

Glossary

This chapter provides the definitions of terms used in this document that cannot be found in a standard dictionary.

3P fall	buck.	and	scale	sampling
JI Iaii,	Duck,	anu	Scarc	Sampine

A sampling method that determines the volume and value of merchantable timber. The method starts with visual estimation of a stand using the 3P sampling method (i.e., PPP, or, probability proportional to prediction), which operates under the assumption that the probability of a tree being sampled is proportional to its predicted occurrence in a stand. The estimation is verified by cutting down a sampled tree (fall), cutting it into merchantable log lengths (buck), and measuring the logs (scale) noting indicators for defects and log grades. For managed second-growth stands, 3P sampling is generally used to develop volume tables from which stand volumes may be extrapolated. For unevenaged stands, typically containing larger and often more defective timber, 3P sampling is useful in determining the net volume (recovery).

303(d) Water Quality Listing

Impaired waters that do not meet water quality standards, identified by DEQ, as required by the Clean Water Act.

acre

A measure of surface land area in U.S. customary units that is 43,560 square feet, which is 1/640 of a square mile (or approximately 0.4 hectares). If square, it is nearly 209 feet on each side.

active stream channel

The inundated area of bed and banks of a stream, from larger streamflow of one to two years.

activity fuel

Debris (wood chips, bark, branches, limbs, logs, or stumps) left on the ground after management actions, such as logging, pruning, thinning, or brush cutting, versus debris left after storms or fires.

adaptive management

A forest management methodology that continually monitors, evaluates, and adjusts decisions and management actions to improve implementation and to ensure that the goals and objectives of resource management plans are being met.

Adaptive Management Area

A Northwest Forest Plan term that denotes a land use allocation (or landscape unit) whose lands are designated for development and for testing technical and social approaches for achieving desired ecological, economic, and other social objectives.



adverse modification

An Endangered Species Act term that is not specifically defined by the act but is generally accepted to denote a direct or indirect alteration of habitat that appreciably diminishes the value of an area with respect to the survival, or in some instances the recovery, of a listed species. In most instances, this standard is considered the same as, or is nearly identical, to the jeopardy standard.

age classification

A system that categorizes trees, forests, stands, or forest types by intervals of years. Age classifications differ around the U.S. by forest type (wet, dry, evergreen, deciduous, or succulent). For this analysis, the interval is usually 10-year increments.

aggregated retention

See variable-retention harvest system.

allowable sale quantity/annual productive capacity

These terms are synonymous. The timber yield that a forest can produce continuously under the intensity of management outlined in the RMP from those lands allocated for permanent forest production.

alternative

One of several proposed management actions that have been studied and found to meet the goals and objectives of a project's purpose and need and, as a result, is suitable to aid decision-making.

anadromous fish

Fish that are born and reared in freshwater, move to the ocean to grow and mature, and return to freshwater to reproduce. Includes species such as salmon and steelhead. Also see *salmonid*.

analysis

The scientific evaluation of the environmental impacts of proposed planning decisions. The BLM employs many types of analysis (e.g., surface, linear, raster, contiguity, and topological overlay) with a variety of data sets (e.g., inventory and GIS) and tools (e.g., physical, quantitative, data, and spatial modeling).

analytical assumption

A judgmental decision that is based on the science and relationships of natural systems assumed to be true and from which conclusions can be drawn to supply the missing values, relationships, or societal preferences needed for proceeding with an analysis of alternatives.

angular canopy density

A measure of shade provided by *riparian vegetation*. It is the density of the *canopy*, expressed as a percent, measured along the path of incoming solar radiation between the sun and a stream.

animal unit month (AUM)

The amount of forage necessary to sustain one cow (or its equivalent) for one month.

annual productive capacity

An O&C Act term denoting the volume of timber that is determined will grow in one year in a given area. Also see *allowable sale quantity (ASQ)*, *offer*, and *sustained yield capacity*.



Aquatic Conservation Strategy

A Northwest Forest Plan methodology designed to restore and maintain the ecological health of watersheds and aquatic ecosystems, consisting of four components: riparian reserves, key watersheds, watershed analysis, and watershed restoration.

aquatic habitat

Habitat for vertebrate and invertebrate wildlife species and vascular and non-vascular plants occurring in free water (e.g. lakes, ponds, streams, rivers, springs and seeps).

area

A generic forestry term that refers to the surface land included within specific boundaries and usually allocated for a specific purpose, such as a late-successional management area, a timber management area, a traditional use area, a recreational use area, or a wilderness area. Contrast with *block*.

Area of Critical Environmental Concern (ACEC)

Land where special management attention is needed to protect life, to provide safety from natural hazards, or to prevent irreparable damage to important values (historic, cultural, or scenic), resources (fish and wildlife), or processes (natural systems).

Area of Mutual Interest

A defined mapped area, identified by industry, of potential petroleum development.

assessment area

A subdivision of a sustained yield unit (BLM district) that has been divided by physiographic provinces.

at-risk species

Species that are determined by a detailed assessment to be in danger of becoming locally or completely extinct.

at-risk community

A group of homes or structures that exist within the vicinity of federal lands or a wildland/urban interface for which a significant threat to human life or property exists as a result of a wildland fire.

authority

The right and power to make decisions and give orders such as the United States Congress exerts when passing legislation (e.g. the O&C Act and the Endangered Species Act).

awarded timber sales

A sale where the government has accepted a bid from a qualified high bidder, thereby binding the government and granting specific rights to the purchaser.

backcountry byways

A road segment designated as part of the National Scenic Byway System.

basal area

The cross-sectional area of a single stem, of all stems of a species in a stand, or of all plants in a stand (including the bark) that is measured at breast height (about 4.5 feet up from the ground) for larger plants (like trees) or measured at ground level for smaller plants.



baseline

The starting point for the analysis of environmental consequences, often referred to as the Affected Environment. This starting point may be the condition at a point in time (e.g., when inventory data is collected) or the average of a set of data collected over a specified number of years. Also see *analysis*, *environmental consequences*, and *inventory data*.

beneficial use

In general, any reasonable use of a resource for a purpose consistent with the laws and best interests of the people of a state. In water use law, such uses include, but are not limited to: instream, out of stream, and ground water uses; domestic, municipal, and industrial water supplies; mining, irrigation, and livestock watering; fish and aquatic life; wildlife watering; fishing and water contact recreation; aesthetics and scenic attraction; hydropower; and commercial navigation.

Best Management Practices (BMPs)

BMPs are defined as methods, measures, or practices selected on the basis of site-specific conditions to ensure that water quality will be maintained at its highest practicable level. BMPs include, but are not limited to, structural and nonstructural controls, operations, and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters (40 CFR 130.2, EPA Water Quality Standards Regulation).

biological assessment

A biological assessment is a document that evaluates potential effects of a proposed action to listed and proposed species and designated and proposed critical habitat and determines whether any such species or habitats are likely to be adversely affected by the action. It is used in determining whether formal consultation or conferencing with the U.S. Fish and Wildlife Service or National Marine Fisheries Service is necessary (50 CFR 402.12[a])

biological opinion

An opinion by the U. S, Fish and Wildlife Service or the National Marine Fisheries Service as to whether or not a federal action is likely or not to jeopardize the continued existence of listed species, or would result in the destruction of or adverse modification of critical habitat. The opinion may contain reasonable and prudent alternatives, a statement of anticipated take of listed animals, and conservation recommendations for listed plants.

biomass

Unmerchantable and waste plant materials used as a source of renewable combustible fuel. Also includes non-sawlog material ground up into fiber and used in secondary wood products.

block

A term that denotes an area of land that has been approved for special management, such as a northern spotted owl reserve or a fire suppression area. Contrast with *area*.



board footA unit of measure for unfinished solid wood used by the lumber industry that is typically expressed as bf or bd. ft. and equals the

volume contained in a 1-inch thick, 12-inch long, and 12-inch

wide board.

Bureau Strategic Species A special status species category established by the Oregon/

Washington BLM that includes animal, plant and fungi species that are of concern in the two states. The special status species policy (BLM 6840) does not apply to these species, and no analysis of them is required in NEPA documents. Field units are required to collect occurrence field data and maintain records.

Also see Bureau sensitive species.

Bureau of Land Management (BLM) A federal agency within the U.S. Department of the Interior that

is responsible for administering 261 million surface acres of federally owned lands in accordance with all applicable laws to sustain the health, diversity, and productivity of those lands. Most

of the acreage is in Alaska and the western states.

Bureau Sensitive Species A special status species category established by the BLM that

includes those plant and animal species eligible for status as federally listed, federal candidate, state listed, or state candidate (plant) species; on List 1 of the Oregon Natural Heritage Database or approved for this category by the BLM state director; or included under agency species conservation policies. Also see

Bureau strategic species.

candidate species Plants and animals for which the U.S. Fish and Wildlife Service

has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing

activities.

canopy The more or less continuous cover of branches and foliage formed

collectively by adjacent trees and other woody species in a forest stand. Where significant height differences occur between trees within a stand, formation of a multiple canopy (multi-layered)

condition can result.

canopy closure The ground area covered by the crowns of trees or woody

vegetation as delimited by the vertical projection of crown perimeter and commonly expressed as a percent of total ground

area.

catchment An area drained by a stream. For research, a very small

experimental watershed, oftentimes less than 100 acres.

channel migration zone The extent of lateral movement of a river across a floodplain

toward the convex side of an original curve.

Glossary - 905



checkerboard land ownership pattern A land ownership pattern in which square-mile sections of federal lands are typically intermixed, on the basis of alternating sections, with adjoining private lands. The O&C lands of western Oregon are an example of checkerboard ownership. This ownership pattern resulted from the revestment back to the federal government of lands granted by the federal government to early railroad companies. The checkerboard ownership pattern of the O&C lands creates additional access, management, and perception issues. Also see O&C Act.

clearcut

A timber harvesting method that removes essentially all trees in an area, whether merchantable or not, producing a fully exposed microclimate for development of a new age class.

coarse woody debris

That portion of trees that has naturally fallen or been cut and left in the woods. Usually refers to pieces at least 20 inches in diameter. Also see coarse woody debris classes.

coarse woody debris classes

There are four classes used to describe coarse woody debris. The classes range from Class I (which has the least decay, intact bark, and a hard log) to Class IV (i.e., the coarse woody debris has decayed to the point of nearly being incorporated into the forest floor).

commercial forest land base

Forest lands declared suitable for producing timber and having a minimum level of productivity of 20 cubic feet/acre/year. Contrast with harvest land base.

commercial thinning

Any type of thinning producing merchantable material at least equal to the value of the direct cost of harvesting. See thinning.

Congressionally Reserved Areas (or **Congressional Reserves**)

Areas established by an Act of Congress or Executive Order, such as national parks, wild and scenic rivers, national recreation areas, wilderness, and national monuments.

connectivity block

A Northwest Forest Plan term denoting a corridor that links areas of northern spotted owl habitat. Contrast with *connectivity/* diversity block.

connectivity / diversity block

A subdivision of the matrix land use allocation in the current Resource Management Plans that serves as a corridor for linking late-successional and old-growth forests to facilitate the movement, feeding, and breeding of late-successional and oldgrowth species. These blocks are managed to maintain between 25 and 30 percent of late-successional forest within them. Contrast with *connectivity block*.

conservation

Conservation, when applied to special status species, is the methods and procedures used to improve the plant and animal species biology, improve their habitat condition, and reduce threats to their continued existence.



conservation agreement

A non-binding document of agreement between agencies that outlines conservation goals necessary to reduce, eliminate, or mitigate specific threats to species at risk, and provides general guidance on species management.

conservation strategy

A management plan for a species, group of species, or ecosystem that prescribes standards and guidelines that if implemented provide a high likelihood that the species, groups of species, or ecosystem, with its full complement of species and processes, will continue to exist well-distributed throughout a planning area.

Consultation

A formal review between the U.S. Fish and Wildlife Service or National Marine fisheries Service and another federal agency when it is determined that an action by the agency may affect critical habitat or a species that has been listed as threatened or endangered to ensure that the agency's action does not jeopardize a listed species or destroy or adversely modify critical habitat.

cooperators and cooperating agencies

Those individuals and agencies that provide qualified information to a federal agency, such as the BLM, to use in formulating resource management actions and analyzing environmental consequences. The Council on Environmental Quality regulations that implement requirements of the National Environmental Policy Act define a cooperating agency as any agency that has jurisdiction by law or special expertise for proposals that are covered by the National Environmental Policy Act (40 CFR 1501.6). BLM planning regulations [43 CFR 1610.3-15(b)] further provide that eligible Federal agencies, state and local governments, and federally recognized Indian tribes may also participate as cooperating agencies.

Coos Bay Wagon Road (CBWR) lands

The public lands that were granted to the Southern Oregon Company for construction of a military road, but subsequently revested by the United States and later incorporated into the O&C Act.

corridor

A strip of land that links areas in a fragmented landscape to facilitate the passage of animals, plants, people, energy, or materials between habitat or service areas. Examples are biological, recreation, transportation, and utility corridors. Biological corridors are reserved from substantial disturbance. Also see *connectivity block* and *connectivity/ diversity block*.

critical habitat

An Endangered Species Act term denoting a specified geographic area occupied by a federally listed species, and on which the physical and biological features are found that are essential to the conservation and recovery of that species and that may require special management or protection.

crown

The upper part of a tree that has live branches and foliage.



crown bulk density

A measure of the fuel in a forest's canopy that is usually calculated by dividing the canopy volume by the weight of the needles, leaves, and smaller branches (or calculated using the height-to-crown base, tree height, and basal area values). Contrast with *crown density*.

crown density

A measure of the density of a tree's crown that is calculated from the amount, compactness, and depth of the foliage in the tree's crown. Contrast with *crown bulk density*.

crown fire

Fire that moves through the crowns of adjacent trees independent of any surface fire. Crown fires can often move faster and ahead of ground fires.

culmination of mean annual increment (CMAI)

The age in the growth cycle of a tree or stand at which the *mean annual increment* (MAI) for volume is at its maximum. At culmination, MAI equals the *periodic annual increment* (PAI).

cumulative effect

The impact on the environment that results from incremental impacts of an action when added to other past, present, and reasonably foreseeable future actions regardless of which agency or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time.

decompaction

Mechanical ripping and/or tillage of roadbeds, landings and other compacted areas for the purposes of increasing infiltration and aeration.

density management

The cutting or killing of trees to increase spacing for promoting the acceleration of the growth of remaining trees, improvement of stand vigor, or attainment of late-successional characteristics. Also see *thinning*, *precommercial thinning*, *and commercial thinning*].

determination of NEPA adequacy (DNA)

An interim step in BLM's internal analysis process, which documents that a proposed action is adequately analyzed in an existing environmental impact statement [EIS] or environmental assessment [EA]. Where applicable, the determination also documents conformance with an approved land use plan. (BLM NEPA Handbook, 516 DM 11).

diameter at breast height

The diameter of the stem of a tree measured at 4.5 feet above the ground level on the uphill side of the stem. Also see *quadratic mean diameter*.

dispersal habitat (spotted owl)

Forest habitat that allows northern spotted owls to move (disperse) across the landscape; typically characterized by forest stands with average tree diameters of greater than 11 inches, and conifer overstory trees having closed canopies (greater than 40 percent canopy closure) with open space beneath the canopy to allow owls to fly.



dispersed retention See variable-retention harvest system.

disturbance (natural)A force that causes significant change in structure and/or

composition through natural events such as fire, flood, wind, and earthquake, or through mortality caused by insect or disease

outbreaks.

disturbance, stand replacement A force that removes most or all existing trees in a forest stand

through natural events such as fire, flood, earthquake, or

mortality caused by insect or disease outbreaks.

dominant use A land use that is the primary purpose for the land use

designation; for instance, wildlife habitat on National Wildlife Refuges or timber production on O&C lands. Contrast with

multiple use.

effective shade The proportion of direct beam solar radiation reaching a stream

surface to total daily solar radiation.

envelope curve A line drawn on a figure with dependent and independent

variables for a collection of hydrologic studies, showing the best

fit of the extent of maximum response.

environmental consequences The direct, indirect and cumulative effects of a proposed action or

alternative on existing conditions in the environment in which the

action(s) would occur. Also see baseline.

environmental impact statement A detailed document, required under the National Environmental

Policy Act of 1969, of a federal project's environmental consequences, including adverse environmental effects that cannot be avoided, alternatives to the proposed action, the relationship between local short-term uses and long-term productivity and any irreversibly or irretrievable commitment of

productivity, and any irreversibly or irretrievable commitment of

resource.

equivalent clearcut area Method of estimating changes in streamflow response from the

amount and distribution of forest cover in a watershed.

even-aged management A silvicultural system that creates forest stands primarily

comprised of a single age or having a very narrow range of ages.

even-aged stand A stand of trees comprised of a single age class in which the range

of tree ages is usually \pm 20% of rotation.



evolutionary significant unit

A population or group of populations considered "distinct," and hence a "species" for purposes of the Endangered Species Act, representing an evolutionarily significant unit (ESU) of the biological species. A population must satisfy two criteria to be considered an ESU. It must be reproductively isolated from other conspecific population units, and it must represent an important component in the evolutionary legacy of the species. Isolation does not have to be absolute, but must be strong enough to permit evolutionarily important differences to accrue in different population units. The second criterion is met if the population contributes substantially to the ecological/genetic diversity of the species as a whole. (NOAA Technical Memorandum NMFS F/ NWC-194).

facies A characteristic of a rock unit that reflects a common origin or

fifth-field watershed One of the classifications of watersheds used by the United States

> Geological Survey that identifies some of the smallest watersheds and is useful for assessing water-related issues; generally 20 to 200 square miles in size. For details about the classification of drainage areas, see http://water.usgs.gov/GIS/huc.htmi. Also see

watershed.

fine sediment Fine-grained soil material, less than 2mm in size, normally

deposited by water, but in some cases by wind (aeolian) or gravity

(dry ravel).

fire control, direct Any treatment applied directly to burning fuel, such as wetting,

smothering, or chemically quenching the fire or by physically

separating the burning from unburned fuel.

fire control, prescribed Any fire ignited by management actions to meet specific

> objectives. A written, approved prescribed fire plan must exist, and NEPA requirements (where applicable) must be met prior to

ignition.

forest An ecosystem characterized by stands of trees varying in

> characteristics such as species composition, structure, age class, and associated processes, and commonly including meadows,

streams, fish, and wildlife.

flood Streamflow overtopping streambanks, or rising water that covers

land not normally under water.

floodplain Level lowland bordering a stream or river onto which the flow

spreads at flood stage.

forage All browse and herbaceous matter available to grazing animals,

including wildlife and domestic livestock.

Forest Ecosystem Management The 1993 presidentially assigned team of scientists, researchers, **Assessment Team (FEMAT)** and technicians from seven federal agencies that created the

report that was used as the basis for the Northwest Forest Plan.



forest land Land at least 10 percent stocked by forest trees of any size, and

including land that formerly had such tree cover and that will be

naturally or artificially regenerated.

Forest Operations Inventory

(FOI)

An intensive inventory that provides managers with information regarding the age, species, stand location, size, silvicultural needs, and recommended treatment of stands based on individual stand

conditions and productivity.

fuel loading The dry weight of all accumulated live and dead woody and

herbaceous material on the forest floor that is available for

combustion, and which poses a fire hazard.

genetic gain Average improvement of a specific trait in a population of progeny

over the average of the parental population (for example, height

growth increase).

green tree A live tree.

green tree retention A stand management practice in which live trees are left within

harvest units to provide a legacy of habitat components over the

next management cycle.

group selection harvest See *selection cutting*.

growth and yield modeling Simulated projections of forest stand growth and development,

from which timber volume estimates and other stand attributes expected to be produced per unit area under a certain set of

conditions are derived. Also see modeling.

forest habitat An area containing the forest vegetation with the age class, species

composition, structure, sufficient area, and adequate food source to meet some or all of the life needs (such as foraging, roosting, nesting, breeding habitat for northern spotted owls) of specific

species.

habitat-capable forests (spotted owl) Forested stands that are capable of developing into suitable habitat

specifically for the northern spotted owl.

harvesting The process of onsite cutting and removing of merchantable trees

from a forested area.

harvest land base Those lands that are available for timber harvesting on a

programmed sustained basis. Generally, a harvest land base does not include managed or other reserved lands, nonforested lands, or areas that the timber production capability classification inventory has determined are not capable of sustaining timber production. Also see *timber production capability classification*.

hydrophilic vegetation Vegetation having a strong affinity for water.

hydroregion An area of similar climate and stream runoff processes.



incidental take An Endangered Species Act term denoting the taking of a species

that is listed as threatened or endangered inadvertently, rather than purposely, while carrying out otherwise lawful activity. Also

see take.

incorporated by referenceDocuments referenced in this final environmental impact

statement that are provided by the individual subject matter experts, are maintained as a part of the administrative record housed at a centralized location, and are available upon request.

intensively managed timber stands Forest stands that are managed to obtain a high level of timber

volume and quality per unit area by using growth-enhancing practices, such as precommercial thinning, commercial thinning,

and fertilization.

intrinsic potential A stream's inherent ability to provide high-quality habitat for

salmonids.

inventory data Information collected by the use of objective sampling methods

designed to quantify the spatial distribution, composition, and rates of change of forest parameters within specified levels of precision. Note: Inventories may be made of all forest resources including trees and other vegetation, fish and wildlife, etc. Also

see baseline.

jeopardy The endangerment of the continued existence of a species that is

listed as threatened or endangered under the Endangered Species Act. Also a finding made through consultation by a federal agency under the Endangered Species Act regarding an action proposed

by the agency that may cause such endangerment.

key watershed A Northwest Forest Plan term that denotes a watershed that

contains habitat for potentially threatened species, stocks of anadromous salmonids, or other potentially threatened fish, or is an area of high-quality water and fish habitat. Also see *watershed*.

land use allocation A designation for a use that is allowed, restricted, or prohibited

for a particular area of land, such as the matrix, adaptive

management, late-successional reserve, or critical habitat land use

allocations.

landscape A broad expanse of terrain, up to the watershed scale of 10,000

to 20,000 acres, which spans several ecosystems irrespective of $\,$

ownership or other political boundaries.

late-successional forest A forest that is in its mature stage and contains a diversity of

structural characteristics, such as live trees, snags, woody debris,

and a patchy, multi-layered canopy.

Late-Successional Management Area A designated area outside of the harvest land base that is actively

managed to protect or enhance conditions of late-successional

forest base.



Late-Successional Reserve

A Northwest Forest Plan term that denotes a land use allocation and has been reserved from programmed timber harvesting and designated to maintain existing or future mature old-growth, or late-successional habitat.

load

The amount of material entering a system, such as point source and nonpoint source pollutants. Typically measured as pounds per day and significant in relation to the volume and circulation of the water or air mass in question. Also see *point source* and *nonpoint source*.

long term

A period of time used as an analytical timeframe; starts more than 10 years after implementation of a resource management plan, depending on the resource being analyzed. Also see *short term*.

mass wasting

The sudden or slow dislodgement and downslope movement of

rock, soil, and organic materials.

Matrix

A Northwest Forest Plan term that denotes a land use allocation for federal lands located outside of reserves, withdrawn areas, and late-successional areas. For the purpose of this final environmental impact statement, this term applies only to the No Action Alternative.

mature stage

Generally begins as tree growth rates stop increasing (after culmination of mean annual increment), and as tree mortality shifts from density-dependent mortality to density-independent mortality.

mean annual increment (MAI)

The total cumulative quantity produced over time of some attribute of a tree or stand growth (for example, wood volume divided by the total age of the tree or stand).

merchantable

Trees or stands having the size, quality and condition suitable for marketing under a given economic condition, even if not immediately accessible for logging

minerals, leasable

Generally found in bedded deposits and include oil, gas, coal, chlorides, sulfates, carbonates, borates, silicates, and nitrates of potassium (potash) or sodium and related products; sulfur; phosphate and its associated and related minerals; asphalt; and gilsonite.

minerals, locatable

Includes both metallic minerals (gold, silver, lead, copper, zinc, nickel, etc.) and nonmetallic minerals (fluorspar, mica, certain limestone and gypsum, tantalum, heavy minerals in placer form and gemstones) in land belonging to the United States that are open to citizens of the United States for exploration, discovery, and location which conveys the exclusive right to extract the locatable minerals upon receiving all required authorizations in accordance with regulations at 43 CFR 3802 for lands in wilderness review and 3809 for other public lands.



minerals, salable

Include but are not limited to: petrified wood and common varieties of sand, stone, gravel, pumice, pumicite, cinder, clay, and rock.

modeling

A scientific method that operates by a structured set of rules and procedures to simulate current conditions and predict future conditions. Also see *analysis*.

multi-layered canopy

Forest stands with two or more distinct tree layers in the *canopy*.

multiple use

A Federal Land Policy and Management Act term that denotes "... the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output." (U.S. Code, Title 43, Chapter 35, Subchapter I, § 1702 (c)) Contrast with dominant use.

National Marine Fisheries Service

A federal agency under the United States Department of Commerce that is responsible for working with others to conserve, protect, and enhance anadromous fish and their habitats.

natural fire regime class

A general classification of how fire would behave over time in the absence of human intervention.

noncomformity

A physical expression of a period of time of non-deposition between rock units, usually indicated by erosion characteristics, bed tilting, or missing strata of an intervening time period.

nonpoint source pollution

Water or air pollutants where the source of the pollutant is not readily identified and is diffuse, such as the runoff from urban areas, agricultural lands, or forest lands. Also see *point source*.

Northwest Forest Plan

A 1994 common management approach for the 19 national forests and 7 BLM districts located in the Pacific Northwest ecological region and jointly approved by the Secretary of Agriculture and the Secretary of the Interior.



nutrient cycling Circulation of elements (such as carbon or nitrogen) between

vegetation/organic material and soil, water and air.

ordinary high water line Fluctuations of water in a stream or waterbody, from higher

runoff of one or two years, that establish a line on the shore which

Glossary

is typically identified by physical characteristics.

overstory That portion of trees forming the uppermost canopy layer in a

forest stand and that consists of more than one distinct layer.

partial harvest For the purpose of defining management action in Alternative

3, partial harvest is a timber harvesting method that removes a substantial portion of the stand basal area (50-70%) on a harvest interval that mimics the historic average return interval for a

moderate or mixed-severity fire.

periodic annual increment (PAI) The difference in stand volume at two successive measurements,

divided by the number of years between measurements. PAI is an approximation to current annual increment, which is not directly

measurable.

petroleum shows A visual appearance of hydrocarbon (gas, oil, asphalt, etc.) in an

exploration well, water well, coal prospect, natural spring, or seep.

petroleum system A relationship of source rock and the resulting petroleum

accumulation.

physiographic province A region of the landscape with distinctive geographical and

biological features. When physiographic provinces subdivide sustained yield units (i.e., BLM districts), assessment areas are

created.

plan conformance The determination that a management action is consistent with

the terms, conditions, decisions, and is within the anticipated environmental consequences, of an approved resource

management plan.

plant communities A group of populations that coexist in space and time and

interact with one another (conifer and hardwood forest lands, oak woodlands, juniper woodlands and rangelands, chaparral, shrubsteppe lands, grasslands, serpentine, riparian vegetation, cliffs, rock outcrops, talus and overslopes, dune systems, meadows,

wetlands, springs, fens, ponds, and vernal pools).

play The existence of a trap that is detectable with geological,

geophysical, or geochemical technology.

point source An origin of water or air pollutants that is readily identified, such

as the discharge or runoff from an individual industrial plant or

cattle feedlot. Also see nonpoint source.



precommercial thinning (PCT)

The practice of reducing the density of trees within a stand by manual cutting, girdling, or herbicides to promote growth increases or maintain growth rates of desirable tree species. The trees killed are generally unmerchantable and retained on the treated area.

preferred alternative

A National Environmental Policy Act term that denotes the alternative in a draft Environmental Impact Statement that is preferred by the proposing agency.

progeny test site

A test area for evaluating parent seed trees by comparing the growth of their offspring seedlings.

proper functioning condition

The state of a riparian wetland area having the vegetation, landform, and large woody debris that are necessary for the species, habitat, and natural processes of an area.

prospect

A drillable trap that is located within a play.

public domain lands

Original holdings of the United States that were never granted or conveyed to other jurisdictions or never reacquired by exchange for other public domain lands.

public land

Land that is owned and controlled by some governmental entity (federal, state, county, or other municipality).

quadratic mean diameter

The average diameter, at breast height, of the tree that is of average basal area in a stand. Also see *basal area and diameter breast height*.

reclamation

Land treatment to "bring back" vegetation or functions of the land that minimize water degradation, damage to aquatic life or wildlife, flooding, erosion, and other adverse effects from surface mining operations. The process may involve backfilling, grading, resoiling, revegetation, decompaction, stabilization, or other measures.

record of decision (ROD)

A document required by the National Environmental Policy Act, that is separate from, but associated with, an environmental impact statement. The ROD publicly and officially discloses the responsible official's decision on which alternative assessed in the EIS will be implemented.

recovery plan

A plan for the conservation and survival of an endangered species or a threatened species listed under the Endangered Species Act for the purpose of improving the status of the species to the point where listing is no longer required.

recruitment habitat

A stand that is capable of becoming habitat for a designated species within a designated period of time.

regeneration

(n.) Tree seedlings or saplings existing in a stand. (ν) The process of re-establishing trees on a tract of forest land where harvest or some natural event has removed the existing trees.



regeneration harvesting

Any removal of trees intended to assist regeneration already

present or make regeneration possible.

relative density

A means of describing the level of competition among trees or site occupancy in a stand, relative to some theoretical maximum that is based on tree size and species composition. Relative density is determined mathematically by dividing the stand basal area by the square root of the quadratic mean diameter. Also see basal

area and quadratic mean diameter.

replacement habitat

A stand of equivalent habitat value to a designated species that is made available as a replacement for habitat that is lost within the same population boundary.

resource management plan (RMP)

A BLM planning document, prepared in accordance with Section 202 of the Federal Land Policy and Management Act that presents systematic guidelines for making resource management decisions for a resource area. An RMP is based on an analysis of an area's resources, their existing management, and their capability for alternative uses. RMPs are issue oriented and developed by an interdisciplinary team with public participation. Also see adaptive

management.

restoration Land treatments intended to bring back a former condition or

function.

riparian area A geographic area containing an aquatic ecosystem and adjacent

> upland areas that directly affect it. This includes floodplains, woodlands, and all areas within a horizontal distance of approximately 100 feet from the normal line of high water of a stream channel or from the shoreline of a standing body of water.

road decommissioning Stabilization of unneeded or low use roads. Depending on

the restoration objective, the series of actions may involve one or several of the following: closure, restoring natural stream crossings and self-maintaining road surface drainage, erosion control, and vegetative treatments (planting), surface decompaction, and sidecast pullback or road obliteration.

road improvement Activities on an existing road that improves its original design

standard. A typical improvement would add culverts and/or

crushed aggregate to a natural dirt surface road.

road obliteration Removing a roadbed back from the landscape and restoring the

natural topography.

road pullback Removal of unstable fill materials placed on the outside edge of

the road prism.

road stormproofing Road surface work that upgrades drainage condition on roads

> that will remain open for travel, but will receive infrequent maintenance. Measures intended to prevent and control erosion and sediment delivery into stream channels, and reduce risk of

road failure.



rotation The planned number of years between establishment of a forest

stand and its regeneration harvest.

salmonid Fish that are born and reared in freshwater, move to the ocean to

grow and mature, and return to freshwater to reproduce. Includes species such as salmon and steelhead. Also see *anadromous fish*.

salvage cutting Removal of dead trees or of trees damaged or dying because of

injurious agents other than competition, to recover economic

value that would otherwise be lost.

seed orchard A plantation of clones or seedlings from selected trees; isolated to

reduce pollination from outside sources, weeded of undesirables,

and cultured for early and abundant production of seed.

sedimentary basin A geologic structural downwarp that has been filled with

eroded rock from surrounding uplands. Both marine (filled with sediment deposited in oceans) and terrestrial (filled with

inflowing rivers) basins exist.

selection cutting A method of uneven-aged management involving the harvesting

of single trees from stands (single-tree selection) or in groups up to four (4) acres in size (group selection) without harvesting the

entire stand at any one time.

shelterwood cutting A regeneration method under an even-aged silvicultural system.

With this method a portion of the mature stand is retained as a source of seed and/or protection during the regeneration period. The retained trees are usually removed in one or more cuttings.

short term A period of time used as an analytical timeframe and that is

within the first 10 years of the implementation of a resource

management plan. Also see long term.

silvicultural prescription A planned series of treatments designed to change current stand

structure to one that meets management goals.

silvicultural system A planned series of treatments for tending, harvesting, and re-

establishing a stand. The system name is based on the number of age classes managed within a stand (e.g., even- aged, two-aged,

uneven-aged).

single-tree selection harvest See selection cutting.

site class A classification of an area's relative productive capacity for tree

growth; commonly expressed in terms of the heights of the largest trees in a stand at a common "index" age, usually 50 or 100 years-old. Site classes are numbered from 1 (most productive) to 5

(least productive).

site potential tree height The average maximum height of the tallest dominant trees (200

years or older) for a given site class. Also see site class.

snag Any standing (upright) dead tree.



sold timber sale

stream, intermittent

A timber sale for which a qualified purchaser has been established, through auction or negotiation, but where the BLM has yet to approve and consummate the timber sale contract. See *awarded*

Glossary

timber sales.

source water watershed A watershed area providing untreated water, used for drinking

water.

special forest productsThose plant and fungi resources that are harvested, gathered,

or collected by permit, and have social, economical, or spiritual value. Common examples include mushrooms, firewood, Christmas trees, tree burls, edibles and medicinals, mosses and lichens, floral and greenery, and seeds and cones, but not soil, rocks, fossils, insects, animal parts, or any timber products of

commercial value.

special status species Those species that are listed under the Endangered Species Act

as threatened or endangered (including proposed and candidate species); listed by a state as threatened, endangered or candidate species; and listed by the BLM as sensitive species. Under the BLM Special Status Species policy (BLM 6840), the BLM State Director has created an additional category called Bureau

Strategic Species (see glossary Bureau strategic species).

stand An aggregation of trees occupying a specific area and sufficiently

uniform in composition, age, arrangement, and condition so that

it is distinguishable from the forest in adjoining areas.

stand establishment stageThe developmental stage extending from stand initiation until

stands have reached canopy closure and density-dependent tree

mortality begins.

standards and guidelines Northwest Forest Plan rules for managing the different land use

allocations. For the purpose of this final environmental impact statement, this term applies only to the No Action Alternative.

statement, this term applies only to the No Action Alternative.

Drainage feature with a dry period, normally for three months or more, where the action of flowing water forms a channel with well-defined bed and banks, supporting bed-forms showing

annual scour or deposition, within a continuous channel network.

stream order A classification system used to define stream size; based on the

hierarchy of tributaries principle. Working downstream from the upper extent of stream channels in a watershed, two unbranched first-order stream channels join to from a second order, and two

like second orders join to form a third order, and so on.

stream, perennial Permanent channel drainage feature with varying but continuous

year-round discharge, where the base level is at or below the water

table.

structurally complex stage Stage at which stands develop characteristics approximating "old-

growth" stands described in many analyses associated with the

Northwest Forest Plan.



structural legacies

The large trees, down logs, snags, and other components of a forest stand that are left after harvesting for the purpose of maintaining site productivity and providing structures and ecological functions in subsequent stands.

structural stage classifications of forests

A scheme used to define the structural stages of forests. It uses four broad classifications (stand establishment, young, mature, and structurally complex) and multiple subclassifications to distinguish differences within classifications.

stumpage

The price paid for timber on the stump. A timber purchaser pays stumpage to the BLM and then incurs the cost of logging and hauling the logs to the mill.

suitable habitat

A stand that has the structures (physical and biological features) necessary to meet the biological requirements of a particular species.

sustainability

Sustainability can be defined as using, developing, and protecting resources in a manner that enables people to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environmental, economic and community objectives.

sustained yield

The volume of timber that a forest can produce continuously at a given intensity of management; the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources without impairment of the productivity of the land.

sustained yield capacity

The volume of timber that can be offered for sale each year from an area based upon the consistent volume of timber that a forest can produce continuously. Also see *annual productive capacity*.

sustained yield unit

A BLM district.

take

An Endangered Species Act term that denotes the act of or the attempt to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a species listed as threatened or endangered. Also see *incidental take*.

terrain

A tract or region of the earth's surface or grouping of rock considered as a separate physical feature.

thinning

A silvicultural treatment made to reduce the density of trees primarily to improve tree/stand growth and vigor, and/or recover potential mortality of trees, generally for commodity use. Also see *density management, precommercial thinning, and commercial thinning.*

timber

Forest crops or stands, or wood that is harvested from forests and is of a character and quality suitable for manufacture into lumber and other wood products rather than for use as fuel.



timberland

two-aged stand

two-aged system

understory

Forested land capable of producing crops of industrial wood at a rate of at least 20 cubic feet/acre per year and is not withdrawn from timber production. (Some forest lands are not classified by the FIA [U.S. Forest Service Inventory and Analysis] as timberland because they are either unproductive or by law are off limits to harvesting [e.g., national parks and wildernesses]).

timber production capability classification (TPCC)

An analytical tool that inventories and identifies sites as capable of sustaining intensive timber management without it degrading their productive capacity. This tool evaluates a site's soil depth, available moisture, slope, drainage, and stability to determine site capacity for timber management activity. Sites that prove incapable of sustaining intensive timber management are typically not included in the harvest land base. Also see *harvest land base*.

trap A geologic structure that allows petroleum to accumulate and be preserved.

A stand of trees comprised of two distinct age classes separated in age by more than \pm 20% of rotation.

A silvicultural system that regenerates and maintains stands with two age classes. The resulting stand may be two-aged, or trend towards an uneven-aged condition as a consequence of both an extended period of regeneration establishment and the retention of reserve (green live) trees that may represent one or more age

classes.

Portion of trees or other woody vegetation that forms the lower layer in a forest stand, and that consists of more than one distinct

layer.

uneven-aged managementA combination of actions that simultaneously maintainscontinuous tall forest cover, recurring regeneration of desirablespecies, and the orderly growth and development of trees through

a range of diameter or age classes.

uneven-aged stand A stand with three or more distinct age classes, either intimately

mixed or in small groups.

United States Fish and Wildlife

Service (USFWS)

A federal agency under the United States Department of the Interior that is responsible for working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats.

United States Forest Service (USFS) A federal agency under the United States Department of

Agriculture that is responsible for administration of the nation's

national forests.

variable-density thinning (VDT) A thinning method where two or more densities of retained trees

are used to promote stand heterogeneity through the development of *multi-layered canopies*. Provision of conditions conducive to the initiation and growth of regeneration is often an objective of

VDT to encourage understory development.

Glossary - 921



variable-retention harvest system

An approach to harvesting that is based on retaining structural elements or biological legacies (trees, snags, logs, etc.) from the harvested stand for integration into the new stand to achieve various ecological objectives. Note: The major variables in variable retention harvest systems are types, densities, and spatial arrangement of retained structures: 1) aggregated retention is retention of structures as (typically) small intact forest patches within the harvest unit; 2) dispersed retention is retention of structures or biological legacies in a dispersed or uniform manner.

watershed All of the land and water within the boundaries of a drainage area

that are separated by land ridges from other drainage areas. Larger watersheds can contain smaller watersheds that all ultimately flow their surface water to a common point. Also see *fifth-field*

watershed and key watershed.

wetland (jurisdictional) A wetland determination, using the Army Corps of Engineers

current interagency rules, based on presence of defined wetland

vegetation, soils and hydrology.

wetland (natural) Unaltered land with natural presence and duration of water,

sufficient to support wetland vegetation

wildfire Any nonstructural fire, other than prescribed burns, that occurs

on wildland.

wildfire, uncharacteristic A wildfire that burns with unusual intensity and size. They are

a particular concern in drier ecosystems such as sagebrushgrasslands, dry Douglas-fir, dry grand fir and ponderosa pine forests in the West where combustible fuels have accumulated.

wildland Lands that are not dedicated to such uses as agricultural, urban,

mining, or parks.

wildland/urban interface The area in which structures and other human development meet

or intermingle with undeveloped wildland.

windthrow A tree or trees uprooted or felled by the wind.

young stage Characterized by the predominance of density-dependent tree

mortality and, in high density stands, a small range of tree

diameters.