs

**ECONOMIC EFFICIENCY ANALYSIS** - An analytical method in which discounted benefits are compared with discounted costs.

**ECONOMIC GROWTH** - Increased economic output in real terms over time.

**ECOSYSTEM** - An interacting system of organisms considered together with their environment; for example, marsh, watershed, and lake ecosystems.

**EDGE** - An area where plant communities meet or where successional stages or vegetation conditions within the plant communities come together.

**EFFECTS** - Environmental changes resulting from a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.

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

**ENDANGERED SPECIES** - Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.

**ENHANCEMENT** - See VISUAL QUALITY OBJECTIVE.

**ENVIRONMENTAL ASSESSMENT (EA)** - The concise public document required by the regulations for implementing the procedural requirements of the National Environmental Policy Act.

**ENVIRONMENTAL IMPACT STATEMENT (EIS)** - A statement of the environmental effects of a proposed action and alternatives to it. It is required for major federal actions under Section 102 of the National Environmental Policy Act (NEPA), and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.

**ENVIRONMENTAL JUSTICE** - The pursuit of equal justice and equal protection under the law for all environmental statutes and regulations, without discrimination based on race, ethnicity, or socioeconomic status.

**ENVIRONMENTAL PROTECTION AGENCY (EPA)** - An agency of the Executive Branch of the Federal Government which has the responsibility for environmental matters of national concern.

**EPHEMERAL DRAW** - A drainage-way that conveys surface water for short periods of time in direct response to snowmelt or rainfall runoff.

**EROSION** - (1) The wearing away of the land surface by running water, wind, ice, or other geologic agents, including such processes as gravitation creep; or (2) detachment and movement of soil or rock fragments by water, wind, ice, or gravity. The following terms are used to describe different types of erosion:

Accelerated erosion - Erosion which is much more rapid than natural erosion, with the increase in erosion rate resulting primarily from the influence of human activities, or, in some cases, of other events that expose mineral soil surfaces, such as wildfire.

Gully erosion - The erosion process whereby water accumulates in narrow channels, and, over short periods, removes the soil from this narrow area to considerable depths, ranging from 4 inches to as much as 75 to 100 feet.

Rill erosion - An erosion process in which numerous small channels less than 4 inches deep and 6 inches wide are formed.

Sheet erosion - The removal of a fairly uniform layer of soil from the land surface by runoff water.

**EUTROPHIC** - Of habitats, particularly soils and water, that are rich or adequate in nutrients.

**EXCHANGE RESERVED** - Lands that have been added to the National Forest System by exchange under the General Exchange Act for reserved/proclaimed National Forest System Lands.

## F

**FAWN REARING HABITAT** - Areas used regularly by female deer for fawn raising; optimum fawning habitat includes low shrubs or small trees under an overstory of about 50 percent closure, usually located on slopes of less than 15 percent where vegetation is succulent and plentiful in June, and water is available within 183 meters.

**FINAL ENVIRONMENTAL IMPACT STATEMENT** - The final version of the statement of environmental effects required for major federal actions under section 102 of the National Environmental Policy Act. It is a revision of the draft environmental impact statement to include public and agency responses to the draft.

**FINAL REMOVAL HARVEST** - The removal of the last seed bearers or shelter trees after regeneration is established under a shelterwood system.

**FIRE INTENSITY** - The nature of a fire in terms of its rate of energy release. These are physical descriptions of the fires, rather than ecological effects. "Fire intensity is a term that is used to describe the rate at which a fire produces thermal energy. Fire intensity is influenced by the amount of fuel available for burning, local weather conditions before and at the time of the fire, and the topography of the burning site. The limiting factor in fire intensity is the amount of energy stored in the fuel. As a consequence, the greater the fuel loading, the more intensely a fire is likely to burn" (DeBano et al 1998 p. 56-57.).

**FIRE MANAGEMENT** - All activities required for protection of resources from fire and for the use of fire to meet land management goals and objectives.

**FIRE SEVERITY or BURN SEVERITY** - Severity describes the fire-caused damage to the soil. The severity ratings are based on the following standards (BAER Handbook, FSH 2509.13):

- High severity – More than 40 percent of the area exhibits soil features likely to significantly increase runoff and erosion (e.g., absence of duff layer, hydrophobic soils, soil discoloration).
- Moderate severity – Less than 40 percent of the area exhibits high severity indicators. Duff layers may be absent or mostly absent.
- Low severity – Duff layers are burned but intact. Unburned areas are intermingled with lightly burned areas.

**FISHERIES HABITATS** - Streams, lakes, and reservoirs that support fish populations.

**FIXED COSTS** - Costs incurred that are not expected to change significantly with the production of outputs, or over the range of alternatives. They are not tied to specific management activities and are usually a small component of the overall budget.

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

**FORAGE** - All browse and non-woody plants that are available to livestock or game animals and used for grazing or harvested for feeding.

**FORB** - Any herb other than grass.

**FOREGROUND** - A term used in visual management to describe the portions of a view between the observer and up to 1/4 to 1/2 mile distant.

**FOREST LAND** - Land at least 10 percent occupied by forest trees 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 road clearings and powerline clearings of any width.

**FOREST SERVICE HANDBOOK (FSH)** - For Forest Service use, directives that provide detailed instructions on how to proceed with a specialized phase of a program or activity.

**FOREST SERVICE MANUAL (FSM)** - A system of manuals that provides direction for Forest Service activities.

**FOREST SYSTEM ROADS** - Roads that are part of the Forest development transportation system, which includes all existing and planned roads as well as other special and terminal facilities designated as Forest development transportation facilities. See ARTERIAL ROADS, COLLECTOR ROADS, and LOCAL ROADS.

**FUEL BREAK** - A zone in which fuel quantity has been reduced or altered to provide a position for suppression forces to make a stand against wildfire. Fuel breaks are designated or constructed before the outbreak of a fire. Fuel breaks may consist of one or a combination of the following: natural barriers, constructed fuel breaks, constructed barriers.

**FUEL MANAGEMENT** - The practice of planning and executing the treatment or control of living or dead vegetative material in accordance with fire management direction.

**FUEL TREATMENT** - The rearrangement or disposal of natural or activity fuels (generated by management activity, such as slash left from logging) to reduce fire hazard. Fuels are defined as both living and dead vegetative materials consumable by fire (See Fire and Fuels, Chapter 3, for a definition of various fuel treatment methods).

**FUELS** - Combustible wildland vegetative materials. While usually applied to above-ground living and dead surface vegetation, this definition also includes roots and organic soils such as peat.

**FULL-SERVICE MANAGEMENT** - Management of developed recreation sites to furnish the full range of amenities and maintenance for the public enjoyment. Management objectives are based on site capacity, site protection needs, seasonal demands for public use, and desired levels of service to enhance visitor's experience and convenience and provide optimum maintenance.

## G

**GENETIC SEEDLINGS** - Tree seedlings from a genetically superior seed source. The seeds are collected from trees displaying exceptional form and raised in nurseries before outplanting. The seedlings usually have faster growth rates than naturally regenerated seedlings.

**GEOMORPHOLOGY** - The science that deals with land and submarine relief features of the earth's surface and seeks a genetic interpretation of them, using the principles of physiography in its descriptive aspects and dynamic and structural geology in its explanatory phases.

**GEOTHERMAL** - Of or pertaining to the internal heat of the earth.

**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.

**GRASS/FORB** - An early forest successional stage where grasses and forbs are the dominant vegetation.

**GROUP SELECTION CUTTING** - See UNEVEN-AGED SILVICULTURAL SYSTEMS.

**GROWING SEASON** - That part of the year when temperature and moisture are favorable for vegetation growth.

**GUIDELINE** - An indication or outline of policy or conduct; i.e. any issuance that assists in determining the course of direction to be taken in any planned action to accomplish a specific objective.

**GUZZLER** - A device for collecting and storing precipitation for use by wildlife or livestock. Consists of an impenetrable water collection area, a storage facility, and a trough from which animals may drink.

## H

**HABITAT** - The place where a plant or animal naturally or normally lives or grows.

**HABITAT DIVERSITY** - The distribution and abundance of different plant and animal communities and species within a specific area.

**HEADWATERS** - The upper tributaries of a river.

**HIDING COVER** - Vegetation that will hide 90 percent of a deer from the view of a human at a distance of 200 feet or less. The distance at which the animal is essentially hidden is called a "sight distance."

**HIGH-SITE TIMBERED LANDS** - A relative measure of resource productivity.

**HISTORIC RANGE OF VARIABILITY (HRV)** – The historical pattern and abundance of structural stages

within watersheds, using pre-settlement (1800-1900) conditions as a reference point.

**HISTORIC SITE** - Site associated with the history, tradition, or cultural heritage of national, state, or local interest, and of enough significance to merit preservation or restoration.

**HYDROLOGIC UNIT CODE (HUC)** - an area of land upstream from a specific point on a stream (designated as the mouth) that defines a hydrologic boundary and includes all of the source areas that could contribute surface water runoff directly and indirectly to the designated outlet point.

## I

**ID TEAM** - See INTERDISCIPLINARY TEAM.

**IMPACTS** - See EFFECTS.

**IMPLAN** - A computer model developed to estimate changes in economies and employment when a particular industry sector's outputs are altered in some way

**IMPROVED GENETIC STOCK** - Group of plants (trees) that have been improved genetically.

**INDICATOR SPECIES** - See MANAGEMENT INDICATOR SPECIES.

**INDIRECT OUTPUTS** -Outputs caused by an action, but which are later in time or farther removed in distance, although still reasonably foreseeable. See EFFECTS.

**INDIVIDUAL (SINGLE) TREE SELECTION** - See UNEVEN-AGED SILVICULTURAL SYSTEMS.

**INDUCED OUTPUTS** - Outputs in the private sector induced by the direct outputs produced on the Forest.

**INFLUENCE ZONE** - See ZONE OF INFLUENCE.

**INPUT/OUTPUT ANALYSIS** - A quantitative study of the interdependence of a group of activities, based on the relationship between inputs and outputs of the activities. The basic tool of analysis is an input-output model for a given period that shows simultaneously for each economic sector the value of inputs and outputs, as well as the value of transactions within each economic sector. It has especially been applied to estimate the effects of changes in Forest output levels on local economic activity.

**INSTREAM FLOWS** - A prescribed level (or levels) of streamflow, usually expressed as a stipulation in a permit authorizing a dam or water diversion, for the purpose of meeting National Forest System management objectives.

**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 population on various resource values, alternative regulation tactics and strategies, and benefit/cost estimates of those 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.

**INTENSIVE GRAZING MANAGEMENT** - Grazing management that controls distribution of cattle and duration of use on the range, usually by fences, so parts of the range are rested during the growing season. See also **QUALITY EXTENSIVE MANAGEMENT**; **QUALITY INTENSIVE MANAGEMENT**.

**INTENSIVE MANAGEMENT (INTENSIVE FOREST MANAGEMENT)** - A high investment level of timber management that includes use of precommercial thinnings, commercial thinnings, genetically improved stock, and control of competing vegetation.

**INTERDISCIPLINARY TEAM (ID TEAM)** - A group of individuals with different training assembled to solve a problem or perform a task. The team is assembled out of recognition that no one scientific discipline is sufficiently broad to adequately solve the problem.

**INTERMEDIATE CUTTING** - Any removal of trees from a stand between the time of its formation and the regeneration cut. Most commonly applied intermediate cuttings are release, thinning, improvement, and salvage.

**INTERMITTENT STREAMS** - A stream which flows only at certain times of the year when it receives water from some surface source, such as melting snow in mountainous areas.

**INVENTORY DATA AND INFORMATION COLLECTION** - The process of obtaining, storing, and using current inventory data appropriate for planning and managing the Forest.

**IRRETRIEVABLE** - Applies to losses of production, harvest, or commitment of renewable natural resources.

For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a winter sports site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

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

**ISSUE** - A point, matter, or question of public discussion or interest to be addressed or decided through the planning process. See also **PUBLIC ISSUE**.

## L

**LAKEVIEW FEDERAL SUSTAINED YIELD UNIT** - An administratively designated portion of the Fremont National Forest, designed to maintain the stability of the communities of Lakeview and Paisley.

**LAND CLASS** - The topographic relief of a unit of land. Land classes are separated by slope, which coincides with the timber inventory process. The three land classes used in the Fremont National Forest Plan are defined by the following slope ranges: 0 to 40 percent; 40 to 60 percent, and greater than 60 percent.

**LAND EXCHANGE** - The conveyance of nonfederal land and/or interests in exchange for National Forest System land or interests in land.

**LAND MANAGEMENT** - The intentional process of planning, organizing, programming, coordinating, directing, and controlling land use actions.

**LANDING** - Any place where round timber is assembled for further transport, commonly with a change of method.

**LANDOWNERSHIP PATTERN** - The National Forest System resource land base, in relation to other land ownerships within given boundaries.

**LAND USE ALLOCATION** - The commitment of a given area of land or a resource to one or more specific uses, for example, to campgrounds or wilderness.

**LOGGING RESIDUES** - See **SLASH**.

**LONG-TERM SUSTAINED YIELD TIMBER CAPACITY (LTSY)** - 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.

## M

**MANAGEMENT AREA** - Tracts of land grouped into one category having a particular management emphasis.

**MANAGEMENT CONCERN** - An issue, problem, or condition that influences 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, and the associated management prescriptions, and standards and guidelines for attaining them.

**MANAGEMENT EMPHASIS** - That portion of a management scheme that receives the most stress or is of the greatest significance or importance. It may be the resources being produced, or it may be the way in which they are produced.

**MANAGEMENT INDICATOR SPECIES** - A species selected because its welfare is presumed to be an indicator of the welfare of other species using the same habitat. A species whose condition can be used to assess the impacts of management actions on a particular area.

**MANAGEMENT PRACTICE** - A specific activity, measure, course of action, or treatment.

**MANAGEMENT PRESCRIPTION** - The management practices and intensity selected and scheduled for application on a specific area to attain multiple use and other goals and objectives.

**MANAGEMENT REQUIREMENT (MR)** - Minimum standards for resource protection, vegetation manipulation, silvicultural practices, even-aged management, riparian areas, soil and water diversity, to be met in accomplishing National Forest System goals and objectives.

**MARGINAL TIMBER COMPONENT** - Timber on which the income just equals or could just equal the costs of production under a given form of management.

**MARKET-VALUE OUTPUTS** - Goods and services valued in terms of what people are willing to pay for them, as evidenced by market transactions.

**MASS MOVEMENT** - A general term for any of the variety of processes by which large masses of earth

material are moved downslope by gravitational forces - either slowly or quickly.

**MATURE TIMBER** - Trees that have attained full development, particularly height, and are in full seed production.

**MAXIMUM MODIFICATION** - See VISUAL QUALITY OBJECTIVE.

**MEAN ANNUAL INCREMENT OF GROWTH** - The total volume of a tree or stand of trees up to a given age divided by that age.

**MESOTROPHIC** - Habitats, particularly soil and water, of moderate nutrient capacity.

**MIDDLEGROUND** - A term used in visual management to describe the portions of a view extending from the foreground zone out to 3 to 5 miles from the observer.

**MINERAL ENTRY** - The filing of a mining claim upon public domain or related land to obtain the right to any minerals it may contain.

**MINERAL MATERIALS** - Deposits such as sand, stone, gravel, and clay.

**MINERAL SOIL** - Weathered rock materials usually containing less than 20 percent organic matter.

**MINIMUM STREAMFLOWS** - A specified level of flow through a channel that must be maintained by the users of streams for biological, physical, or other purposes.

**MINING CLAIM** - A portion of the public lands that a miner, for mining purposes, takes and holds in accordance with mining laws.

**MITIGATION MEASURES** - Actions to avoid, minimize, reduce, eliminate, or rectify adverse impacts of management practices.

**MODEL** - A representation of reality used to describe, analyze, or understand a particular concept. A "model" may be a relatively simple qualitative description of a system or organization, or a highly abstract set of mathematical equations.

**MODIFICATION** - See VISUAL QUALITY OBJECTIVE.

**MONITORING AND EVALUATION** - The periodic evaluation of Forest Plan management practices on a

sample basis to determine how well objectives have been met.

**MORTALITY** - In wildlife management, the loss in a population from any cause, including hunter kill, poaching, predation, accident, and disease. In forestry, trees in a stand that die of natural causes.

**MOUNTAIN PINE BEETLE** - A tiny black insect, ranging in size from 1/8 to 3/4 inch, which bores its way into a tree's cambium and cuts off its supply of nutrients, thus killing the tree.

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

**NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN** - A Plan which "... shall provide for multiple use and sustained yield of goods and services from the National Forest System in a way that maximizes long-term net public benefits in an environmentally sound manner."

**NATIONAL FOREST MANAGEMENT ACT (NFMA)** - A law passed in 1976 as an amendment to the Forest and Rangeland Renewable Resources Planning Act, requiring the preparation of Regional Guides and Forest Plans and the preparation of regulations to guide that development.

**NATIONAL FOREST SYSTEM (NFS)** - A nationally significant system of federally owned units of forest, range, and related land consisting of National Forest, Purchase Units, National Grasslands, and other lands, waters, and interest in lands which are administered by the Forest Service or designated for administration through the Forest Service.

**NATIONAL FOREST SYSTEM (NFS) LANDS** - National Forests, National Grasslands, or Purchase Units, and other federal lands that have been designated by Executive Order or statute as lands under the management of the Forest Service, including experimental areas and Bankhead-Jones Title 111 lands.

**NATIONAL RECREATION TRAILS (NRT)** - Trails designated by the Secretary of the Interior or the Secretary of Agriculture as part of the National system of trails authorized by the National Trails System Act. National Recreation Trails provide a variety of outdoor recreation uses.

**NATIONAL REGISTER OF HISTORIC PLACES** - A listing (maintained by the U.S. National Park Service) of areas that 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.

**NATURAL BARRIER** - A natural feature that restricts livestock or wildlife movements, such as a dense stand of trees or a cliff.

**NATURAL REGENERATION** - Reforestation of a site by natural seeding from the surrounding trees. Natural regeneration may or may not be preceded by site preparation.

**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.

**NET RETURNS TO THE TREASURY, NET CASH FLOW** - The difference between the total dollar receipts projected for an alternative and the total budget required to implement the alternative.

**NO ACTION ALTERNATIVE (ALTERNATIVE A)** - This alternative is the "No Action" alternative required

by the National Environmental Policy Act. It analyzes the effects of continuing management under direction established by the Fremont National Forest's 1989 Land and Resource Management Plan.

**NO SURFACE OCCUPANCY** - A clause used in mineral leases to prevent activities in sensitive areas. Sometimes results in closure of an area and sometimes has little impact if directional drilling can tap resources underlying restricted area

**NOMINAL VALUE** - A monetary value relative to time that does not account for the effects of inflation.

**NON-CASH BENEFITS** -The non-market values assigned to outputs that are not readily traded in the market place. Non-cash benefits usually refer to those values derived from the production of recreation and wildlife resources.

**NON-CHARGEABLE VOLUME** - All volume not included in the growth and yield projections for the selected management prescriptions used to arrive at the allowable sale quantity.

**NON-DECLINING FLOW** - Where 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.

**NON-FOREST LAND** - Lands that never have had or that are incapable of having 10 percent or more of the area occupied by forest trees; or lands previously having such cover and currently developed for non-forest use.

**NON-GAME SPECIES** - Animal species that are not hunted, fished, or trapped.

**NON-MARKET VALUED OUTPUTS** - Assessed value of a goods or service that is not traded in the market place and has no market value. Because it is not bought and sold, some measure other than price must be used in establishing the value.

**NONPOINT SOURCE POLLUTION** - Pollution whose source is general rather than specific in location. It is widely used in reference to agricultural and related pollutants; for example, production of sediments by logging operations, agricultural pesticide applications, or automobile exhaust pollution.

**NON-PRICED OUTPUTS** - Non-priced outputs are those for which there is no available market transaction evidence and no reasonable basis for estimating a dollar value Subjective non-dollar values are given to non-priced outputs.

**NOXIOUS WEEDS** - Undesirable plant species that are unwholesome to the range or to animals. The Forest Service Manual describes a noxious weed as a plant that is aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease, and being native or new to, or not common to, the United States or parts thereof (USDA Forest Service, 1995c)

## 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

**OFF-ROAD VEHICLE (ORV)** - Vehicles such as motorcycles, all-terrain vehicles, four-wheel drive vehicles, and snowmobiles.

**OLD-GROWTH HABITAT** - Habitat for certain wildlife that is characterized by overmature coniferous forest stands with large snags and decaying logs.

**OPERATIONAL COSTS** - Those costs associated with administering and maintaining National Forest facilities and resource programs.

**OPERATIONAL PLAN** - A document approved by the Forest Supervisor which specifies at the project level, implementation of the management direction established in the Forest Plan.

**OPPORTUNITY** - A statement of general actions, measures, or treatments that addresses a public issue or management concern in a favorable way.

**OPPORTUNITY COST** - An estimate of the economic value or resource outputs given up by choosing one alternative over another.

**OUTPUTS** - The goods, services, products, and concerns that are measurable and capable of being used to determine the effectiveness of programs and activities in meeting objectives. 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

**OVERBID** - To bid more than the appraised value.

**OVERGRAZING** - Continued overuse (year after year), creating a deteriorated range.

**OVERGRAZED RANGE** - A range that has deteriorated and may still be deteriorating from its productive potential due to overgrazing.

**OVERSTORY** - That portion of the trees, in a forest or in a stand of more than one story, forming the upper or uppermost canopy.

**OVERUSE (OVERUTILIZATION)** - Utilizing an excessive amount of the current year's growth that, if continued, would result in overgrazing and range deterioration.

## P

**PARTIAL RETENTION** - See VISUAL QUALITY OBJECTIVE.

**PARTICULATES** - Small particles suspended in the air and generally considered pollutants. See TOTAL SUSPENDED PARTICULATES.

**PERENNIAL STREAM** - A stream that flows year round.

**PERMITTEE** - Any person or business formally allowed to graze livestock on the land of another person or business (e.g.; on state or federal land).

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

**PERSONS-AT-ONE-TIME (PAOT)** - A recreation capacity measurement term indicating the number of people who can use a facility or area at one time.

**PHYSIOGRAPHIC PROVINCE** - A region having a particular pattern of relief features or land forms that differs significantly from that of adjacent regions.

**PLAN OF OPERATIONS** - A document required from any person proposing to conduct mineral-related activities which utilize earth moving equipment and which will cause disturbance to surface resources or involve the cutting of trees.

**PLANNED IGNITION** - A fire started deliberately, and controlled to accomplish a resource management objective

**PLANNING CRITERIA** - Criteria prepared to guide the planning process. Criteria applied to collection and use of inventory data and information, analysis of the

management situation, and the design, formulation, and evaluation of alternatives.

**PLANNING RECORDS** - The body of information documenting the decisions and activities that result from the process of developing an EIS, Forest Plan, or significant amendment (also referred to as the Project Record).

**POLE/SAPLING** - A Forest successional stage in which trees between five and nine inches in diameter are the dominant vegetation. See also SIZE CLASS.

**POLE TIMBER** - Trees of at least five inches in diameter at breast height, but smaller than the minimum utilization standard for sawtimber. See also SIZE CLASS.

**POLICY** - A definite course or method of action selected by a governmental agency, institution, group, or individual from among alternatives and, in the light of given conditions, to guide and usually determine present and future decisions. A specified decision or set of decisions designed to carry out such a chosen course of action.

**PRACTICES** - Those management activities that are proposed or expected to occur.

**PRECOMMERCIAL THINNING** - The practice of removing some of the trees less than marketable size from a stand so that the remaining trees will grow faster.

**PREHISTORIC SITE** - An area that contains important evidence and remains of the life and activities of early societies that did not record their history.

**PRESCRIBED FIRE** - A fire burning under specified conditions that will accomplish certain planned objectives.

**PRESCRIPTION** - A written direction for harvest activities and regeneration methods.

**PRESENT NET VALUE (PNV)** - The value of the estimated flow of present and future monetary benefits after subtracting present and future monetary costs.

**PRESERVATION** - A visual quality objective that allows only for ecological changes.

**PRICED OUTPUTS** - Priced outputs are those that are or can be exchanged in the market place. The dollar values for these outputs fall into two categories: market or non-market (assigned values).

**PRIMITIVE RECREATION** - Those types of recreational activities associated with unroaded land, e.g. hiking, backpacking, cross-country travel.

**PROCLAIMED LAND** - Lands reserved from the Public Domain for National Forest purposes by presidential proclamation. See also RESERVED LAND.

**PROGRAM** - When spelled with a capital, the Renewable Resource Program required by the RPA. In the general sense, sets of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishment.

**PROGRAMMATIC MEMORANDUM OF AGREEMENT** - An agreement between the U.S.D.A. Forest Service, Pacific Northwest Region, the Oregon State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation on the management of two types of cultural resource sites found on the Forest: Depression-era administrative structures and prehistoric lithic scatters.

**PROGRAMMED HARVEST** - The amount of timber on the Forest that is scheduled for harvesting. The programmed harvest is based on current demand, funding, and multiple-use considerations.

**PROJECTS** - Work schedules prescribed for a project area to accomplish management prescriptions. Projects can be for operation, maintenance, and protection (OMP), or for investment purposes. OMP projects are for ongoing work and are generally considered one year at a time. Investments can be of multi-year duration. A project is organized for managerial convenience, and is described by location, activities, outputs, effects, work force, dollars, time, and responsibility for execution.

**PUBLIC ISSUE** - A subject or question of widespread public interest relating to management of the National Forest System.

**PUBLIC PARTICIPATION** - Meetings, conferences, seminars, workshops, tours, written comments, responses to survey questionnaires, and similar activities designed and held to obtain comments from the public about Forest Service planning.

## R

**RANGE** - Land producing native forage for animal consumption, and lands that are revegetated naturally or artificially to provide forage that is managed like native vegetation.

**RANGE ALLOTMENT** - An area designated for use of a prescribed number and kind of livestock under one management plan.

**RANGE ENVIRONMENTAL ASSESSMENT (REA)** - An environmental assessment to determine the condition of the range with regard to suitability for grazing, vegetative cover types, potential vegetative communities, condition of vegetation, soil stability, and forage production and utilization.

**RANGE MANAGEMENT** - The art and science of planning and directing range utilization so as to secure sustained maximum production of livestock, milk, and/or cut forage, consistent with other uses and conserving natural resources.

**Early Season** - Livestock grazing occurs in the spring of the year following green up and continues to mid-summer - May 1 through July 15.

**Deferred** - A delay of livestock grazing on an area for an adequate period of time to provide for plant reproduction, establishment of new plants, or restoration of vigor - July 15 through October 15

**Rotation** - A grazing scheme where animals are moved from one grazing unit in the same group of grazing units to another without regard to specific graze rest periods or levels of plant defoliation - no specific dates

**Deferred Rotation** - A grazing system that provides for a systematic rotation of the deferment among pastures - July 15 through October 15

**Transitory Range** - Land which produces forage or has inherent forage producing capabilities and can become available on a temporary basis as a result of partial or complete removal of the vegetation through fire, logging, or other events.

### **Forest Range Environmental Study (FRES)**

**Management Level** - A level assigned to an allotment that reflects the management practices currently in place. These management levels are used to set allowable use of forage within an allotment and/or a pasture.

**Level C** - Livestock are managed to achieve full utilization of allocated forage. Management systems are designed to obtain distribution and maintain plant vigor. Riding, herding, salting, fencing, and water developments are part of the management on these allotments.

**RAPTORS** - Predatory birds, such as falcons, hawks, eagles, or owls.

**REAL DOLLAR VALUE** - A monetary value that compensates for the effects of inflation.

**RECORD OF DECISION** - A document separate from but associated with an Environmental Impact Statement which states the decision, identifies all alternatives, specifying which were environmentally preferable, and states whether all practicable means to avoid environmental harm from the alternative have been adopted, and if not, why not.

**RECREATION CAPACITY** - The number of people that can take advantage of the recreation opportunity at any one time without substantially diminishing the quality of the experience or the biophysical resources.

**RECREATION INFORMATION MANAGEMENT (RIM)** - A computer-oriented system for the organization and management of information concerning recreation use, occupancy, and management of National Forest lands.

**RECREATION OPPORTUNITY** - The availability of choices for users to participate in the recreational activities they prefer within the settings they prefer.

**RECREATION OPPORTUNITY SPECTRUM (ROS)** - A land classification system of seven categories, each being defined by its setting and by the probable recreation experiences and activities it affords. The seven management classes are: Urban, Rural, Roaded-natural, Roaded-modified, Semi-primitive motorized, Semi-primitive non-motorized, and Primitive. The Fremont Forest Plan allocated land into each category except urban and rural.

All of the trails, developed recreation sites, and dispersed recreation sites within the Toolbox Fire Recovery Project area are located within "Roaded-natural" and "Roaded-modified" ROS setting classifications.

**RECREATION VISITOR DAY (RVD)** - A measure of recreation use, in which one RVD equals twelve visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

**RECREATIONAL RIVER** - See WILD AND SCENIC RIVER.

**REFORESTATION** - The natural or artificial restocking of an area with forest trees.

**REGENERATION** - The renewal of a tree crop, whether by natural or artificial means. Also, the young

crop itself, which is commonly referred to as reproduction.

**REGULATIONS** - Generally refers to the Code of Federal Regulations, Title 36, Chapter II, which covers management of the Forest Service.

**REHABILITATION** - Action taken to restore, protect, or enhance site productivity, water quality, or other resource values over a period of time.

**RESEARCH NATURAL AREA (RNA)** - An area set aside by a public or private agency specifically to preserve a representative sample of an ecological community, primarily for scientific and educational purposes. In U.S.D.A. Forest Service usage, Research Natural Areas are areas designated to ensure representative samples of as many of the major naturally occurring plant communities as possible.

**RESERVED LANDS** - Lands reserved from the public domain for National Forest purposes, and lands that are added to the National Forest System by exchange for reserved National Forest lands. See PROCLAIMED LAND.

**RESIDUAL STAND** - The trees remaining standing after some activity such as selection cutting.

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

**RESOURCE ALLOCATION** - The action of apportioning the supply of a resource to specific uses or to particular persons or organizations.

**RESOURCE ALLOCATION MODEL (RAM)** - A mathematical model using linear programming that will allocate land to different management prescriptions and schedule implementation of those prescriptions simultaneously. The purpose of the model is to find a schedule and allocation that meets the goals of the Forest and optimizes some objective function, such as "minimize costs."

**RESOURCE MANAGEMENT PLAN** - A Plan developed prior to the Forest Plan that outlined the activities and projects for a particular resource element independently of considerations for other resources. Such Plans are superseded by the Forest Plan.

**RESOURCE PLANNING ACT (RPA)** - The Forest and Rangeland Renewable Resources Planning Act of 1974. Also refers to the National Assessment and Recommended Program developed to fulfill the requirements of the act.

**RESPONSIBLE OFFICIAL** - The Forest Service employee who has been delegated the authority to carry out a specific planning action.

**RETENTION** - See VISUAL QUALITY OBJECTIVE.

**RIGHT-OF-WAY (R/W)** - An accurately located strip of land with defined width, point of beginning, and point of ending; the area within which the user has authority to conduct operations approved or granted by the landowner in an authorizing document, such as a permit, easement, lease, license, or Memorandum of Understanding.

**RIPARIAN** - Pertaining to areas of land directly influenced by water. Riparian areas usually have visible vegetative or physical characteristics reflecting this water influence. Stream sides, lake borders, or marshes are typical riparian areas.

**RIPARIAN AREA** - Geographically delineated areas, with distinctive resource values and characteristics, that are comprised of aquatic and riparian ecosystems.

**RIPARIAN ECOSYSTEM** - A transition between the aquatic ecosystem, and the adjacent upland terrestrial ecosystem. Identified by soil characteristics and distinctive vegetation communities that require free or unbound water.

**RIPARIAN HABITAT CONSERVATION AREA (RHCA)** - portions of watersheds where riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines (See Fisheries Section of Chapter 3).

**ROADED MODIFIED (RM)** - A classification of the Recreation Opportunity Spectrum that characterizes a predominately altered environment, allowing for noticeable to strongly-evident management activity.

**ROADED NATURAL (RN)** - A classification of the Recreation Opportunity Spectrum that characterizes a predominately natural environment with evidence of moderate permanent alterations and resource utilization. Evidence of the sights and sounds of people is moderate, but in harmony with the natural environment. Opportunities exist for both social interaction and moderate isolation from the sights and sounds of people.

**ROADLESS AREA REVIEW AND EVALUATION II (RARE II)** - The national inventory of roadless and undeveloped areas within the National Forest and Grasslands. This refers to the second such assessment, which was documented in the Final Environmental Impact Statement of the Roadless Area Review and Evaluation, January 1979. The Fremont National Forest incorporated RARE II data to develop inventories of roadless areas into the Forest Plan.

**ROADLESS AREA CONSERVATION FINAL RULE** - On January 12, 2001, the Department of Agriculture issued the Roadless Area Conservation Final Rule, which established prohibitions on road construction, road reconstruction, and timber harvesting in inventoried roadless areas on National Forest System lands.

**ROTATION** - Number of years between the formation of a regeneration of trees and its final cutting at a specified stage of maturity. Appropriate for even-aged management only.

**ROUNDWOOD PRODUCTS** - Logs, bolts, or other round sections cut from trees.

**RURAL** - A Recreation Opportunity Spectrum classification for areas characterized by a substantially modified natural environment. Sights and sounds of people are evident. Renewable resource modification and utilization practices enhance specific recreation activities or provide soil and vegetative cover protection.

## S

**SALE PREPARATION COSTS** - Costs associated with preparing a timber harvest on Forest Service lands for sale to the public; usually include all administrative costs for developing sale layout, writing an Environmental Assessment and selling the timber sale.

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

**SATISFACTORY RANGE CONDITION** - On suitable range, forage condition is at least fair, with

stable trend, and allotment is not classified PC (basic resource damage) or PD (other resource damage).

**SCARIFIED** - Land in which the topsoil has been broken up or loosened in preparation for regenerating by direct seeding or natural seedfall. Also refers to ripping or loosening road surfaces to a specified depth for obliteration or “putting a road to bed.”

**SCENIC AREAS** - Places of outstanding or matchless beauty that require special management to preserve these qualities. They may be established under 36 CFR 294.1 whenever lands possessing outstanding or unique natural beauty warrant this classification.

**SCENIC RIVER AREAS** - See WILD AND SCENIC RIVER.

**SCOPING PROCESS** - A part of the National Environmental Policy Act (NEPA) process; early and open activities used to determine the scope and significance of the issues, and the range of actions, alternatives, and impacts to be considered in an Environmental Impact Statement.

**SECOND GROWTH** - Forest growth that has become established following some interference, such as cutting, serious fire, or insect attack, with the previous Forest crop.

**SEDIMENT** - Earth material transported, suspended, or deposited by water.

**SEEDLINGS AND SAPLINGS** - Live trees less than five inches in diameter at breast height. See also **SIZE CLASS**.

**SEMIPRIMITIVE MOTORIZED (SPM)** - A classification of the Recreation Opportunity Spectrum, characterized by a predominantly unmodified natural environment in a location that provides good to moderate isolation from sights and sounds of people, except for those facilities/travel routes sufficient to support motorized recreational travel opportunities which present at least moderate challenge, risk, and a high degree of skill testing.

**SEMIPRIMITIVE NONMOTORIZED (SPNM)** - A classification of the Recreation Opportunity Spectrum, characterized by a predominately unmodified natural environment of a size and location that provides a good to moderate opportunity for isolation from sights and sounds of people. The area is large enough to permit overnight foot travel within the area, and presents opportunity for interaction with the natural environment

with moderate challenge, risk, and use of a high degree of outdoor skills

**SENSITIVE SPECIES** - Plant or animal species that are susceptible or vulnerable to activity impacts or habitat alterations. Those species that have appeared in the Federal Register as proposed for classification or are under consideration for official listing as endangered or threatened species, that are on an official State list, or that are recognized by the Regional Forester as needing special management to prevent placement on Federal or State lists.

**SERAL** - A biotic community which is a developmental, transitory stage in an ecologic succession.

**SILVICULTURAL EXAMINATION** - The process used to gather the detailed in-place field data needed to determine management opportunities and direction for the timber resource within a small subdivision of a Forest area, such as a stand.

**SILVICULTURAL SYSTEM** - A management process whereby Forests are tended, harvested, and replaced, resulting in a Forest of distinctive form. Systems are classified according to: **1)** the method of carrying out the fellings that remove the mature crop and provide for regeneration, and **2)** the type of forest thereby produced.

**SILVICULTURE** - The art and science of controlling the establishment, composition, and growth of forests.

**SITE INDEX** - A numerical evaluation of the quality of land for plant productivity, based on the height of dominant trees in a stand at an arbitrarily chosen age.

**SITE PREPARATION** - An activity (such as prescribed burning, disking, and tilling) performed on a reforestation area, before introduction of reforestation, to ensure adequate survival and growth of the future crop.

**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 database.

seedling/sapling = less than five-inch diameter  
pole/sapling or pole timber = five-inch to nine-inch diameter  
sawtimber = greater than nine-inch diameter

**SKIDDING** - A general term for hauling loads by sliding, not on wheels, as developed originally from stump to roadside, deck, skidway, or other landing.

**SLASH** - The residue left on the ground after tree felling and tending, and/or accumulating there as a result of storm, fire, girdling or poisoning. It includes unutilized logs, uprooted stumps, broken or uprooted stems, the heavier branchwood, etc.

**SMALL GAME** - Birds and small mammals normally hunted or trapped.

**SNAG** - A standing dead tree.

**SOCIO-ECONOMIC** - Pertaining to, or signifying the combination or interaction of social and economic factors.

**SOIL** - The portion of the earth's surface consisting of disintegrated rock and humus

**SOIL PRODUCTIVITY** - The capacity of a soil to produce a specific crop such as fiber or forage under defined levels of management. Productivity is generally dependent on available soil moisture and nutrients, and length of growing season.

**SOIL RESOURCE INVENTORY** - See SOIL SURVEYS.

**SOIL SURVEYS** - Systematic examinations of soils in the field and in laboratories, their description and classification; the mapping of kinds of soil; the interpretation according to their adaptability for various crops, grasses, and trees, their behavior under use or treatment for plant production or for other purposes, and their productivity under different management systems.

**SOIL TEXTURE** - The relative proportions of the various soil separates in a soil, described by the classes of soil texture. Twelve basic soil texture classes are recognized, such as "loam." The textural classes may be modified by the addition of suitable adjectives when coarse fragments are present in substantial amounts; for example, "stony loam."

**STAND (TREE STAND, TIMBER STAND)** - An aggregation of trees or other vegetation occupying a specific area and sufficiently uniform in species composition, age arrangement, and condition as to be distinguishable from the forest or other vegetation or land cover on adjoining areas.

**STAND DIVERSITY** - Any attribute that makes one timber stand biologically or physically different from other stands. This difference can be measured by, but not limited to: different age classes; species; densities; or non-tree floristic composition.

**STAND EXAMINATION SURVEYS** - Procedures to collect data on Forest stands.

**STANDARD** - A statement that describes a condition when a job is done properly. Standards show how well something should be done, rather than what should be done.

**STANDARDS AND GUIDELINES** - Principles specifying conditions or levels of environmental quality to be achieved.

**STREAMFLOW** - The flow of water, generally with its suspended load, down a well-defined water course.

**STUMPAGE (STUMPAGE VALUE)** - The value of timber as it stands uncut, in terms of an amount per unit of volume.

**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 FOREST LAND** - Land to be managed for timber production on a regulated basis.

**SUPPRESSION** - The process of extinguishing or confining fire.

**SUSTAINABILITY** - The ability of forested systems to withstand or resist rapid and widespread structural change due to fire, insects, and disease.

**SUSTAINED YIELD OF PRODUCTS AND SERVICES** - Maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the National Forest without impairment of the productivity of the land.

## T

**TENTATIVELY SUITABLE FOREST LAND** - Forest land that is producing or is capable of producing crops of industrial wood and. (a) has not been withdrawn by Congress, the Secretary, or the Chief; (b) existing technology and knowledge is available to ensure timber production without irreversible damage to soils productivity, or watershed conditions; (c) existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance

that it is possible to restock adequately within five years after final harvest; and (d) adequate information is available to project responses to timber management activities.

**TEMPORARY ROAD** - Roads authorized by contract, permit, lease, other written authorization, or emergency operation not intended to be a part of the forest transportation system and not necessary for long term resource management (36CFR 212.1).

**THERMAL COVER** - Cover used by animals to ameliorate effects of weather; for deer, a stand of coniferous trees 5 feet or taller with an average crown closure of 75 percent or more, or a pole-size or larger stand with 60 percent or more closure.

**THERMONEUTRAL** – The range of effective ambient temperatures in which an animal does not have to increase normal metabolic heat production to offset heat loss to the environment.

**THINNING** - A felling made in an immature stand primarily to maintain or accelerate diameter increment and also to improve the average form of the remaining trees without permanently breaking the canopy. An intermediate cutting.

**THREATENED AND ENDANGERED (T&E) SPECIES** - See THREATENED; see ENDANGERED

**THREATENED SPECIES** - Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future. See also ENDANGERED SPECIES.

**TIERING** - Refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as Regional or Forest program statements, or ultimately, site-specific statements) incorporating, by reference, the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.

**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. For purposes of Forest planning, the term “timber production” does not include production of fuelwood or harvest of unsuitable lands.

**TIMBER STAND IMPROVEMENT (TSI)** - Measures such as thinning, pruning, release cutting, prescribed fire, girdling, weeding, or poisoning of unwanted trees aimed

at improving the growing condition of the remaining trees.

**TOPOGRAPHY** - The configuration of a surface including its relief, elevation, and the position of its natural and human-created features

**TOTAL SUSPENDED PARTICULATES (TSP)** - Any finely divided material (solid or liquid) that is airborne with an aerodynamic diameter smaller than a few hundred micrometers.

**TRACTOR LOGGING** - Any logging method that uses a tractor as the motive power for transporting logs from the stumps to a collecting point, whether by dragging or carrying the logs.

**TRADE-OFF** -The combination of benefits and costs that are gained and lost in switching between alternative courses of action. Trade-offs include only those portions of benefits and costs that are not common to all alternative courses of action under consideration.

**TURBIDITY** - The quantification of suspended particulates or opacity in water.

## U

**UNCLASSIFIED ROAD** - Roads on National Forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travelways, and off road vehicle tracks that have not been designated and managed as a trail; and those roads that were once under permit or other authorization and were not decommissioned upon the termination of the authorization (36 CFR 212.1).

**UNDERSTORY** - The trees and other woody species growing under a more-or-less continuous cover of branches and foliage formed collectively by the upper portion of adjacent trees and other woody growth.

**UNPLANNED IGNITION** - A fire started at random by either natural or human causes, or a deliberate incendiary fire.

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

**UNSATISFACTORY RANGE CONDITION** - Allotment does not meet criteria for satisfactory

condition. See SATISFACTORY RANGE CONDITION.

**UTILITY CORRIDOR** - A strip of land, up to approximately 600 feet in width, designated for the transportation of people, energy, commodities, and communications by: railroad, state highway, electrical power transmission (66 KV and above), and/or oil, gas, and coal slurry pipelines 10 inches in diameter and larger; and telecommunication cable and electronic sites for interstate use

**UTILIZATION STANDARDS** - Standards guiding the projection of timber yields and the use and removal of timber. The standards are described in terms of minimum diameter at breast height, minimum length, and percent soundness of the wood, as appropriate.

## V

**VARIABLE COSTS** - Costs that vary according to the activity or output level. They may be expressed as a cost per acre or cost per unit of output.

**VEGETATIVE MANAGEMENT** - Activities designed primarily to promote the health of the crop forest cover for multiple-use purposes.

**VERTICAL RELIEF** - A contour variation of the land surface perpendicular in relation to the surrounding land.

**VIALBLE POPULATIONS** - That number of individuals of a species sufficient to ensure the long-term existence of the species in natural self-sustaining populations adequately distributed throughout the planning area.

**VISUAL QUALITY OBJECTIVE (VQO)** - Categories of acceptable landscape alteration measured in degrees of deviation from the natural-appearing landscape.

Preservation (P) - Ecological changes only.

Retention (R) - Management activities should not be evident to the casual Forest visitor.

Partial Retention (PR) - Management activities remain visually subordinate to the characteristic landscape.

Modification (M) - Management activities may dominate the characteristic landscape but must, at the same time, follow naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Maximum Modification (MM) - Human activity may dominate the characteristic landscape, but should appear as a natural occurrence when viewed as background.

Enhancement - A short-term management alternative that is done with the express purpose of increasing positive visual variety where little variety now exists.

**VISUAL RESOURCE** - The composite of basic terrain, geologic 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.

## W

**WATER RIGHTS** - Rights to divert and use water or to use it in place.

**WATER YIELD** - The measured output of the Forest's streams.

**WATERSHED** - The entire land area that contributes water to a drainage system or stream.

**WETLANDS** - Areas that are inundated by surface or ground water often enough to support, and usually do support, primarily plants and animals that require saturated or seasonally saturated soil conditions for growth and reproduction.

**WILDERNESS** - Areas designated by congressional action under the 1964 Wilderness Act. Wilderness is defined as undeveloped federal land retaining its primeval character and influence without permanent improvements or human habitation. Wildernesses are protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature with the imprint of human activity substantially unnoticeable; have outstanding opportunities for solitude or a primitive and unconfined type of recreation; are of sufficient size to make practical their preservation, enjoyment, and use in an unimpaired condition, and may contain features of scientific, educational, scenic, or historical value as well as ecologic and geologic interest.

**WILDFIRE** - Any wildland fire that is not a prescribed fire. See also PRESCRIBED FIRE.

**WOOD FIBER PRODUCTION** - The growing, tending, harvesting, and regeneration of harvestable trees.

**WORKING CIRCLE (WC)** - A geographic division of the Forest created for administrative or marketing purposes. In this document, the area that is not part of the Lakeview Federal Sustained Yield Unit is sometimes referred to as the Klamath Basin Working Circle and the Lakeview Unit may be referred to as the Lakeview Working Circle.

## **X, Y, Z**

**XERIC** - A dry soil moisture regime. Some moisture is present but does not occur at optimum levels for plant growth. Irrigation or summer fallow is often necessary for crop production.

**YARDING** - Hauling timber from the stump to a collection point.

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