

GLOSSARY/ACRONYMS

Activity Fuel - Debris generated by a Forest activity such as firewood gathering, precommercial thinning, timber harvesting, and road construction.

Airshed - Basic geographic units in which air quality is managed.

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

Allotment - See Range Allotment

Alternative - A combination of management prescriptions applied in specific amounts and locations to achieve a desired management emphasis as expressed in goals and objectives. One of the several policies, plans or projects, proposed for decision making. An alternative need not substitute for another in all respects.

Artificial Regeneration - Regeneration of a forest by planting or seeding.

Animal Unit Month (AUM) - The quantity of forage required by the equivalent of a 1000 lb. mature cow for one month.

Average Annual Harvest - The volume of timber harvested in a decade, divided by 10.

Benchmark - Reference points that define the bounds within which feasible management alternatives can be developed. Benchmarks may be defined by resource output or economic measure.

Benefit-Cost Ratio - Measure of economic efficiency, computed by dividing total discounted primary benefits by total discounted economic costs.

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

Best Management Practices (BMPs) - The set of practices in the Forest Plan which, when applied during implementation of a project, ensures that water related beneficial uses are protected and that State water quality standards are met. BMP's can take several forms. Some are defined by State regulation or memoranda of understanding between the Forest Service and the States. Others are defined by the Forest interdisciplinary planning team for application Forest-wide. Both of these kinds of BMP's are included in the Forest Plan as Forest-wide Standards. A third kind are identified by the interdisciplinary team for application to specific management areas; these are included as Management Area Standards in the appropriate management areas. A fourth kind, project level BMP's, are based on site specific evaluation and represent the most effective and practicable means of accomplishing the water quality and other goals of the specific area involved in the project. These project level BMP's can either supplement or replace the Forest Plan standards for specific projects.

Big Game - Those species of large mammals normally managed as a sport hunting resource.

Big Game Summer Range - Land used by big game during the summer months.

Big Game Winter Range - The area available to and used by big game through the winter season.

Biodiversity - "The variety and variability among living organisms and the ecological complexes in which they occur (OTA 1987)". "The variety of biotic communities, species and genes, and their interactions with ecological processes and functions, within ecosystems and across landscapes" (Hann 1990).

Biological Assessment (BA) - "A 'biological evaluation' conducted for major Federal construction projects requiring an environmental impact statement, in accordance with legal requirements under section 7 of the Endangered Species Act (16 USC 1536(c)). The purpose of the assessment and resulting document is to determine whether the proposed action is likely to affect an endangered, threatened, or proposed species" (FSM 2670.5.2).

Biological Evaluation (BE) - "A documented Forest Service review of Forest Service programs or activities in sufficient detail to determine how an action or proposed action may affect any threatened, endangered, proposed, or sensitive species" (FSM 2670.5.3).

Biological Potential - The maximum possible output of a given resource limited only by its inherent physical and biological characteristics.

Board Foot (BF) - A unit of measurement represented by a board one foot square and one inch thick.

Broadcast Burn - Allowing a controlled fire to burn over a designated area within well-defined boundaries, for reduction of fuel hazard, as a silvicultural treatment, or both.

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

Cambium - The living connective tissue underneath the bark of trees and shrubs that transport nutrients and water between roots and leaves or needles.

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

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

Cavity - A hollow in a tree that is used by birds or mammals for roosting and reproduction.

Climax Plant Community - The final or stable biotic community in a developmental series.

Closure - The administrative order that does not allow specified uses in designated areas or on Forest development roads or trails.

Coefficient (Cost, Value, Yield) - The numeric units used to include costs, values, and outputs in the analysis model used in the formulation of the Forest Plan.

Commercial Forest Land - Land that is producing, or is capable of producing, crops of industrial wood and (1) has not been withdrawn by Congress, the Secretary of Agriculture or the Chief of the Forest Service (suitable timber lands); (2) where existing technology and knowledge is available to ensure timber production without irreversible damage to soils productivity or watershed conditions; and (3) where existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance that adequate restocking can be obtained within years after final harvesting.

Cord - A unit of gross volume measurement for stacked roundwood based on external dimensions, generally implies a stack of four feet by four feet vertical cross section and eight feet long, contains 128 stacked cubic feet.

Corridors - Travelways, often forested, which are required by some species for movement and transfer of genetic material.

Cost - The negative or adverse effects or expenditures resulting from an action. Costs may be monetary, social, physical or environmental in nature.

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 specific 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 (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 - This analysis includes thermal and hiding cover under the general term, cover.

Cover/Forage Ratio - The ratio of tree cover (usually conifer types) to foraging areas (natural openings, clearcuts, etc.).

Crown - The upper part of a tree or other woody plant, carrying the main branch and foliage, and surmounting at the crown base a more or less clean stem.

Culmination Of Mean Annual Increment (CMAI) - The point at which the volume increment for a tree or stand of trees has achieved its highest mean value. Mean annual increment is based on expected growth according to the management intensities and utilization standards assumed in the Forest Plan. The CMAI is calculated by dividing the attained growth (volume) by its corresponding age.

Cultural Resources - The physical remains of human activity (artifacts, ruins, burial mounds, petroglyphs, etc.) and conceptual content or context (as a setting for legendary, historic, or prehistoric events, as a sacred area of native peoples, etc.) of an area of prehistoric or historic occupation.

Developed Recreation - Recreation that occurs where improvements enhance recreation opportunities and accommodate intensive recreation activities in a defined area.

Developed Recreation Sites - Relative small, distinctly defined area where facilities are provided for concentrated public use, i.e., campgrounds, picnic areas and swimming areas.

Diameter Breast Height (DBH) - The diameter of a tree measured four and one-half feet above the ground.

Dispersed Recreation - That portion of outdoor recreation use which occurs outside of developed sites in the unroaded and roaded Forest environment i.e., hunting, backpacking and berry picking.

Displacement - Lack of security causes wildlife to be displaced (or move out of) their normal use areas.

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

Economics - The study of how limited resources, goods, and services are allocated among competing uses.

Ecosystem - A complete, interacting system of organisms considered together with their environment (for example; a marsh, a watershed, or a lake).

Effects - Physical, biological, social and economic results (expected or experienced) resulting from achievement of outputs. Effects can be direct, indirect and cumulative.

Elk Security - "The protection inherent in any situation that allows elk to remain in a defined area despite an increase in stress or disturbance associated with the hunting season or other human activities" (Lyon and Christensen 1990).

Endangered Species - Any species, plant or animal, which is in danger of extinction throughout all or a significant portion of its' range. Endangered species are identified by the Secretary of the Interior in accordance with the 1973 Endangered Species Act.

Entire Tree Yard - Yarding an entire tree to the landing. Usually just the merchantable portion of the tree is yarded from the unit to save on costs. Yarding an entire tree is usually done to reduce excessive slash on a harvested area; particularly if broadcast burning cannot be accomplished.

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

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

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

Environmental Impact Statement, Draft (DEIS) - A detailed written statement as required by Sec. 102(2)(C) of the National Environmental Policy Act.

Environmental Impact Statement, Final (FEIS) - The final version of the public document required by NEPA. (See above)

Erosion - The group of processes whereby earthy or rocky material is worn away by natural sources such as wind, water or ice and removed from any part of the earth's surface.

Existing Visual Condition (EVC) - A measure of the level of disturbance to the visual resource, expressed in acres. The different classes are defined as follows:

Untouched: Those areas of significant size in which only ecological change has taken place, with the exception of trail construction.

Unnoticed: Areas where changes in the landscape are not visually evident to the average person unless pointed out.

Minor Disturbance: Changes in the landscape that are generally noticed by the average person, but they do not attract attention. The natural appearance of the landscape still remains dominant. Included in this category are older roads that have "healed" and logged areas that have revegetated to a natural appearing state.

Disturbed: Areas where changes are easily noticed by the average person and may attract some attention.

Major Disturbance: Includes strong changes that would be obvious to anyone. These changes stand out as a dominant impression on the landscape, yet they are shaped so they might resemble natural patterns or have recovered to a point where they appear somewhat natural.

Drastic Disturbance: Areas in glaring contrast to the natural appearance: rehabilitation may be necessary.

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 the stands of varying ages (and, therefore, tree sizes) throughout the Forest area. The difference in ages between trees forming the main canopy level of the stand does not usually 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. Cutting methods include clearcutting, shelterwood cutting, and seed tree cutting.

Fines - Sediments less than .25 inches in diameter.

Forage - All browse and nonwoody plants available to livestock or wildlife for feed.

Forest Plan (FP) - Gallatin National Forest Land and Resource Management Plan, September 1987

Forest And Rangeland Renewable Resources Planning Act Of 1974 (RPA) - An Act of Congress which requires the assessment of the Nation's renewable resources and the periodic development of a national renewable resources program. It also requires the development, maintenance and, as appropriate, revision of land and resource management plans for units of the National Forest System (e.g., National Forest).

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 constructed roads of any width, and adjoining road clearing and powerline clearing of any width.

Forest Supervisor - The official responsible for administering the National Forest System lands in a Forest Service Administrative unit, which may consist of one or more National Forests or all the National Forests within a State.

Forest System Road- Also called Forest Development Road. A road wholly or partly within or adjacent to and serving the National Forest System and which is necessary for the protection, administration and utilization of the National Forest System and the use and development of its resources.

Forest-Wide Management Guidelines - An indication or outline of policy or conduct dealing with the basic management of the Forest. Forest-wide management guidelines apply to all areas of the Forest regardless of the other management prescriptions applied.

Fry - The life stage of fish that refers to the juvenile fish which have either not emerged from the gravel or have recently emerged.

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, man-made barriers.

Fuels - Include both living plants; dead, woody vegetative materials; and other vegetative materials which are capable of burning.

Fuels Management - Manipulation or reduction of fuels to meet Forest protection and management objectives while preserving and enhancing environmental quality.

Fuels Treatment - The rearrangement or disposal of natural or activity fuels.

Game Species - Any species of wildlife or fish for which seasons and bag limits have been prescribed, and which are normally harvested by hunters, trappers, and fishermen under State or Federal laws, codes, and regulations.

Goshawk - A Management Indicator Species in the Gallatin National Forest Plan. The goshawk was chosen as an indicator old growth dependent species, dry Douglas fir sites (FP p. II-19).

Grazing Allotment - See Range Allotment.

Grizzly Bear Recovery Zone - The area comprised of Management Situations 1 and 2 for grizzly bear as decided by an interagency team. The Bear Creek drainage is within the Recovery Zone.

Habitat Effectiveness - The percentage of available habitat that is usable by elk during the non-hunting season (Lyon and Christensen 1990)

Habitat Effectiveness Index (HEI) - A calculation of how habitat is influenced by the presence of roads and cover. The HEI ranges between zero and one; with one representing 100% HEI (or 100% habitat availability); 0.7 mile of road per square mile is equal to 70 percent HEI.

Habitat Type - An aggregation of all land areas potentially capable of producing similar plant communities at climax.

Hand Pile - The piling of slash and logging debris by hand labor; causes less impact to the site and is more selective than machine piling but usually costs more. Usually prescribed in; riparian areas to minimize ground disturbance, in small areas where machinery cannot operate and in areas where it is important to protect residual trees.

Hiding Cover - "Vegetation capable of hiding 90 percent of an adult elk from the view of a human at a distance equal to or less than 200 feet" (Lyon and Christensen 1990). A component of security.

Indirect Effects - Secondary effects which occur in locations other than the initial action or significantly later in time.

Individual Tree Selection Harvest - A cutting method to develop and maintain uneven-aged stands by the removal of selected trees from specified age classes over the entire stand area in order to meet a predetermined goal of age distribution and species in the remaining stand.

Interdisciplinary (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. Through interaction, participants bring different points of view to bear on the problem.

Inventoried Roadless Area - An area identified and classified as roadless. These areas were identified during the Roadless Area Review and Evaluation (RARE II). See *Roadless Area*.

Issue - A point of discussion, debate, or dispute about environmental effects. An issue is the focus of analysis related to the environmental effects of a proposed action.

Landtype - An inventory map unit with relatively uniform potential for a defined set of land uses. Properties of soils, landform, natural vegetation and bedrock are commonly components of landtype delineation used to evaluate potentials and limitations for land use.

Logical Resource Unit - A function of the issue under consideration. For example, Logical Resource Units for water issues are usually watersheds and for elk are usually elk herd ranges.

Long-Term Sustained Yield - The highest uniform wood yield from lands

Lop And Scatter - A term used in treating fuels during and after harvesting is complete where the unmerchantable portions of the tree (usually the smaller top of a tree and the limbs) are cut off and scattered about to reduce slash concentrations.

Management Indicator Species - Species identified in a planning process that are used to monitor the effects of planned management activities on viable populations of wildlife and fish including those that are socially or economically important.

Management Situation 1 - Contains grizzly population centers and habitat components needed for the survival and recovery of the species or a segment of its population (FP p. G-3).

Management Situation 2 - The areas lacks distinct grizzly bear population centers, highly suitable habitat does not generally occur, although some grizzly habitat components exist and grizzlies may be present occasionally. Habitat resources in MS2 are either unnecessary for survival and recovery of the species, or the need has not yet been determined but habitat resources may be necessary (FP p. G-3).

Mature Timber - Individual trees or stands of trees that in general are at their maximum rate in terms of the physiological processes expressed as height, diameter, and volume growth.

Mean Annual Increment - The total volume increase in a tree or stand of trees up to a given age, divided by that age.

Mitigate - To lessen the severity.

Mitigation - Avoiding or minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact by preservation and maintenance operations during the life of the action.

Modification (VQO) - See Visual Quality Objective (VQO).

Monitoring And Evaluation - The periodic evaluation on a sample basis of Forest Plan management practices to determine how well objectives have been met and how closely management standards have been applied.

Moose Winter Range - The area where moose generally winter.

Mountain Pine Beetle - A species of Bark Beetle (*Dendroctonus ponderosae*) that spends the major portion of their life cycle in a tree's cambium layer. Through a combination of the insect feeding on the cambium layer and the introduction of fungi which stop the resin flow, the tree is girdled and killed. This insect is generally specific to lodgepole pine.

National Environmental Policy Act (NEPA) - An act which encourages productive and enjoyable harmony between man and his environment; promotes efforts to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; enriches the understanding of the ecological systems and natural resources important to the Nation; and establishes a Council on Environmental Quality.

National Forest Management Act (NFMA) - A law passed in 1976 as amendments to the Forest and Rangeland Renewable Resources Planning Act that requires the preparation of Regional and Forest plans and the preparation of regulations to guide that development.

National Forest System - All national forest lands reserved or withdrawn from the public domain of the United States, all national forest lands acquired through purchase, exchange, donation, or other means, the national grasslands and land utilization projects administered under Title III.

Natural Regeneration - Regeneration which occurs due to germination of naturally occurring seed.

Net Public Benefits (NPB) - 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.

Nondeclining Yield - See Nondeclining Flow.

No Action Alternative - The management direction, activities, outputs, and effects most likely to exist in the future if the current plan would continue unchanged.

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) - Any vehicle capable of being operated off an established road or trail, e.g., motorbikes, four-wheel drives, and snowmobiles.

Old Growth - A multistoried stand that is past full maturity and showing a high degree of decadence--the last stage in forest succession.

Old growth is defined as having several characteristics:

1. Size of overstory trees should be 9 inches DBH for lodgepole pine, 14 inches DBH for Douglas-fir, and 14 inches DBH for spruce/alpine fir. There should be at least 10 large trees per acre.
2. Crown closure--there should generally be 10-40 percent crown closure of the overstory.
3. Dead and down--this component should be at least 15 tons per acre of 3-inch diameter or larger material.
4. Snags--on the average, one or more snags per acre, at least 9 inches DBH for lodge pole and 14 inches DBH for Douglas-fir or spruce/alpine fir.
5. Understory--a minimum of 200 trees per acre greater than 5 feet tall less than 5 inches DBH, with understory and overstory crown closure combined exceeding 70 percent
6. Distribution--areas selected for management as old growth should be elevationally and spatially distributed. This definition represents an optimum condition. However, all these characteristics do not necessarily have to be present for a stand of timber to provide adequate old growth habitat. This definition should serve as a guideline for identifying old growth stands on the project level.

Open Road Density - "A measure of access that addresses all types of roads and trails used by motorized vehicles and equates these to a common standard. Frequently used in the computation of Habitat Effectiveness" (Lyon and Christensen 1990). In this document, miles of road per square mile.

Output - A good, service, or on-site use that is produced from forest and rangeland resources. Definitions of Forest and rangeland output definitions, codes and units measure are contained in the Management Information Handbook (FSH 1309.11). Examples are: X06-Softwood Sawtimber Production - MBF; X80-Increased Water Yield - Acre Feet; W01-Primitive Recreation Use - RVD's.

Overmature Timber - Individual trees or stands of trees that in general are past their maximum rate in terms of the physiological processes expressed as height, diameter and volume growth.

Overstory - The portion of the trees that form the uppermost canopy layer in a forest of more than one story.

Overstory Removal - The removal, usually for silvicultural purposes, of overstory trees from a stand.

Partial Retention (VQO) - See Visual Quality Objective (VQO).

Perennial Streams - Streams that flow continuously throughout most years.

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

Pine Marten - A Management Indicator Species in the Gallatin National Forest Plan. The pine marten was chosen as an indicator old growth dependent species, moist spruce sites (FP p. II-19).

Pole Timber - Live trees of a commercial species at least five inches in diameter at breast height but smaller than saw timber size, and of good form and vigor.

Precommercial Thinning - The selective felling, deadening, or removal of trees in a young stand primarily to accelerate diameter increment on the remaining stems, maintain a specific stocking or stand density range, and improve the vigor and quality of the trees that remain.

Prescribed Burning - The intentional application of fire to wildland fuels in either their natural or modified state under such conditions as allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat and rate of spread required to further certain planned objectives (i.e., silviculture, wildlife management, etc.).

Prescribed Fire - A fire burning under specified conditions which will accomplish planned objectives in strict compliance with an approved plan and the conditions under which the burning takes place and the expected results are specific, predictable, and measurable.

Present Net Value (PNV) - The difference between the total discounted value of all outputs to which monetary values or established market prices are assigned and the total discounted costs for management.

Present Value Benefits (PVB) - The present (current) value of all outputs to which monetary values or established market prices are assigned discounted to the present.

Present Value Costs (PVC) - The present (current) value of all costs discounted to the present.

Present Net Worth - The discounted value of price times quantity less cost.

Primitive Recreation Setting - A classification of the recreation opportunity spectrum that characterizes an essentially unmodified natural environment of a size or remoteness that provides significant opportunity for isolation from the signs and sounds of man and a feeling of vastness of scale. Visitors have opportunity to be part of the natural environment, encounter a high degree of challenge and pursue a maximum of outdoor skills but have minimum opportunity of social interaction.

Primitive Setting - A large area (generally at least 5,000 acres) at least three miles from all roads, railroads, or trails with motorized use. The area is essentially a natural environment unmodified by man.

Project-Specific Amendment An amendment to the Forest Plan for a specific area or project. The Mill/Emigrant EIS included a site-specific amendment for HEI.

Proposed Action - In terms of the National Environmental Policy Act, the project, activity, or action that a Federal agency intends to implement or undertake and which is the subject of an environmental analysis.

Public Involvement - A Forest Service process designed to broaden the information base upon which agency decisions are made by (1) informing the public about Forest Service activities, plans, and decisions, and (2) encouraging public understanding about and participation in the planning processes which lead to final decision making.

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

Range, Transitory - See Transitory Range.

Ranger District - Administrative subdivision of the Forest supervised by a District Ranger.

RARE II - See Roadless Area.

Record Of Decision (ROD) - A document separate from but associated with an environmental impact statement that publicly and officially discloses the responsible official's decision on the proposed action.

Recreation Opportunities - The combination of recreation settings, activities, and experience provided by the Forest.

Recreation Opportunity Spectrum (ROS) - Provides a framework for stratifying and defining classes of outdoor recreation environments, activities, and experience opportunities. The settings, activities, and opportunities for obtaining experiences have been arranged along a continuum or spectrum divided into six classes:

Urban - Urban ROS class settings are characterized by high levels of human activity and concentrated development, including recreational development. Large numbers of users can be expected, both on-site and in nearby areas. In an urban setting, users will likely find many forms of regulation ranging from signs to physical barriers. The opportunity for challenge and risk is low and relatively unimportant. Man-made structures and green, open spaces are common.

Rural - The Rural class setting is characterized by moderate to high levels of use on developed sites, roads, trails, and water surfaces. Contact with other users is lower away from these areas. Controls such as signs and barriers exist but to a lesser degree than in the urban setting and they tend to be in harmony with the man-made environment. (Examples of the Urban and Rural settings include cities, villages, farms, ranches, parks, and campgrounds near heavily populated areas).

Roaded Natural Appearing - This setting has moderate levels of human activities and structures. Regimentation and controls are noticeable but tend to blend with the natural environment. There is an equal probability of encountering other users and experiencing isolation from humans. Opportunities for both motorized and non-motorized forms of recreation are possible. (Examples of the Roaded Natural Appearing setting include improved highways, developed campgrounds, small resorts, ski areas, livestock grazing, and timber harvesting operations).

Roaded Modified - A distinct subclass of setting features exists within the Roaded Natural class. This subclass occurs where human modification is locally dominant or codominant with a natural-appearing landscape, much like the rural setting. However, the recreation opportunities provided are significantly different from the Rural setting. For example, although numerous, highly improved roads might exist in this subclass, there is a sense of remoteness because of the distances from major travelways. In addition, the density of recreation use is often low compared to the Rural class. Also, users have the opportunity for exploration and to use both on-road recreation vehicles and ORV's. Camping is not confined to developed campsites, so users have considerable autonomy in choosing sites and using equipment.

Semi-primitive - Both the Semi-Primitive Motorized and Semi-Primitive Non-Motorized classes are characterized by predominately natural or natural-appearing landscapes. The size of these areas gives a strong feeling of remoteness from the more heavily used and developed areas. Within these settings, there are ample opportunities to practice wildland skills and to achieve feelings of self-reliance.

The most significant difference between the semi-primitive motorized, and non-motorized settings is the presence of absence of motorized vehicles. In the non-motorized settings, the presence of roads is tolerated, provided they are closed to public use, they are used infrequently for resource protection and management, and the road standards and locations are visually appropriate for the physical setting. In many cases, old roads are acceptable as non-motorized travelways so long as they do not reflect misuse or poor stewardship of the land. These roads would have motorized use in the semi-primitive motorized class, especially by ORVs. (An example of a semi-primitive non-motorized setting would be a backcountry area or trail where few other visitors are encountered and motorized use is prohibited. A semi-primitive motorized setting would likewise have few encounters with other users but motorized use may occur).

Primitive - The Primitive settings are characterized by essentially unmodified natural environments and their size and configuration assure remoteness from the sights and sounds of human activity. The use of motorized vehicles and equipment is not permitted except in extreme emergencies, such as preserving a life or the resource. In the Primitive class, the user is forced to be self-reliant and expects low levels of user density. In the semi-primitive and primitive settings, the use of the visual management system plays a critical role in assessing and maintaining conditions which support the naturalness of the area. For example, it may not be enough to forbid motorized use in the non-motorized ROS classes. The character of any roads or other structures, such as buildings, bridges, or fences, must also be in harmony with the natural landscape. (The Lee Metcalf Wilderness is an example of the Primitive setting).

Reforestation - The renewal of forest cover by seeding, planting, and natural means.

Regeneration - The process where trees reproduce themselves by either artificial (handplanting of small seedlings) or natural (where trees reproduce themselves by seed) means. Often the term means the young trees themselves. A successfully regenerated stand occurs when seedlings have survived two growing seasons if artificial regeneration has occurred or three growing seasons if natural regeneration occurred on 90 percent of the reforestable land at prescribed stocking levels determined by the District silviculturist.

Regional Forester - The official responsible for administering a single Region of the Forest Service.

Research Natural Area - An area in as near a natural condition as possible, which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative

sample of an ecological community primarily for scientific and educational purposes; commercial and general public use is not allowed.

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

Responsiveness Summary - A document whereby the Forest Service directly responds to various comments offered by the public.

Retention (VQO) - See Visual Quality Objectives (VQO).

Riparian Areas - Areas with distinctive resource values and characteristics that are comprised of an aquatic ecosystem and adjacent upland areas that have direct relationships with the aquatic system. This is considered the horizontal distance of approximately 100 feet from the normal high water line of a stream channel, or from the shoreline of a standing body of water.

Riparian Ecosystem - A transition between the aquatic ecosystem and the adjacent upland terrestrial ecosystem. It is identified by soil characteristics and by distinctive vegetative communities that require free or unbounded water.

Road Management - The combination of both traffic management and maintenance management operations. Traffic management is the continuous process of analyzing, controlling and regulating uses to accomplish National Forest objectives. Maintenance management is the perpetuation of the transportation facility to serve intended management objectives.

Roadless Area - A National Forest area which (1) is larger than 5000 acres, or if smaller than 5000 acres, is contiguous to a designated wilderness or primitive area; (2) contains no roads; and (3) has been inventoried by the Forest Service for possible inclusion in the wilderness preservation system.

Rotation - The planned number of years between the formation or generation of trees and their harvest at a specified stage of maturity.

Rural Recreation Setting - A classification on the recreation opportunity spectrum that is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high.

Salvage Harvest - The cutting of trees that are dead, dying, or deteriorating (e.g., because they are overmature or materially damaged by fire, wind, insects, fungi, or other injurious agencies) before they lose their commercial value.

Sanitation Harvest - The removal of dead, damaged or susceptible trees, essentially to prevent the spread of pests or pathogens and so promote forest hygiene.

Sawtimber - Trees containing at least one 8-foot piece with a 5.6 inch diameter inside bark at the small end and meeting the Regional specifications for freedom from defect. Softwood trees must be at least eight inches in diameter at breast height for all species except Lodgepole Pine which will be seven inches at breast height.

Scoping - An early and open process designed to identify the environmental issues and significant factors to be addressed in the analysis process.

Security Area (Lyon and Christensen 1990) - "Any area because of its geography, topography, vegetation, or a combination, that will hold elk during periods of stress" .

Sediment - Solid material, both mineral and organic, that is in suspension, being transported, or has been moved from its site of origin by air, water, gravity, or ice.

Seedling/Sapling - A size category for forest stands in which trees less than five inches in diameter are the predominant vegetation.

Semi-Primitive Recreation - A classification on the recreation

Setting - Opportunity spectrum that characterizes a predominately natural or natural appearing environment of a moderate to large size. Concentration of users is low, but there is often evidence of other area users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle.

Seral - That group of species that occupy a site during early to mid successional stages of vegetative development. These species are often sun-loving and require bare mineral soil for successful germination.

Shading (Planting) - Providing natural or artificial shade for seedlings. Shading is used to prevent sun damage to seedlings. Natural shade may be logs, branches or stumps. Artificial shade devices are biodegradable cards or screens which provide shade generally from 1-3 years.

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 planned program of silvicultural treatment during the whole life of a [timber] stand. It includes not only the reproduction cuttings but any intermediate cuttings. The reproduction methods employed have such a decisive influence on the form and treatment of the stand that the name of the method is commonly applied to the silvicultural system; the shelterwood system, for example, leads to reproduction by means of the shelterwood method of cutting. (From: *The Practice of Silviculture*, D.Smith, 1962)

Site Preparation - A general term for a variety of activities that remove competing vegetation, slash, and other debris that may inhibit the reforestation effort.

Site Productivity - Production capability of a specific area of land.

Slash - The residue left on the ground after felling and other silvicultural operations and/or accumulating there as a result of storm, fire, girdling, or poisoning trees.

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

Snag - A standing dead tree usually greater than five feet in height and six inches in diameter at breast height.

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

Spot Pile - See Handpile.

Stagnation - A condition where plant growth is markedly reduced or even arrested through, e.g., competition, state of the soil, or disease.

Stand - A community of trees or other vegetative growth occupying a specific area and sufficiently uniform in composition (species), age, spatial arrangement, and conditions as to be distinguishable from the other growth on adjoining lands, so forming a silvicultural or management entity.

Standard And Guideline - An indication or outline of policy or conduct.

Suitable Forest Land - Forest land (as defined in 36 CFR 219.4) for which technology is available that will ensure timber production without irreversible resource damage to soils, productivity, or watershed conditions; for which there is reasonable assurance that such lands can be adequately restocked (as provided in CFR 219.14); and for which there is management direction that indicates that timber production is an appropriate use of that area.

Sustained Yield - 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.

Temporary Road - Those roads needed only for the purchaser or permittee's use. The Forest Service and the purchaser or permittee must agree to the location and clearing widths. Temporary roads are used for a single, short-term use, e.g., to haul timber from landings to Forest Development Roads, access to build water developments, etc. Temporary roads must be obliterated as part of a timber sale contract.

Thermal Cover - "For elk a stand of coniferous trees 40 feet or more tall with average crown closure of 70% or more. In some cases, topography or vegetation less than specific may meet animal needs for thermal regulation" (Lyon and Christensen 1990).

Threatened Species - Any species, plant or animal, which is likely to become an endangered species within the foreseeable future throughout all, or a significant portion, of its range. Threatened species are identified by the Secretary of the Interior in accordance with the 1973 Endangered Species Act.

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

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

Timber Production - The purposeful growing, tending, harvesting, and regeneration of rotational crops of trees to be cut into logs, bolts, or other round sections for industrial or consumer use. For purposes of Forest planning, timber production does not include production of fuelwood or harvest from unsuitable lands.

Timber Stand Improvement (TSI) - All noncommercial intermediate cuttings and other treatments to improvement composition, condition, and volume growth of a timber stand.

Total Maximum Daily Load (TMDL) - The maximum allowable load of a pollutant to a water body that will result in a stream's water quality meeting standards.

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

Transitory Range - Land that is suitable for grazing use for a period of time. For example, on particular disturbed lands, grass may cover the area for a period of time before being replaced by trees or shrubs not suitable for forage.

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

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.

Individual Tree Selection Cutting - The removal of selected trees from specified size and age classes over the entire stand area in order to meet a predetermined goal of size or age distribution and species composition in the remaining stand.

Group Selection Cutting - The removal of small groups of trees to meet a predetermined goal of size distribution and species in the remaining stand.

Ungulate - A mammal with hooves

Unsuitable Forest Land - Lands not selected for timber production in the suitability analysis during the development of the Forest Plan due to (1) the multiple-use objectives for the alternative preclude timber production, (2) other management objectives for the alternative requirements set forth in 36 CFR 219.27 cannot be met, and (3) the lands are not cost-efficient over the planning horizon in meeting forest objectives that include timber production. Land not appropriate for timber production shall be designated as unsuitable in the Forest Plan.

Visual Quality Objective (VQO) - A desired level of scenic quality and diversity of natural features based on physical and sociological characteristics of an area. Refers to the degree of acceptable alterations of the characteristic landscape.

Preservation: Only ecological changes are allowed to alter the natural landscape.

Retention: Human activities are not evident to the casual Forest visitor.

Partial Retention: Human activities may be evident, but must remain subordinate to the characteristic landscape.

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

Enhancement: A short-term management alternative which 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.

Vulnerability - "A measure of elk susceptibility to being killed during the hunting season. Note that this is the antonym of Security during the hunting season" (Lyon and Christensen 1990). In this document, vulnerability is also used as it relates to hunting or trapping of species other than elk.

Water Quality Limited Segment (WQLS) - Stream segments which are not expected to meet water quality standards or are not sufficient to meet beneficial uses even after the application of technology-based controls.

Water Yield - The measured output of the Forest's streams.

Winter Range - The area available to and used by big game during the winter season. Must contain forage or browse to feed big game. Winter range areas tend to have a relatively low amount of snow cover which enables the animals to reach the forage.

YUM Yard - Yarding unmerchantable material to the landing so that less slash remains in the harvested unit. Unmerchantable material consists of wood products that do not show a positive monetary return when being sold.

ACRONYMS

AB	Absaroka Beartooth Wilderness
ASQ	Allowable Sale Quantity
BA	Biological Assessment
BE	Biological Evaluation
BMP	Best Management Practice
BMU	Bear Management Unit
BSL	Big Sky Lumber Company
CEQ	Council of Environmental Quality.
CFR	Code of Federal Regulations.
DBH	Diameter Breast Height
DEIS	Draft Environmental Impact Statement
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FP	Gallatin National Forest Land and Resource Management Plan
FS	Forest Service
FSH	Forest Service Handbook
FSM	Forest Service Manual
GAL II	Gallatin Land Consolidation Act of 1998
GIS	Geographic Information System
GNF	Gallatin National Forest
GYA	Greater Yellowstone Area
IDT	Interdisciplinary Team
LWCF	Land and Water Conservation Fund
MA	Management Area
MBF	Thousand Board Feet
MDFWP	Montana Department of Fish Wildlife and Parks
MIIH	May impact individuals, but is not likely to cause a trend to federal listing or loss of viability
MIS	Management Indicator Species
MMBF	Million Board Feet

MS	Management Situation
NEPA	National Environmental Policy Act
NF	National Forest
NFF	National Forest Fund
NFFL	Northern Forest Fire Laboratory
NFMA	National Forest Management Act
NFS	National Forest System (lands)
NPB	Net Public Benefits
NPS	National Park Service
PILT	Payment in lieu of taxes
PNV	Present Net Value
PVB	Present Value Benefits
PVC	Present Value Costs
RARE II	Roadless Area Review and Evaluation II
RO	Regional Office
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
SHPO	State Historic Preservation Officer
SMZ	Streamside Management Zone
TECALC	Transaction Evidence Appraisal System
T&E	Threatened and Endangered Species
TES	Threatened, Endangered, and Sensitive Species
TMDL	Total Maximum Daily Load
TSPIRS	Timber Sale Program Information Report
TSMRS	Timber Stand Management Record System (data base)
USDA	United States Department of Agriculture
USFS	USDA-Forest Service
USFWS	United States Fish and Wildlife Service
VAC	Visual Absorption Capability: The physical capability of the land to support management activities and maintain visual integrity.
VQO	Visual Quality Objective
WO	Washington Office
WQLS	Water Quality Limited Segment