

Glossary

****Anadromous** - Fish that mature in the sea and migrate into streams to spawn.

****Background** –The visible area beyond the foreground and middle ground where individual trees are not visible but are blended into the total fabric of the forest stand.

Basal Area – A substitute for volume per acre using diameter and tree numbers to determine if a desired stand density has been achieved.

Biological Diversity - The distribution and abundance of plant and animal species and communities in an area.

****Best Management Practices** – (BMP's) A practice or combination of practices that are the most effective and practical (including technological, economic and institutional considerations) means of preventing or reducing the amount of pollution generated by non-point sources to a level compatible with water quality goals.

Catastrophic Event - A large scale, high-intensity natural disturbance that occurs infrequently.

Channel (watercourse) - An open outlet either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water. River, creek, run, branch, anabranch, and tributary are some of the terms used to describe natural channels. Natural channels may be single or braided.

Collapsing - Stand with high levels of mortality due to insect and/or disease attack. Canopy closure is decreasing, grass, forb, shrub, and tree regeneration usually increasing. Very high loadings of downed woody material

Corridor - Route that permits the movement of species from one Ecoregion, Province, landscape or ecosystem to another, or the landscape elements that connect similar patches through a dissimilar matrix or aggregation of patches.

Desired Future Condition - Objectives for physical and biological conditions within the watershed. They may be expressed in terms of current conditions, ecosystem potential, or social expectations. They describe the conditions that are to be achieved and are phrased in the present tense.

****Dispersed Recreation** - Outdoor recreation that takes place outside developed recreation sites or the Wilderness.

Disturbance - A discrete event, either natural or human induced, that causes a change in the existing condition of an ecological system.

Disturbance Process - Events which cause changes in landscape features which are readily visible and measurable. The events usually occur over a brief period of time and usually can be viewed. Examples of events are fires, epidemic insect outbreaks, beaver ponding, and erosion.

Ecology - The science of the interrelationships between organisms and their environments.

Ecosystem - The complex of a community of organisms and its environment functioning as an ecological unit in nature.

Ecosystem Functions - The major processes of ecosystems that regulate or influence the structure, composition and pattern. These include nutrient cycles, energy flows, trophic levels (food chains), diversity patterns in time/space development and evolution, cybernetics (control), hydrologic cycles and weathering processes.

Ecosystem Management - Using an ecological approach to achieve multiple-use management of national forests and grasslands by blending the needs of people and environmental values in such a way that national forests and grasslands represent diverse, healthy, productive, and sustainable ecosystems. The careful and skillful use of ecological, economic, social, and managerial principals in managing ecosystems to produce, restore, or sustain ecosystem integrity and desired conditions, uses, products, values, and services over the long-term.

Ecosystem Sustainability - The ability to sustain diversity, productivity, resilience to stress, health, renew-ability, and/or yields of desired values, resource uses, products, or services from an ecosystem while maintaining the integrity of the ecosystem over time.

****Endangered Species** - A species in danger of extinction and protected under the Endangered Species Act. .

Erosion Hazard Rating - A relative (not absolute) rating of the potential for soil loss due to sheet and rill erosion from a specific site. Commonly used to address erosion response expected from a given land management activity. Ratings are the result of a cumulative analysis of the following factors: soil, topography, climate, and vegetative and protective cover.

Fauna - All animals, including birds, mammals, amphibians, reptiles, fish and vertebrates (clams, insects, etc.).

Flora - All plants, including trees, shrubs, forbs, and grasses, and considered as a whole.

****Foreground** – A term used to describe the stand of trees immediately adjacent to a high-value scenic area, recreation facility, or forest highway.

Forest Development Road (FDR) – A forest road under the jurisdiction of the Forest Service.

****Forage** – All browse and non-wood plants available to live stock and wildlife for grazing or harvestable for feed.

Fragmentation - Breaking up of contiguous areas into progressively smaller patches of increasing degrees of isolation.

Frost Heaving – Upward displacement of normal soil levels as a result of expansion due to ice formation in frozen soil.

Fuel Loading - The amount of combustible material present per unit of area, usually expressed in tons per acre.

Fuels – Any material capable of sustaining or carrying a forest fire, usually material, both live and dead.

****Habitat** – The place where a plant or animal species lives and grows, particularly in relation to all environmental influences.

Habitat Protection Areas – Green tree Retention Areas or a buffered area for Survey and Manage Species in the planning area.

Habitat Type - The collective land area in which one vegetation type is dominant or will come to be dominant as succession advances.

Hiding Cover – Any vegetation capable of hiding 90% of a standing elk or deer at 200 feet or less. This includes some shrub stands and all forested stand conditions with adequate trees stem density or shrub layer to hide animals.

Home Range - The geographic area within which an animal travels to carry out its activities.

Landscape - The mixture of topographic, vegetative, and biologic attributes within an area. An area composed of interacting and interconnected patterns of habitats, that are repeated because of geology, land forms, soils, climate, biota, and human influences throughout the area. Landscape structure is formed by patches, connections, and the matrix. Landscape function is based on disturbance

events, successional development of landscape structure, and flows of energy and nutrients through the structure of the landscape.

Linkage - Route that permits movement of individual plant (by dispersal) and animals from a landscape Unit and/or habitat type to another similar Landscape Unit and/or habitat type.

Microsite - A rock outcrop, snag, seep, stream pool, or other small scale feature that is unique in character.

****Middleground** – The visible area beyond the foreground where individual trees are still visible, but do not stand out distinctly from the stand.

****Modification** – A visual quality objective meaning man's activity may dominate the characteristic landscape, but must, at the same time, utilize natural established for, line, color and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Natural Range of Variability - The spectrum of conditions possible in ecosystem composition, structure, and function considering all factors.

Old Growth - A stand of multiple cohorts and size classes, dominated by large, old trees. If relatively disturbance independent, then comprised mostly of late seral species, such as the climate climax species. If relatively disturbance dependent, then compromised mostly of early seral species.

Optimal cover – A forest stand with 1) four layers: overstory canopy, sub-canopy, shrub layer and herbaceous layer; 2) and overstory layer which can intercept and hold a substantial amount of snow yet has dispersed, small (<1/8 acre) openings. These criteria are usually met when the dominant trees average 21 inches DBH or greater, and have 70% or greater crown closure.

Overstory – Trees or other vegetation that form the upper layer of the canopy in a multi-layered plant community.

****Partial Retention** – A visual quality objective where man's activities may be evident by subordinate to the characteristic landscape.

Peak Streamflows - The highest level of stream flow in response to a rainstorm or period of snow melt.

Plant Association - A potential natural plant community of definite floristic composition and uniform appearance.

Plastic Limit – The plastic limit of a soil is the lowest water content at which the soil remains plastic, as determined by specific procedures. (Standard

Specifications for Transportation Materials and Methods of Sampling and Testing”, Part II, Methods of Sampling and Testing, 14 Edition, American Association of State Highway and Transportation Officials).

Refugia - Locations and habitats that support populations of organisms that are limited to small fragments of their previous geographic range (i.e., endemic populations). FEMAT

Regeneration – The renewal of a stand by natural or artificial means. Synonymous with the term reforestation. Also can mean the young trees themselves.

Rehabilitation - Returning of land to productivity in conformity with a land use plan, including a stable ecological state that does not contribute substantially to environmental deterioration and is consistent with surrounding aesthetic values.

Resilience - The ability of an ecosystem to maintain diversity, integrity and ecological processes following disturbance.

Restoration - The process of restoring site conditions as they were before a land disturbance.

****Retention** – A visual quality objective where human activities are not evident to the casual forest visitor.

Riparian Ecosystem - Ecosystems transitional between terrestrial and aquatic ecosystems. Streams, lakes, wet areas and adjacent vegetation communities and their associated soils which have free water at or near the surface.

Riparian Reserve - The area encompasses streams, lakes, and wetlands and is designed to protect aquatic and riparian functions and values. The Riparian Reserve is a function of site characteristics, physical processes linked to the area, and the type and timing of activity proposed.

Sediment - Fragmentation material that originates from weathering of rocks and is transported by, suspended in, or deposited by water or air or is accumulated in beds by other natural agencies. (USFS, 1960)

****Sensitive Species** - A species not formally listed as endangered or threatened, but thought, by a Regional Forester, to be at risk.

Seral - A biotic community which is developmental, a transitory stage in an ecological succession.

****Seral Stage** - A biological community viewed as a single developmental or transitional stage in an ecological succession.

****Shelter wood** – A regeneration cut in a more or less mature stand designed to establish a new stand under the protection of the old stand. Usually the shelterwood involves two separate harvest operations, one to create space and stimulate seed production and the second cut to remove the remainder of the old stand before it begins to compete the new stand for light and nutrients.

****Should/Shall/May From the Forest Plan** – Specific terminology used in the Standards and Guidelines identifies the type of management direction and degree of compliance required. Correct interpretation of the terms is critical to understanding the intent of the management direction. Each Standard and Guideline falls into one of the three categories of management flexibility. Three “action” words are used to differentiate among the three categories, i.e. shall, should, and may.

Shall	Action is mandatory!
Should	Action is required; however, case by case exceptions are acceptable if identified during interdisciplinary project planning environmental analysis. Exceptions are to be documented in environmental analysis (National Environmental Policy Act 1969) public documents.
May	Action is optional. May Standard and Guidelines are included to emphasize resource intent or to clearly describe that a practice is available for use.

Slash – Needles, small limbs, bark or other debris left after harvest.

Spawning Sites - Graveled areas within a stream system having the appropriate attributes, i.e. dissolved oxygen, water depth, water velocity, water temperature, substrate composition, and cover that are selected as suitable for spawning by adult fish.

Stand Density – A measure of the degree of crowding of trees within stocked areas.

Stand Structure – The distribution and representation of age and/or size (particularly diameter) classes of a forest stand.

STOC: Abbreviation for the scientific name of the northern spotted owl, *Strix occidentalis caurina*

Stratification - The delineation of areas within a watershed which would respond relatively uniformly to a given process or set of conditions.

Stream Characteristics – The structure or form of a stream channel, as influenced by processes of erosion and deposition of channel materials (gravel, cobble, sand soil ect.).

Succession - An orderly process of biotic community development that involves changes in species, structure and community processes with time. It is reasonably directional and therefore, predictable.

Sustainability - The ability to sustain diversity, productivity, resilience to stress, health, renewability, and/or yields of desired values, resource uses, products, or services from an ecosystem while maintaining the integrity of the ecosystem over time.

Terrestrial - Living primarily on land rather than in water.

Terrestrial Ecosystem - An interacting system of soil, geology, topography with plant and animal communities.

****Thermal Cover** – Cover used by animals to lessen the effects of weather; for elk, a stand of coniferous trees 40 feet or more tall with an average crown closure of 70% or more. For deer, cover may include saplings, shrubs or trees at least 5 feet tall with 75 percent crown closure.

Thinning – The practice of cutting trees out of a stand to increase the rate of growth and to foster quality growth on the remaining trees. Also to improve composition of tree species in the stand.

Uneven aged – A forest Stand composed of intermingling trees that differ markedly in age, usually by more than 10 to 20 years.

Watershed - A region or area bounded peripherally by a water parting feature and draining ultimately to a particular watercourse or body of water. There are many watersheds within a river basin. Watershed areas range from 20 to 200 square miles in size.

Watershed Analysis - development and documentation of a scientifically based understanding of the processes and interactions occurring within a watershed in order to make more sound management decisions.

Wetland - An area at least periodically wet or flooded, an area where the water table stands at or above the land surface.

Wind throw (blowdown) – Trees up rooted by wind.

Fire Condition Class

Condition classes are a function of the degree of departure from historical fire regimes resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, and canopy closure. One or more of the following activities may have caused this departure: fire exclusion, timber harvesting, grazing, introduction and establishment of exotic plant species, insects or disease (introduced or native), or other past management activities.

Condition Class One: Fire regimes are within or near an historical range. The risk of losing key ecosystem components is low. Fire frequencies have departed from historical frequencies (either increased or decreased) by no more than one return interval. Vegetation attributes (species composition and structure) are intact and functioning within an historical range.

Condition Class Three: Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have been altered from historical levels, either increased or decreased, by multiple management actions. This change results in dramatic changes to one or more of the following: fire size, frequency, intensity, severity, or landscape patterns. Vegetation attributes have been significantly altered from their historic ranges.

**--Definitions from the Mt. Hood National Forest Land and Resource Management Plan.