

CHAPTER 6. GLOSSARY

A

Access Management Plan – The development of travel management policies that consider the development, maintenance, and protection of all forest resources.

Affected Environment – The biological, social, economic, and physical aspects of the environment that will or may be changed by proposed actions.

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

Anadromous fish – Those species of fish that mature in the sea and migrate into streams to spawn (e.g., salmon and steelhead trout).

Analysis Area – A delineated area of land subject to analysis of (1) responses to proposed management practices in the production, enhancement, or maintenance of forest an rangeland outputs and environmental quality objectives; and (2) economic and social impacts.

Aquatic (and riparian) health — Aquatic and riparian habitats that support animal and plant communities that can adapt to environmental changes and follow natural evolutionary and biogeographic processes. Healthy aquatic and riparian systems are resilient and recover rapidly from natural and human disturbance. They are stable and sustainable, in that they maintain their organization and autonomy over time and are resilient to stress. In a healthy aquatic/riparian system there is a high degree of connectivity from headwaters to downstream reaches, from streams to floodplains, and from subsurface to surface. Floods can spread into floodplains, and fish and wildlife populations can move freely throughout the watershed. Healthy aquatic and riparian ecosystems also maintain long-term soil productivity. Mineral and energy cycles continue without loss of efficiency.

Available water — The amount of water in the soil that can be readily absorbed by plant roots.

B

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

Biological Diversity – (1) The distribution and abundance of plant and animal communities. (2) The variety of life forms and processes, including a complexity of species, communities, gene pools, and ecological functions.

Biophysical Environment or Bioenvironment – The interaction of climatic factors (moisture and temperature) and soil conditions on the expression of vegetation types and associated habitats. Climatic and soil conditions that result in similar successional pathways,

disturbance processes and associated vegetative/habitat characteristics are referred to as a biophysical environment.

Board Foot – A unit of measurement represented by a board one foot square and one inch thick.

C

Canopy — In a forest, the branches from the one or more uppermost layers of trees; on rangeland, the vertical projection downward of the aerial portion of vegetation.

Categorical Exclusion (CE) – ...a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of these regulations {1507.3} and for which, therefore, neither an environmental assessment nor an environmental impact statement is required. (40 CFR 1508.4)

Canopy closure — The amount of ground surface shaded by tree canopies as seen from above. Used to describe how open or dense a stand of trees is, often expressed in 10 percent increments.

Channel (stream) — The deepest part of a stream or riverbed through which the main current of water flows.

Classified Road – Roads wholly or partially within or adjacent to National Forest System lands that are determined to be needed for long-term motor vehicle access, including State roads, County roads, privately owned roads, National Forest System roads and other roads authorized by the Forest Service.

Closure – A road management term indicating the road cannot be used by motorized traffic. This limitation can be accomplished by regulation, barricade, or blockage devices. The road can be available for emergency use; limited administrative use may be permitted.

Competition — An interaction that occurs when two or more individuals make demands of the same resources that are in short supply.

Connectivity — The arrangement of habitats that allows organisms and ecological processes to move across the landscape; patches of similar habitats are either close together or linked by corridors of appropriate vegetation. The opposite of a fragmented condition.

Corridor (landscape) — Landscape elements that connect similar patches of habitat through an area with different characteristics. For example, streamside vegetation may create a corridor of willows and hardwoods between meadows or through a forest.

Cover — (1) Trees, shrubs, rocks, or other landscape features that allow an animal to partly or fully conceal itself. (2) The area of ground covered by plants of one or more species. The four levels of cover as defined for elk are: *satisfactory cover*; *marginal cover*; *hiding cover*; and *thermal cover*.

Cover type — A vegetation classification depicting a genus, species, group of species, or life form of tree, shrub, grass, or sedge. In effect the present vegetation of an area.

Crown — The part of a tree containing live foliage; treetops.

Cultural Resource – 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.

D

Dead trees — Trees expected to die, as defined in the Marking Guide in Appendix B, as a result of the fire, insect, or drought stress. This guide is based on the publication “Factors Affecting Survival of Fire Injured Trees: A Rating System for Determining Relative Probability of Survival of Conifers in the Blue and Wallowa Mountains” BMPMSC-03-01, Nov. 2002, developed by Scott, Schmitt, and Spiegel. This rating system takes into account the season of the fire, tree size and species, pre-fire vigor, and the existence of disease and insects and then

- considers the intensity of the fire as shown by duff consumption, bole scorch, and crown scorch.
- DecAID** –An internet-based computer program being developed as an advisory tool to help federal land managers evaluate effects of management activities on wildlife species that use dead wood habitats. The tool synthesizes published literature, research data, wildlife databases, and expert judgment and experience (Mellen et al. 2003). DecAID presents information on wildlife use based on snag density and snag diameter. This information is presented at three statistical levels: low (30% tolerance level), moderate (50% tolerance level), and high (80% tolerance level). A tolerance level can also be defined as an “assurance of use” or the likelihood that individuals in a population of a selected species will use an area given a specified snag size and density.
- Decommissioned Road** –a road permanently removed from the transportation system, i.e. the road is no longer drivable. The management objective of decommissioning is to restore the hydrologic function. Decommissioning includes, as needed: the removal of drainage structures such as culverts, re-contouring cut and fill slopes, subsoiling, and revegetating the old road beds and may include methods described in Chapter 2, Management Requirements, Constraints, and Mitigation Measures under Watershed for decommissioning temporary roads.
- Density (stand)** — The number of trees growing in a given area, usually expressed in terms of trees per acre or basal area per acre.
- Designated Old Growth (DOG)** – A management area composed of mature/overmature trees (150 years or older) which provides for preservation of natural genetic pools, habitat for plants and wildlife species, contributions to the ecosystem diversity, aesthetic quality, and Native American cultural values.
- Desired Condition** – (1) A portrayal of the land or resource conditions that are expected to result if goals and objectives are fully achieved. (2) A description of the landscape as it could reasonably be expected to appear at the end of the planning period if the plan goals, objectives, standards, and guidelines for that landscape are fully achieved.
- Detrimental soil impacts** – Soil erosion, displacement, compaction, puddling, or burning that exceeds certain thresholds. For instance, displacement is a detrimental soil impact only if more than 50% of the topsoil or humus-enriched A-horizon is removed from an area of 100 square feet or more, which is at least 5 feet in width. A Forest Plan standard limits the amount of detrimental soil impacts to 20% of an activity area.
- Diameter at Breast Height (DBH)** – The diameter of a tree measured 4-1/2 feet above the ground.
- Disturbance** — 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 diseases. Human-caused disturbances include, among others, actions such as timber harvest, livestock grazing, roads, and the introduction of exotic species
- Diversity** — The distribution and abundance of animal and plant associations and species within an area. In this document we are referring to native and locally adapted species.
- Downed wood** — A tree or part of a tree that is dead and lying on the ground.
- Duff** — The partially decomposed organic material of the forest floor that lies beneath freshly fallen leaves, needles, twigs, stems, bark, and fruit.

E

- Ecosystem** — A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.
- Effects** – Environmental changes resulting from a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still

- reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.
- 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.
- Environment** — The combination of external physical, biological, social, and cultural conditions affecting the growth and development of organisms and the nature of an individual or community.
- Environmental Impact Statement (EIS)** – A document prepared by a Federal agency on the environmental effects of its proposals for major actions used as a tool for decision-making. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.
- Ephemeral Draw** – Draw bottoms that carry streamflow only as a direct response to rainfall or snowmelt events. They generally have no baseflow or defined channel with evidence of annual scour or deposition.
- Erosion** — The wearing away of the land surface or stream channel by running water, wind, ice, gravity, or other geological activities; can be reduced by increasing ground cover or that concentrate running water.

F

- Featured Species** — A wildlife species in the Malheur Forest Plan identified to have high public interest or demand.
- Fire-dependent systems** — Forests, grasslands, and other ecosystems historically composed of species of plants that evolved with and are maintained by fire regimes.
- Fire Intensity** — A term used to describe the rate at which a fire produces thermal energy; influenced by the amount of fuel available, local weather conditions, and the topography of the burn site.
- Fire-intolerant** — Species of plants that do not grow well with or that die from the effects of too much fire. Generally these are shade-tolerant species.
- Fire regime** — The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, and seasonality of fire.
- Fire return interval** — The average time between fires in a given area.
- Fire Severity** – The degree to which a site has been altered or the successional processes disrupted by fire. Fire severity, loosely, is a product of fire intensity and residence time. Depending on the amount and condition of organic material in them, burned areas are described as belonging to one of three fire severity categories: *light-severity*, *moderate-severity*, or *high-severity*.
- Fire-tolerant** — Species of plants that can withstand certain frequency and intensity of fire. Generally these are shade-intolerant species.
- Fireline Intensity** – The rate of heat release along a unit length of fireline, measured in kWm^{-1} . A high intensity fire would require additional and more complex resources (air tankers, bulldozers, etc.) to suppress than a low intensity fire.
- Floodplain** — The portion of river valley or level lowland next to streams, which is covered with water when the river or stream overflows its banks at flood stage.
- Forage** — Vegetation (both woody and non-woody) eaten by animals, especially grazing and browsing animals.
- Forbs** — Any herbaceous plant other than true grasses, sedges, and rushes.
- Forest health** — The condition in which forest ecosystems sustain their complexity, diversity, resiliency, and productivity to provide for specified human needs and values. It is a useful way to communicate about the current condition of the forest, especially with regard

- to resiliency, a part of forest health that describes the ability of the ecosystem to respond to disturbances. Forest health and resiliency can be described, in part, by species composition, density, and structure.
- Forest Plan (Malheur National Forest Land and Resource Management Plan)** — A document that guides natural resource management and establishes standards and guidelines for a national forest; required by the National Forest Management Act.
- Forest-Wide Standards** — An indication of policy or conduct dealing with the basic management of the Forest. Forest-wide management standards apply to all areas of the Forest regardless of the other management prescriptions applied.
- Fragmentation (habitat)** — The break-up of a large land area (such as a forest) into smaller patches isolated by areas converted to a different land type. The opposite of connectivity.
- Fuel (fire)** — Dry, dead parts of trees, shrubs, and other vegetation that can burn readily.
- Fuel Hazard** — An accumulation of vegetative fuel that has a high risk of ignition or difficulty of suppression.
- Fuel ladder** — Vegetative structures or conditions such as low-growing tree branches, shrubs, or smaller trees that allow fire to move vertically from a surface fire to a crown fire.
- Fuel load** — The dry weight of combustible materials per unit area; usually expressed as tons per acre.
- Fuel Treatment** — The rearrangement or disposal of natural or activity fuels to reduce the fire hazard.
- G**
- Graminoid** — Grass-like plants such as grasses and sedges.
- Ground fire** — A fire that burns the organic material in the soil layer and the decayed material or peat below the ground surface.
- H**
- Habitat** — A place that provides seasonal or year-round food, water, shelter, and other environmental conditions for an organism, community, or population of plants or animals.
- Habitat Effectiveness Index (HEI)** — index for estimating elk habitat effectiveness on the landscape. Overall habitat effectiveness (HEscr) incorporates three variables or indices for summer range: cover quality (HEc), size and spacing of cover (HEs) and open road density (HEr).
- Habitat type** — A group of plant communities having similar habitat relationships.
- Hard Snag** — A snag composed primarily of sound wood, particularly sound sapwood, that is generally unmerchantable.
- Harvest** — (1) Felling and removal of trees from the forest; (2) removal of game animals or fish from a population, typically by hunting or fishing.
- Headwaters** — Beginning of a watershed; un-branched tributaries of a stream.
- Hiding Cover** — Vegetation capable of hiding 90% of a standing adult deer or elk from human view at 200 feet.
- Historic Range of Variability (HRV)** — The natural fluctuation of ecological and physical processes and functions that would have occurred during a specified period of time. Refers to the range of conditions that are likely to have occurred prior to settlement of the project area by Euro-Americans (approximately the mid 1800s), which would have varied within certain limits over time. HRV is discussed in this document only as a reference point, to establish a baseline set of conditions for which sufficient scientific or historical information is available to enable comparison to current conditions.
- Hydrophobic Soil** — Soil that does not readily absorb water. Hydrophobic soil is highly erodible. It is sometimes formed during severe fire on coarse textured soils. Hydrophobic soil usually returns to a non-hydrophobic condition after one or two winters.

I

Indicator species — A species that is presumed to be sensitive to habitat changes; population changes of indicator species are believed to best indicate the effects of land management activities.

Intensity – See “Fire Intensity”.

Interdisciplinary Team (IDT) – 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.

Intermittent stream — A stream that flows only at certain times of the year when it receives water from other streams or from surface sources such as melting snow.

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

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

Issue – A subject or question of widespread public interest identified through public participation relating to management of National Forest System lands.

L

Landscape — All the natural features such as grass-lands, hills, forest, and water, which distinguish one part of the earth’s surface from another part; usually that portion of land which the eye can comprehend in a single view, including all its natural characteristics.

Large downed wood — Logs on the forest floor with a large end diameter of at least 21 inches.

Large woody debris — Pieces of wood that are of a large enough size to affect stream channel morphology.

Late and Old Structural (LOS) Forest — Refers to mature forest characterized by a single or multiple canopy layer consisting of large or old trees. Other characteristics of old forests include: variability in tree size; increasing numbers of snags and coarse woody debris; increasing appearance of decadence, such as broken tops, sparse crowns, and decay in roots and stems; canopy gaps and understory patchiness; and old trees relative to the site and species.

Litter — The uppermost layer of organic debris on the soil surface, which is essentially the freshly fallen or slightly decomposed vegetation material such as stems, leaves, twigs, and fruits.

Live Trees — Trees expected to live, as defined in the Marking Guide in Appendix B, as a result of the fire, insect, or drought stress. This guide is based on the publication “Factors Affecting Survival of Fire Injured Trees: A Rating System for Determining Relative Probability of Survival of Conifers in the Blue and Wallowa Mountains” BMPMSC-03-01, Nov. 2002, developed by Scott, Schmitt, and Spiegel. This rating system takes into account the season of the fire, tree size and species, pre-fire vigor, and the existence of disease and insects and then considers the intensity of the fire as shown by duff consumption, bole scorch, and crown scorch.

Lop and Scatter – Cutting branches, tops, and small trees after felling, so that the resultant slash will lie close to the ground.

M

Management Area – An area with similar management objectives and a common management prescription.

Management direction — A statement of goals and objectives, management prescriptions, and associated standards and guidelines for attaining them.

Management Indicator Species – Species identified in the 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.

Marginal Cover – For elk, a stand of coniferous trees 10 or more feet tall with an average canopy closure equal to or more than 40 percent.

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

N

National Environmental Policy Act (NEPA) – An act which encourages productive and enjoyable harmony between humans and their environment; promotes efforts to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity; enriches the understanding of the ecological systems and natural resources to the nation, and establishes a Council on Environmental Quality (CEQ).

O

Old Growth – For all National Forests in the Pacific Northwest Region, an old growth stand is defined as any stand of trees 10 acres or greater generally containing the following characteristics:

1. Stands contain mature and over-mature trees in the overstory and are well into the mature growth stage (see Handbook of Terminology, Society of American Foresters)
2. Standing dead trees and down material are present.
3. Evidence of human activities may be present but may not significantly alter the other characteristics and would be a subordinate factor in a description of such a stand.
4. Structural stage is old forest multi-strata (OFMS) or old forest single-stratum (OFSS).

Ongoing actions — Those actions that have been implemented, or have contracts awarded or permits issued.

Open Road – A road, or segment thereof, that is open to use.

Open Road Density – The miles of open road in a specific area of land. Commonly miles per section.

Overstory – The uppermost canopy of the forest when there is more than one level of vegetation.

P

PACFISH – An interagency ecosystem management approach for maintaining and restoring healthy, functioning watersheds, riparian areas, and aquatic habitats within the range of Pacific anadromous fish on Federal lands managed by the USDI Bureau of Land Management and the USDA Forest Service.

Partial Retention – See **Visual Quality Objectives**.

Prescribed fire — Intentional use of fire under specified conditions to achieve specific management objectives.

Prescribed Natural Fire – The use of unscheduled natural ignitions to meet management objectives. Lightning is the primary cause of natural ignition.

Prescription — A management pathway to achieve a desired objective(s).

Productivity — (1) *Soil productivity*: the capacity of a soil to produce plant growth, due to the soil's chemical, physical, and biological properties (such as depth, temperature, water-holding capacity, and mineral, nutrient, and organic matter content). (2) *Vegetative productivity*: the

rate of production of vegetation within a given period. (3) *General*: the innate capacity of an environment to support plant and animal life over time.

Proper Functioning Condition – Riparian wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses and stabilize stream banks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses, and support greater biodiversity.

Proposed action — A proposal by a federal agency to authorize, recommend, or implement an action.

R

Record of Decision – A document separate from but associated with an Environmental Impact Statement that states the decision, identifies all alternatives, specifying which were environmentally preferable, and states whether all practicable means to avoid environmental harm from the alternative have been adopted, and if not, why not (40 CFR 1505.2).

Recreation Opportunity Spectrum (ROS) – A system for planning and managing recreation resources. Land delineations that identify a variety of recreation experience opportunities categorized into classes on a continuum from primitive to urban. Each class is defined in terms of the degree to which it satisfies certain recreation experience needs, based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area, and the relative density of recreation use.

Seven elements are used to determine where the setting belongs on the scale:

- **Visual Quality** – the degree of apparent modification of the natural landscape.
- **Access** – the mode by which activities are pursued and how well users can travel to or within the setting.
- **Remoteness** – the extent to which individuals perceive themselves removed from the sight and sounds of human activity.
- **Visitor Management** - the degree and appropriateness of how visitor actions are managed and serviced.
- **On-Site Recreation Development** - the degree and appropriateness of recreation facilities provided within the setting.
- **Social Encounters** - the degree of solitude or social opportunities provided.
- **Visitor Impacts** - the degree of impact on both the attributes of the setting and other visitors within the setting.
- Based on the seven elements, the Forest Service assigns one of six ROS settings zones to all Forest Service land; four of these apply to the project area.
- **Roaded Modified:** A natural environment substantially modified, particularly by vegetation and landform alterations. There is strong evidence of roads and /or highways. Frequency of contact is low to moderate.
- **Roaded Natural:** A natural-appearing environment with moderate evidence of the sights and sounds of humans. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high with evidence of other users prevalent. Motorized use is allowed.

- **Semi-Primitive Non-Motorized:** A natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. Use of local roads for recreational purposes is not allowed.
- **Semi-Primitive Motorized:** A natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The opportunity exists to use motorized equipment.

Reforestation — Treatments or activities that help to regenerate stands of trees after disturbances such as harvest or wildfire. Typically, reforestation activities include preparing soil, controlling competition, controlling pests, and planting seeds or seedlings.

Regeneration — The process of establishing new plant seedlings, whether by natural means or artificial measures (planting).

Rehabilitate — To repair and protect certain aspects of a system so that essential structures and functions are recovered, even though the overall system may not be exactly as it was before.

Replacement Old Growth (ROG) – Stands that will replace Dedicated Old Growth management areas when they no longer meet old growth requirements

Resilient, resilience, resiliency — (1) The ability of a system to respond to disturbances. Resiliency is one of the properties that enable the system to persist in many different states or successional stages. (2) In human communities, refers to the ability of a community to respond to externally induced changes such as larger economic or social forces.

Restoration — Holistic actions taken to modify an ecosystem to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume acting or continue to act following disturbance as if the disturbances were absent. Restoration management activities can be either active (such as control of noxious weeds, thinning of over-dense stands of trees, or redistributing roads) or more passive (more restrictive, hands-off management direction that is primarily conservation oriented).

Riparian area — Area with distinctive soil and vegetation between a stream or other body of water and the adjacent upland; includes wetlands and those portions of floodplains and valley bottoms that support riparian vegetation.

Riparian Habitat Conservation Areas (RHCAs) – Portions of watersheds where riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. Riparian Habitat Conservation Areas include traditional riparian corridors, wetlands, intermittent streams, and other areas that help maintain the integrity of aquatic ecosystems by (1) influencing the delivery of coarse sediment, organic matter, and woody debris to streams, (2) providing root strength for channel stability, (3) shading for stream, and (4) protecting water quality.

Road – A motor vehicle travel way over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary (36 CFR 212.1). See also Classified, Unclassified and Temporary Road.

Road Density – The measure of the degree to which the length of road miles occupies a given land area (usually expressed as mile/sq. mile).

Roadless Area – A National Forest area that (1) is larger than 5,000 acres or, if smaller than 5,000 acres, is contiguous to a designated wilderness or primitive area; (2) contains no roads; and (3) has been inventoried by the Forest Service for possible inclusion in the Wilderness Preservation System.

Runoff – The total stream discharge of water, including both surface and subsurface flow, usually expressed in acre-feet of water yield.

S

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

Satisfactory Cover – For elk, a stand of coniferous trees 40 or more feet tall with an average canopy closure equal to or more than 50 percent for ponderosa pine, and 60 percent for mixed conifer. Satisfactory cover typically exist as a multi-storied stand and will meet elk hiding cover criteria.

Sawtimber – Trees suitable in size and quantity for producing logs that can be processed into lumber.

Scenery Management System – Management guidelines based on the premise that land management activities (including construction of facilities) should not contrast with the existing natural appearing landscape. Within a framework of regional landscape, character types, form, line, color, and texture should be used to make activities and structures “fit” within landscapes.

Scenic Integrity Objectives (SIOs) – The degree of direct human-caused deviations in the landscape, such as road construction, timber harvesting, or activity debris. Indirect deviations, such as landscape created by human suppression of the natural role of fire, are not included. The level to which an area meets its SIOs is indicated by the ratings **Very High, High, Moderate, Low, Very Low, or Unacceptably Low**.

Scoping — 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 (CEQ regulations, 40 CFR 1501.7).

Sediment — Solid materials, both mineral and organic, in suspension or transported by water, gravity, ice, or air; may be moved and deposited away from their original position and eventually will settle out.

Sensitive Species – Those species which (1) have appeared in the Federal Register as proposals for classification and are under consideration for official listing as Endangered or Threatened; (2) are on an official State list; or (3) are recognized by the Regional Forester to need special management in order to prevent the need for their placement on Federal or State lists.

Seral — Refers to the stages that plant communities go through during succession. Developmental stages have characteristic structure and plant species composition. Early seral refers to plants that are present soon after a disturbance or at the beginning of a new successional process (such as seedling or sapling growth stages in a forest); mid seral in a forest would refer to pole or medium sawtimber growth stages; late or old seral refers to plants present during a later stage of plant community succession (such as mature and old forest stages).

Seral stage — The developmental phase of a forest stand or rangeland with characteristic structure and plant species composition.

Serotinous – Cones that remain closed long after the seeds inside are ripe.

Severity – See “Fire Severity”.

Shade-intolerant — Species of plants that do not grow well in 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.

Shallow soils – Highly and very highly erodible, unforested, shallow, rocky soils supporting low amounts of ground cover: also known locally as “scab soils.”

Silviculture — The practice of manipulating the establishment, composition, structure, growth, and rate of succession of forests to accomplish specific objectives.

Site — A specific location of an activity or project, such as a campground, a lake, or a stand of trees to be harvested.

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

Snag — A standing dead tree, usually larger than five feet tall and six inches in diameter at breast height. Snags are important as habitat for a variety of wildlife species and their prey.

Soil — The earth material that has been so modified and acted upon by physical, chemical, and biological agents that it will support rooted plants.

Soil Compaction – An increase in soil bulk density of 20 percent or more from the undisturbed level of volcanic ash soils. For other soils, it is an increase in soil bulk density of 15 percent or more from the undisturbed level.

Soil Disturbance — Disturbance, such as displacement or compaction, which may or may not be intense enough to be detrimental soil impact.

Stand — A group of trees in a specific area that is sufficiently alike in composition, age, arrangement, and condition so as to be distinguishable from the forest in adjoining areas.

Stand density — Refers to the number of trees growing in a given area, usually expressed in trees per acre.

Stand Structure — The size and arrangement, both vertically and horizontally, of vegetation.

Forested vegetation is classified into 7 different structural stages:

- **Stand Initiation (SI)**- A single canopy stratum of seedlings and saplings established after a stand-replacing disturbance
- **Stem Exclusion Open Canopy (SEOC)** – A single canopy stratum of pole to small saw sized timber that excludes an understory by lack of water.
- **Stem Exclusion Closed Canopy (SECC)** – A single canopy stratum of pole to small saw sized timber that excludes an understory by shade.
- **Understory Reinitiation (UR)** – The overstory has been opened up by natural mortality or thinning, allowing an understory to become established.
- **Young Forest Multi-Strata (YFMS)** – Medium-sized trees and multiple canopy layers provide vertical and horizontal diversity with a mix of tree sizes. Large trees are absent or at low stocking levels.
- **Old Forest Multi-Strata (OFMS)** – Large trees are frequent, multiple canopy levels. Often exhibit other old growth characteristics such as dead trees, large down logs, and canopy openings
- **Old Forest Single-Stratum (OFSS)** – Large trees are frequent, single canopy level. Often exhibit other old growth characteristics such as dead trees, large down logs, and canopy openings.

Structure — The size and arrangement, both vertically and horizontally, of vegetation.

Structural stage — A stage of development of a vegetation community that is classified on the dominant processes of growth, development, competition, and mortality. See Stand Structure.

Subwatershed — A drainage area, equivalent to a 6th-field Hydrologic Unit Code (HUC).

Hierarchically, subwatersheds (6th-field HUC) are contained within watershed (5th-field HUC), which in turn contained within a subbasin (4th-field HUC). The size of subwatersheds has recently been redefined as 10,000 to 40,000 acres; formerly size of watersheds was 5,000 to 20,000 acres. The former size was used in this document. Subwatersheds are shown graphically in Figure 3, Map Section.

Surface Erosion – The detachment and transport of individual soil particles by wind, water, or gravity.

Surface Fire – Fire that burns surface litter, other loose debris of the forest floor, and small vegetation.

T

Temporary Road – Those roads needed only for the purchaser’s or permittee’s use. The Forest Service and the purchaser or permittee must agree to location and clearing widths. Temporary roads are used for a single, short-term use (e.g., to haul timber from landings to Forest development roads, access to build water developments, etc.).

Terrestrial — Pertaining to the land.

Terrestrial communities — Groups of cover types with similar moisture and temperature regimes, elevational gradients, structures, and use by vertebrate wildlife species.

Thermal cover — Cover used by animals for protection against weather.

Thinning — An operation to remove stems from a forest for the purpose of reducing fuel, maintaining stand vigor, regulating stand density/composition, or for other resource benefits. Although thinning can result in commercial products, thinning generally refers to non-commercial operations.

Threatened and Endangered Species (T&E) — A species or subspecies of animal or plant whose prospects of survival and reproduction are in immediate jeopardy or likely to become so within the foreseeable future. Threatened species are identified by the Secretary of Interior in accordance with the 1973 Endangered Species Act.

U

Unclassified Road — Roads on National Forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travel ways, and off-road vehicle tracks that have not been designated and managed as a trail; and those roads that were once under permit or other authorization and were not decommissioned upon the termination of the authorization.

Underburn — To burn by a surface fire that can consume ground vegetation and ladder fuels.

Understory — The trees and other woody species that grow beneath the canopy of other plants. Usually refers to grasses, forbs, and low shrubs under a tree or shrub canopy.

Uneven-aged stand — Stand of trees in which there are considerable differences in the ages of individual trees.

Upland — The portion of the landscape above the valley floor or stream.

V

Viability — In general, viability means the ability of a population of a plant or animal species to persist for some specified time into the future. For planning purposes, a *viable population* is one that has the estimated numbers and distribution of reproductive individuals to ensure that its continued existence will be well distributed in the planning area.

Visual Quality Objectives (VQOs) — A desired level of management based on physical and sociological characteristics of an area. Refers to the degree of acceptable alteration of the characteristic landscape.

Preservation—Allows only ecological changes. Management activities, except for very low visual impact recreation facilities, are prohibited. This objective applies to specially classified areas, including wilderness.

Retention—Provides for management activities that are not visually evident. Management activities are permitted, but the results of those activities on the natural landscape must not be evident to the average viewer.

Partial Retention—Management activities may be evident to the viewer but must remain visually subordinate to the surrounding landscape.

Modification—Management activities may visually dominate the natural surrounding landscape but must borrow from naturally established form, line, color, and texture.

Maximum Modification—Land management activities can dominate the natural landscape to greater extent than in the modification objective, except as viewed from background when visual characteristics must be those of natural occurrences within the surrounding area.

W

Watershed — (1) The region draining into a river, river system, or body of water. (2) a watershed also refers specifically to a drainage area of approximately 50,000 to 100,000 acres, which is equivalent to a 5th-field Hydrologic Unit Code (HUC). Hierarchically, subwatersheds (6th-field HUC) are contained within a watershed (5th-field HUC), which in turn is contained within a subbasin (4th-field HUC).

Wetland — In general, an area soaked by surface or groundwater frequently enough to support vegetation that requires saturated soil conditions for growth and reproduction; generally includes swamps, marshes, springs, seeps, bogs, wet meadows, mudflats, natural ponds, and other similar areas. Legally, federal agencies define wetlands as possessing three essential characteristics: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The three technical characteristics specified are mandatory and must all be met for an area to be identified as a wetland. *Hydrophytic vegetation* is defined as plant life growing in water, soil, or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. *Hydric soils* are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic (without oxygen) conditions in the upper part of the soil profile. Generally, to be considered a hydric soil, there must be saturation at temperatures above freezing for at least seven days. *Wetland hydrology* is defined as permanent or periodic inundation, or soil saturation to the surface, at least seasonally.

Wildfire — A human or naturally caused fire that does not meet land management objectives.

Wildland Urban Interface (WUI) – The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Y

Yarding -- the hauling of felled timber to the landing or temporary storage site from where trucks (usually) transport it to the mill site. Yarding methods include cable yarding, ground skidding, and aerial methods such as helicopter yarding.

Yarding with Tops Attached – Transporting the crown attached to the last log. The last log is trimmed and bucked at the landing. This is done to trees that are too large for whole tree yarding.