

APPENDIX B
GLOSSARY OF TERMS

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Activity Fuels Vegetative debris (tops, limbs, etc.) resulting from some action, such as timber harvest, that are available to burn on the forest floor as fuels.

Adaptive Management (AM) The process of continually adjusting management strategies, decisions, and activities in response to new information, knowledge, or technologies. This process recognizes that unknowns and uncertainty exist in the course of achieving any natural resource management goal. The complexity of ecological systems makes a complete understanding of all components virtually impossible. In addition, the systems are constantly changing through natural and human-caused mechanisms.

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

Age Class A distinct group of trees or portion of growing stock recognized on the basis of age (e.g., seedling, pole, mature).

Air Pollutant Any substance in air that could, if present in high enough concentration, harm humans, animals, vegetation, or material. Air pollutants may include almost any natural or artificial matter capable of being airborne, in the form of solid particles, liquid droplets, gases, or a combination of these.

Air Quality Refers to standards for various classes of land as designated by the Clean Air Act, as amended.

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

Allotment A designated area of land available for livestock grazing. A specified number and kind of livestock may be grazed under a range allotment management plan. It is the basic land unit used to manage rangeland resources.

Allowable Sale Quantity (ASQ) The volume of chargeable timber which can be sold from the suitable land covered by the Forest Plan within a time period specified by the plan.

All-Terrain Vehicle (ATV) Any motorized, off-highway vehicle of 50 inches or less in width, having a dry weight of 600 pounds or less that travels on three or more low-pressure tires with a seat designed to be straddled by the operator.

Alternative A combination of management prescriptions proposed for the project area to achieve a set of goals and objectives. Each alternative analyzed in an environmental impact statement represents a different way of achieving a set of similar management objectives.

Analysis Area The geographic area defining the scope of analysis for a particular resource. This area may be larger than the project area when effects have the potential to extend beyond the boundaries of the proposed action.

Appeal A request by any party dissatisfied with a decision of a Forest Officer to have that decision reviewed at a higher organizational level within the Forest Service and, where appropriate, by the Secretary of Agriculture.

Aspect (1) The visual first impression of vegetation or a landscape at a particular time or as seen from a specific point, (2) the predominant direction of slope of the land, (3) seasonal changes in the appearance of vegetation.

Available Fuel The total mass of ground, surface, and canopy fuel per unit area consumed by a fire.

Background A term used in visual management to describe that part of a scene or landscape that is farthest from the viewer, usually 3 miles to infinity from the observer.

Basal Area The cross-sectional area of a tree measured at 4.5 feet above the ground. Basal area can be used to measure how much of a site is occupied by trees. The term often describes the collective basal area of trees per acre.

Basin Order See Watershed Order.

Beneficial Uses Attributes that are considered useful products of the resource. Examples include recreation, production of salmonid fishes, drinking water, power generation, and irrigation.

Best Management Practices (BMPs) A set of practices which, when applied during implementation of a project, ensures that water-related beneficial uses are protected and that state water quality standards are met.

Big Game Certain wildlife that may be hunted for sport under state laws and regulations, including elk, pronghorn antelope, mule and whitetail deer, turkey, and bighorn sheep.

Biodiversity Variety of life in an area, including all the processes of life; genetic diversity; species richness, variety, and patterns; abundance of species communities and ecosystems at large geographical scales; and the processes whereby species interact.

Biological Assessment A document that evaluates the potential effects of an action on listed and proposed species and designated and proposed critical habitat, and determines whether any species or habitat are likely to be adversely affected. It is used to determine the necessity of formal consultation or conference with the Fish and Wildlife Service or the National Marine Fisheries Service.

Biological Evaluation A review of Forest Service programs and activities for possible effects on endangered, threatened, proposed, or sensitive species. A biological evaluation may be used or modified to satisfy consultation requirements for biological assessments of projects requiring an environmental impact statement.

Biological Opinion An official report by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service issued in response to a formal Forest Service request for consultation or conference. It states whether or not the federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

Biomass The total amount of living plants and animals above- and belowground in an area at a given time.

Blowdown See Windthrow.

Board foot (bf) The amount of wood contained in an unfinished board 1 inch thick, 12 inches long, and 12 inches wide. "One thousand board feet" is abbreviated "mbf."

Bole The trunk or main stem of the aboveground part of a tree.

Broadcast Burn A type of burning conducted in an area characterized by fairly homogeneous and continuous fuel loadings within well-defined boundaries. A single ignition source will usually burn throughout the area without further ignitions. See Prescribed Burning.

Bulk Density The mass of dry soil per unit volume, corrected for weight and volume of coarse fragments greater than 2 millimeters in diameter.

Burn Intensity (Fire Intensity) The rate of heat release for a fire.

Burn Severity (Fire Severity) Refers to soil impacts (BAER Handbook, FSH 2509.13):

High Severity – More than 40 percent of the polygon exhibits soil features likely to significantly increase runoff and erosion (e.g., absence of duff layer, hydrophobic soils, and soil discoloration). High-severity fires are lethal to conifers with all needles burned off of the trees.

Moderate Severity – Less than 40 percent of the polygon exhibits high-severity indicators. Duff layers may be absent or mostly absent. Moderate-severity fires kill the majority of conifers, and needles on trees are scorched (brown).

Low Severity – Duff layers are burned but intact. Unburned areas are intermingled with lightly burned areas. Low-severity fires cause some tree mortality (torching) but stands have a notable live tree component.

Burn Period The part of a 24-hour period (usually between 10 a.m. and sundown) during which fires spread most rapidly.

Candidate Species Those species identified by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service as candidates for listing under the Endangered Species Act.

Canopy The continuous or intermittently broken cover of branches and foliage formed collectively by the crown of adjacent trees.

Canopy Closure The progressive reduction of space between tree crowns as they spread laterally; a measure of the percent of potential open space occupied by the collective tree crowns in a stand.

Chipping The reduction of woody fuels by a portable chipper to chips that are left to decay on the forest floor.

Class I Area All international parks, national parks larger than 6,000 acres, and designated wilderness areas larger than 5,000 acres that existed on August 7, 1977. This class provides the most protection to pristine lands, severely limiting the amount of additional air pollution that can be added to these areas.

Coarse Woody Debris (CWD) Standing or fallen logs, branches, and stumps that are dead or rotting, generally greater than 3 inches in diameter. CWD left on harvested or thinned sites helps retain moisture and trap soil movement, facilitates establishment of

vegetation, and provides habitat for wildlife and nutrients for soil development.

Code of Federal Regulations (CFR) The legal requirements that implement laws and direct federal government activities.

Commercial Timber Sale The selling of timber from NFS lands for the manufacture of commercial products, such as lumber, plywood, etc.

Community A group of one or more populations of plants and animals in a common spatial arrangement; an ecological term used in a broad sense to include groups of various sizes and degrees of integration.

Compaction A physical change in soil properties from compression, vibration, or shearing that increases soil bulk density and decreases porosity, air exchange, root penetration, infiltration, and permeability.

Conifer Any of a group of needle- and cone-bearing evergreen trees, typically referring to gymnosperms.

Connected Disturbed Areas High runoff areas, like roads and disturbed sites, that discharge runoff into surface waters.

Consultation (1) An active, affirmative process that (a) identifies issues and seeks input from appropriate American Indian governments, community groups, and individuals; and (b) considers their interests as a necessary and integral part of the Forest Service decision-making process; (2) The federal government has a legal obligation to consult with American Indian tribes. This legal obligation is based in laws and numerous executive orders and statutes. The legal responsibility is to consider Indian interests and account for those interests in the decision through consultation; (3) A process that involves discussions between a federal agency and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service under Section 7(a)(2) of the Endangered Species Act of 1973, as amended, regarding the potential for impact to a species or critical habitat that has been listed under Section 4 of the Act.

Contain (Fires) Keeping the fire within established boundaries under prevailing conditions and reasonable constraints.

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 Vegetation used by wildlife for protection from predators, breeding, and rearing of young (hiding cover), or to ameliorate conditions of weather (thermal cover).

Cover Type A descriptive classification of vegetation based on the present dominant species.

Critical Habitat The habitat of federally listed threatened or endangered species supporting physical and biological features essential to conservation of the species and which may require special management considerations or protection.

Crown Fire (Crowning) The movement of fire through the crowns of trees or shrubs, more or less independently of surface fire.

Crown Fire Hazard A physical situation (fuels, weather, and topography) with potential for causing harm or damage as a result of crown fire.

Cubic Foot The amount of wood volume equivalent to a cube measuring 1 foot by 1 foot by 1 foot, often referred to in hundreds of cubic feet (ccf).

Cumulative Effect The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions that take place over time.

Cut Slope Road construction slope made by excavation.

Deadfall Dead trees that have fallen and are in contact with the ground.

Dead Fuels Any fuels with no living tissue in which moisture content is governed almost entirely by atmospheric moisture (relative humidity and precipitation), dry-bulb temperature, and solar radiation.

Debris Flow Rapid downslope movement involving various kinds of earth materials.

Decadent Deteriorating; when used in reference to the conditions of groups of trees, infers loss of trees from the overstory and of the presence of disease, or indications of loss of vigor in dominant trees.

Deciding Officer The Forest Service employee who has the authority to select and carry out a specific action. May also be referred to as the “Responsible Official.”

Decommission Activities that terminate the function of a road and mitigate adverse impacts to forest resources. The activities include blocking the entrance, scattering boughs on the roadbed, revegetating and water barring, removing fills and culverts, reestablishing drainageways, pulling back unstable road shoulders, and recontouring slopes for full obliteration. Administratively, a decommissioned road will be removed from the USFS transportation plan. (A road does not have to be recontoured to be decommissioned.)

Degradation This occurs when a stream has excess energy and when more sediment leaves a reach than enters it. This is associated with channel scouring.

Demographic Related to the vital statistics of human populations (size, density, growth, distribution, etc.) and the effect of these on social and economic conditions.

Denning Habitat (Canada Lynx) Habitat used during parturition or rearing of young until they are mobile. The common component appears to be large amounts of coarse woody debris, either downed logs or root wads. Denning habitat may be found in either mature forests of conifer or mixed/deciduous types, or in regenerating stands (< 20 years since disturbance). Denning habitat must be located within daily travel distance of foraging habitat (typical maximum daily distance for females is 3 to 6 miles).

Desired Future Condition A portrayal of the land or resource conditions that are expected to result if goals and objectives are fully achieved.

Developed Recreation This type of recreation depends on facilities provided to enhance recreation opportunities in concentrated-use areas. Examples include campgrounds and ski areas. Facilities in these areas might include roads, parking lots, picnic tables, drinking water, toilets, ski lifts, and buildings.

Diameter at Breast Height (DBH) A diameter of the stem of a tree measured at breast height (4.5 feet) from the ground.

Dispersed Recreation Outdoor recreation in which visitors are diffused over relatively large areas. Where facilities or developments are provided, they are more for access and protection of the environment than for the comfort and convenience of the people.

Displacement (Soil Displacement) The removal and horizontal movement of soil from one place to another, usually by mechanical forces, repeated vehicular traffic, or the yarding of logs.

District Ranger The official responsible for administering the NFS lands on a ranger district.

Disturbance An event that causes a significant change from the normal pattern in an ecological system. Disturbances are often subdivided into natural disturbances (insect attack, windthrow) and human-caused disturbances (timber harvest).

Diversity The distribution and abundance of different plant and animal communities and species within the area covered by a forest plan. This term is derived from the National Forest Management Act (NFMA).

Downed Woody Component A component of forest habitats used by wildlife for feeding, denning, and shelter.

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

Duff An organic surface soil layer, below the surface ground cover, in which the original form of plant and animal matter cannot be identified with the unaided eye.

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 or range ecosystem.

Ecosystem Management Using an ecological approach to achieve the multiple-use management goals of national forests and grasslands by blending the needs of people and environmental values in such a way that represents diverse, healthy, productive, and sustainable ecosystems.

Edge Effect Habitat conditions (such as degree of humidity and exposure to light or wind) created at or near the more or less well-defined boundary between ecosystems, for example, between open areas and adjacent forest.

Effects Environmental consequences (the scientific and analytical basis for comparison of alternatives) as a result of a proposed action. Effects may be either direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable, or cumulative.

Elk Habitat Effectiveness An index of the capability of an area to provide protection for elk. It is based on the density of roads open to public motorized use per square mile.

Endangered Species Any plant or animal species that is in danger of extinction throughout all or a significant portion of its range (Endangered Species Act of 1973).

Endemic Native or characteristic of a particular geographic area.

Environmental Analysis An analysis of proposals and their predictable environmental effects, including physical, biological, economic, and social consequences and their interactions; short- and long-term effects; and direct, indirect, and cumulative effects.

Environmental Assessment (EA) A document that discloses the environmental impacts expected from a proposed action and from specific alternatives to the proposed action. An EA is prepared when significant environmental impacts are not anticipated or when there is a question as to their extent.

Environmental Impact Statement (EIS) A formal public document prepared to analyze the impacts on the environment of a proposed project or action, and released for comment and review. An EIS is prepared instead of an EA when significant environmental impacts or public controversy are anticipated. Comments by the public and other agencies are accepted after the release of a Draft EIS, and are considered before the Final EIS is released and a decision is made and documented in a Record of Decision.

Ephemeral Streams Any streams that flow only as a direct response to rainfall or snowmelt events. They have no baseflow and usually no defined channel.

Epidemic A population of plants, animals, or diseases that build up, often rapidly, to highly abnormal and generally injurious levels.

Erosion Movement of soil or rock fragments by water, wind, ice, or gravity.

Evapotranspiration The portion of precipitation returned to the air through direct evaporation or by transpiration of vegetation.

Even-Aged Management The application of a combination of actions that results in the creations of stands in which trees of essentially the same age grow together. 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.

Exotic Species Non-native species that were deliberately or accidentally introduced in an ecosystem and that have become permanently established.

Extirpation Elimination of a species in part of its range.

Extreme Fire Behavior “Extreme” implies fire behavior characteristics that ordinarily preclude methods of direct control. One or more of the following is usually involved: high rate of spread, prolific crowning or spotting, presence of fire whirls, or strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometimes dangerously.

Fauna The animal life in a region, period, or environment.

Federal Register A daily publication that reports Presidential and federal agency actions, policies, and documents.

Fill Slope Road construction slopes that are made by depositing soil from excavated areas.

Fire Behavior The manner in which a fire reacts to the influences of fuel, weather, and topography.

Fire-Dependent Forests, grasslands, and other ecosystems historically composed of species that evolved with and are maintained by periodic fire.

Fire Hazard The availability of fuels in a volume or arrangement that will sustain a fire; the existence of fuels under conditions that will facilitate the ignition of a fire or will sustain a fire.

Fire Intensity A general term relating to the heat energy released by a fire.

Fireline A linear fire barrier that is scraped or dug to mineral soil.

Fireline Intensity The rate of heat release in the flaming front per unit length of fire front (often expressed as flame length in feet).

Fire Management The activities concerned with the protection of people, property, and forest areas from wildfire and the use of prescribed burning for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social, and economic criteria.

Fire Regime The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, seasonality, and extent in an ecosystem.

Fire Return Interval The naturally-occurring cycle of fire in an ecosystem.

Fire Risk The probability of an ignition occurring as determined from historical fire record data.

Fire Severity See Burn Severity.

Fire-Tolerant A plant that has properties or characteristics that enable it to survive fire.

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

Fish Habitat Places where populations of fish species live; provides life requirements such as food and cover.

Flame Height The average maximum vertical extension of flames at the leading edge of the fire front. Occasional flashes that rise above the general level of flames are not considered. This distance is less than the flame length if flames are tilted by wind or slope.

Flame Length The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface). An indicator of fire intensity.

Floodplain The lowland and relatively flat areas adjoining inland and coastal waters, including, at a minimum, that area subject to a 1 percent or greater chance of flooding in any given year.

Flora The plant life characteristic of a region, period, or special environment.

Forage Vegetation used for food by wildlife, particularly big game wildlife and domestic livestock.

Forb Any green, leaf-like plant other than true grasses, sedges, or rushes.

Foreground That part of a scene, landscape, etc., that is nearest to the viewer, and in which detail is evident, usually ½ to ¼ mile from the viewer.

Forest Development Trail Those trails wholly or partially within, adjacent to, and serving the national forests and other areas administered by the Forest Service that have been included in the Forest Development Transportation Plan.

Forest Health The perceived condition of a forest derived from concerns about such factors as its age, structure, composition, function, vigor, presence, or unusual levels of insects and disease, and resilience to disturbance.

Forest Plan Refers to the Land and Resource Management Plan for the White River National Forest, which was revised in 2002.

Fragmentation The process of transforming large, continuous patches of similar vegetation into one or more smaller patches surrounded by disturbed areas. This may occur naturally through such agents as fire, landslides, windthrow, insects, and disease; or through the development action of humans. Fragmentation impacts are usually large in scale and may inhibit or prevent one or more species from moving from one patch of suitable habitat to another.

Fuel Combustible organic material that will ignite and sustain a wildland fire. Includes vegetation, such as grass, leaves, ground litter, plants, shrubs, and trees, that feed a wildland fire (also see Surface Fuels.).

Fuelbreak A zone in which fuels have been reduced or altered to provide a position for fire suppression forces to make a stand against wildland fire. Fuelbreaks are designated or constructed before the outbreak of a fire and may consist of natural barriers such as rivers or ridges, or human-made barriers such as roads or cleared areas.

Fuel Loading The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area, usually expressed in tons per acre.

Fuel Model Simulated fuel complex (or combination of vegetation types) for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified.

Fuel Reduction Manipulation, including combustion or removal of fuels, to reduce the

likelihood of ignition or to lessen potential damage and resistance to control.

Fuel Treatment Manipulation or reduction of natural or activity fuels generated by a management activity, such as slash left from logging, to reduce fire hazard.

Fuel Type An identifiable association of fuel elements of a distinctive plant species, form, size, arrangement, or other characteristics that will cause a predictable rate of fire spread or difficulty of control under specified weather conditions.

Geographical Scope The location in which a specific resource may be impacted by an effect that may occur. For instance, the geographical scope for direct effects on soils may be the harvest units and road locations where soils are directly disturbed. However, the geographical scope for direct effects on water quality may be the drainages and wet areas in the entire project area.

Gradient (Slope) The rise or fall of a ground surface or a stream, expressed in percent change, feet per mile, or degrees.

Habitat The place where an organism lives or the conditions of that environment including the soil, vegetation, water and food.

Habitat Capability The capability of a given habitat to meet the needs of species, either seasonally or year-round.

Habitat Component A simple part, or a relatively complex entity regarded as a part, or an area or type of environment in which an organism or biological population normally lives or occurs.

Habitat Diversity The variation in types, sizes, and shapes of landscape elements or vegetation types.

Habitat Effectiveness (1) The ability of an area to support a species (individual or population) based on a potential of 100 percent. (2) Percentage of available habitat that is usable by elk during the non-hunting season. This includes habitat that is considered cover and forage, and is measured against the effects of roads.

Habitat Structural Stage See Structural Stage.

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

Handpile and Burn Fuels treatment method used to reduce hazardous fuels concentrations. Material is piled by hand. Piles are burned under conditions when the risk of fire spread is minimal.

Hazard Reduction Any treatment of a hazard that reduces the threat of ignition and fire intensity or rate of spread.

Headcutting The erosion of a drainage or gully in an upstream or uphill direction.

Heavy Fuels Any fuels of large diameter, such as snags, logs, and large limb wood, which ignite and are consumed more slowly than flash fuels that ignite easily and are consumed quickly.

Heritage Resources The physical remains of human activity (e.g., artifacts, ruins, burial mounds, petroglyphs) that have scientific, prehistoric, or social values.

Hiding Cover Vegetation capable of hiding 90 percent of a standing adult deer or elk at 200 feet or less. Includes some shrub stands and all forested stand conditions with adequate tree stem density or shrub layer to hide animals. In some cases, topographic features also can provide hiding cover.

Historic Range of Variability The natural fluctuation of components of healthy ecosystems over time. It refers to the range of conditions and processes that are likely to have occurred prior

to European settlement of the project area in approximately the mid-1800s, which would have varied within certain limits over time. It portrays historical conditions and processes including forest or grassland vegetation types, compositions, and structures, use of grazing, fish and wildlife habitats and populations, drought, and fire regimes.

Host Tree A tree in which other organisms, parasites, or insects live for part of their life cycle.

Hydrologic Function Soil hydrologic function is the ability of the soil to absorb, store, and transmit water, both vertically and horizontally. Changes in soil bulk density, soil structure, and ground cover can alter the hydrologic function of the soil.

Hydrologic Unit Code (HUC) See Watershed Level.

Hydrophobic A discontinuous water-repellant layer that forms under coniferous cover naturally at the mineral surface in coarse soils; also, a water-repellant layer of varying depths that forms during fire, the heat from which creates a waxy residue from coniferous litter that is consumed.

Improvement Construction activity that raises the traffic service level of a road or improves its safety or operation efficiency.

Incident A human-caused or natural occurrence, such as wildland fire, that requires emergency service action to prevent or reduce the loss of life or damage to property or natural resources.

Indicator Quantitative or qualitative unit of measure used to estimate effects and compare alternatives.

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

Interdisciplinary Team (IDT) A group of resource professionals with different expertise who collaborate to develop and evaluate resource management proposals. The team is assembled with recognition that no one scientific discipline is sufficiently broad to adequately address resource management activities.

Intermittent Stream A stream that flows only during certain times of the year, when it receives water from springs or surface sources such as melting snow. Shows clear evidence of annual scour. Gullies that wash out during flood events are not considered intermittent streams.

Inventoried Roadless Area Undeveloped areas typically exceeding 5,000 acres that met the minimum criteria for wilderness consideration under the Wilderness Act and that were inventoried during the Forest Service's Roadless Area Review and Evaluation (RARE II) process, subsequent assessments, or forest planning.

Inventory Data Recorded measurements, facts, evidence, or observations on forest resources such as soil, water, timber, wildlife, range, geology, minerals, and recreation.

Irretrievable A term that applies to the loss of production, harvest, or use of natural resources. For example, some or all of the timber production from an area is lost irretrievably while an area serves as a winter sports site. The lost production is irretrievable, but the action is not irreversible. If the use changes, it is possible to resume timber production.

Irreversible A term that describes the loss of future options. Applies primarily to effects of use of nonrenewable resources, such as minerals or cultural resources, or to factors, such as soil productivity, that are renewable only over long periods of time.

Knutson–Vandenberg (K-V) Funds Monies collected under the Knutson–Vandenberg Act of 1930, as amended, by requiring purchasers of National Forest timber to help finance sale area improvement activities that protect and improve the future productivity of renewable resources in timber sale areas. K-V funds may not be

collected when the demonstration stewardship authority is used for removing timber.

Ladder Fuels Any 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. These may be natural fuel loads, dense regeneration, shrubs, or low branches.

Land Exchange A discretionary, voluntary transaction involving mutual transfers of land or interests in land between the Secretary of Agriculture, acting by or through the Forest Service, and a non-federal entity.

Landing A small staging area where harvested trees are collected and loaded for hauling.

Landscape A spatial mosaic of several ecosystems, landforms, and plant communities across a defined area, irrespective of ownership or other artificial boundaries, and repeated in similar form throughout.

Landscape Visibility Accessibility of the landscape to viewers, referring to one's ability to see and perceive landscapes.

Landslide Downward sliding or falling of a mass of earth or rock that has become loosened from the slope of a hill, ridge, or mountain.

Land Type A unit of land with similar designated soil, vegetation, geology, topography, climate, and drainage. It serves as the basis for mapping units in the land systems inventory.

Late Successional Forest A forest stand composed of mature-to-old-growth trees with canopy closure of greater than 40 percent. This category includes habitat structural stages 4B, 4C, and 5.

Late Successional Species Any species that are shade-tolerant and usually grow beneath early successional species. Examples of these long-living tree species include subalpine fir, Douglas-fir, and grand fir.

Light Fuels Fast-drying fuels, generally with a comparatively high surface-area-to-volume ratio, which are less than ¼ inch in diameter and usually burn for 1 hour or less. These fuels readily ignite and are rapidly consumed by fire when dry.

Litter Top layer of the soil in forest, scrubland, or grassland systems, directly above the fermentation layer, composed of loose debris of dead sticks, branches, twigs, and recently fallen leaves or needles, little altered in structure by decomposition.

Live Fuels Living plants, such as trees, grasses, and shrubs, in which the seasonal moisture content cycle is controlled largely by internal physiological mechanisms rather than by external weather influences.

Lop and Scatter A method of slash disposal whereby all vegetative debris (tops, limbs, etc.) resulting from logging operations are limbed and scattered so as to lie within a designated height from the ground.

Lynx Analysis Unit (LAU) The LAU is a project analysis unit upon which direct, indirect, and cumulative effects analyses are performed. It is an area of at least the size used by an individual lynx, about 25 to 50 square miles.

Maintenance Level A formally established set of objectives that describe the conditions necessary to achieve the planned operation of a road.

Management Area Geographic areas, not necessarily contiguous, which have common management direction identified in the Forest Plan.

Management Concern An issue, problem, or condition that constrains the management practices identified by the Forest Service.

Management Direction A statement of multiple use and other goals and objectives, along with the associated management prescriptions, standards, and guidelines to direct resource management.

Management Indicator Species (MIS) A fish or wildlife species selected for monitoring because its population changes are believed to indicate the effects of management activities on other species of selected major biological communities or on water quality.

Mature On lands allocated for timber harvest, trees or stands that have reached rotation age, generally around 100 years.

Mitigation Measures Actions developed to prevent, reduce, or repair adverse effects of action alternatives. This might include: not taking certain actions or parts of actions; repairing, rehabilitating, or restoring the affected environment; preservation and maintenance operations during actions; or replacing or substituting resources or environments.

Monitoring The evaluation of management practices to determine how well objectives are being met, as well as the effects of those management practices on the land and environment.

Monoculture A pure forest stand of a single species.

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

National Forest Management Act (NFMA) A law passed in 1976 amending the Forest and Rangeland Renewable Resources Planning Act that requires the preparation of regional and forest plans, and regulations to guide that development.

National Forest System (NFS) Includes: 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 of the Bankhead-Jones Farm Tenant Act (50 Stat. 525, 7 U.S.C. 1010- 1012); and other lands, waters, or interests therein which are administered by the Forest Service or are designated for administration by Forest Service as a part of the system.

National Forest System Road (NFSR) A forest road under the jurisdiction of the Forest Service that is necessary for the protection, administration, and use of lands under the agency's jurisdiction.

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

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 Those plant and animal species indigenous to the planning or assessment area.

Natural Fuels Any fuels created by nature, such as windthrow or trees killed by insects or disease.

Natural Regeneration The establishment of a plant or a plant age class from natural seeding, sprouting, suckering, or layering.

Non-Forested Area Lands that have never had or are incapable of having 10 percent or more of the area occupied by forest trees, or lands previously having such cover and currently developed for non-forest use.

Non-Motorized Activities Any activities that do not incorporate the use of a motor, engine, or other nonliving power source. Such machines as aircraft, hovercraft, motorboats, automobiles,

motorbikes, snowmobiles, bulldozers, chainsaws, rock drills, and generators are excluded from this classification.

Notice of Intent (NOI) Formal notification that an environmental impact statement will be prepared and considered. The notice briefly describes the proposed action and possible alternatives, the agency's scoping process, and the address and name of the agency to contact regarding questions about the proposed action and the environmental impact statement.

Noxious Weed An alien plant that aggressively invades or is detrimental to native plant communities. The direct or indirect effect of the presence of this plant is detrimental to environmentally sound management of natural ecosystems.

Obliteration The act of eliminating the functional characteristics of a travelway and reestablishing natural resource production capability. The intent is to make the corridor unusable as a road or a trail and stabilize it against soil loss.

Old-Growth Habitat Old-growth is a distinct successional stage in the development of a timber stand that has special significance for wildlife, generally characterized by: (1) large diameter trees (often exceeding 19" dbh) with a relatively dense, often multilayered canopy; (2) large, standing, dead or dying trees; (3) down and dead trees; (4) stand decadence associated with the presence of various fungi and heartrots; and (5) an average age often in excess of 200 years.

Open Road or Travelway Density A measure of the amount of open roads or travelways per area of land, usually expressed as miles per square mile.

Overmature A tree, shrub, or even-aged stand that has reached that stage in development when it is declining in vigor and health and reaching the end of its natural life span.

Overstory The portion of trees in a forest that forms the uppermost layer of foliage.

Particulate Matter Tiny particles of solid or semi-solid matter suspended in the air. Particles less than 10 microns in diameter (PM₁₀) are found in smoke and dust, and can affect visibility and human health.

Patch In landscape ecology, a particular unit with identifiable boundaries that differs from its surroundings in one or more ways. These can be functions of vegetation composition, structure, age, or a combination of the three.

Patch Cut or Clearcut A method of regenerating an even-aged stand in which a new age class develops in a fully-exposed microclimate after removal, in a single cutting, of all trees in the previous stand. Regeneration is from natural seedlings, direct seeding, plant seedlings, or advance reproduction.

Peak Flow The greatest flow attained during the melting of the winter snowpack.

Perennial Streams Any streams that flow continuously throughout the year.

Permit A special-use authorization that provides permission, without conveying an interest in land, to occupy and use National Forest System lands or facilities for specific purposes, and which is both revocable and terminable.

Pheromone A chemical secreted into the environment by one individual of a particular species for the purpose of influencing behavior of the other individuals of the same species.

Plant Community A grouping of plants that have reached dynamic equilibrium with local environment.

Population In statistics, the aggregate of all units forming the subject of study; otherwise, a community of individuals that share a common gene pool.

Predator One that preys, destroys, or devours - usually an animal that lives by preying on other animals.

Preferred Alternative The alternative recommended for implementation as the Vail

Valley Forest Health Project based on the evaluation completed in the EIS.

Prescribed Burning (Prescribed Fire) The intentional application of fire to wildland fuels in their natural or modified state under such conditions as to confine the fire 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 (e.g., silviculture, wildlife management, reduction of fuel hazard). There must be a written, approved prescribed fire plan, and NEPA requirements must be met prior to ignition.

Prescribed Fire Plan (Burn Plan) This document provides the prescribed fire burn boss with information needed to implement an individual prescribed fire project.

Prescription Measurable criteria that define conditions under which a prescribed fire may be ignited, guide selection of appropriate management responses, and indicate other required actions. Prescription criteria may include safety, economic, public health, environmental, geographic, administrative, social, or legal considerations.

Private Road A road under private ownership authorized by an easement to a private party, or a road that provides access pursuant to a reserved or private right.

Project Area The geographic area defining the scope of this document and the alternatives proposed herein.

Project File An assemblage of documents that contains all the information developed or used during an environmental analysis. The Project File becomes part of the administrative record for judicial review in case of legal action.

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 is the subject of an environmental analysis.

Proposed Species Any species of fish, wildlife, or plant proposed by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service to be listed as threatened or endangered.

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

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 the participation in the planning processes that lead to final decision-making.

Public Road Any road or street under the jurisdiction of and maintained by a public authority and open to public travel.

Rangeland Land on which the climax vegetation (i.e., potential natural plant community) is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing and browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundra, and certain forb and shrub communities.

Ranger District Administrative subdivision of a national forest supervised by a district ranger who reports to a forest supervisor.

Reclamation Returning disturbed lands to an ecologically balanced form and productivity, often in conformity with a predetermined reclamation plan.

Reconstruction Construction activities performed on an existing facility. Reconstruction includes those activities that alter the facility from its originally constructed or subsequently reconstructed condition.

Recontour A form of obliteration where the road prism is eliminated by pulling back fill material to reestablish the natural sideslope.

Record of Decision (ROD) A concise public document disclosing the decision made following preparation of an EIS and the rationale used by the Deciding Officer to reach that decision.

Recreational Opportunity Spectrum (ROS) A framework for stratifying and defining classes of outdoor recreation environments, activities, and experience opportunities. The settings, activities, and opportunities for obtaining experiences are arranged along a continuum or spectrum divided into seven classes: primitive, semi-primitive non-motorized, semi-primitive motorized, roaded natural, roaded modified, rural, and urban.

Reference Landscape Terrestrial and aquatic area with high ecosystem integrity, within the historical range of variability, and of sufficient size, where relevant disturbance and ecological processes occur and are generally unaffected by human activities.

Reforestation The reestablishment of forest cover either naturally (by natural seeding, coppice, or root suckers) or artificially (by direct seeding or planting). Reforestation usually maintains the same forest type and takes place promptly after the previous stand or forest was removed. Synonymous with regeneration.

Regeneration The renewal of a tree crop by natural or artificial means. This term may also refer to the crop (e.g., seedlings, saplings) itself. See Reforestation.

Rehabilitation (Roads) The closure and stabilization of a road so it can be used in the future. Culverts are removed, the road surface is stabilized, intermittent or perennial crossings are restored, and the road surface is revegetated after being scarified or ripped, as needed.

Residual Tree A tree remaining after any harvest.

Resources 1) Personnel, equipment, services, and supplies available, or potentially available, for assignment to incidents. 2) Natural resources of an area, such as timber, grass, watershed values, recreation values, and wildlife habitat.

Responsible Official The Forest Service line officer with the authority and responsibility to oversee and make decisions about a specific proposed action. May also be referred to as the Deciding Official.

Restocking The process of planting or seeding trees to bring the stocking up to prescribed conditions.

Restoration Treatments that restore vital soil functions to their inherent range of variability. It is recognized that soil may need to be treated over a period of years and then maintained. Restoration treatments could include, but are not limited to, tillage, ripping, seeding, mulching, recontouring of temporary roads, and water barring.

Revegetation The reestablishment and development of plant cover. This may take place naturally through the reproductive processes of the existing flora, or artificially through the direct action of reforestation or reseeded.

Right-of-Way (ROW) Land authorized to be used or occupied for the construction, operation, maintenance, and termination of a project or facility passing over, upon, under, or through such land.

Rill or Gully A channel or miniature valley cut by concentrated runoff, through which water commonly flows only during and immediately after heavy rains or during the melting of snow.

Riparian Pertaining to areas of land directly influenced by water. Riparian areas usually have visible vegetative or physical characteristics reflecting this water influence. Stream banks, lake borders, or marshes are typical riparian areas. Vegetation bordering watercourses, lakes or swamps. Requires a high water table.

Ripping (Roads) A method of aerating the surface and subsurface material of a road, landing, or skid trail to allow water infiltration

by tilling the soil with a piece of machinery equipped with ripper bars.

Road Decommissioning Various levels of treatment to stabilize or rehabilitate unneeded roads, such as blocking the entrance, revegetating, water barring, removing fills and culverts, reestablishing drainageways, removing unstable road shoulders, or full obliteration by recontouring and restoring natural slopes.

Road Maintenance The upkeep of the entire forest development transportation facility, including surface and shoulders, parking and side areas, structures, and such traffic control devices as are necessary for its safe and efficient utilization. Road maintenance is classified in terms of the following levels:

Maintenance Level 1 Assigned to intermittent service roads during the time they are closed to vehicular traffic. Basic custodial maintenance is performed to keep damage to adjacent resources to an acceptable level and to perpetuate the road to facilitate future management activities.

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

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

Maintenance Level 4 Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds. Some roads may be paved or dust-abated.

Maintenance Level 5 Assigned to roads that provide a high degree of user comfort and convenience. These roads are normally paved.

Road Reconstruction Activity that improves or realigns an existing classified road as defined below:

Road Improvement Road reconstruction that results in an increase of an existing road's traffic service level, expands its capacity, or changes its original design function.

Road Realignment Road reconstruction that results in a new location of an existing road or portions of an existing road and treatment of the old roadway.

Rosgen Channel Classification A system of measure that uses various channel features to rate a stream or river into reproducible classes.

Rutting Deformation of the soil under saturated conditions changing soil structure detrimentally and reducing porosity.

Salmonids Members of the family of elongate soft-finned fishes Salmonidae - the trout and salmon family.

Salvage Harvest The cutting of trees that are dead, dying, or deteriorating before they lose commercial value as sawtimber. The removed trees are generally overmature, damaged by fire, wind, insects, fungi, or other injurious agents.

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

Sawlog A log that meets minimum standards of diameter, length, and defect, intended for sawing.

Scenic Integrity State of naturalness or, conversely, the state of disturbance, created by human alteration. Integrity is stated in degrees of deviation from the existing landscape character in a national forest. Intactness or wholeness of the scenery.

Scoping The procedures by which the Forest Service collects input in the environmental analysis process. This information is used to determine: the extent of analysis necessary; the range of actions, alternatives, and impacts to be addressed; the significant issues related to the

proposed action; and the depth of environmental analysis, data, and task assignments needed.

Sediment Any material carried in suspension by water, which will ultimately settle to the bottom. Sediment has two main sources: from the stream channel area itself and from disturbed sites.

Sedimentation (Sediment Delivery) A general term describing the movement of sediment (soil and rock particles) that have been eroded from the land surface by the forces of water, wind, or gravity to a stream or drainage channel, where it is introduced to surface waters.

Sediment Trap Any natural or man-made feature in a stream that traps sediment.

Sensitive Species Those plant and animal species identified by regional foresters for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density, or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution. For a list of Region 2 sensitive species that are known or thought to occur on the White River National Forest, see Appendix EE of the revised Forest Plan.

Seral Stage (Successional Stage) The series of plant community conditions that develop during ecological succession from bare ground (or major disturbance) to the climax stage.

Early seral stage is a condition in which plants appear soon after a disturbance or at the beginning of a new successional process (seedling or saplings in a forest). Grass, herbs, or brush are abundant, diversity is high.

Mid-seral stage is characterized in a forest setting that has almost full crown closure in pole- to medium-sized trees. Understory vegetation and species diversity is lower due to tree shading.

Late seral stage is a condition with mature trees, often of old forest character. Tree growth has slowed, mortality has increased, understory forage is minimal, structural diversity may be high, and species diversity is generally lower.

Serotinous Applies to the nature of lodgepole pine cones, which are closed until heated during fire, at which time they open so the seed can be released. This is an adaptive trait for fire-dependent ecosystems.

Shrub A plant with persistent woody stems and a relatively low growth form; usually produces several basal shoots as opposed to a single bole; and differs from a tree in its low stature and multi-branching form.

Silviculture The art and science of controlling the establishment, growth, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

Site Preparation A general term for a variety of activities that remove or treat competing vegetation, slash, and other debris that may inhibit the establishment of regeneration.

Site Productivity Production capability of specific areas of land.

Ski Area A site and attendant facilities expressly developed to accommodate alpine or nordic skiing and from which the preponderance of revenue is generated by the sale of lift tickets and fees for ski rental, skiing instruction, and trail passes; or for the use of permittee-maintained ski trails. A ski area also may include ancillary facilities directly related to the operation and support of skiing activities. The National Ski Area Permit Act of 1986 authorizes operation of nordic and alpine ski areas for up to 40 years and encompasses such acreage as the forest officer determines sufficient and appropriate.

Skid Trail A temporary access cut through the stand to allow hauling of cut trees and maneuvering of equipment.

Slash Debris left after logging, pruning, thinning, or brush cutting; includes logs, chips, bark, branches, stumps, and broken understory trees or brush.

Slope Failure The loosening and detachment of a mass of earth or rock from an inclined surface, and the initiation of downward movement of the detached mass.

Slope Stability The relative likelihood that the inclined surface of a hill, ridge, or mountain will remain anchored in place, and not be subject to downward movement.

Snag A standing dead tree, usually taller than 5 feet and larger than 6 inches in diameter at breast height.

Soil Classification Systematic arrangement of soils into groups or categories on the basis of their characteristics; the USDA soil classification system is divided into Orders and Suborders, Great Groups, Subgroups, Family, and Type or Series. Naming convention at the upper levels is based on Greek and Latin root words; at the series level, naming is based on geographic place names.

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

Soil Function Primary soil functions are: (1) the sustenance of biological activity, diversity, and productivity; (2) soil hydrologic function; (3) filtering, buffering, immobilizing, and detoxifying organic materials; and (4) storing and cycling nutrients and other materials.

Soil Permeability The ability of water to move through soil material.

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

Soil Quality The capacity of a specific soil function within its surroundings to support plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation.

Special-Use Permit A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of national forest land for some special uses.

Species A unit of classification of plants and animals consisting of the largest and most inclusive array of sexually reproducing and cross-fertilizing individuals that share a common gene pool.

Species Diversity A measurement that relates to the density of individuals of a species in a habitat to the number of different species present in the habitat. The number of different kinds of species in a given habitat.

Species Viability A species of self-sustaining and interacting populations that are well-distributed throughout the species' range. Self-sustaining populations are those that are sufficiently abundant and have sufficient genetic diversity to display the array of life history strategies and forms to provide high likelihood for their long-term persistence and adaptability over time.

Spotting (Spot Fire) A fire ignited outside the perimeter of the main fire by flying sparks or embers.

Stand A community of trees or other vegetation uniform in composition, constitution, spatial arrangement, or condition to be distinguishable from adjacent communities.

Standard A particular action, level of performance, or threshold specified by the Forest Plan for resource protection or accomplishment of management objectives. Unlike "guidelines," which are optional, standards specified in the Forest Plan are mandatory.

Stand Composition The representation of tree species in a forest stand, expressed by some measure of dominance (e.g., percent volume, number, basal area).

Stand Density A measure of the degree of crowding of trees within a stocked area, commonly expressed by various growing-space ratios such as crown length to tree height, crown diameter to diameter at breast height, crown diameter to tree height, or stem spacing to tree height.

Stand Replacing Fire A fire that consumes an entire stand of trees. These fires are generally of high to extreme intensities and burn large numbers of acres.

Stand Structure The horizontal and vertical arrangement of the vegetation in a stand. The components of stand structure might include tree diameter, heights, crown layers, number of stems, shrubs, herbaceous understory, snags, and down logs.

Stocking The degree to which trees occupy the land, measured by basal area or number of trees by size and spacing, compared with a stocking standard; that is, the basal area or number of trees required to fully utilize the land's growth potential.

Stream A natural watercourse of perceptible extent that has a generally sandy or rocky bottom or definite banks, and that confines and conducts continuously or intermittently flowing water.

Stream Health Class Based on measurements of the physical habitat as a percentage of the reference stream.

Robust/Comparable streams represent conditions comparable to greater than 90 percent of the reference habitat. Forest Plan standards are attained. Habitat supports aquatic life uses. State standards are attained.

Supporting streams represent conditions comparable to 74 to 89 percent of the reference habitat. Forest Plan standards are not attained. Habitat supports aquatic life uses. State standards are attained.

Partially Supporting streams represent conditions comparable to 59 to 73 percent of the reference habitat. Forest Plan standards are not attained. Habitat for aquatic life use is not fully supported. State standards are threatened if biological condition is less than 50 percent of reference stream.

Nonsupporting streams represent conditions comparable to less than 58 percent of the reference habitat. Forest Plan standards are not attained. Habitat for aquatic life use is not supported. State standards are threatened if biological condition is less than 50 percent of reference stream. State standards are not attained if biological condition is less than 17 percent of reference stream.

Stream Network Expansion The existence of linear features, like roads or disturbed sites that produce high runoff, upgradient from surface waters under topographic conditions where drainageways from these disturbed areas can be considered an extension of the stream drainage system.

Stream Order It is often convenient to classify streams within a drainage basin by systematically defining the network of branches. Each nonbranching channel segment (smallest size) is designated a first-order stream. A stream that receives only first-order segments is termed a second-order stream, and so on. The order of a particular drainage basin is determined by the order of the principle or largest segment.

Stream Reach A segment of a stream.

Structural Diversity The variation in sizes and shapes of landscape elements, as well as diversity of pattern (i.e., heterogeneity).

Structural Stage (also Habitat Structural Stage) Any of several developmental stages of tree stands described in terms of tree age and the

extent of canopy closure they create. They include:

Structural Stage 1 Grass/forb Forest openings created by disturbances, such as fire or windthrow. Meadows and prairies are also modeled as grass/forb, although succession will not move beyond this stage.

Structural Stage 2 Shrubs/seedlings Developmental stage dominated by tree seedlings (< 1 inch DBH) and shrub species.

Structural Stage 3 Sapling/pole Developmental stage dominated by young trees 1 to 7 inches DBH, 10 to 50 feet tall, and usually less than 50 years old. This stage is subdivided into three canopy closure classes: (a) less than 40 percent, (b) 40 to 70 percent, and (c) greater than 70 percent.

Structural Stage 4 Mature Consists of trees larger and older than stage 3. Also classified by the same canopy closure categories as stage 3.

Structural Stage 5 Old growth This structural stage is characterized by trees at least 200 years old for spruce-fir or Douglas-fir; 150 years old for lodgepole pine; or 100 years old for aspen.

Succession A series of dynamic changes in vegetation and animal life over time as a result of one community replacing another, leading to a climax stage.

Successional Stage A stage or recognizable condition of a plant community that occurs during its development from bare ground to climax. See also Seral Stage.

Suitable Forest Lands Land to be managed for timber production on a regulated basis.

Summer Range A range, usually at higher elevation, used by deer and elk during the summer; a summer range is usually much more extensive than a winter range.

Suppression (Fire Suppression) Any act taken to slow, stop, or extinguish a fire. Examples of suppression activities include fireline construction, applying water or chemical fire retardants, and lighting backfires (set ahead of an advancing flame to consume fuels in a controlled manner).

Surface Fire A type of fire in which conditions for sustained active crown fire spread are met but conditions for crown fire initiation are not. If the fire begins as a surface fire, then it is expected to remain so. If it begins as an active crown fire in an adjacent stand, then it may continue to spread as an active crown fire.

Surface Fuels Loose litter on the ground surface, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches that have not yet decayed enough to lose their identity; also grasses, forbs, low and medium shrubs, tree seedlings, heavier branchwood, downed logs, and stumps interspersed with or partially replacing the litter.

Sustainability A concept that reflects the capacity of a dynamic ecosystem to maintain its composition, function, and structure over time thus maintaining the productivity of the land and a diversity of plants and animals.

Temporary Road A road associated with a timber sale contract or other short-term access need that is unnecessary for future resource management and is not intended to be a part of the forest transportation plan.

Tiering 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 applied to trees that can provide a wood-fiber product.

Thermal Cover Vegetation used by animals as protection against the adverse effects of weather. A forest stand that is at least 40 feet high with tree canopy cover of at least 70 percent provides

thermal cover. These stand conditions are achieved in closed sapling-pole stands and by all older stands unless the canopy cover is reduced to below 70 percent. Deciduous stands may serve as thermal cover in summer, but not in winter.

Thinning Cutting to reduce stand density of live trees, primarily to improve and speed growth, enhance forest health, or recover potential mortality.

Thin-From-Above The removal of trees from high crown classes to enhance growth of trees from lower crown classes.

Thin-from-Below Removing trees from the lower crown classes to favor those in the upper crown classes.

Threatened Species Any species of plant or animal that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and that has been designated in the Federal Register as such by the Secretary of the Interior.

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

Timber Stand Improvement All noncommercial intermediate cuttings and other treatments to improve composition, condition, and volume growth of a timber stand.

Timber Types A descriptive classification of forestland based on present occupancy of an area by tree species (e.g., lodgepole, mixed conifer). More appropriately called forest cover types, this category is further defined by the composition of its vegetation or environmental factors that influence its locality.

Torching The ignition and flare-up of a tree or small group of trees, usually from bottom to top.

Trail A linear travelway for vehicles 50 inches in width or less, pack animals, or people.

Trailhead The parking, signing, or other facilities available at the beginning of a trail.

Transitory Range Land that produces or is capable of producing forage and can become available temporarily (normally 15 to 20 years) as a result of partial or complete removal of the vegetation through fire, logging, or other events.

Travel Management The integrated planning of and providing for appropriate movement of people and products to and through NFS lands.

Turbidity An optical measure of how fine sediment inhibits light transmission in a given water sample due to scattering and absorption by suspended particles.

Unclassified Road A road not intended to be part of, and not managed as part of, the National Forest transportation system, such as a temporary road, an unplanned road, an off-road vehicle track, or an abandoned travelway.

Underburn A fuel reduction/site preparation treatment in which surface fuels are ignited under controlled conditions and are allowed to burn with specified parameters. Underburns are usually conducted in areas where the fuel bed is fairly continuous and conditions are such that fire will spread in a predictable and consistent fashion. Underburning implies that there is a live overstory and often a live understory as well. Prescriptions for underburning usually include an acceptable mortality level in the live component.

Understory Vegetation (e.g., trees or shrubs) growing under the canopy formed by taller trees.

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. Single-tree and group selection are cutting methods that develop and maintain uneven-aged stands.

Unit A treatment area that may undergo harvest, salvage, burning, or other management activity that occurs within specified boundaries.

Unmerchantable Timber that does not meet minimum height and diameter specifications that make it suitable for commercial sawtimber.

Unroaded Area Any area, without a classified road, of a size and configuration sufficient to protect the inherent characteristics associated with its unroaded condition.

Unroaded Portion of an Inventoried Roadless Area A portion of an inventoried roadless area in which no classified road has been constructed since the area was inventoried.

Values at Risk Natural resources, improvements, or other values that may be jeopardized if a fire occurs.

Vegetation Management Any activities undertaken to modify the existing condition of the vegetation.

Vertical Diversity The diversity in an area that results from the complexity of the aboveground structure of the vegetation; the more tiers of vegetation or the more diverse the species makeup is, the higher the degree of vertical diversity.

Viable Population A wildlife population of sufficient size to maintain its existence over time in spite of normal fluctuations in population levels.

Viewshed Total visible area from a single observer's position or from multiple observer positions. Viewsheds are accumulated areas seen from highways, trails, campgrounds, towns, cities, or other view locations. Examples are corridor, feature, or basin viewsheds.

Visual Resource The composite of landforms, water features, vegetative patterns, and cultural features which create the visual environment.

Water Bar Refers to small dips and rises in a road surface constructed across a road or trail to form a barrier to the continued flow of water. These structures are used to direct drainage off of a road, skid-trail, or trail. Spacing and size depends on material and slope.

Water Influence Zone (WIZ) The land next to water bodies where vegetation plays a major role in sustaining the long-term integrity of aquatic systems. It includes the floodplain, riparian ecosystem, and drainage channel. Its minimum horizontal width (from the top of each bank) is 100 feet or the mean height of mature dominant late-seral vegetation, whichever is greater.

Watershed An area of land that collects and discharges water into a single main stream through a series of smaller tributaries. The area of land bounded by a divide that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel (Dunne and Leopold 1978), or to a lake, reservoir, or other body of water. Also called a drainage basin or catchment area.

Watershed Level Divides watersheds into a series of progressively smaller nested levels, with the first level being the largest land area relative to higher-numbered levels in that watershed. Each level is identified systematically by a hydrologic unit code number, or HUC. A first-level watershed can be divided into second-level watersheds; each second-level watershed may be further subdivided into third-level watersheds, and so forth.

Watershed Order The number assigned to an entire drainage basin contributing to the stream segment of a given order and bearing an identical designation; for example, a first-order watershed contains all of the drainage area of a first-order stream. Also called basin order.

Water Yield The measured output of the forest's streams.

Wetlands Those areas inundated by surface or ground water with a frequency sufficient, under normal circumstances, to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands include marshes, bogs, sloughs, potholes, river overflows, mud flats, wet meadows, seeps, and springs.

Whole Tree Yarding During timber harvest, entire trees are yarded to the landing. Tops and limbs are piled for later treatment or utilization at the landing site.

Wilderness All lands included in the National Wilderness Preservation System by public law; generally defined as undeveloped federal land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness designated by public law is protected and managed to preserve its natural conditions.

Wildland Undeveloped land that is not dedicated for other uses such as agriculture, urban, mining, or parks.

Wildland Fire (Wildfire) Any non-structure fire, other than a prescribed fire, which occurs in the wildlands. May be ignited naturally or by arson.

Wildland Fire Use The management of naturally-ignited wildland fires to accomplish specific, pre-stated resource management objectives in predefined geographic areas outlined in Fire Management Plans.

Wildland Urban Interface (WUI) The line, area, or zone where structures and other human developments meet or intermingle with undeveloped wildland areas or vegetative fuels. These areas encompass not only the interface areas themselves but also the continuous slopes and fuels that lead directly to the interface areas, regardless of distance.

Wildlife Collectively, the non-domesticated vertebrate animals, except fishes. The natural community of animals in an ecosystem.

Windthrow The action of uprooting trees by the force of wind.

Winter Range A range, usually at lower elevation, used by migratory deer and elk during the winter. It is usually better-defined and smaller than summer range.

Woody Debris Recruitment The process of trees naturally falling over and landing in stream channels.

Yarding A method of bringing logs to a landing for truck transport. Methods include forms of skyline cabling, ground-based skidding, ballooning, and hauling by helicopter.