

GLOSSARY



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Abbreviations and Terms

ASQ	Allowable Sale Quantity	FSH	Forest Service Handbook
ATV	All Terrain Vehicle	FSM	Forest Service Manual
BA	Biological Assessment	FY	Fiscal Year
BAER	Burned Area Emergency Response	GIS	Geographic Information System
BMP	Best Management Practice	HRV	Historic Range of Variability
BIO	Biological Opinion	HUC	Hydrologic Unit Code
CEQ	Council on Environmental Quality	IDT	Interdisciplinary Team
CFR	Code of Federal Regulations	KV	Knutson Vandenberg Act
CTUIR	Confederated Tribes of the Umatilla Indian Reservation	LOS	Late Old Structure
CY	Calendar year	LRMP	Land and Resource Management Plan
DBH	Diameter Breast Height	MA	Management Area
DEQ	Department of Environmental Quality	MBF	Thousand Board Feet
DFC	Desired Future Condition	MIS	Management Indicator Species
EA	Environmental Analysis	MMBF	Million Board Feet
EIS	Environmental Impact Statement	MOU	Memorandum of Understanding
EPA	Environmental Protection Agency	NEPA	National Environmental Policy Act
ESA	Endangered Species Act	NF	National Forest
ESD	Emergency Situation Declaration	NFMA	National Forest Management Act
FR	Forest Road	NFS	National Forest System
FSEIS	Final Supplement Environment Impact Statement	NMFS	National Marine Fisheries Service

Glossary

NOI Notice of Intent

PAG Plant Association Group

RD Ranger District

RHCA Riparian Habitat Conservation Area

RMO Riparian Management Objective

RNA Research Natural Area

ROD Record of Decision

S&G Standard and Guideline

SRI Soil Resource Inventory

TES Threatened, Endangered or Sensitive

TMDL Total Maxim Daily Load

UMA Umatilla National Forest

USFS United States Forest Service

USFWS United States Fish and Wildlife Service

VQO Visual Quality Objective

WDFW Washington Department of Fish and
Wildlife

A

Activity fuels – Fuels generated or altered by a management activity.

Adfluvial individuals – are those which emigrate as juveniles from spawning tributaries, maturing and overwintering in lakes and reservoirs.

Affected environment - Natural environment that exists at the present time in the area being analyzed.

Age class - A group of trees that started growing (regenerated) within the same time frame, usually 20 years. A single age class would have trees that are within 20 years of the same age, such as 1-20 years or 21-40 years.

Air quality – The composition of air with respect to quantities of pollution therein; used most frequently in connection with “standards” of maximum acceptable pollutant concentrations.

Airshed - A geographic area that, because of topography, meteorology, and climate, shares the same air.

Allotment (range allotment) - Area designated for use by a prescribed number of livestock for a prescribed time period.

Alternative – In an EIS, one of a number of possible options for responding to the purpose and need for action.

Anadromous fish – Fish that hatch in fresh water, migrate to the ocean, mature there, and return to fresh water to reproduce; for example, salmon and steelhead.

Aspect - The direction a surface faces. A hillside facing east has an eastern aspect.

ASQ (allowable sale quantity) - Amount of timber that may be sold within a certain period from an area of suitable land. The suitability of the land and the time period are specified in the Forest Plan.

B

Bankful width – The width of a stream channel measured between the tops of the most prominent banks on either side of the stream. Also refers to the width of the stream at the normal flood flow.

Basal area - The area of the cross-section of a tree trunk near its base, usually 4 1/2 feet above the ground. Basal area is a way to measure how much of a site is occupied by trees. The term basal area is often used to describe the collective basal area of trees per acre.

Benchmark – The analytical basis from which the alternatives were developed; the use of assessed land capability as a basis from which to estimate the effects of alternative patterns of management on the land.

Beneficial uses – Any of the various uses which may be made of water including, but not limited to, domestic water supplies, industrial water supplies, agricultural water supplies, navigation, recreation in and on the water, wildlife habitat, and aesthetics. The beneficial use is dependent upon actual use, the ability of the water to support a non-existing use either now or in the future, and its likelihood of being used in a given

manner. The use of water for the purpose of wastewater dilution or as a receiving water for a waste treatment facility effluent is not a beneficial use.

Best Management Practices (BMPs) – A practice or combination of practices that is the most effective and practical means (including technological, economic, and institutional considerations) of preventing or reducing negative environmental impacts to water pollution that may result from resource management activities.

Big game - Large mammals, such as deer and elk, that are hunted for sport.

Big game summer range – A range usually at higher elevations, used by deer and elk during the summer. Summer ranges are usually much more extensive than winter ranges.

Big game winter range – A range usually at lower elevation used by migratory deer and elk during the winter months; usually more clearly defined and smaller than summer range.

Biological diversity - The number and abundance of species found within a common environment. This includes the variety of genes, species, ecosystems, and ecological processes that connect everything in a common environment.

Biological Assessment (BA) – A document prepared by a federal agency for the purpose of identifying any endangered or threatened species that is likely to be affected by an agency action. This document facilitates compliance with the Endangered Species Act.

Biophysical – The combination of biological and physical components in an ecosystem.

Board foot (bf) - A measurement term for lumber or timber. It is the amount of wood contained in an unfinished board 1 inch thick, 12 inches long, and 12 inches wide. Often expressed as MBF (thousand board feet) or MMBF (million board feet).

Broadcast burn - A prescribed fire that burns forest fuels as they are, with no piling or windrowing.

Browse - Twigs, leaves, and young shoots of trees and shrubs that animals (such as deer and elk) eat.

Buffer - A land area designated to block or absorb impacts to the area beyond the buffer. For example, a streamside buffer is often retained to reduce impacts of a harvest unit.

C

Canopy - In a forest, the branches of the uppermost layer of foliage. It can also be used to describe lower layers in a multistoried forest.

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.

Capability – The potential of an area or land/or water to produce resources, supply goods and service, and allow resource uses under a specified set of management practices and at a given level of management intensity.

Catastrophic wildfire – An especially intense and widespread fire that usually, but not always, occurs in forests that are outside the historical range of variability in terms of forest structure and forest fuels due to fire suppression.

Classified road – See Road Definitions.

Cavity - A hole in a tree often used by wildlife species, usually birds, for nesting, roosting, and reproduction.

CCF - One hundred cubic feet (see CF).

CF - A measurement term for lumber or timber. It is the amount of wood contained in an unfinished block of wood 12 inches thick, 12 inches long, and 12 inches wide. Often expressed as CCF (hundred cubic feet).

CFR – Code of Federal Regulations. A codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the federal government.

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

Channelization - Human-caused alterations to a stream channel that cause the channel to be fixed in place, such as levees, dikes, trenching, and riprap.

Climax - The stage of plant development in which vegetation is thought to be stable, self-sustaining, and self-replicating.

Clearcutting - A regeneration harvest method that removes all merchantable trees in a single cutting except for wildlife trees or snags. A “clearcut” is an area from which all merchantable trees have been cut.

Closed system road – Classified system road closed to public use. Opened to administrative use. Not decommissioned.

Commercial thinning – Any type of tree thinning that produces merchantable material at least equal in value to the direct costs of harvesting.

Community - A group of species of plants or animals living and interacting at a particular time and place; a group of people residing in the same place under the same government.

Compaction – Making soil hard and dense, decreasing its ability to support vegetation because the soil can hold less water and air and because roots have trouble penetrating the soil.

Conifer - A tree that produces cones, such as a pine, spruce, or fir tree.

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

Connectivity (of habitats) - 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 fragmentation.

Corridor - Elements of the landscape that connect similar areas. Streamside vegetation may create a corridor of willows and hardwoods between meadows where wildlife feed.

Cover - Any feature that conceals wildlife or fish, sometimes referred to as "hiding cover." Cover may be dead or live vegetation, boulders, or undercut stream banks. Animals use cover to escape from predators, rest, or feed.

Cover deficient area – Any forage area greater than 600 feet from the defined forage:cover edge.

Cover forage ratio - The ratio of hiding cover to foraging areas for wildlife species. Necessary in determining the effectiveness of the habitat an area provides.

Critical habitat - Areas designated for the survival and recovery of federally listed threatened or endangered species.

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

Crown fire – A forest fire that advances through the crown fuel layer normally in direct conjunction with a surface fire.

Cultural resource - The remains of sites, structures, or objects used by people in the past (at least 50 years old); this can be prehistoric or historical.

Cumulative effects - Effects on the environment that result from the incremental impacts of an action when added to other past, present, and reasonably foreseeable actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

D

DBH (diameter at breast height) - The diameter of a tree 4 1/2 feet above the ground measured on the uphill side of the tree.

Danger Tree – A danger tree is considered to be any tree that is likely to fail within one and one-half tree lengths of an open class 3 or higher system road, any road designated for hauling, developed recreation or administrative site." See below for definition of imminent potential to fail and likely potential to fail.

A tree may have an **imminent potential to fail**, if it is so defective or rotten, that it would take little effort to make it fail during project implementation. It is much more apt to fail than those trees rated as likely to fail.

Trees with an imminent potential to fail include those that have the following conditions:

- Root sprung.
 - Recent lean.
 - Missing bole wood due to fire or damage.
 - Significant heart or sap rot.
 - Loose bark.
 - Dwarf mistletoe bole swellings if they have decay that extends to an area **more than half** the bole diameter.
 - Fungus cankers on the bole when the canker width is **more than half** the bole diameter or
- Dead tops with significant sap rot.

A tree may have a **likely potential to fail** if any of the following conditions exist:

- Root diseased but still alive.
- Old lean.
- Undermined or severed roots but not severely.
- Some heart, butt, or sap rot.
- Cracks or structural defect associated with some decay.
- Dead tops with some heart or sap rot.
- Dwarf mistletoe bole swellings if they have decay that extends to an area less than **half** the bole diameter.
- Fungus cankers on the bole when the canker width is less than **half** the bole diameter.
- Forked tops and crotches associated with decay, cracks, splits, or callus ridges. Pitch or resin is not always associated with likely failure potential. Pitch is often a sign in a healthy tree when it is defending itself against pathogen or insect attack.
- Dead trees that are still sound.
- Fire damaged or killed trees that are still sound.
- Hardwoods with sap rot approaching half their diameter.

DecAid – An advisory tool that provides guidance to land managers evaluating effects of forest conditions and existing or proposed management activities on organisms that use snags, downwood, and other wood decay elements. DecAid is a statistical summary of empirical data from published research on wildlife and deadwood. Data provided in DecAid allows the user to relate the abundance of deadwood habitat for both snags and logs to the frequency of occurrence of selected wildlife species that require dead wood habitat for some part of their life cycle.

Decommission – Activity that results in the stabilization and restoration of unneeded roads to a more natural state. Removes the road segment from the Forest road inventory system. Decommissioning can involve: closing entrances; scarifying road surfaces, or decompacting (sub-soiling) to establish vegetation and reduce run-off.; seeding to control erosion; partial to full restoration of stream channel by removing culverts and fills; and removing unstable portions of embankments.

Desired future condition - A vision of the long-term conditions of the land.

Direct effects – Impacts on the environment that are caused by the action and occur at the same time and place.

Disturbance - Any event, such as flood, wildfire, insect infestations, or timber harvest, that alters the structure, composition, or functions of terrestrial or aquatic habitats.

Diversity - The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.

Duff – Organic matter in various stages of decomposition on the floor of the forest.

E

Early forest succession - The stage of vegetation or wildlife that inhabits an area immediately following removal or destruction of vegetation. For instance, grasses may be the first plants to grow in an area that was burned.

Eastside Screens – Regional Foresters’s Forest Plan Amendment (June 1995) designed to maintain options for old growth related and other species. Interim management direction establishing riparian, ecosystem, and wildlife standards for timber sales.

Ecological approach - An approach to natural resource management that considers the relationships among all organisms, including humans, and their environment.

Ecology - The interrelationships of living things to one another and their environment or the study of these interrelationships. From the Greek Oikos meaning "house" or "place to live."

Ecological integrity – In general, ecological or biological integrity refers to the elements of biodiversity and the functions that link them together and sustain the entire system; the quality of being complete; a sense of wholeness. Absolute measures of integrity do not exist. Proxies provide useful measures to estimate the integrity of major ecosystem components (forestland, rangeland, aquatic, and hydrologic). Estimating these integrity components in a relative sense across the project area helps to explain current conditions and to prioritize future management. Thus areas of high integrity would represent areas where ecological functions and processes are better represented and functioning than areas rated as low integrity.

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.

Ecosystem health – A condition where the parts and functions of an ecosystem are sustained over time and where the system’s capacity for self-repair is maintained, such that goals for uses, values, and services of the ecosystem are met.

Ecosystem-based management – Scientifically based land and resource management that integrates ecological capabilities with social values and economic relationships, to produce, restore, or sustain ecosystem integrity and desired conditions, uses, products, values, and services over the long term.

Edge (habitat) - The margin where two or more vegetation patches meet, such as a meadow opening next to a mature forest stand or a ponderosa pine stand next to an aspen stand.

Endangered species - A 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 Endangered Species Act of 1973.

Environmental analysis - An analysis of alternative actions and their predictable long and short-term environmental effects. Environmental analyses include physical, biological, social, and economic factors.

Environmental Impact Statement (EIS) - A statement of environmental effects of a proposed action and alternatives. The Draft EIS is released to other agencies and the public for comment and review. A Final EIS is issued after consideration of Public and agency comments. A Record of Decision (ROD) is based on the information and analysis in the Final EIS.

Ephemeral streams - Streams that flow only as the direct result of rainfall or snowmelt. They have no permanent flow.

Erosion - The wearing away of the land surface by wind, water, ice, gravity, or other geological activities. Erosion can be intensified by human activities (such as road building) that may reduce the stability of soils or slopes.

ETA – Equivalent Treatment Acres – is a watershed cumulative effects model that calculates the acres of created openings in forested areas based on harvest prescription or other mortality. It is used as an index to represent the potential for increased water yield and peak flows as a consequence of reducing water loss by interception and evapotranspiration, or by changing snow distribution and melt rates.

Even-aged management - Method of forest management in which trees, usually the same species, are maintained at the same age and size and harvested all at once so a new stand may grow.

Even-aged stands – Stands of trees of approximately the same age. Silvicultural methods that generate even-aged stands include clearcutting, shelterwood, and seed tree.

Exotic - A plant or animal species introduced from a distant area; not native to the area, often particularly aggressive.

Extirpation – Localized disappearance of a species from an area.

F

Fauna - The vertebrate and invertebrate animals of an area or region.

Fine fuels – Fast-drying fuels, generally with a comparatively high surface area-to-volume ratio, which are less than ¼ -inch in diameter and have a time lag of one hour or less. These fuels readily ignite and are rapidly consumed by fire when dry.

Fire behavior – How fire reacts to the influences of fuel, weather, and topography.

Fire cycle (mean fire interval) - The average time between fires in a given area.

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

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

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

Fire severity or Burn severity –Severity describes the fire-caused damage to the soil. The severity ratings (high, moderate, and low) are based on standards in Forest Service Handbook 2509.13.

Fire-tolerant – Species of plants that can withstand certain frequency and intensity of fire. Generally these are shade-intolerant species.

First-order stream – Stream channel with no tributaries.

Fisheries habitat - Streams, lakes, and reservoirs that support fish or have the potential for supporting fish.

Flood plain - The portion of a river valley or level lowland next to streams which is covered with water when the river or stream overflows its bank at flood stage.

Flora - The vegetation of an area.

Fluvial individuals – are those which emigrate as juveniles from spawning tributaries, maturing and overwintering in large rivers.

Forage - Vegetation (both woody and non-woody) eaten by animals, especially big game and livestock.

Forage area – All areas that do not meet the definition of either satisfactory cover or marginal cover.

Forage deficient area – Any total cover farther than 600 feet from the defined forage:cover edge.

Forb - A broadleaf plant that has little or no woody material in it, including plants commonly called wildflowers and weeds.

Foreground - The part of a scene or landscape that is nearest the viewer.

Forest health – The condition in which forest ecosystems sustain their complexity, diversity, resiliency, and productivity while providing for human needs and values. It is a useful way to communicate about the current condition of the forest, especially with regard to 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 (Umatilla 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.

Fragmentation - The breakup of a large land area (such as a forest) into smaller patches that are isolated from the original area. Fragmentation can occur naturally (as by stand-replacing wildfire) or from human activities (such as road building).

Fuel(s) – Combustible material that includes vegetation such as grass, leaves, ground litter, plants, shrubs, and trees. Includes both living plants; dead, woody vegetative materials; and other vegetative materials which are capable of burning.

Fuel break – A zone in which fuel quantity has been reduced or altered to provide a position for suppression forces to make a stand against a wildfire. Fuel breaks are designated or constructed before the outbreak of a fire. Fuel breaks may consist of one or a combination of the following: natural barriers, constructed fuel breaks, man-made barriers.

Fuel ladder - Shrubs, small trees, and low growing branches that allow fire to move from the ground to the tree crowns.

Fuel load – The dry weight of combustible materials per unit area; usually expressed as tons per acre.

Fuels management - The treatment of fuels that would otherwise interfere with effective fire management or control. For instance, prescribed fire can reduce the amount of fuels that accumulate on the forest floor before the fuels become so heavy that a natural wildfire in the area would be explosive and impossible to control.

Fuel Model 1 (Short Grass) - Surface fires that move rapidly through the continuous, cured or nearly cured herbaceous fuels. Surface fuel loading, less than 3 inches in diameter, is less than .74 tons per acre. Surface fuel bed depth is 1.0 foot.

Fuel Model 2 (Timber, Grass and Understory) - Fire spread is primarily through the fine fuels, such as grass and pine needles. The stand is open where larger pine and Douglas-fir cover one-to two-thirds of the area. Surface fuel loading, less than 3 inches in diameter, averages 4 tons per acre. Surface fuel bed depth is 1 foot.

Fuel Model 5 (Low Brush) - Fire is generally carried in the surface fuels that are made up of litter cast by the shrubs and the grasses or forbs in the understory. The fires are generally less intense because surface fuel loads are light. Surface fuel loading, less than 3 inches in diameter, averages 3.5 tons per acre. Surface fuel bed depth is 2.0 feet.

Fuel Model 8 (Timber, Closed Timber Litter) - A typical stand includes a closed canopy of short-needled conifers, such as Douglas-fir. The compact litter layer consists of needles, leaves and occasional twigs. Surface fuel loading, less than 3 inches in diameter, averages 5 tons per acre. Surface fuel bed depth is 0.2 feet.

Fuel Model 9 (Timber, Closed Timber Litter) - Fires that run through surface litter faster than model 8 and have longer flame heights. Long needle conifer stands are typical. Concentrations of dead-down woody material will contribute to possible torching, spotting and crowning. Surface fuel loading, less than 3 inches in diameter, averages 3.5 ton per acre. Surface fuel bed depth is .2 feet

Fuel Model 10 (Timber, Litter and Understory) - Fires burn in the surface and ground fuels with greater fire intensity than the other timber litter models. Fuels in this model include greater quantities of dead and down material 3 inches and greater. Crowning, spotting and torching are more frequent in this fuel situation. Surface fuel loading, less than 3 inches in diameter, averages 12.0 tons per acres. Surface fuel bed depth is 1.0 feet.

Function - The processes within an ecosystem through which the elements interact, such as succession, the food chain, fire, weather, and the hydrologic cycle.

G

Geographic Information System (GIS) – Computer software that provides database and spatial analytic capabilities.

Geomorphic processes - Processes that change the form of the earth, such as volcanic activity, running water, and glacial action.

Geomorphology - The geologic study of the shape and evolution of the earth's landforms.

Ground fire - A fire that burns along the forest floor and does not affect trees with thick bark or high crowns.

Ground fuels – All combustible materials below the surface litter layer. These fuels may be partially decomposed, such as forest soil organic layers (duff), dead moss and lichen layers, punky wood and deep organic layers (peat), or may be living plant material, such as tree and shrub roots.

Groundwater - Water that sinks into the soil and is stored in slowly flowing and slowly renewed underground reservoirs called aquifers.

H

Habitat - The place where a plant or animal finds what it needs to survive, either year-round or seasonally.

Habitat capability - The ability of a habitat to support a given species of wildlife.

Habitat diversity - The variety of different types of wildlife habitat within a given area.

Habitat type - A way of defining land areas potentially capable of producing similar plant communities at climax. In Forestry, habitat types are named for the predominant climax tree species. For example, the Pinus Ponderosa habitat type series is habitat that typically supports climax Ponderosa Pine. A number of other habitat features can be identified using habitat types, such as aspect, elevation, climate, and use by wildlife species.

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; unbranched tributaries of a stream.

Hiding area/cover - Vegetation capable of hiding 90 percent of an adult elk or deer from a human's view at a distance of 200 feet or less.

Historical Range of Variability (HRV) – The natural fluctuation of components of healthy ecosystems over time. In this EIS, it refers to the range of conditions and processes that are likely to have occurred prior to settlement of the project area by people of European descent (approximately the mid 1800s), which would have varied within certain limits over time.

Hydrologic Unit Code (HUC) – An area of land upstream from a specific point on a stream (designated as the mouth) that defines a hydrologic boundary and includes all of the source areas that could contribute surface water runoff directly and indirectly to the designated outlet point.

Hydrology - The study of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere.

I

Indicator species - A plant or animal species that is presumed to be sensitive to habitat change. Its presence indicates specific habitat conditions are also present. Population changes in an indicator species can indicate the effects of land management activities.

Indirect effects – Impacts on the environment that are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.

Individual tree selection - The removal of certain size and age classes of individual trees from a stand. Regeneration is allowed to naturally occur and an uneven-aged stand is maintained.

Instream flow - The natural flow of water in a stream channel.

Intensity (fire intensity) - The rate of heat release for an entire fire at a specific time.

Interdisciplinary team (IDT) - A team of individuals with skills from different disciplines that focuses on the same task or project, referred to as ID Team.

Intermediate harvest - The removal of trees from a stand between the time of its formation and harvest cutting. Thinning, liberation, and improvement cuts are all types of intermediate harvest. Sometimes salvage harvests and sanitation harvests are termed intermediate.

Intermittent stream - A stream that flows only at certain times of the year when it receives water from streams or some surface source, such as melting snow.

Irretrievable – A category of impacts that applies to losses of production or commitment of renewable natural resources.

Irreversible – A category of impacts that applies to non-renewable resources, such as minerals and archaeological sites. Losses of these resources cannot be reversed. Irreversible effects can also refer to effects of actions on resources that can be renewed only after a very long period of time, such as the loss of soil productivity.

Issue – A matter of controversy, dispute, or general concern over resource management activities or land uses. To be considered a “significant” EIS issue, it must be well defined, relevant to the proposed action, and within the ability of the agency to address through alternative management strategies.

L

Ladder fuels – Fuels which provide vertical continuity between strata. Fire is able to carry from the surface fuels by convection into the crowns with relative ease.

Landing - Any place where cut timber is collected before further transport from the timber sale area.

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

Late forest succession - The stage of forest succession in which most of the trees are mature or overmature.

Lethal fire (stand replacement) - Fire that kills upwards of 70 percent of overstory trees.

Litter (forest litter) - The freshly fallen or only slightly decomposed plant material on the forest floor. This layer includes foliage, bark fragments, twigs, flowers, and fruit.

M

Mainstem – The main channel of the river in a river basin, as opposed to the streams and smaller rivers that feed into it.

Management action - Any activity undertaken as part of the administration of the National Forest.

Management area – An aggregation of capability areas that have a common management direction, and may be dispersed over the Forest.

Marginal cover – A stand of coniferous trees 10 or more feet tall with an average canopy closure equal to or more than 40 percent but less than 70 percent and generally capable of obscuring at least 90 percent of a standing elk from the view of humans at a distance of 200 feet..

Merchantable timber - Timber that can be bought or sold.

Middleground – A term used in visual management to describe the portions of a view extending from the foreground zone out to 3 to 5 miles from the observer.

MIS (management indicator species) - A wildlife species selected by a land management agency to indicate the health of the ecosystem in which it lives and, consequently, the effects of forest management activities on that ecosystem (see "indicator species").

Mitigation - Measures designed to counteract environmental impacts or make impacts less severe.

Mixed stand - A stand consisting of two or more tree species.

MBF - Thousand Board Feet (see board foot).

MMBF - Million Board Feet (see board foot).

Monitoring - A process of collecting information to evaluate whether or not objectives of a project and its mitigation activities are being realized.

Mortality - The loss of a population due to all lethal causes, often referring to the rate of death of a species in a given population or community.

Mosaic - A pattern of vegetation in which two or more kinds of plant communities are interspersed in patches, such as a meadow between stands of old growth.

Multiple-use management – The management of public lands and their various resource values so they are used in the combination that best meets the present and future needs of the American people.

Mycorrhizae- The symbiotic relationship between certain fungi and the roots of certain plants; important for plants to take nutrients from soil.

N

Natural regeneration – Reforestation of a site by natural seeding from surrounding trees. Natural regeneration may or may not be preceded by site preparation.

Natural resource - Water, soil, wild plants and animals, air, minerals, nutrients, and other resources produced by the earth's natural processes.

NEPA (National Environmental Policy Act) - An act of Congress passed in 1969 declaring a national policy to encourage productive and enjoyable harmony between people and their environment. Section 102 of the NEPA requires a statement of possible environmental effects be released to the public and other agencies for review and comment.

NFMA (National Forest Management Act) - A law passed in 1976 requiring the preparation of Regional Guides and Forest Plans and regulations to guide that development.

No Action alternative - The most likely condition expected to exist in the future if management practices continue unchanged.

Non-game – Term for wild animals not commonly harvested for recreation, fur or subsistence.

Non-point source pollution - Pollution whose source is not specific in location. The sources of the discharge are dispersed, not well defined, or constant. Examples include sediments from logging activity and runoff with chemicals from agricultural lands.

Non-system road/unclassified road – Any continuous set of wheel tracks that exist for more than one season, and does not belong to the transportation system.

Noxious weed - A weed that causes disease or has other adverse effects on man or his environment and, therefore, is detrimental to public health and the agriculture and commerce of the United States. Noxious weeds are often aggressive and difficult to manage and non-native, new, or not common to the United States.

Nutrient cycle - Ecological processes in which nutrients and elements such as carbon, phosphorous, nitrogen, calcium, and others circulate among animals, plants, soils, and air.

O

Old growth - Old forests often containing several canopy layers, variety in tree sizes and species, decadent old trees, and standing and dead woody material.

Ongoing actions – Actions that have been implemented, or have contracts awarded or permits issued.

Open system road – Classified system road, open to public use.

Optimum cover – Any total cover within 600 feet of the defined forage:cover edge.

Optimum forage – Forage area within 600 feet of the defined forage:cover edge.

Overmature timber - Trees that have attained full development, particularly in height, and are declining in vigor, health, and soundness.

Overstory - The upper canopy layer; the plants below comprise the understory.

P

PACFISH – Interim strategies for managing Pacific anadromous fish-producing watersheds in eastern Oregon and Washington, Idaho, and portions of California.

Park-like structure - Stands with large scattered trees, few or no understory trees, and open growing conditions, usually maintained by frequent ground fires.

Patch - An area of uniform vegetation that differs in structure and composition from what surrounds it.

Perennial stream - A stream that flows throughout the year from its source to mouth.

Pre-commercial thinning - Removing some of the trees from a stand that are too small to be sold for lumber or house logs so the remaining trees will grow faster.

Predator - An animal that captures and feeds on parts or all of an organism of another species.

Preferred alternative – The alternative identified in a draft environmental impact statement which has been initially selected by the agency as the most acceptable resolution to the problems identified in the purpose and need.

Prescribed fire - The intentional use of fire under specified conditions to achieve specific management objectives.

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, and environmental, geographic, administrative, social, or legal considerations.

Present net value (PNV) [also called present net worth] - The measure of the economic value of a project when costs and revenues occur at different times. Future revenues and costs are "discounted" to the present by an interest rate that reflects the changing value of a dollar over time. The assumption is that dollars today are more valuable than dollars in the future. PNV is used to compare project alternatives that have different cost and revenue flows.

Public involvement - The use of appropriate procedures to inform the public, obtain early and continuing public participation, and consider the views of interested parties in planning and decision making.

R

Range of variability - The fluctuation, over time, in the population, size, and components of healthy ecosystems.

Rangeland (range) - Land on which the principle natural plant cover is composed of native grasses, forbs, and shrubs that are valuable as forage for livestock and big game.

Redd –Spawning nest made by salmon or steelhead in the gravel bed of a river.

Reforestation - The restocking of an area with forest trees by either natural or artificial means such as planting.

Regeneration - The process of establishing a new tree crop on previously harvested land. The term also refers to the young crop itself.

Regeneration harvest - A silvicultural treatment intended to regenerate a stand of trees. Shelterwood and seed tree harvests are forms of regeneration treatments.

Resident fish – Fish that spend their entire life in freshwater: examples include bull trout and westslope cutthroat trout.

Resilient, resiliency -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

Restoration (of ecosystems) - Actions taken to modify an ecosystem to achieve a desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume its resiliency to disturbances.

Revegetation - Establishing or reestablishing desirable plants on a site where they are absent or in few numbers. Revegetation can be accomplished through natural or artificial reseeding or transplanting.

Riparian area - The area along a watercourse or around a lake or pond. 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 ecosystem - The ecosystems around or next to water areas that support unique vegetation and animal communities as a result of the influence of water.

Riparian Habitat Conservation Area (RHCA) – Portions of watershed where riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. RHCAs include traditional riparian corridors, wetlands, intermittent headwater streams, and other areas where proper ecological functioning is crucial to maintenance of the stream's water, sediment, woody debris and nutrient delivery systems.

Riparian Management Objectives (RMO) – Quantifiable measures of stream and stream-side conditions that define good anadromous fish habitat, and serve as indicators against which attainment, or progress toward attainment, of the goals will be measured.

Runoff - The portion of precipitation that flows over the land surface or in open channels.

S

Salvage – Salvage timber harvest is defined as "the removal of dead trees or trees damaged or dying because of injurious agents other than competition, to recover economic value that would otherwise be lost" (Helms 1998). When a fire front passes a tree, some of the resulting heat is transferred to the vascular cambium, foliage and roots. If the temperatures are high enough and the flame residence time is

long enough, these tissues are killed. When a high proportion of the cambium, crown or fine roots are killed, the whole tree dies. Lower temperatures or shorter residence times will injure tissues rather than kill them (Dickinson and Johnson 2001).

Satisfactory cover – A stand of coniferous trees 40 or more feet tall with an average canopy closure equal to or more than 70 percent. Umatilla Forest Plan defines it as cover used by animals to ameliorate the effect of weather.

Scoping - The early stages of preparation of an environmental analysis to determine public opinion, receive comments and suggestions, and determine issues during the environmental analysis process. It may involve public meetings, telephone conversations, or letters.

Seasonally Closed Road – Classified system road closed to public use for part of the year.

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 to the bottom.

Sensitive species - A sensitive species is one that has been designated by the Regional Forester because of concern for population viability. Indications for concern include significant current or predicted downward trends in population numbers or density or in habitat capability that would reduce an existing species distribution.

Seral - Refers to the sequence of transitional plant communities during succession. 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 saw timber growth stages; late or old seral refers to plants present during a later stage of plant community succession (such as mature or old forest stages).

Shade-intolerant species - Species of plants that do not grow well in the shade of others. They are species that develop on a site soon after a major disturbance. Ponderosa pine and western larch are shade-intolerant tree species.

Shade-tolerant species - Species of plants that grow well in the shade of others. Douglas-fir is a relatively shade-tolerant tree.

Shelterwood harvest - A regeneration cut designed to establish a new crop of trees under the protection of the old. This type of harvest typically occurs in stages with a second entry following the first after regeneration has occurred.

Silvicultural system - The cultivation of forests; the result is a forest of a distinct form. Silvicultural systems are classified according to harvest and regeneration methods and the type of forest that results.

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

Site potential – A measure of resource availability based on interactions among soils, climate, hydrology, and vegetation.

Site preparation - The general term for removing unwanted vegetation, slash, roots, and stones from a site before reforestation. Naturally-occurring wildfire as well as prescribed fire can prepare a

site for natural regeneration.

Slash - The residue left on the ground after timber cutting or after a storm, fire, or other event. Slash includes unused logs, uprooted stumps, broken or uprooted stems, branches, bark, etc.

Smolt – Young salmon or trout migrating to the ocean and undergoing biological changes to enable them to move from freshwater streams to saltwater.

Snag - A standing dead tree.

Soil compaction - The reduction of soil volume. For instance, the weight of heavy equipment on soils can compact the soil and thereby change it in some ways, such as in its ability to absorb water.

Soil productivity - The capacity of a soil to produce a specific crop. Productivity depends on adequate moisture and soil nutrients as well as favorable climate.

Soil Resource Inventory (SRI) – An inventory of the soil resource based on landform, vegetative characteristics, soil characteristics, and management potentials.

Spawning habitat – Areas used by adult fish for laying and fertilizing eggs.

Special use permit - A permit issued to an individual or group by the USDA Forest Service for use of National Forest land for a special purpose. Examples might be a special use permit for the Boy Scout Jamboree or a mountain bike race.

Species – A population or series of populations of organisms that can interbreed freely with each other but not with members of other species.

Stability – Ability of a living system to withstand or recover from externally imposed changes or stresses.

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

Stand composition – The vegetative species that make up the stand.

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

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

Standards and guidelines - Requirements found in a Forest Plan which impose limits on natural resource management activities, generally for environmental protection.

Stream morphology – The study of the form and structure of streams.

Strongholds (fish) – Watersheds that have the following characteristics: (1) presence of all major life-history forms (for example, resident, fluvial, and adfluvial) that historically occurred within the watershed; (2) numbers are stable or increasing, and the local population is likely to be at half or more of its historical size or density; (3) the population or metapopulation within the watershed, or within a larger region of which the watershed is a part, probably contains at least 5,000 individuals or 500 adults.

Succession - The predictable, natural replacement of one plant community with another over time. The different stages in succession are often referred to as seral stages (see "seral").

Successional stage - A stage of development of a plant community as it moves from bare ground to climax. The grass-forb stage of succession precedes the woody shrub stage (see "seral").

Suitability - The appropriateness of certain resource management practices for an area of land. Suitability can be determined by environmental and economic analysis of management practices.

Sustainability – (1) Meeting the needs of the present without compromising the abilities of future generations to meet their needs; emphasizing and maintaining the underlying ecological processes that ensure long-term productivity of goods, services, and values without impairing productivity of the land. (2) In commodity production, refers to the yield of a natural resource that can be produced continually at a given intensity of management.

T

Thermal cover - Cover used by animals against weather. For example, thermal cover for elk can be found in a stand of coniferous trees at least 40 feet tall with a crown closure of at least 70 percent.

Thinning - A cutting made in an immature stand of trees to accelerate growth of the remaining trees or to improve the form of the remaining trees.

Threatened species - Those plant or animal species likely to become endangered throughout all or a specific portion of their range within the foreseeable future as designated by the US Fish and Wildlife Service under the Endangered Species Act of 1973.

Tiering – In an EIS, refers to incorporating by reference the analyses in an EIS of a broader scope. For example, a Forest Service project-level EIS could tier to the analysis in a Forest Plan EIS; a Forest Plan EIS could tier to a Regional Guide EIS.

Total cover – All coniferous tree cover 10 or more feet tall and with a canopy closure of equal to or greater than 40 percent (i.e. satisfactory cover plus marginal cover),

Tractor logging - A logging method that uses tractors to carry or drag logs from the stump to a landing.

Transitory Range – Land that is suitable for grazing use of a nonenduring nature over a period of time; often found in the openings created by timber harvesting activities. For example, on particularly disturbed lands, grass may cover the area for a period of time before being replaced by trees or shrubs not suitable for forage.

U

Unauthorized or Temporary Road – Formerly also referred to as unclassified road. These are defined as Roads on National Forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned traveled way, and off-road vehicle track 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. Roads not authorized or necessary for long-term resource management.

Underburn - A burn by a surface fire that can consume ground vegetation and ladder fuels.

Understory - The trees and woody shrubs growing beneath the overstory.

Uneven-aged management - Method of forest management in which trees of different species in a given stand are maintained at many ages and sizes to permit continuous natural regeneration. Selective cutting is one example of an uneven-aged management method.

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

Unsuitable lands - Forest land that is not managed for timber production. Reasons may be matters of policy, ecology, technology, silviculture, or economics.

V

Vegetation management - Activities designed primarily to promote the health of forest vegetation for multiple-use purposes.

Vertical diversity - The diversity in a stand that results from the different layers or tiers of vegetation.

Viable population - The number of individuals of a species sufficient to ensure the long-term existence of the species in natural, self-sustaining populations that are adequately distributed throughout their range.

Visual quality objective (VQO) - A set of measurable goals for the management of forest visual resources.

W

Water yield - The runoff from a watershed including groundwater outflow.

Watershed - The entire region drained by a waterway (or into a lake or reservoir). More specifically, a watershed is an area of land above a given point on a stream that contributes water to the stream flow at that point.

Wetlands - Areas that are permanently wet or intermittently covered with water. Wetlands generally include swamps, bogs, seeps, wet meadows, and natural ponds.

Wildland Urban Interface (WUI) – Includes those areas of resident human population at imminent risk from wildfire, and human developments having special significance. These areas may include critical communication sites, municipal watershed, high voltage transmission lines, observatories, church camps, scout camps, research facilities, and other structures that if destroyed by fire, would result in hardships to communities. These areas encompass not only the sites themselves, but also the continuous slopes and fuels that lead directly to the sites, regardless of the distance involved.

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

Glossary

Wildlife habitat diversity - The distribution and abundance of different plant and animal communities and species within a specific area.

Windthrow - Trees blown over by the wind.

Winter range - That portion of big game's range where animals congregate for the winter.

X, Y, Z

Yarding – Hauling timber from the stump to a collection point.