Juncrock Timber Sale
Draft Environmental Impact Statement

Appendix B

Glossary

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

**Background –The visible area beyond the foregrond 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.

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.

**Clear Cutting – The harvesting in one cut of all trees in an area for the purpose of creating a new, evenaged stand. Selected trees are left for wildlife needs.

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

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 sand 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.

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.

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, 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.

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.

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

Stream Characteristics – The structure or form of a steam 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 percent 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.

Windthrow (blowdown) – Trees up rooted by wind.

Classification Scheme for Stands

Stand Initiation - Created opening in a forest matrix with trees less than 5" DBH and canopy closure variable. An overstory may be present as long as the canopy closure of the overstory is 30% or less. Includes clearcuts, seed tree cuts, and shelterwood cuts as well as openings created by insects, disease, fire, or other natural events. Grasses, forbs, or shrubs common and may dominate.

Stem Exclusion - Young stands usually comprised of shade intolerant species with canopy closure of 70-90%. Trees usually 5-9" DBH. Canopy is single-layered. Generally consists of plantations and ``dog hair'' stands of natural regeneration.

Fire Exclusion Multistory - Dominated by ponderosa pine, Douglas fir, grand fir. Trees >20" DBH. Canopy layers are deep or layered (from stand exam heights). This type is mostly found in the zone of frequent understory burning, so is currently moving outside the Range of Natural Conditions (RNC).

Mature Stem Exclusion - Stand usually dominated by shade intolerant species but with shade tolerant species represented. Canopy closure of 70-90%, heights for dominate diameter classes within about 30 feet of each other (single canopy), and dominant and co-dominant trees usually 9-20" DBH. Shade intolerant species are mostly in the dominant and co-dominant crown position. Shade tolerant species are mostly in the co-dominant and intermediate crown position. Canopy generally single-layered or somewhat two-layered. Generally consists of dense stands that may have been salvaged or high graded in the past. Understory usually contains few grasses, forbs, or shrubs

Open Multistory - One to two-layered open to semi-open stands of medium sized trees. Ponderosa pine or ponderosa pine and Douglas-fir dominate; Oregon white oak often present. Overstory comprised of trees 6-20" DBH with 30-60% (from air photos) canopy closure. Ponderosa pine has not developed yellow bark. If Oregon white oak or conifer regeneration is present, then stand is two-layered. Oregon white oak crowns variable, but often large and spreading. Understory crown closure generally less than 30%. Grass-forb understory with some scattered shrubs present. Stands may have been thinned.

Cathedral - Semi-open to semi-closed stands dominated by large, widely-spaced trees. Overstory trees are mostly shade tolerant species and 20" DBH or greater. Tree crowns nearly touching to just overlapping. Canopy closure ranges from 40-80%. Canopy either single layered or two-layered. If tree regeneration is present, then comprised of a mix of shade intolerant and shade tolerant species generally less than 5" DBH and canopy closure of less than 25%. Understory dominated by grasses, forbs, or shrubs. Dependent on semi-frequent underburning to persist.

Late Seral Multistory - Two and three-layered stands dominated by shade intolerant species. Total canopy closure ranges from 60-100%. Overstory layer consists of a mix of shade intolerant and shade tolerant species usually greater than 20" DBH and with a canopy closure of 50-80%. Midstory layer consists of mostly shade tolerant species 5-19" DBH with a canopy closure of 10-30%. The understory tree layer consists of mostly shade tolerant species less than 5" DBH with a canopy closure of 10-30%. Stand somewhat broken with small openings that support tree regeneration, shrubs, and forbs. Sun flecks common. Large downed woody loadings variable but can be quite high with numerous large downed logs and trees.

Open Parklike - One and two-layered stands with a canopy closure of 20-50% (from air photos), clumpy and dominated by ponderosa pine. If Oregon white oak is common, the stand is considered two-layered. Douglas-fir may be somewhat common to common. Grand fir may be present. No other conifer species are present. Stands consist of even-aged clumps of conifers and clumps to scattered individual conifers and oak of varying ages. All age classes of ponderosa pine are present, but large, ``yellow'' pines appear to dominate (large trees mostly 20" DBH and larger). Crowns on oak trees variable, but mostly large and spreading. Understory of grass and forbs or grass, forbs, and shrubs. Very light downed woody loadings and few large downed logs and trees. Depends on disturbance to maintain presence.

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