

APPENDIX A GLOSSARY

ACTION ALTERNATIVE - An alternative that proposes some management action, as contrasted to the No Action Alternative.

ACTIVE CROWN FIRE – A crown fire in which the entire fuel complex becomes involved, but the crowning phase remains dependent on heat released from the surface fuels for continued spread. Also called running and continuous crown fire.

ADDITIONAL DISTANCE INDEX - An estimate of the relative significance of a potential break in connectivity for wildlife species that prefer to remain within or close to forested cover. It is measured as the additional distance such an animal would have to travel to reach a location just on the other side of a proposed harvest unit.

ADMINISTRATIVE APPEAL - A request to a higher authority for review of a decision related to an Environmental Impact Statement, Environmental Analysis, or Categorical Exclusion.

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

AGE OR SIZE CLASS - A distinct group of trees, or portion of growing stock recognized on the basis of age (or size).

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

ALTERNATIVE - A combination of management prescriptions applied in specific amounts and locations to achieve a desired management emphasis. One of the several policies, plans or projects, proposed for decision-making.

APPROPRIATE MANAGEMENT RESPONSE - Specific actions taken in response to a wildland fire to implement protection and fire use objectives. Includes control and suppression.

ARTIFICIAL REGENERATION - Renewal of a tree crop by direct seeding or by planting seedlings or cuttings.

ASPECT - The cardinal direction a slope faces.

ASSOCIATED CHARACTERISTICS (Old growth habitat) - In the definitions of Old-growth Forest Types of the Western Montana Zone (Project File Exhibit J-1) there are "associated characteristics" typical of the old growth stands in each type. These include multiple canopy layers and moderate or high levels of downed woody debris.

ATV - Small All Terrain Vehicle, sometimes referred to as a "four-wheeler."

AVAILABLE CANOPY FUEL – The mass of canopy fuel per unit area consumed in a crown fire. There is no post-frontal combustion in canopy fuels; so only fine canopy fuels are consumed. We assume that only foliage and a small fraction of the branches are available.

BANK COVER - Living streamside vegetation overhanging the water for up to one meter above the water surface.

BENEFIT-COST RATIO - Measure of economic efficiency, computed by dividing total discounted primary benefits by total discounted economic costs.

BEST MANAGEMENT PRACTICES (BMPs) - Methods, measures or practices to prevent or reduce water pollution, including but not limited to, structural and non-structural controls, operation and maintenance procedures, other requirements, and scheduling and distribution of activities. Usually BMPs are applied as a system of practices rather than a single practice. BMPs are selected on the basis of site-specific conditions that reflect natural background conditions and political, social, economic, and technical feasibility.

BIOLOGICAL ASSESSMENT - A document prepared by a federal agency for the purpose of identifying any endangered species or threatened species that is likely to be affected by an agency action. This document facilitates compliance with the Endangered Species Act. The federal agency, in consultation with the Secretary of Interior, must insure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of any endangered or threatened species, or result in the destruction or adverse modification of its habitat.

BIOLOGICAL DIVERSITY (or Biodiversity) - The variety of life and its processes, including bacteria, fungi, plants, insects, birds, fish and mammals, the genes they contain and the ecosystems they form.

BIOLOGICAL EVALUATION - A document prepared by the Forest Service to review programs or activities to determine how an action might affect any threatened, endangered, proposed, or sensitive species. This document often focuses only on sensitive species if the Threatened, Endangered, and Proposed Species will be covered in a Biological Assessment.

BIOLOGICAL LEGACIES - Features that remain on a site or landscape after a natural disturbance. These legacies include live and dead trees, coarse woody debris, soil organic matter, plants, fungi, microorganisms, and seeds.

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

BIOMASS (FUELS) - Live and dead accumulations of organic material.

BLOWDOWN (Windthrow) - Uprooting by the wind. Also refers to a tree or trees so uprooted.

BOARD FOOT - A unit of measurement represented by a board one foot square and one inch thick.

BOREAL - Of or relating to the forest areas of the northern temperate zone, dominated by coniferous trees.

BROADCAST BURN - Allowing a prescribed 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 animal feed; in particular, those shrubs which are utilized by big game animals for food.

BUFFER STRIP - A strip of land (often including undisturbed vegetation) where disturbance is not allowed or is closely monitored to preserve or enhance aesthetic and other qualities along or adjacent to roads, trails, watercourses and recreation sites.

CANOPY - The forest cover of branches and foliage formed by tree crowns.

CANOPY BASE HEIGHT – The lowest height above the ground at which there is a sufficient amount of canopy fuel to propagate fire vertically into the canopy. Canopy base height is an effective value that incorporates ladder fuels such as shrubs and understory trees.

CANOPY BULK DENSITY – The mass of available canopy fuel per unit canopy volume. It is a bulk property of a stand, not an individual tree.

CANOPY COVER - The percentage of ground surface that is shaded by the live foliage of plants as seen from above. Used to describe how open or dense a stand of trees is.

CANOPY FUELS – The live and dead foliage, live and dead branches, and lichen of trees and tall shrubs that lie above the surface fuels. See also available canopy fuel.

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.

CAPABILITY AREA - A geographic delineation used to describe characteristics of the land and resources in integrated Forest planning.

CAVITY - A hollow in a tree that is used by birds or mammals for nesting, denning, roosting, etc.

CHAIN - A unit of linear measure equaling 66 feet.

CLEARCUTTING METHOD - The process of removing all trees, large and small, in a stand in one cutting operation. Also, a cutting method to regenerate an even-aged forest stand in which new seedlings become established in fully exposed microenvironments after removal of most or all of the existing trees. The area harvested may be a patch, stand, or strip large enough to be mapped or recorded as a separate age class. Regeneration can originate naturally or artificially.

CLEARCUT WITH RESERVES - A variation of the clear-cut silvicultural system in which trees are retained, either uniformly or in small groups, for purposes other than regeneration.

CLOSED CANOPY - The description given to a stand when the crowns of the main level of trees forming the canopy are touching and intermingled so that light cannot reach the forest floor directly.

COARSE-FILTER APPROACH - An approach to maintaining biodiversity that involves maintaining a diversity of structures within stands and a diversity of ecosystems across the landscape. The intent is to meet most of the habitat requirements of most of the native species. Compare with fine-filter approach.

COARSE WOODY DEBRIS - Any piece(s) of dead woody material, e.g., dead boles, limbs, and large root masses on the ground or in streams.

COMMERCIAL FOREST LAND (Suitable Timber 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; (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 5 years after final harvesting.

COMMERCIAL THINNING - A silviculture treatment that 'thins' out an overstocked stand by removing trees that are large enough to be sold as products such as poles or fence posts. It is carried out to improve the health and growth rate of the remaining crop trees.

CONNECTIVITY - A measure of how well different areas (patches) of a landscape are connected by linkages, such as habitat patches, single or multiple corridors, or stepping-stones' of like vegetation. The extent to which conditions among late-seral/structural forest areas provide habitat for breeding, feeding, dispersal and movement of late-seral/structural dependent wildlife species.

CONSULTATION - A process required by Section 7 of the Endangered Species Act whereby federal agencies proposing activities in a listed species habitat confer with the US Fish and Wildlife Service about the impacts of the activity on the species. Consultation may be informal, and thus advisory, or formal, and thus binding.

CORRIDOR - A band of vegetation, usually older forest, which serves to connect distinct patches on the landscape. By providing connectivity, corridors permit the movement of plant and animal species between what would otherwise be isolated patches.

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 ratio of tree cover (usually conifer types) to foraging areas (natural openings, clearcuts, etc.).

COVER TYPE - The present vegetation composition of an area, described by the dominant plant species.

CROWN - The part of a tree or other woody plant bearing live branches and foliage.

CROWN BASE HEIGHT – The vertical distance from the ground to the bottom of the live crown of an individual tree. See also canopy base height.

CROWN BULK DENSITY – The mass of available fuel per unit crown volume. It is a property of an individual tree, not a whole stand. See also canopy bulk density.

CROWN FIRE - A fire that advances from top-to-top of trees or shrubs more or less independently of the surface fire. Sometimes, crown fires are classed as either running or dependent, to distinguish the degree of independence from the surface fire.

CROWN FIRE CESSATION – The process by which a crown fire ceases, resulting in a surface fire. Crown fire cessation is a different mechanism than crown fire initiation, possibly leading to hysteresis.

CROWNING INDEX – The open (6.1-m) wind speed at which active crown fire is possible for the specified fire environment.

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.

CUMULATIVE EFFECT - The impact on the environment that results from the incremental impact of the action when added to other actions. Cumulative impacts can also result from individually minor but collectively significant actions taking place over a period of time.

DEDICATED SKID TRAIL - A trail used repeatedly for skidding logs in order to confine disturbance to that trail only.

DENSITY (STAND) - The number of trees growing in a given area, usually expressed in terms of trees per acre.

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

DIAMETER BREAST HEIGHT (DBH) - The diameter of a tree measured four and one-half feet above the ground or diameter of a log measured four and one-half feet from the butt end of the log.

DIRECT EFFECT - Effects on the environment that occur at the same time and place as the initial cause or action.

DISPERSAL - The movement of organisms away from the place of birth or from centers of population density.

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.

DISPERSED SKID - Removing logs from a unit where the equipment makes only one or two passes over any given piece of ground to minimize disturbance.

DISTURBANCE (Ecosystem) - Refers to events that alter the structure, composition, or function of terrestrial or aquatic habitats. Natural disturbances include, among others, drought, floods, wind, fires, wildlife grazing, and insects and pathogens. Human-caused disturbances include actions such as timber harvest, livestock grazing, roads, and the introduction of exotic species.

DISTURBANCE REGIME - Natural pattern of periodic disturbances, such as fire or flooding.

DIVERSITY - The distribution and abundance of different plant and animal communities and species.

DOWNED WOOD RECRUITMENT - Trees, live or dead, that will contribute to future downed wood.

DOWNED WOODY MATERIAL HABITAT - Downed trees and other woody material, such as stumps, bark, and limb piles, that occur on the forest floor and provide diversity in the environment. Downed logs and stumps are required for resting and denning, are vital for hunting below the snow in winter, and are apparently also used as travel cover, particularly in lieu of vegetative cover.

DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) - The draft form of a formal public document prepared to analyze the impacts on the environment of a proposed project or action and released for comment and review. Public comments are requested within 45 days after the release of a DEIS and are considered prior to making the final decision and are responded to in the Final Environmental Impact Statement (FEIS).

DUFF - The partially decayed organic matter on the forest floor.

DYSGENIC - Being detrimental to the genetic qualities of future generations.

EARLY-SERAL/STRUCTURAL STAGE - A stage of development of an ecosystem from a disturbed, relatively unvegetated state to a plant community that is up to 30 years old. Stand structure is seedling and sapling sized.

ECOLOGICAL INTEGRITY - The quality of a natural unmanaged or managed ecosystem in which the natural ecological processes are sustained, with genetic, species and ecosystem diversity assured for the future

ECOSYSTEM - A functional unit consisting of all the living organisms (plants, animals, and microbes) in a given area, and all the non-living physical and chemical factors of their environment, linked together through nutrient cycling and energy flow. An ecosystem can be of any size--a log, pond, field, forest, or the earth's biosphere--but it always functions as a whole unit. Ecosystems are commonly described according to the major type of vegetation, for example, forest ecosystem, old-growth ecosystem, or range ecosystem.

ECOSYSTEM MANAGEMENT - The use of an ecological approach to achieve productive resource management by blending social, physical, economic, and biological needs and values to provide healthy ecosystems.

ECOTONE - A zone of transition habitat created by the juxtaposition of distinctly different habitats, and usually exhibiting competition between organisms common to both.

EDGE - The outer band of a patch that has an environment significantly different from the interior of the patch.

EDGE EFFECTS - Changes in ecological community due to the rapid creation of abrupt edges in large patches of previously undisturbed habitat. For old growth habitat, this is where sun, wind, predators, competitors, etc., can penetrate further into what was previously interior forest.

EFFICIENCY, ECONOMIC - The usefulness of inputs (costs) to produce outputs (benefits) and effects when all costs and benefits that can be identified and valued are included in the computations. Economic efficiency is usually measured using present net value, though use of benefit-cost ratios and may sometimes be appropriate.

ELK HIDING COVER - Vegetation, primarily trees, capable of hiding 90 percent of an elk seen from a distance of 200 feet or less.

ELK HUNTING SEASON SECURITY AREA - Areas of contiguous hiding cover patches over 250 acres in size and more than 1/2 mile from roads or trails that are open to motorized use during the hunting season.

ENDANGERED SPECIES - Any species, plant, or animal that 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.

ENDEMIC - A species whose natural occurrence is confined to a certain region and whose distribution is relatively limited (vertebrate biology). A population that is at equilibrium or low density (invertebrate biology or pathology).

EPIDEMIC (OUTBREAK) - The rapid spread, growth, and development of pathogen or insect populations that affect large numbers of a host population throughout an area at the same time.

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 same 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.

EXTIRPATION - The local disappearance of a species, as opposed to extinction, which is global disappearance.

FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) - The final formal public document prepared to analyze the impacts on the environment of a proposed project or action when significant environmental impacts are anticipated.

FINE FILTER APPROACH - An approach to maintaining biodiversity that is directed toward particular habitats or individual species that might fall through the coarse filter. These habitats may be critical in some way and the species threatened or endangered.

FINE FUELS - Woody or herbaceous plants, live or dead, less than three inches in diameter.

FINES - Sediment in streams that is less than 0.25 inches or 6 millimeters in diameter.

FIRE EXCLUSION - The disruption of a characteristic pattern of fire intensity and occurrence (primarily through fire suppression).

FIRE HAZARD - The potential fire behavior for a fuel type, regardless of the fuel type's weather-influenced fuel moisture content or its resistance to fireline construction. Assessment is based on physical fuel characteristics, such as fuel arrangement, fuel load, condition of herbaceous vegetation, and presence of elevated fuels.

FIRE LINE INTENSITY – The rate of heat release in the flaming front per unit length of fire front (Byram 1959).

FIRE RISK - The probability or chance of fire starting determined by the presence and activities of causative agents.

FIRE HISTORY ANALYSIS -An analysis of the Good Creek watershed using dendrochronology to determine the frequency and severity of historic fires.

FIRE INTENSITY REDUCTION AREA (FIRA) - FIRAs are areas around or within a community where fuels have been modified to increase protection of the community from wildfire. A FIRA will also reduce the chance of a fire spreading into the wildland from the community. Direct treatment may not occur over the whole area, but fuels are reduced, ladders are removed, and canopy closure is reduced to slow an approaching fire from the wildland. FIRAs provide defensible space to increase effectiveness of suppression actions and firefighter safety.

FIRE REGIMES - The ecological effects of frequency, intensity, extent, season, and synergistic interactions with other disturbances, such as insects and disease, classified into generalized levels of fire severity.

FIRE SUPPRESSION (Fire Control) - All of the work and activities connected with fire extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

FIRE-INTOLERANT SPECIES - Tree species with thin bark at maturity, such as subalpine fir and spruce.

FIRE-TOLERANT SPECIES - Tree species with thick bark at maturity, such as western larch and Douglas-fir.

FISH PASSAGE - Clear access for migrating fish through a potential barrier.

FISHERY - The total population of fish in a stream or body of water and the physical, chemical, and biological factors affecting that population.

FORAGE - All browse and non-woody plants available to livestock or wildlife for feed.

FORB - Any herbaceous (herb-like) plant other than grass or grass-like plants.

FOREST HEALTH - The condition in which forest ecosystems sustain their complexity, diversity, resiliency, and productivity while providing for human needs and values. It is a useful way to communicate about the current condition of the forest, especially with regard to the ability of the ecosystem to respond to disturbances.

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 power-line clearing of any width.

FOREST PLAN - The Flathead National Forest Land and Resource Management Plan (LRMP), December 1985. A Forest Plan is a document prepared under the National Forest Management Act by each national forest that generally describes how the resources in the forest will be managed for a 10-15 year period.

FOREST STRUCTURE - The mix and distribution of tree sizes, layers, and ages in a forest. Some stands are mostly one size (single-story), some are two-story, and some are a mix of trees of different ages and sizes (multi-story).

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 - 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 developments of its resources.

FOREST TYPE - A category of forest usually defined by its vegetation, particularly its dominant vegetation as based on percentage cover of trees, e.g. spruce-fir, lodgepole.

FORESTED CONNECTIVITY - Connectivity for wildlife species that prefer to remain within or close to forested cover.

FORESTED RIPARIAN LINKAGES - Areas of continuous forested cover at least 300 feet wide along and connecting adjacent riparian features, such as streams, ponds, and wetlands.

FRAGMENTATION - The alteration of a large habitat patch to create isolated or tenuously connected patches of the original habitat that are interspersed with an extensive mosaic of other habitat types. This results in the reduction of total area, increased isolation of patches, and reduced connectivity between patches of natural vegetation. This occurs naturally through such agents as fire, landslides, windthrow and insect attack. In managed forests, timber harvesting and related activities have been the dominant disturbance agents.

FRY - The name applied to young fish from the time of hatching and until they have absorbed the yolk sac.

FSH - Forest Service Handbook

FSM - Forest Service Manual

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, or man-made barriers.

FUEL COMPLEX – The combination of ground, surface, and canopy fuel strata.

FUEL LOADING - The oven dry weight of fuels in a given area, usually expressed in tons per acre. Fuel loadings may be referenced to fuel size or time-lag categories; and may include surface fuels or total fuels.

FUEL MANAGEMENT - Manipulation or reduction of flammable matter for the purpose of reducing the intensity or rate of spread of a fire, while preserving and enhancing environmental quality.

FUEL MODEL – A set of surface fuel bed characteristics (load and surface-area-to-volume-ratio by size class, heat content, and depth) organized for input to a fire model. Standard fuel models (Anderson 1982) have been stylized to represent specific fuel conditions.

FUELS REDUCTION ZONE (FRZ) - Areas in which continuous high hazard fuels are broken up. They are designed to increase firefighter safety and reduce resistance to fire control efforts. FRZs may be of any size or shape. They may have a higher number of snags, down logs, and canopy closure than other fuels treatment zones. They are recognized as being a significant portion of a complete fuels management program.

FUEL TREATMENT - The rearrangement or disposal of natural or activity fuels.

FUELS - Includes living plants, dead, woody vegetative materials; and other vegetative materials that are capable of burning.

GEOGRAPHIC INFORMATION SYSTEM (GIS) - Computer software that links database software to graphics software and provides database and analytic capabilities.

GENOTYPE - An individual's hereditary (genetic) constitution. An individual's genotype plus the environment make up the individual's phenotype.

GLACIAL RELICT - A species that has survived from Pleistocene faunas and floras, typically in a restricted location or habitat.

GRADIENT (stream) -The slope of a streambed.

GROUND BASED LOGGING SYSTEM - A log skidding method using tracked or wheeled tractors. These tractors or “skidders” typically operate on gentle slopes. Cable logging systems may be required on steeper slopes.

GROUP SELECTION METHOD - A cutting method to develop and maintain uneven-aged stands by the removal of small groups of trees at periodic intervals to meet a predetermined goal of size distribution and species composition in remaining stands.

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

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

HAZARD - A state that may result in an undesired event, the cause of risk. Hazard can apply to the probability of tree mortality or damage by an insect or disease and also represents material or fuel that will ignite and burn.

HIDING COVER - Vegetation used by an animal for hiding. The amount and quality of vegetation needed depends on the animal's size, mobility, and reluctance to venture into relatively open areas. For an elk, hiding cover conceals 90% of a standing adult elk from the view of a human at a distance equal to or less than 200 feet. Hiding cover allows elk to use areas for bedding, foraging, thermal relief, wallowing, or other functions, but it does not necessarily provide security during the hunting season.

HIGH-CONTRAST EDGE - High-contrast edge is created when stands adjacent to old growth habitat are converted from late or mid-seral/structural stage to the early seral/structural stage. See "Edge".

HOLARCTIC - Residing in the northern latitudes of the northern hemisphere.

HOME RANGE - An area, from which intruders may or may not be excluded, to which an individual restricts most of its usual activities.

HYDROLOGICAL UNIT CODE (HUC) - A Hydrologic Unit Code (HUC) is part of a coding system developed by the U.S. Geological Service to map geographic boundaries of watersheds of various sizes. The HUCs are called (from larger to smaller) first-, second-, third-, and fourth-field HUCs, etc.; smaller HUCs are nested within larger ones. A subbasin represents a fourth-field HUC, or a unit of approximately 800,000 to a million acres. The ICBEMP also identified two smaller sizes of HUCs, fifth- ("watersheds") and sixth-field ("subwatersheds") HUCs, to aid in analysis and description.

HYSTERESIS – The failure of a property that has been changed by an external agent to return to its original value when the cause of the change is removed. In crown fire, hysteresis is expressed in the persistence of active crowning after the fire environment has changed such that a crown fire could no longer initiate.

IMMATURE TIMBER - Trees or stands that have grown past the regeneration stage, but are not yet mature.

INDEPENDENT CROWN FIRE – A crown fire that spreads without the aid of supporting surface fire.

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

INDIVIDUAL TREE SELECTION METHOD - 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.

INITIAL ATTACK - An aggressive suppression action consistent with firefighter and public safety and values to be protected.

INSTREAM COVER - Anything in the water that provides protection to fish from predators (including turbulence, debris, logs, and rocks).

INTENSITY - Energy release rates; these are physical descriptors of the fire, not its ecological effects. Generally referred to as High, Moderate, or Low intensity.

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

INTERIOR COLUMBIA RIVER BASIN (ICRB) - The parts of the watershed of the Columbia River Basin that lie in eastern Oregon, eastern Washington, Idaho, far western Wyoming, western Montana and small portions of northern Utah and northern Nevada.

INTERIOR HABITAT - Forest interior conditions found deep within forests, away from the effect of open areas. Forest interior conditions include particular microclimates found within large forested areas. Interior conditions are achieved at a point where environmental conditions within a patch are no longer influenced by edge effects, such as light intensity, temperature, wind, relative humidity, and snow accumulation and melt. For Western Montana forests, the edge effect is generally felt for a distance equivalent to 2 to 4 times the average tree height into the stand.

INTERMEDIATE HARVEST - 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 STREAM - A stream which flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow.

INVENTORIED ROADLESS AREA - An area identified and classified as roadless. These areas were identified during the second Roadless Area Review and Evaluation (RARE II).

IRREGULAR UNEVEN-AGED STRUCTURE (Unbalanced) - Stands that have three or more distinct age classes that do not occupy approximately equal areas. Distribution of diameters is unbalanced.

ISSUE - See Public Issue.

JUVENILE TROUT - The fingerling or sub-adult stages (not sexually mature).

KEY USE ZONES (White-tailed deer) - Areas within one-quarter mile of a riparian feature.

LADDER FUELS - Fuels that provide vertical continuity between the surface fuels and crown fuels in a forest stand, thus contributing to the ease of torching and crowning.

LAND AND RESOURCE MANAGEMENT PLAN (LRMP) - A strategic integrated resource plan based on the principles of enhanced public involvement, consideration of all resource values, and resource sustainability.

LANDSCAPE - The landforms of a region in the aggregate; the land surface and its associated habitats at scales of acres to many square miles; a spatially heterogeneous area.

LANDSCAPE MANAGEMENT - Creation of landscapes with a distribution of forest conditions for continuous production of desired goods and services and without adverse effects. Considers management on larger spatial scales and longer time frames.

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.

LATE-SERIAL/STRUCTURAL STAGE - A stage of development of an ecosystem from approximately 80 to 120 years old. Forested stands are generally 12 to 16 inches average DBH.

LINKAGE (habitat) - Linkage zones are combinations of landscape structural factors that allow wildlife to move through, and live within, areas influenced by human actions. A linear habitat patch through which a species must travel to reach habitat more suitable for reproduction and other life sustaining needs.

LONG-TERM SUSTAINED YIELD CAPACITY (LTSY) - The highest uniform wood yield from lands being managed for timber production that may be sustained under a specified intensity of management consistent with multiple use objectives

LOW-SEVERITY GROUND FIRE - A fire with low intensity that primarily scorches tree boles, allowing fire tolerant species to survive.

LYNX ANALYSIS UNIT (LAU) - An area that approximates the size of an average female lynx home range (25-40 square miles in contiguous habitat, and that contains habitats needed in all seasons. The LAU is not the actual home range, but is an analysis unit upon which direct, indirect, and cumulative effects analyses are performed.

LYNX HABITAT - Higher-elevation, cool/cold, moist forests. In the western United States, subalpine fir/spruce associations (with lodgepole pine as a seral species) provide the primary habitat.

MAJOR FORESTED CONNECTIVITY LINKAGE - Areas where forested connectivity appears to be relatively important. If connectivity were to be severed in these areas, wildlife species that prefer to remain within or close to forested cover would have to travel 2.0 miles or further to reach a location just on the other side of a proposed harvest unit. See "Additional Distance Index".

MANAGEMENT AREA - An aggregation of capability areas that have common management direction and may be dispersed over the Forest. Consists of a grouping of capability areas selected through evaluation procedures and used to locate decisions and resolve issues and concerns.

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.

MATRIX - The most extensive and most connected habitat type in a landscape, which often plays the dominant role in landscape processes.

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.

MBF and MMBF - Thousand Board Feet and Million Board Feet, respectively.

MEAN ANNUAL INCREMENT - The total volume increase in a tree or stand of trees up to a given age, divided by that age.

MESIC - Moderately moist.

METAPOPOPULATION - A collection or set of local populations living where discrete patches of the area are habitable and the intervening regions are not; a basic demographic unit composed of a set of populations in different habitat patches linked by the movement of individuals.

MID-SERIAL/STRUCTURAL STAGE - A stage of development of an ecosystem from approximately 30 to 80 years old. Forested stands are generally 5 to 12 inches average DBH. Stand structure is pole- and small sawlog-sized trees.

MIXED-SEVERITY FIRE REGIME - Mixed-severity fire regime areas can experience the full range of severities during either a single event or consecutive events. In other words, mixed-severity fire regime areas may experience fires of intermediate effects, often consisting of fine-grained spatial patterns resulting from a mosaic of varying severity.

MOIST SITES (elk) - An important characteristic of elk habitat consisting of wet meadows, ponds, seeps, and springs, and typically located in more remote, upper-drainage perched sites.

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.

MONTANE - Of, growing in, or inhabiting mountain areas.

MULTIPLE USE - The management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

NARROWED RIPARIAN CONNECTIVITY - Forested connectivity that would be narrowed to less than 300 feet wide.

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 ENVIRONMENTAL POLICY ACT (NEPA) PROCESS - An interdisciplinary process, mandated by NEPA, which concentrates decision making around issues, concerns, alternatives, and the effects of the alternatives on the environment.

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 forests lands acquired through purchase, exchange, donation, or other means, the national grasslands and land utilization projects administered under Title III.

NATIONAL WILDERNESS PRESERVATION SYSTEM - All lands covered by the Wilderness Act and subsequent wilderness designations, irrespective of the department or agency having jurisdiction.

NATIVE SPECIES - Species that are indigenous to a region, as opposed to introduced or exotic species.

NATIVE SUCCESSION AND DISTURBANCE REGIMES - The historic patterns (frequency and extent) of fire, insects, wind, landslides and other natural processes in an area.

NATURAL REGENERATION - Renewal of a tree crop by natural seeding, sprouting, suckering, or layering.

NEOTROPICAL MIGRATORY BIRDS - Migratory bird species that nest in North America and winter in Central or South America or the Caribbean.

NO-ACTION ALTERNATIVE - The management direction, activities, outputs, and effects most likely to exist in the future if the current plan would continue unchanged.

NONATTAINMENT AREAS - Areas within the State that exceed the national ambient air quality standards are classified as nonattainment.

NON-LYNX HABITAT - "Temporary non-lynx" habitat includes sites capable of growing forests but currently in a early-seral/structural stage condition and too young to be of use by lynx. Most "permanent non-lynx habitat" is too rocky or too wet to support forests.

NON-POINT SOURCE POLLUTION - Pollution which is induced by natural processes, including precipitation, seepage, percolation, and runoff; and which is not traceable to any discrete or identifiable facility.

NOXIOUS WEED - Any exotic plant species established or that may be introduced in the area which may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses.

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

OLD GROWTH ASSOCIATED SPECIES - The group of 31 wildlife species that is associated with old-growth forest plant communities on the Flathead National Forest. See Project File Exhibit J-1.

OLD GROWTH HABITAT - A community of forest vegetation which has reached a late stage of plant succession characterized by a diverse stand structure and composition along with a significant showing of decadence. The stand structure will typically have multi-storied crown heights and variable crown densities. There is a variety of tree sizes and ages ranging from small groups of seedlings and saplings to trees of large diameters exhibiting a wide range of defect and breakage both live and dead, standing and down. The time it takes for a forest stand to develop into old growth condition depends on many local variables such as forest type, habitat type, and climate. Natural chance events involving forces of nature such as weather, insect, disease, fire, and the actions of man also affects the rate of development of old-growth stand conditions.

OPEN ROAD DENSITY - The miles of road open to motorized vehicle traffic within a specified area; e.g. a bear management analysis area 5000 to 15,000 acres. ORD equals miles of open road within a specific area divided by total square miles of a specific area.

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; WO1 - Primitive Recreation Use - RVDs.

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 to release advanced regeneration.

PAI - Potentially Affected Interests or Periodic Annual Increment

PASSIVE CROWN FIRE – A crown fire in which individual or small groups of trees torch out, but solid flaming in the canopy cannot be maintained except for short periods. Passive crown fire encompasses a wide range of crown fire behavior from the occasional torching of an isolated tree to a nearly active crown fire. Also called torching and candling.

PATCH - Areas distinguished from their surroundings by environmental discontinuities, such as a patch of early-seral/structural stage forest surrounded by mid- and late-seral structural stage forest.

PATCH DYNAMICS - The change in the distribution of habitat patches in a landscape generated by patterns of disturbance and subsequent patterns of vegetative succession.

PERENNIAL STREAMS - Streams that flow continuously throughout most years and whose upper surface generally stands lower than the water table in the region adjoining the stream.

PHENOTYPE - The product of the interaction of the genes of an organism (genotype) with the environment.

PLUME-DOMINATED FIRE - The power of the fire is greater than the power of the wind in influencing its behavior.

POLE - A tree between a sapling and small timber size at least five inches in diameter at breast height but smaller than 8" DBH.

POOL - A portion of the stream with reduced current velocity, often with water deeper than the surrounding areas, and which is usable by fish for resting and cover.

POPULATION - A group of coexisting (conspecific) individuals that interbreed if they are sexually reproductive.

POTENTIAL HABITAT (Wildlife) - Habitat that is likely to be occupied by a wildlife species or group of species, currently or in the near future.

POTENTIAL VEGETATION GROUP (PVG) - Groupings of habitat groups on the basis of similarity of general moisture or temperature environment.

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.

PREFERRED ALTERNATIVE - The agency's preferred alternative is the alternative which the agency believes would best fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors, and which meets the purpose and need of the NEPA document.

PRESCRIBED BURNING - The controlled use of fire to reduce or eliminate the unincorporated organic matter of the forest floor, or low, undesirable vegetation. A written, approved prescribed fire plan must exist, and NEPA requirements must be met, prior to ignition.

PROPOSED ACTION - The proposed action or proposal exists at that stage in the development of an action when an agency subject to the Act (NEPA) has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the effects can be meaningfully evaluated.

PROPOSED THREATENED SPECIES - A species that has been formally proposed for listing as Threatened under the Endangered Species Act.

PUBLIC INVOLVEMENT - A process designed to broaden the information base upon which agency decisions are made by informing the public about Forest Service activities, plans, and decisions, and participation in the planning processes which lead to final decision making.

PUBLIC ISSUE - A subject or question of widespread public interest identified through public participation relating to management of National Forest System lands.

REACH - A length of stream channel, lake, or inlet exhibiting, on average, uniform hydraulic properties and morphology.

REARING HABITAT - In the case of juvenile westslope cutthroat trout, this is primarily the pool environment in streams.

RECLAMATION (Road) - The act of taking a forest road out of the road system and no longer allowing motorized travel. Some drainage features may be removed and vegetation is allowed to grow on the road surface. The road prism is not altered and the road may be put back into service with usually a small amount of reconditioning.

RECORD OF DECISION - A document separate from but associated with an environmental impact statement that publicly and officially discloses the responsible official's decision on the proposed action.

RECOVERY PLAN - A plan that details actions or conditions necessary to promote species recovery, that is, improvement in the status of species listed under the Endangered Species Act to the point at which listing is no longer appropriate. Plans are required for virtually all listed species.

RECREATION VISITOR DAY (RVD) - One 12-hour period of recreation. It can be one person for 12 hours, 2 people for 6 hours, 12 people for 1 hour, etc.

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

REFUGIUM - An area that remains unchanged while areas surrounding it change markedly; hence the area serves as a refuge for species requiring specific habitats.

REGENERATION - The renewal of a forest, whether by natural or artificial means. This term may also refer to a tree crop itself.

REGULAR UNEVEN-AGED STRUCTURE (Balanced) - A stand in which three or more distinct age classes occupy approximate equal areas and provide a balanced distribution of diameter classes.

REHABILITATION (Road) - The act of maintaining a road and improving drainage features, usually to meet Best Management Practices standards.

RELEASE - Freeing a tree or group of trees from more immediate competition by cutting or otherwise eliminating growth that is overtopping or closely surrounding them.

RESIDENT FISH - Non-migratory fish species.

RESPONSIBLE LINE OFFICER - The Forest Service employee who has the authority to select and/or carry out a specific planning action.

RESTORATION - The re-creation of a natural or self-sustaining community or ecosystem, or a movement in that direction.

RETENTION LEVEL - The amount of forest vegetation left on a site after a treatment is accomplished. Treatments are usually timber harvest, prescribed burns, or thinning.

RIFFLE - A shallow rapid where the water flows swiftly over completely or partially submerged obstructions (rocks, etc.) to produce surface agitation, but standing waves are absent.

RIP RAP - A loose assembly of broken rock, generally used to stabilize slopes.

RIPARIAN AREAS - Areas with distinctive resource values and characteristics that are comprised of an aquatic ecosystem and adjacent upland areas with interdependent ecological relationships.

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.

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. RHCAs are determined according to INFISH guidelines.

RIPARIAN LANDTYPE - Integrated map units of the types of riparian habitats based on topography, substrate materials (i.e. clays or boulders), and associated vegetation.

RIPARIAN WILDLIFE HABITAT - Riparian habitats occur along lakes, rivers, streams, springs, and seeps where the vegetation and microclimate are influenced by year-round or seasonal water and associated high water tables. Plant and animal species in these areas are more productive and diverse than on nearby uplands, making these areas very important to many wildlife species.

RISK - The probability of a hazard and/or the consequences of that hazard (hazards are undesirable events).

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.

ROAD PRISM - The area of the ground containing the road surface, cut slope and fill slope.

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

ROADLESS AREA REVIEW & EVALUATION II (RARE II) - A comprehensive process, instituted in June 1977, to identify roadless and undeveloped land areas in the National Forest System and to develop alternatives for both wilderness and other resource management.

ROTATION - The planned number of years between the formation or regeneration of a tree crop or stand and its final cutting at a specified stage of maturity. Can be based on physical, biological, pathological or economic criteria.

SALVAGE HARVEST - The cutting of trees that are dead, dying, or deteriorating (e.g., because they are overmature or materially damaged by fire, wind, insect, fungi, or other injurious agents) to obtain monetary value that would otherwise be lost.

SANITATION SALVAGE HARVEST - Tree removal or modification operations designed to reduce damage caused by forest pests and to prevent their spread.

SAPLING - A young tree that is larger than a seedling but smaller than a pole, typically 5 to 25 feet tall.

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 that must be seven inches at breast height.

SCARIFICATION - The removal of the surface organic material (duff) to the surface of the underlying mineral soil.

SCOPING PROCESS - An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action. Identifying the significant environmental issues deserving of study and de-emphasizing insignificant issues, narrowing the scope of the environmental impact statement accordingly (Reg. CEQ regulations, 40 CFR 1501.7).

SECURITY - The protection inherent in any situation that allows a wildlife species to remain in a defined area despite an increase in stress or disturbance, such as that associated with hunting season. The components of security include vegetation, topography, the size of the blocks of vegetation, road density, distance from roads, intensity of the disturbance, and seasonal timing. See "Elk Hunting Season Security Area".

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 - A young tree that has just germinated but has not yet reached sapling size, typically 1 to 5 feet tall.

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

SEEDTREE METHOD - A cutting method to regenerate a stand in which all trees are removed from an area except for a small number (commonly 4-8) of seed-bearing trees per acre, left singly or in small groups.

SEEDTREE WITH RESERVES - The application of the seedtree method with the intention of retaining or reserving all or a portion of the seed trees for future stand structure.

SEEDTREE-RESERVE SYSTEM - Seedtree silvicultural system where the seed trees are left on the site to meet other objectives after a new stand is regenerated.

SELECTION METHOD - A cutting method to regenerate a forest stand and maintain an uneven-aged structure, by periodically removing some trees in all size classes either singly or in small groups or strips.

SENSITIVE SPECIES - Those wildlife and plant species identified by the Regional Forester for which population viability is a concern because of significant current or predicted downward trends in (a) population numbers or density, or (b) habitat capability that would reduce a species' existing distribution.

SERAL - A biotic community that is developmental; a transitory stage in an ecologic succession.

SERAL/STRUCTURAL STAGE - A stage of development of an ecosystem from a disturbed, relatively unvegetated state to a complex, mature plant community.

SEVERITY - Refers to the ecological effects of fires, usually on the dominant organisms of the ecosystem.

SHADE-INTOLERANT - Species of plants that do not grow well or die from the effects of too much shade. Generally these are fire-tolerant species.

SHADE-TOLERANT - Species of plants that can develop and grow in the shade of other plants. Generally these are fire-intolerant species.

SHELTERWOOD METHOD - A cutting method to regenerate an even-aged stand in which some of the mature trees are left to provide shelter for regeneration. It may be done uniformly throughout the stand, in strips, or in groups. Regeneration may be natural or artificial.

SHELTERWOOD WITH RESERVES - The application of the shelterwood method with the intention of retaining or reserving all or a portion of the shelterwood trees for future stand structure.

SHRUB SLASHING - The felling of shrubs, especially willow, at close to ground level to stimulate new growth for wildlife browse.

SILVICULTURE - The theory and practice of controlling the establishment, composition, growth, and quality of forest stands in order to achieve the objectives of management.

SILVICULTURE DIAGNOSIS - The process of compiling, summarizing, analyzing, and recording of stand data.

SILVICULTURAL PRESCRIPTION (Detailed) - A written document that describes management activities needed to implement silvicultural treatment or treatment sequence. The prescription documents the results of the analysis during the diagnosis phase.

SILVICULTURAL SYSTEMS - A management process whereby forests are tended, harvested, and replaced, resulting in a forest of distinctive form. It includes all cultural management practices performed during the life of the stand, such as regeneration cutting, thinning, and use of genetically improved tree seeds and seedlings to achieve multiple resource benefits.

SINK HABITAT - A habitat in which reproduction is insufficient to balance local mortality. The population can persist in the habitat only by being a net importer of individuals.

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.

SKIDDING - Moving logs or felled trees from the stump to a landing, usually with the forward end supported off the ground.

SKYLINE CORRIDORS - Linear areas cleared of vegetation for cable logging systems.

SKYLINE LOGGING - A type of cable logging system in which a suspended skyline cable is stationary and a carriage moves along it carrying logs above the ground, from the felling site to the landing.

SKYLINE TRACTOR SWING LOGGING - A type of logging system in which skyline and ground-based methods are used in the same harvest area when both steep and gentle slopes are present.

SLASH - The residue left on the ground after felling and other silvicultural operations, or accumulating there as a result of storms, fire, or natural pruning.

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.

SPAWNING GRAVEL - Small gravels (1/4" - 1.0" diameter) in streams grouped in areas of about one square foot or larger with good water circulation through them.

SPAWNING HABITAT - Areas of substrate that provide well-oxygenated and suitable sized gravels for fish spawning.

SPECIES - A group of actually or potentially interbreeding populations that is reproductively isolated from all other kinds of organisms.

SPECIFIED ROAD -See Forest System Road, above.

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.

STAND MAINTENANCE FIRE (Non-Lethal) -Fire that emphasizes the survival of the living overstory vegetation.

STAND REPLACEMENT FIRE (Lethal) - Fire that emphasizes the destruction of the living overstory vegetation.

STAND REPLACEMENT FIRE REGIME - Stand-replacement fire regimes typically occur on lands that historically experience lethal fires with less than 10% of the forested canopy cover remaining after the fire.

STAND-REPLACING DISTURBANCE - An agent such as fire, blowdown, insect or disease epidemic, or timber harvest, that kills or removes enough trees to result in an early-seral/structural stage condition.

STANDARDS AND GUIDELINES - An indication or outline of policy or conduct dealing with the basic management of the Forest. Forest-wide management standards and guidelines apply to all areas of the Forest regardless of the other management prescriptions applied.

STEM EXCLUSION-CLOSED CANOPY – Forested areas where new trees no longer successfully establish themselves, primarily due to light limitations; growing space is fully occupied; forest canopy is closed with tree crowns touching or intertwined; canopy closure more than 70 percent. Existing plants expand into growing space occupied by other plants, with success depending upon their competitive advantages.

STEM EXCLUSION-OPEN CANOPY – Forested areas where new trees no longer successfully establish themselves, primarily due to moisture limitations; growing space is fully occupied; forest canopy is broken; trees more widely spaced with crowns open-growing; canopy closure equal or less than 70 percent. Existing plants expand into growing space occupied by other plants, with success depending upon their competitive advantages.

STOCKING - A measure of timber stand density as it relates to the optimum or desired density to achieve a given management objective.

STREAMSIDE MANAGEMENT ZONE (SMZ) - An area adjacent to the bank of a stream or body of open water where extra precaution is necessary to carry out forest practices in order to protect bank edges and water quality.

STRUCTURE - The various horizontal and vertical physical elements of the forest, including tree size, canopy composition, quantity and quality of deadwood, ephemeral herbaceous species, density of wildlife trees, fungi, age structure, forest height, etc.

SUBSPECIES - Subpopulations or races within a species that are distinguishable by morphological characteristics and, sometimes, by physiological or behavioral characteristics.

SUBSTRATE - Mineral and/or organic material that forms the streambed (stream bottom).

SUCCESSION - A predictable process of changes in structure and composition of plant and animal communities over time. Conditions of the prior plant community or successional stage create conditions that are favorable for the establishment of the next stage. The different stages in succession are often referred to as "seral stages."

SUMMER RANGE - Land used by wildlife species (specifically big game and/or grizzly bear) during the summer months.

SURFACE FIRE – A fire spreading through surface fuels.

SURFACE FUELS – Needles, leaves, grass, forbs, dead and down branches and boles, stumps, shrubs, and short trees.

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.

SYSTEM ROAD - See Forest System Road, above.

TEMPORARY ROAD - A road constructed to facilitate forest management activities but is reclaimed soon after the activity is completed. A temporary road may be reclaimed immediately after timber harvesting is completed or may need to remain in use for up to five years to facilitate reforestation and/or weed control operations.

TERRITORY - Any area defended by one or more individuals against intrusion by others of the same or different species.

THERMAL COVER - Cover used by animals to ameliorate the chilling effects of winter weather or the heating effects of summer weather. For elk, a stand of coniferous trees 40 feet or taller with an average crown closure of 70% or more.

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 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 fuel wood or harvest from unsuitable lands.

TIMBER STAND IMPROVEMENT (TSI) - All noncommercial intermediate cuttings and other treatments to improve composition, condition, and volume growth of a timber stand.

TORCHING INDEX – The open (6.1-m) wind speed at which crown fire activity can initiate for the specified fire environment.

TRAVEL HABITAT - Habitat used by a wildlife species for daily or periodic movements between areas of higher-quality habitat. For example, for a lynx this would be the forested cover used while traveling between areas used for denning and that used for hunting.

UNDERBURNING - A fire that consumes surface fuels but not trees and large shrubs.

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.

UNDERSTORY REINITIATION – Overstory trees grow older and new trees begin to appear as an established layer in the understory, primarily because of greater light at the forest floor level. Overstory may be dying due to number of reasons, including insect or disease, suppression, a low-intensity burn, or selective harvest. Overstory typically a shade-intolerant seral species; understory more shade-tolerant species. This understory typically grows slowly and stays quite small for many years.

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.

UNGULATE - A mammal with hooves.

UNSUITABLE TIMBERLAND - 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.

VEGETATIVE SCREENING - Vegetation (trees, shrubs, etc.) that ameliorates the visual effect of management activities adjacent to viewing areas (i.e. main roads).

VEGETATIVE SUCCESSION - A phase in the gradual supplanting of one community of plants by another.

VERTICAL DIVERSITY - The distribution and abundance of different plant and animal communities and species on the vertical plane within an area.

VIABILITY - A viable animal or plant species is defined as consisting of self-sustaining populations that are well distributed throughout the species' range. Self-sustaining populations are those that are sufficiently large, and have sufficient genetic diversity to display the array of life history strategies and forms that will provide for their persistence and adaptability in the planning area over time.

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.

WATER QUALITY - The physical, chemical, and biological properties of water.

WATER YIELD - The runoff from a watershed, including groundwater outflow.

WATERSHED - The land area drained by a river system.

WETLAND - Areas that under normal circumstances have hydrophytic vegetation, hydric soils, and wetland hydrology.

WILDERNESS - Federal land retaining its primeval character and influence without permanent improvements or human habitation as defined under the 1964 Wilderness Act. It is protected and managed so as to preserve its natural conditions which (1) generally appear to have been affected primarily by forces of nature with the imprint of man's activity substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and confined type of recreation; (3) has at least 5000 acres or is of sufficient size to make practical its preservation, enjoyment, and use in an unimpaired condition, and (4) may contain features of scientific, educational, scenic, or historical value as well as ecologic and geologic interest.

WILDLAND FIRE - A non-structure fire, other than prescribed fire, that occurs in the wildland. Any fire originating from an unplanned ignition.

WILDLAND-URBAN INTERFACE - That line, area, or zone where structures and other human development meets or intermingles with undeveloped wildland or vegetative fuels.

WIND-DOMINATED FIRE - The power of the wind is greater than the power of the fire in influencing its behavior.

WINDFIRM - A tree (live or dead) or species of tree that is relatively resistant to being blown over by the wind.

WINDTHROW - A tree or stand of trees that have been blown over by the wind.

WINTER RANGE - The areas 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.

YARDING - The operation of hauling timber from the stump to a collecting point. This is commonly done using a cable system, dozers, helicopters, or rubber-tired skidders.

YOUNG FOREST MULTI-STORY – Several age groups of trees are established; diverse horizontal and vertical tree distribution and sizes. This type of stand may develop over time with death of groups of overstory trees, such as by insect and disease group killing, mixed lethal and non-lethal fire, or harvesting. Large, old trees (>25” DBH) generally absent; however, the smaller trees in the stand may or may not be “young.” They could be over 150 years old, but smaller due to the effects of competition over many decades for available growing space.