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## Acronyms and Abbreviations

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This section provides the main acronyms and abbreviations used in the document.

µg	micron
ACEC	Area of Critical Environmental Concern
ACS	Aquatic Conservation Strategy
AM	annual maintenance
ASQ	allowable sale quantity
AUM	animal unit month
bf	board foot or board feet
BLM	Bureau of Land Management
BMP	best management practice
BTU	British thermal unit
C	carbon
CAAG	Cooperating Agencies Advisory Group
CBWR	Coos Bay Wagon Road
CDP	Census Designated Place
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CMAI	culmination of mean annual increment
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
COLE	Carbon OnLine Estimator
CVS	Current Vegetation Survey
CWPP	Community Wildfire Protection Plan
DBH	diameter at breast height
DM	deferred maintenance
DOGAMI	Department of Geology and Mineral Industries
DPS	distinct population segment
EIS	environmental impact statement
ENSO	El Niño-Southern Oscillation
EPA	Environmental Protection Agency
ERMA	Extensive Recreation Management Area
ESA	Endangered Species Act
ESU	evolutionarily significant unit
FEIS	final environmental impact statement
FEMAT	Forest Ecosystem Management Assessment Team
FERC	Federal Energy Regulatory Commission
FLPMA	Federal Land Policy and Management Act
FOI	Forest Operations Inventory
FR	Federal Register
FRI	fire return interval
FS	U.S. Forest Service
FTE	full-time equivalent
FUDS	Formerly Used Defense Sites
FVS	Forest Vegetation Simulator
FWS	U.S. Fish and Wildlife Service
GFMA	General Forest Management Area
GIS	geographic information system

GNN	gradient nearest neighbor
ha	hectare
HITA	High Intensity Timber Area
HLB	Harvest Land Base
HMA	herd management area
HUC	hydrologic unit code (e.g., HUC-10 watershed)
ILAP	Integrated Landscape Assessment Project
IPCC	Intergovernmental Panel on Climate Change
IWG	Interagency Working Group
km	kilometer
LEMMA	Landscape, Ecology, Modeling, Mapping, and Analysis
LITA	Low Intensity Timber Area
LSR	Late-Successional Reserve
m	meter
Mbf	thousand board feet
Mg	megagram
MITA	Moderate Intensity Timber Area
Mbf	thousand board feet
MMbf	million board feet
MMT	million metric tons
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NEPA	National Environmental Policy Act
NLCS	National Landscape Conservation System
NMFS	National Marine Fisheries Service
NO <sub>x</sub>	nitrogen oxides
NREL	National Renewable Energy Laboratory
NWFP	Northwest Forest Plan
O <sub>3</sub>	ozone
O&C Act	Oregon and California Lands Act
OAR	Oregon Administrative Rules
OBRA	Omnibus Budget Reconciliation Act of 1993
ODEQ	Oregon Department of Environmental Quality
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
OHTA	Owl Habitat Timber Area
OHV	off-highway vehicle
ONA	Outstanding Natural Area
ORBIC	Oregon Biodiversity Information Center
ORV	outstandingly remarkable value
PCT	Pacific Crest Trail
PDO	Pacific Decadal Oscillation
PILT	Payment in Lieu of Taxes
PM <sub>2.5</sub>	particulate matter with a diameter less than or equal to 2.5 micrometers
PM <sub>10</sub>	particulate matter with a diameter less than or equal to 10 micrometers
ppb	parts per billion
ppm	parts per million
PRMP	Proposed RMP
QMD	quadratic mean diameter
RCP	representative concentration pathway

RD	relative density
RMA	recreation management area
RMIS	Recreation Management Information System
RMP	resource management plan
RNA	Research Natural Area
ROD	record of decision
ROW	right-of-way
SCC	social cost of carbon
SDI	Stand Density Index
SFP	special forest product
SO <sub>2</sub>	sulfur dioxide
SPTH	site-potential tree height
SRMA	Special Recreation Management Area
SRS	Secure Rural Schools
SSRA	Smoke Sensitive Receptor Area
SYU	Sustained Yield Unit
TDSA	Tribal Designated Statistical Area
Tg	teragram
TMDL	Total Maximum Daily Load
TMP	travel management plan
TPA	trees per acre
TPCC	Timber Productivity Capability Classification
TTM	travel and transportation management
UTA	Uneven-aged Timber Area
USDA	United States Department of Agriculture
USDC	United States Department of Commerce
USDOE	United States Department of Energy
USDI	United States Department of Interior
USC	United States Code
VRI	visual resource inventory
VRM	visual resource management
WARSEM	Washington Road Surface Erosion Model
WSR	Wild and Scenic River
WTP	willingness to pay
WUI	Wildland Urban Interface

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## Glossary

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**1954 Boundary** – The reservation that was home to the Klamath Tribes after the signing of the 1864 treaty ceding their lands until 1954 when the Tribe was terminated from Federal recognition and the reservation was removed.

**Aboriginal homelands** – Lands referenced in treaties and or legislation, although not officially ceded by a ratified treaty. It can also describe an area where people originated from prior to being relocated to reservations.

**Acquired lands** – Public lands that the Federal government has obtained by purchase, condemnation, gift, or exchange, as distinguished in the decision area from Coos Bay Wagon Road lands, O&C lands, and public domain lands.

**Active crown fire** – A solid flame consistently maintained in the canopy of the stand of trees or shrubs.

**Age class** – A system that categorizes forest stands by interval of years. For this analysis, the interval is 10-year increments. For example, a stand of ten-year age class of 60 includes ages 56–65.

**Aggregated retention** – See *variable-retention regeneration harvest*.

**Air quality attainment area** – A geographic area with air quality as good as or better than the National Ambient Air Quality Standards as defined in the Clean Air Act. An area may be in attainment for one or more criteria pollutants but also be in nonattainment for one or more other criteria pollutants.

**Air quality maintenance area** – A geographic area that had a history of nonattainment, but are now consistently meeting the National Ambient Air Quality Standards. Maintenance areas have been re-designated by the U.S. Environmental Protection Agency (EPA) from “nonattainment” to “attainment with a maintenance plan,” or designated by the Environmental Quality Commission.

**Air quality nonattainment area** – A geographic area that has not consistently met the clean air levels set by the U.S. Environmental Protection Agency in the National Ambient Air Quality Standards.

**Allotment** – An area of land in which one or more livestock operators graze their livestock. Allotments generally consist of BLM-administered lands but may include other federally managed, state-owned, and private lands.

**Allowable Sale Quantity** – The timber volume that a forest can produce continuously under the intensity of management described in the RMP for those lands allocated for permanent timber production. The terms ‘annual productive capacity,’ ‘annual sustained yield capacity,’ ‘sustained yield capacity,’ and ‘allowable sale quantity’ are synonymous.

**Anadromous fish** – Fish that are born and reared in freshwater, move to the ocean to grow and mature, and return to freshwater to reproduce.

**Ancestral territory** – Homelands and traditional territory of ancestral Tribes. Lands that may or may not have been formally ceded by a Tribe. May reference lands from which Tribes were forcibly removed and may or may not have been compensated for later. May also reference reservation lands that were taken back later.

**Animal Unit Month (AUM)** – The amount of forage necessary for the sustenance of one cow or its equivalent for 1 month.

**Annual productive capacity** – See *allowable sale quantity*.

**Annual sustained yield capacity** – See *allowable sale quantity*.

**Aquatic habitat** – Habitat that occurs in free water.

**Area of Critical Environmental Concern (ACEC)** – Lands where special management attention is needed to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish, and wildlife resources or other natural systems or processes or to protect life and provide safety from natural hazards.

**Basal area** – The cross-sectional area of a single plant 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.

**Bed load** – Coarse sediment particles with a relatively fast settling rate that move by sliding, rolling, or bouncing along the streambed in response to higher stream flows.

**Beneficial use** – In water use law, reasonable use of water for a purpose consistent with the laws and best interest of the people of the state. Such uses include, but are not limited to, the following: instream, out of stream, and ground water uses, domestic, municipal, industrial water supply, mining, irrigation, livestock watering, fish and aquatic life, wildlife, fishing, water contact recreation, aesthetics and scenic attraction, hydropower, and commercial navigation.

**Best Management Practices (BMPs)** – Methods, measures, or practices designed to prevent or reduce water pollution. Usually, BMPs are applied as a system of practices rather than a single practice.

**Bioclimatic envelope** – The range of climatic conditions in which a species can survive and reproduce.

**Bioengineering** – Techniques combining the biological elements of live plants with engineering design concepts for slope protection and erosion reduction.

**Biological legacies** – An organism, a reproductive portion of an organism, or a biologically derived structure or pattern inherited from a previous ecosystem. Biological legacies often include large trees, snags, and down logs left after harvesting to provide refugia and to enrich the new stand structurally. See *variable-retention harvest*.

**Biological Opinion** – The document resulting from formal consultation that states the opinion of the Fish and Wildlife Service or National Marine Fisheries Service as to whether or not a Federal action is likely to jeopardize the continued existence of ESA-listed species or results in destruction or adverse modification of critical habitat.

**Biomass** – Plant materials used as a source of renewable combustible fuel. Also includes woody material ground up into fiber and used in secondary wood products.

**Board foot (bf)** – A lumber or timber measurement term. The amount of wood contained in an unfinished board 1 inch thick, 12 inches long, and 12 inches wide.

**Breeding, nesting, roosting, foraging habitat** – The vegetation with the age class, species composition, structure, sufficient area, and adequate food source to meet some or all of the life needs of specific species.

**British thermal unit (BTU)** – A common unit of measuring energy in the English Inch-Pound (vs. Metric) system; the amount of heat required to raise 1 pound of water 1 °F.

**Broad based dip** – Shallow gradual dips in the constructed road grade with a higher than road surface embankment angled across the road in the direction of water flow. The dip portion is used to drain ditch flows to the other side of the road where drainage can dissipate at ground level or exit upon an erosion resistant surface, if needed, to prevent erosion.

**Broadcast burn(ing)** – A prescribed burning activity where fire is applied generally to most or all of an area within well-defined boundaries for reduction of fuel hazard, as a resource management treatment, or both. Canopy is generally either non-existent or not an objective to retain.

**Bureau Sensitive species** – Plant or animal species eligible for ESA-listed or candidate, state listed, or state candidate (plant) status, are on list 1 in the Oregon Natural Heritage Data Base, or are approved for this category by the BLM State Director.

**Cable yarding** – The movement of cut trees or logs from the area where they are felled to the *landing* on a system composed of suspended cables.

**Candidate species** – Taxa for which the U.S. Fish and Wildlife Service has sufficient information on their status and threats to propose the species for listing as endangered or threatened under the Endangered Species Act, but for which issuance of a proposed rule is currently precluded by higher priority listing actions. Separate lists for plants, vertebrate animals, and invertebrate animals are published periodically in the Federal Register.

**Canopy** – The area consisting 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 multi-layered condition can result.

**Canopy base height** – The average distance (height) from the ground level to the lower branches of the trees that form the main forest canopy where there is sufficient crown loading in needle and 1-hour fuels for a certain level of surface fire intensity to transition into the crown.

**Canopy bulk density** – The mass of available canopy fuel per unit canopy volume.

**Canopy cover** – A measure of the percentage of ground covered by a vertical projection of the tree crowns.

**Canopy closure** – The proportion of the sky hemisphere obscured by vegetation when viewed by a single point.

**Ceded lands** – Tribal lands acquired by the United States government that a tribe ceded, granted, relinquished, sold, or lost rights to under a treaty or other agreement or law of the United States in exchange for rights or benefits (or both).

**Channel migration zone** – the area along low-gradient alluvial shifting channel(s) within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring

hydrological and related processes when considered with the characteristics of the channels and their surroundings.

**Checkerboard ownership** – A land ownership pattern in which every other section (square mile) is in Federal ownership as a result of Federal land grants to early western railroad companies.

**Clearcut** – A timber harvesting method that removes essentially all trees in an area, producing a fully exposed microclimate over the majority of the harvested area.

**Climatype** – A population defined primarily by the temperature and precipitation ranges to which it is presumably adapted genetically.

**Climax stage** – See *seral stages*.

**Closed canopy** – The degree to which the canopy (forest layers above one's head) blocks sunlight or obscures the sky. It can only be accurately determined from measurements taken under the canopy to account for openings in the branches and crowns.

**Coarse woody debris** – See *down woody debris*.

**Conditional crown fire** – A crown fire that will not initiate within the stand under given conditions, but canopy fuels are sufficiently dense to support an active crown fire entering from an adjacent stand.

**Commercial forest land base** – Forestlands 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** – Stand thinning in which some or all of the cut trees are removed from the stand for timber. 'Commercial thinning' in this context does not include individual tree falling or stand thinning in which all the cut trees are left in the stand or some of the cut trees are moved for restoration purposes, or fuels reduction treatments in which cut trees are burned, chipped, or otherwise disposed of without removal from the stand for timber. 'Commercial thinning' may be implemented through a variety of mechanisms, including timber sale contracts and stewardship agreements or contracts.

**Commercial use (of roads)** – The primary purpose for development and use of the BLM road system is access for forest management activities and the transportation of forest products. Commercial use of BLM's road system typically includes log hauling and aggregate hauling and is authorized by either 1) perpetual reciprocal right-of-way agreements between the United States and private timberland owners, or 2) BLM timber sale contracts.

**Condition class (fire regimes)** – Fire regime condition classes are a measure describing the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components, such as species composition, structural stage, stand age, canopy closure, and fuel loadings. One or more of the following activities may have caused this departure: fire suppression, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects or disease, or other management activities.

**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 interaction between the U.S. Fish and Wildlife Service and another Federal agency when it is determined that the agency’s action may affect a species that has been ESA-listed as threatened or endangered or its critical habitat

**Convection** – Transfer of heat by the automatic circulation of fluids.

**Cooperating agency** – A Tribe or Federal, State, or local government agency that assists a lead Federal agency in developing an environmental assessment or environmental impact statement. These can be any agency with jurisdiction by law or special expertise for proposals covered by NEPA (40 CFR 1501.6).

**Coos Bay Wagon Road (CBWR) Lands** – Public lands that were granted to the Southern Oregon Company for construction of a military road, but were subsequently reconveyed to the United States.

**Council on Environmental Quality (CEQ)** – An advisory council to the President of the U.S. that was established by the National Environmental Policy Act of 1969. It reviews Federal programs to analyze and interpret environmental trends and information.

**County service area** – Refers to those counties where tribal members reside that all tribally operated programs and services are available to them. The particular number and specific counties vary from Tribe to Tribe.

**Criteria pollutants** – Six principle pollutants considered most harmful to public health and the environment and that can be monitored effectively. They include carbon monoxide (CO), lead (Pb), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), and particulate matter of two different aerodynamic diameters (PM<sub>10</sub> and PM<sub>2.5</sub>).

**Critical habitat** – Under the Endangered Species Act, critical habitat is defined as: (1) the specific areas within the geographic area occupied by an ESA-listed species on which are found physical and biological features essential to the conservation of the species, and that may require special management considerations or protection; and (2) specific areas outside the geographic area occupied by an ESA-listed species, when it is determined that such areas are essential for the conservation of the species.

**Cross drain culvert** – Culverts strategically installed to pass ditch runoff or drain seeps and springs safely under the road prism (often referred to as relief culverts).

**Crown (of road)** – The center of the road being higher than the outer edges, creating a nearly flat A-shape with a normal cross slope of ½” to ¾” per foot.

**Crown (of tree)** – Upper part of a tree or other woody plant that carries the main system of branches and the foliage.

**Crown fire** – A fire in the upper tree or shrub canopy. Crown fires are sometimes classified as independent (conditional) or dependent (active or passive) to distinguish the degree of independence from the surface fire.

**Cubic foot** – A unit of solid wood one foot square and one foot thick.

**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 which some attribute (e.g., wood volume of a tree or stand growth) is at maximum. At culmination, MAI equals the periodic annual increment.

**Cultural resources** – Locations of human activity, occupation, or use. Cultural resources include archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and locations of traditional cultural or religious importance to specified social or cultural groups.

**Culvert** – Enclosed channels of various materials and shapes designed to convey stream or ditch water under and away from the roadway.

**Cumulative effect** – The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what 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.

**Current Vegetation Survey (CVS)** – BLM’s regional permanent plot inventory. Each sampling point has a series of nested concentric sub-plots, in which trees of different diameter classes are measured. Live and dead trees, down woody debris, and understory vegetation are measured. The plots are located on a 1.7-mile grid, on BLM land, if at least one subplot is forested.

**Debris flow** – A rapid moving mass of rock fragments, soil, and mud, with more than half of the particles being larger than sand size

**Decision area** – The lands within the planning area of this RMP revisions for which the BLM has authority to make land use and management decisions. In general, the BLM has jurisdiction over all BLM-administered lands (surface and subsurface) and over mineral estate in areas of split estate (i.e., areas where the BLM administers Federal mineral estate, but the surface is not owned by the BLM).

**Deciview** – A unit of visibility proportional to the logarithm of the atmospheric extinction; a measure of how hazy the atmosphere is over a period; the smaller the number, the clearer the air

**Decommissioning (of roads)** – See *road closure*.

**Desired future condition** – For rangeland vegetation, the condition of rangeland resources on a landscape scale that meet management objectives. It is based on ecological, social, and economic considerations during the land planning process. It is usually expressed as ecological status or management status of vegetation (species composition, habitat diversity, and age and size class of species) and desired soil qualities (soil cover, erosion, and compaction). In a general context, desired future condition is a portrayal of the land or resource conditions that are expected to result if goals and objectives are fully achieved.

**Detrimental soil disturbance** – The limit where the naturally occurring soil properties change to a reduced state and the inherent soil capacity to sustain growth of desired vegetation is reduced. Detrimental soil disturbance generally represents any one or all of the following; unacceptable levels of erosion (i.e., formation of rills, gullies, pedestals, or soil deposition), loss of organic matter (removal of more than half the organically enriched upper horizon), soil compaction (increase in natural bulk density that restricts root growth or wheel (or track) ruts > 2” deep), soil heating (physical and biological changes to the soil resulting from elevated temperatures of long duration), or soil displacement (removal of  $\geq 1$ ” of any surface horizon from a contiguous area greater than 100 sq. ft.).

**Diameter breast height (DBH)** – The diameter of the stem of a tree measured at 4.5 feet above the ground level on the uphill side of the stem. See *quadratic mean diameter*.

**Dispersal habitat (northern spotted owl)** – 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*.

**Disposal** – Transfer of public land out of Federal ownership to another party through sale or exchange as authorized by the Recreation and Public Purposes Act of 1926, Desert Land Entry or other land law statutes

**Distinct population segment (DPS)** – a discrete population of a species and the smallest portion of a vertebrate species that can be protected under the Endangered Species Act.

**Disruption (ESA-listed wildlife)** – A type of disturbance that creates the likelihood of injury to ESA-listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering (see 50 CFR 17.3). Disruption is a subset of disturbance. An action that would disrupt the normal behavior of an ESA-listed species may affect, and would be likely to adversely affect, the species and would cause the taking of affected individual(s).

**Disturbance (ESA-listed wildlife)** – A human action that may affect an ESA-listed animal species by the addition, above ambient condition, of noise or human intrusion, or the mechanical movement of habitat (e.g., the shaking of the forest canopy from helicopter rotor wash). Disturbance is temporary/short term (minutes to days) and does not modify habitat structure, or water/air flow or quality. Disturbance should not be confused with “surface disturbance,” which refers to an action that modifies soil, water, or vegetation. Disturbance requires the presence of an ESA-listed animal.

**Disturbance (natural)** – A force that causes significant change in structure or composition through natural events such as fire, flood, wind, or earthquake, mortality caused by insect or disease outbreaks, or by human-caused events such as the harvest of forest products.

**Down woody debris/coarse woody debris** – Portion of a tree that has fallen, or been cut and left in the woods. Usually refers to pieces at least 20 inches in diameter.

**Durable rock surfacing** – Durability is an indicator of the relative quality or competence of an aggregate to resist abrasion, impact or grinding to produce clay like fines when subjected to commercial hauling. Durable rock surfacing will support commercial timber or rock haul in the winter with a minimal level of fines produced due to wear.

**Dry season (for roads)** – An annually variable period of time, starting after spring rains cease and when hillslope subsurface flow declines; drying intermittent streams and roadside ditches. Generally June through October, but may start or end earlier depending on seasonal precipitation influences.

**Effective depth of decompaction** – The depth to which the soil is tilled or loosened to provide infiltration capacity that is near to the adjacent undisturbed forest floor. Measured depth is from road surface to bottom of evidence of platy soil or increased bulk density that impedes water transmission.

**Eligible river** – A river or river segment found to meet criteria found in Sections 1(b) and 2(b) of the Wild and Scenic Rivers Act of being free flowing and possessing one or more outstandingly remarkable value.

**Endangered species** – Any species of plant or animal defined through the Endangered Species Act as being in danger of extinction throughout all or a significant portion of its range, and published in the Federal Register.

**Energy dissipater** – Any device or installation of material used to reduce the energy of flowing water.

**Environmental Impact Statement (EIS)** – A detailed statement prepared by the responsible official in which a major Federal action that significantly affects the quality of the human environment is described, alternatives to the proposed action are provided, and effects are analyzed.

**Even-aged management** – A silvicultural system, which creates forest stands that are primarily of a single age or very narrow range of ages. See *even-aged stand*.

**Even-aged stand** – A stand composed of a single distinct *age class* managed as a discrete operational unit. See *even-aged management*.

**Fire frequency** – The number of times that fires occur within a defined area and time period.

**Fire hazard** – A fuel complex, defined by volume, type condition, arrangement, and location, that determines the degree of ease of ignition and of resistance to control.

**Fire regime** – Description of the patterns of fire occurrences, frequency, size, severity, and sometimes vegetation and fire effects as well, in a given area or ecosystem. A fire regime is a generalization based on fire histories at individual sites.

**Fire resilient forest** – A forest having characteristics that limit fire severity and increase the resistance of the forest to mortality

**Fire return interval** – The time between fires in a defined area, usually at the scale of a point, stand or relatively small landscape area. This is called Mean Fire Interval (MFI) in the LANDFIRE system, where it refers to the average number of years between fires in representative stands.

**Fire suppression** – Fire management actions taken to extinguish a fire or confine fire spread.

**Fifth-field watershed** – Individual watershed within a Hydrologic Unit as defined by the U.S. Geological Survey, typically averages 87,000 acres in size.

**Floodplain** – Level lowland bordering a stream or river onto which the flow spreads at flood stage.

**Forage** – All browse and herbaceous foods available to grazing animals, including wildlife and domestic livestock

**Forest Operations Inventory (FOI)** – An intensive inventory that provides managers with information regarding age, species, stand location, size, silvicultural needs, and recommended treatment based on individual stand conditions and productivity.

**Forestland** – Land at least 10 percent stocked by forest trees of any size, and including land that formerly had such tree cover and capable of redeveloping forested conditions.

**Fluid minerals** – Oil, gas, coal bed natural gas, and geothermal resources.

**Fuel loads** – The amount of combustible material present per unit area.

**Full decommissioning (of roads)** – See *road closure*.

**Genetic gain** – The average improvement of a specific trait in a population of progeny over the average of the parental population (e.g., height growth increase).

**Geographic Information System (GIS)** – A system of computer hardware, software, data, people, and applications that capture, store, edit, analyze, and display a potentially wide array of geospatial information.

**Geotextile** – A geosynthetic fabric or textile manufactured from synthetic plastic polymers, not biodegradable, in woven or non-woven types, and used for various purposes ranging from reinforcement and separation to drainage filtration and sediment control.

**Geothermal energy** – Natural heat from within the Earth, captured for production of electric power, space heating or industrial steam.

**Grade break** – A long, gradual break in grade on a road with a relatively gradual downhill slope that improves drainage. Grade breaks limit water flow by decreasing concentration and velocity from a reduced area of road section.

**Gradient Nearest Neighbor** – A method to characterize forest vegetation across a region that integrates vegetation measurements from regional networks of field plots, mapped environmental data, and Landsat TM data. The method applies direct gradient analysis (canonical correspondence analysis) and nearest-neighbor imputation to ascribe detailed ground attributes of vegetation to each patch in a regional landscape.

**Gravel interstitial space** – The pockets between pieces of gravel.

**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. See *Variable-retention harvest*.

**Ground-based yarding** – The movement of cut trees or logs from the area where they are felled to the landing through the use of mechanical equipment or animals that move along the ground.

**Group selection harvest** – Areas in a *commercial thinning* or *selection harvest* entry where trees are harvested in groups of varying sizes. Synonymous with ‘patch cut,’ and ‘gap creation.’ See also *group selection opening*.

**Group selection opening** – The resulting forest condition, which exists after *group selection harvesting* is employed. An area in the *stand* with a low level of *canopy cover* and relatively few remaining *overstory* trees. Synonymous with ‘gap.’

**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.

**Hand pile** – Piling of fuels by hand.

**Harvesting** – The process of cutting and removing of merchantable trees from a forested area.

**Harvest Land Base** – Those lands on which the determination and declaration of the Annual Productive Capacity/Allowable Sale Quantity (ASQ) is based. The ASQ is based on implementing a set of specific timber management activities and assumes those practices will be repeated over time and results in a sustainable harvest level.

**Helicopter yarding** – The movement of cut trees or logs from the area where they are felled to the landing through the use of helicopters.

**Herbaceous vegetation** – Seed-producing annual, biennial, or perennial vegetation that does not develop persistent woody tissue, but dies down at the end of a growing season.

**Herd Management Area** – Public land under the jurisdiction of the BLM that has been designated for special management emphasizing the maintenance of an established wild horse or burro herd.

**High intrinsic potential streams** – streams with the habitat features that are known to be highly productive for an individual fish species.

**High sediment producing roads** – Roads whose physical characteristics and rights of way vegetation, in combination with precipitation in the watershed and traffic result in high erosion rates.

**High-severity fire** – Greater than 75 percent of the total canopy cover, or basal area, is killed by the sum of all fire effects.

**Insloping** – Constructing and maintaining the entire surface of the road toward the cutslope side of the road.

**Intermittent stream** – A non-permanent drainage feature with a dry period, normally for three months or more. Flowing water forms a channel feature with well-defined bed and banks, and bed-forms showing annual scour or deposition, within a continuous channel network.

**Intrinsic potential (stream)** – A stream's inherent ability to provide high quality habitat for salmonids.

**Integrated vegetation management** – A combination of silviculture treatments, fire and fuels management activities, and harvest methods. Activities include planting, prescribed fire, thinning, single-tree selection harvest, and group selection harvest.

**Invasive species** – A non-native species whose introduction does, or is likely to, cause economic or environmental harm or harm to human health.

**Ladder fuel** – Fuel that provides vertical continuity between forest strata, thereby allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease.

**Landing** – A cleared area in the forest to which logs are yarded for loading onto trucks for transport.

**Landscape** – A heterogeneous land area with interacting ecosystems that are repeated in similar form throughout.

**Land Use Allocation** – The identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the planning area, based on desired future conditions.

**Lead-off ditch** – A formed channel that diverts ditch water away from the road, usually angled in the direction of water flow and placed at locations to empty into vegetative filtering areas.

**Leasable minerals** – Minerals 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.

**Locatable minerals** – Metallic minerals (e.g., gold, silver, lead, copper, zinc, and nickel) 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 possessory 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 43 CFR 3809 for other public lands.

**Lop and scatter** – The cutting of branches, tops, and unwanted boles into lengths that will lie close to the ground and spreading debris more or less evenly.

**Low-severity fire** – Less than 25 percent of the total canopy cover or basal area is killed by the sum of all fire effects.

**Low volume road** – A road that is functionally classified as a resource road and has a design average daily traffic volume of 20 vehicles per day or less.

**Machine pile** – The piling of activity fuels with machinery.

**Management direction** – Rules in an RMP that identify where future actions may or may not be allowed and what restrictions or requirements may be placed on those future actions to achieve the objectives set for the BLM-administered lands and resources.

**Management objective** – Descriptions of desired outcomes for BLM-administered lands and resources in an RMP; the resource conditions that the BLM envisions or desires would eventually result from implementation of the RMP. As such, management objectives are not rules, restrictions, or requirements by which the BLM determines which implementation actions to conduct or how to design specific implementation actions.

**Mass wasting** – The downslope movement of earth materials caused by gravity. This is an all-inclusive term that includes, but is not limited to landslides, rock falls, debris avalanches, and creep; however, it does not include surface erosion by running water.

**Mean annual increment (MAI)** – the total cumulative quantity produced over time of some attribute of a tree or stand growth (e.g., wood volume divided by the total age of the tree or stand).

**Mechanical mastication** – The mechanical crushing, grinding, shredding of shrubs, small trees, and downed woody material, leaving a low profile, matted, continuous surface fuel bed.

**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.

**Mineral estate** – The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

**Mining claim** – A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. A mining claim may contain as many adjoining locations as the locator may make or buy. There are four categories of mining claims: lode, placer, millsite, and tunnel site.

**Mitigation** – The act of reducing or eliminating an adverse environmental impact.

**Mixed-severity fire** – The severity of fires varies between nonlethal understory and lethal stand-replacement fire with the variation occurring in space or time. The result may be a mosaic of young, older, and multiple-aged vegetation patches as a function of landscape complexity or vegetation patterning. Typically, more than 25 percent and less than 75 percent of the total canopy cover or basal area is killed by the sum of all effects. Fires may also vary over time between low-intensity surface fires and longer-interval stand replacement fires.

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

**Monitoring** – The review on a sample basis, of management practices to determine how well objectives are being met, as well as the effects of those management practices on the land and environment.

**Multi-layered canopy** – Forest *stands* with two or more distinct *canopy* layers.

**Multi-aged stand** – *Two*-aged and *uneven*-aged stands.

**National Landscape Conservation System** – Special Congressional or Presidential land use designations such as National Monuments, Wild and Scenic Rivers, and Wilderness Areas.

**Non-commercial thinning (management)** – Cutting merchantable trees but not removing them from the *stand*.

**No Surface Occupancy** – A fluid minerals leasing major constraint that prohibits occupancy or disturbance on all or part of the lease surface to protect special values or uses. Lessees may exploit the fluid mineral resources under the leases restricted by this constraint through use of directional drilling from sites outside the No Surface Occupancy area, or application of waivers, exceptions, or modifications.

**O&C lands** – Public lands granted to the Oregon and California Railroad Company and subsequently revested to the United States.

**Occupied stand (marbled murrelet)** – Marbled murrelet occupied stand refers to all forest stands, regardless of age or structure, within 1/4 mile (1,320 feet) of the location of marbled murrelet behavior indicating occupancy and not separated from the location of marbled murrelet behavior indicating occupancy by more than 328 feet of non-forest.

**ODFW in stream work period** – Oregon Department of Fish and Wildlife designated guidelines that identify periods of time for in-water work that would have the least impact on important fish,

wildlife and habitat resources. Work periods are established to avoid the vulnerable life stages of fish including migration, spawning and rearing. Work periods are established for the named stream, all upstream tributaries, and associated lakes within a watershed (ODFW 2008, Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources).

**Obliteration (of roads)** – See *road closure*.

**Off-Highway Vehicle (OHV)** – Any motorized track or wheeled vehicle designed for cross-country travel over any type of natural terrain.

**Ordinary high water line** – The line on the stream bank or shore to which the high water ordinarily rises each year and is the waterward limit of upland vegetation and soil. This line is not established based on the level to which the water rises during major floods.

**Outsloping** – Constructing and maintaining the entire surface of the road toward the fillslope side of the road.

**Outstandingly Remarkable Values** – Values among those listed in Section 1(b) of the Wild and Scenic Rivers Act of 1968: “scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values...” Other similar values that may be considered include ecological, biological, or botanical.

**Overstory** – That portion of trees forming the uppermost canopy layer in a forest stand and that consists of more than one distinct layer.

**Paleontological resource** – Any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth.

**Particulate matter (PM)** – A complex mixture consisting of varying combinations of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid, typically measured in micrometers (e.g., PM<sub>2.5</sub> – particular matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers).

**Passive crown fire** – A fire that initiates from the surface fuels, up through the ladder fuels, and into the aerial fuels in the crowns of trees in which individual trees or groups of trees torch.

**Peak flow** – The highest amount of stream or river flow occurring in a year, or from a single storm event.

**Peak to Peak Boundary** – The boundary the Klamath Tribes identified as their intended reservation upon ceding their lands to the Federal government. The 1954 boundary is what was established as the actual reservation.

**Perennial stream** – A stream that typically has running water on a year-round basis. Their base level is at, or below, the water table.

**Periodic annual increment** – the difference in a stand attribute at two successive measurements, divided by the number of years between measurements. Periodic annual increment is an approximation to current annual increment, which is not directly measurable.

**Physiographic province** – A geographic area having a similar set of biophysical characteristics and processes due to effects of climate and geology, which result in patterns of soils and broad-scale plant

communities. Habitat patterns, wildlife distributions, and historical land use patterns may differ significantly from those of adjacent provinces.

**Pile burning** – Activity fuels, once piled by machine or by hand, are burned in place.

**Pioneer road** – Temporary access ways, within the path of the permanent road, used to facilitate construction and equipment access. When building permanent roads, pioneer roads exist within the template of the finished road.

**Planning area** – All lands within the geographic boundary of this RMP revision regardless of jurisdiction.

**Planned ignition** – The intentional initiation of a wildland fire by hand-held, mechanical or aerial device where the distance and timing between ignition lines or points and the sequence of igniting them is determined by environmental conditions (weather, fuel, topography), firing technique, and other factors which influence fire behavior and fire effects.

**Plant association group** – A vegetation classification including five to ten closely related plant associations, or groupings of plants that occur together in similar environments, typically defined by their climates (temperature and moisture), soils, and history of natural disturbances, such as wildfires, diseases and insect outbreaks.

**Pre-commercial thinning (PCT)** – The practice of reducing the density of trees within a stand by manual cutting, girdling, or herbicides to maintain or promote growth increases of desirable tree species. The trees killed are generally not *merchantable* and not removed from the treated area.

**Preferred Alternative** – Term used in the Council on Environmental Quality’s implementing regulations of the National Environmental Policy Act (NEPA) and BLM planning regulations. Guidance from the Council on Environmental Quality explains that the preferred alternative is the alternative that the agency believes would fulfill its statutory mission and responsibilities, considering economic, environmental, technical, and other factors.

**Prescribed fire** – A wildland fire originating from a planned ignition to meet specific objectives identified in a written, approved, prescribed fire plan for which NEPA requirements have been met prior to ignition. See *planned ignition*.

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

**Public domain lands** – Original holdings of the United States never granted or conveyed to other jurisdictions, or reacquired by exchange for other public domain lands.

**Public land** – Land or interest in land owned by the U.S. and administered by the Secretary of the Interior through the BLM without regard to how the U.S. acquired ownership, except lands located on the Outer Continental Shelf and land held for the benefit of Indians, Aleuts, and Eskimos.

**Public motorized access designation** – Designation of lands made in a land use plan for public motorized travel activities:

*Open*—All types of public motorized travel activities are permitted at all times, anywhere in the area, subject only to certain operating regulations and vehicle standards.

**Limited**—Public motorized travel activities are restricted at certain times, in certain areas, to certain routes, or to certain types of motorized vehicular use.

**Closed**—Public motorized travel activities are prohibited anywhere in the area.

**Quadratic mean diameter** – The diameter of the tree of average basal area in a stand at breast height. See *diameter breast height*.

**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.

**Regeneration** – (n.) Tree seedlings or saplings existing in a stand. (v.) The process of re-establishing trees on a tract of forestland where harvest or some natural event has removed existing trees.

**Regeneration harvest(ing)** – Any removal of trees intended to assist regeneration already present or make regeneration possible.

**Relative density (RD)** – A means of describing the level of competition among trees or site occupancy in a stand, relative to some theoretical maximum based on tree density, size, and species composition. Relative density percent is calculated by expressing *Stand Density Index (SDI)* (Reineke 1933) as a percentage of the theoretical maximum SDI, which varies by tree species and range. Curtis's relative density (Curtis 1982) is determined mathematically by dividing the stand basal area by the square root of the *quadratic mean diameter*. See also *Stand Density Index*.

**Relevant and important resource value** – Criteria used to evaluate nominated Areas of Critical Environmental Concern.

**Renewable energy** – See *sustainable energy*.

**Renovation (of roads)** – Work done to an existing road, restoring it to its original design standard

**Resource Management Plan (RMP)** – A land use plan as prescribed by the Federal Land Policy and Management Act that establishes, for a given area of land, land-use allocations, management objectives, and management direction.

**Resource road** – Roads that provide a point of access to public lands and connect with local or collector roads.

**Right-of-way** – Authorization to use public lands for certain specified purposes, commonly for pipelines, roads, telephone lines, electric lines, reservoirs, and so on; also, the lands covered by an easement or permit.

**Riparian area** – A geographic area containing an aquatic ecosystem and adjacent upland areas that directly affect it.

**Road closure** – Closing roads to use in any of the following categories:

- **Temporary/Seasonal/Limited Access** – These are typically resource roads, closed with a gate or barrier. The road will be closed to public vehicular traffic but may be open for BLM/Permittee commercial activities. The road may or may not be closed to BLM administrative uses on a seasonal basis depending upon impacts to the resources. Drainage structures will be left in place.

- **Decommission (long-term)** –The road segment will be closed to vehicles on a long-term basis, but may be used again in the future. Prior to closure the road will be left in an erosion-resistant condition by establishing cross drains, eliminating diversion potential at stream channels, and stabilizing or removing fills on unstable areas. Exposed soils will be treated to reduce sediment delivery to streams. The road will be closed with an earthen barrier or its equivalent. This category can include roads that have been or will be closed due to a natural process (abandonment) and may be opened and maintained for future use.
- **Full Decommission (permanent)** – Roads determined to have no future need may be subsoiled (or tilled), seeded, mulched, and planted to reestablish vegetation. Cross drains, fills in stream channels, and unstable areas will be removed, if necessary, to restore natural hydrologic flow. The road will be closed with an earthen barrier or its equivalent. The road will not require future maintenance. This category includes roads that have been closed due to a natural process (abandonment) and where hydrologic flow has been naturally restored.
- **Obliteration (full site restoration/permanent)** – Roads receiving this level of treatment have no future need. All drainage structures will be removed. Fill material used in the original road construction will be excavated and placed on the subgrade in an attempt to reestablish the original ground line. Exposed soil will be vegetated with native trees or other native vegetation. Road closure by obliteration is rarely used.

**Rotation [age]** – The planned number of years between the establishment of an even-aged or two-aged forest stand and its regeneration harvest.

**Salable minerals** – Minerals including but not limited to petrified wood and common varieties of sand, stone, gravel, pumice, pumicite, cinder, clay, and rock.

**Salvage harvest(ing)** – Removal of dead trees or of trees damaged or dying because of injurious agents other than competition, to recover their economic value.

**Sediment** – Fine particles of inorganic or organic matter carried by water.

**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.

**Selection harvest(ing)** – 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.

**Seral stages** – The series of relatively transitory plant communities that develop during ecological succession from bare ground to the climax stage.

**Shelterwood harvest(ing)** – A regeneration harvest method under an even-aged silvicultural system. With this method a portion of the mature stand is retained as a source of protection during the regeneration period. The retained trees are removed when protection requirements have been met.

**Shotgun culverts** – Ditch relief or stream culverts where the outlet extends beyond the natural ground line.

**Silvicultural practices (or treatments or system)** – The set of field techniques and general methods used to modify and manage a forest stand over time to meet desired conditions and objectives. Examples include reforestation, pre-commercial thinning, and commercial thinning.

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

**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. Site-potential tree heights generally range from 140 feet to 240 feet across the decision area, depending on site productivity.

**Skips** – Portions of a *stand* generally left untreated after a *commercial thinning* or *selection harvest*. Skips are used to increase variability of forest conditions in the post-harvest stand, and to create desirable habitats and ecological conditions.

**Slash** – The branches, bark, tops, cull logs, and broken or uprooted trees left on the ground after logging has been completed.

**Slope stability** – The resistance of a natural or artificial slope, or other inclined surface, to failure by landsliding (mass movement).

**Snag** – Any standing dead, partially dead, or defective (cull) tree at least 10 inches in diameter at breast height and at least 6 feet tall. A hard snag is composed primarily of sound wood, generally merchantable. A soft snag is composed primarily of wood in advanced stages of decay and deterioration, generally not merchantable.

**Soil compaction** – An increase of the soil bulk density (weight per unit volume) compared to undisturbed soil, and a decrease in porosity (particularly macropores) resulting from applied loads, vibration or pressure.

**Soil productivity** – Capacity or suitability of a soil, for establishment and growth of a specified crop or plant species.

**Soil quality** – The capacity of a soil to function for specific land uses or within ecosystem boundaries. This capacity is an inherent characteristic of a soil and varies from soil to soil. Indicators such as organic-matter content, salinity, tilth, compaction, available nutrients, and rooting depth help measure the health or condition of the soil-its quality-in any given place.

**Special forest products** – Those plant and fungi resources that are harvested, gathered or collected by permit, and have social, economic, 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** – Plant or animal species in any of the following categories:

- Threatened or endangered species
- Proposed threatened or endangered species
- Candidate species

- State-listed species
- Bureau sensitive species

**Stand** – An aggregation of trees occupying a specific area managed as a discrete operational or management unit. A stand may be composed of trees and groups of trees of a variety of ages, species, and conditions, or it may be relatively uniform. A stand may also contain multiple *land use allocations*.

**Stand conversion** – Converting one type of forest stand to another type. Typically refers to changing areas dominated by hardwood species to one dominated by conifer species.

**Stand Density Index (SDI)** – Reineke’s (1933) stand density index is a function of quadratic mean diameter and number of trees per unit area. SDI can be interpreted as the number of 10 inch trees that would experience approximately the same level of inter-tree competition as the observed number of trees with the observed mean diameter. See also *Relative Density*.

**Stand replacement fire** – A fire that is lethal to most of the dominant above ground vegetation and substantially changes the vegetation structure. Stand replacement fires may occur in forests, woodlands and savannas, annual grasslands, and shrublands. They may be crown fires, high-severity surface fires, or ground fires.

**State-listed species** – Plant or animal species listed by the State of Oregon as threatened or endangered pursuant to ORS 496.004, ORS 498.026, or ORS 564.040.

**Storm-proof** – Roads having a self-maintaining condition, allowing unimpeded flows at channel crossings and surface conditions that reduce chronic sediment input to stream channels.

**Stream reach** – An individual first order stream or a segment of another stream that has beginning and ending points at a stream confluence. Reach end points are normally designated where a tributary confluence changes the channel character or order. Although reaches identified by BLM are variable in length, they normally have a range of 0.5 mile to 1.5 miles in length unless channel character, confluence distribution, or management considerations dictate variance. See also *Turbidity*.

**Structural stage classification** – Forest stand classification system based on quantitative stand metrics used to evaluate changes in forest conditions through time. Classifications include:

1. Early Successional
  - Moist: forests that are  $\leq 30$  years old, with  $< 30$  percent canopy cover.
  - Dry: forests that are  $\leq 50$  years old, with  $< 30$  percent canopy cover.
2. Stand Establishment
  - Moist: forests that are  $\leq 30$  years old, with  $\geq 30$  percent canopy cover.
  - Dry: forests that are  $\leq 50$  years old, with  $\geq 30$  percent canopy cover.
3. Young
  - Moist: forests that are over 30 years old, with  $< 24$  trees per acre  $\geq 20$  inches diameter at breast height.
  - Dry: forests that are over 50 years old, with  $< 12$  trees per acre  $\geq 20$  inches diameter at breast height.
4. Mature
  - Moist: forests that are over 30 years, with  $\geq 24$  trees per acre  $\geq 20$  inches diameter at breast height.
  - Dry: forests that are over 50 years, with  $\geq 12$  trees per acre  $\geq 20$  inches diameter at breast height.
5. Structurally-complex

5.1 (SC-Dev) Developed Structurally-complex

- Moist: forests that are over 30 years old,  $\geq 24$  trees per acre that are  $\geq 20$  inches diameter at breast height, and  $\geq 4.7$  trees per acre  $\geq 40$  inches diameter at breast height. The coefficient of variation of tree diameters over 10 inches  $\geq 0.35$
- Dry: forests that are over 50 years old,  $\geq 12$  trees per acre that are  $\geq 20$  inches diameter at breast height, and  $\geq 2.1$  trees per acre  $\geq 40$  inches diameter at breast height. The coefficient of variation of tree diameters over 10 inches  $\geq 0.34$ .

5.2 (SC-OF) Existing Old Forest

- Stands currently  $\geq 200$  years old, but  $< 400$  years old.

5.3 (SC-VOF) Existing Very Old Forest

- Stands currently  $\geq 400$  years old

**Stumpage price** – The value of standing timber.

**Suitable River** – An eligible river segment found through administrative study to meet the criteria for designation as a component of the National System, as specified in Section 4(a) of the Wild and Scenic Rivers Act.

**Surface fire** – A fire that burns on the surface of the ground and consumes surface fuels.

**Surface fuel** – Fuels lying on or near the surface of the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low stature living plants.

**Sustainable energy** – Energy that comes from resources that are naturally replenished on a human timescale such as sunlight, wind, rain, tides, waves, and geothermal heat, as opposed to ‘fossil energy’ which comes from resources replenished on a geological timescale.

**Sustained yield** – The board foot volume of timber that a forest can produce in perpetuity 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.

**Sustained yield capacity** – See *allowable sale quantity*.

**Sustained yield unit (SYU)** – An administrative unit for which an allowable sale quantity is calculated; in western Oregon, the six sustained yield units correspond to the Coos Bay, Eugene, Medford, Roseburg, and Salem Districts, and the western portion of the Klamath Falls Field Office.

**Temporary Road** – A short-term use road authorized for the development of a project that has a finite lifespan (e.g., a timber sale spur road). Temporary roads are not part of the permanent designated transportation network and must be reclaimed when their intended purpose has been fulfilled.

**Thinning** – A silvicultural treatment made to reduce the density of trees primarily to improve tree/stand growth and vigor, or recover potential mortality of trees, generally for commodity use. See *pre-commercial thinning, commercial thinning, variable-density thinning*.

**Timber Production Capability Classification (TPCC)** – The process of partitioning forestland within the sustained yield unit into major classes based on the biological and physical capability of the site to support and produce forest products on a sustained yield basis using operational management practices.

**Timber volume** – Amount of timber contained in a log, a stand, or a forest, typically measured in board feet or cubic feet.

**Threatened species** – Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future. A plant or animal identified and defined in accordance with the 1973 Endangered Species Act and published in the Federal Register.

**Torching** – The burning of the foliage of a single tree or a small group of trees, from the bottom up. See *passive crown fire*.

**Tree-tipping** – Mechanically tipping or pulling over trees with root wads attached, generally into or near a stream, to simulate natural wood recruitment.

**Tribal fee land** – Lands in which a Tribe has acquired title to through purchase or donation but the Federal government has not put into trust, therefore state and local laws apply including payment of property and timber harvest taxes.

**Trust land** – Land in which the Federal government holds title to for the use and benefit of a Tribe.

**Turbidity** – The cloudiness exhibited by water carrying sediment; the degree to which suspended sediment interferes with light passage through water.

**Two-aged stand** – A stand composed of two (2) distinct age classes intimately mixed or in aggregated groups producing a two-story structure managed as a discrete operational unit.

**Two-aged system** – A silvicultural system intended to regenerate and maintain stands with two distinct age classes.

**Underburn** – A fire that consumes surface fuels but not the overstory canopy.

**Underburning** – Prescribed burning under a forest canopy.

**Underdrain** – Culverts installed to convey water from springs, and seeps encountered during road construction, under the road.

**Understory** – That portion of trees or other woody vegetation, which form the lower layer in a forest stand, which consists of more than one distinct layer.

**Uneven-aged management** – A silvicultural system that simultaneously maintains high degree of tall forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes. Harvesting methods that develop and maintain uneven-aged stands are single-tree selection, group selection, and thinning.

**Uneven-aged stand** – A stand composed of at least three (3) distinct age classes intimately mixed or in aggregated groups producing a multi-layered canopy structure managed as a discrete operational unit.

**Use of wildland fire** – Management of either wildfire or prescribed fire to meet resource objectives.

**Usual and accustomed areas** – Areas regularly utilized and accessed by antecedent tribes or bands prior to treaty signing.

**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 usually an objective of VDT.

**Variable-retention regeneration harvest or variable retention harvest (VRH)** – An approach to regeneration harvesting that is based on the retention of structural elements or biological legacies from the harvested stand for integration into the new stand to achieve various ecological objectives. The resultant stand is generally two-aged or multi-aged. The major variables in variable-retention harvest systems are the types, densities and spatial arrangement of the retained structures; (1) aggregated retention is the retention of structures as (typically) intact forest patches within or adjacent to the harvest unit; (2) dispersed retention is the retention of structures or biological legacies in a more or less scattered pattern. Variable-retention regeneration harvest is synonymous with green-tree retention, retention harvest, retention forestry.

**Visual Resource Management (VRM)** – The inventory and planning actions to identify values and establish objectives for managing those values and the management actions to achieve those objectives

**Visual Resource Management classes** – Categories assigned to public lands based on scenic quality, sensitivity level, and distance zones. There are four classes. Each class has an objective that prescribes the amount of change allowed in the characteristic landscape.

**Water drafting site** – Site to provide a short duration, small pump operation that withdraws water from streams or impoundments to fill conventional tank trucks or trailers.

**Water quality** – The chemical, physical, and biological characteristics of water with respect to its suitability for a particular use.

**Water harvesting pond** – Ponds constructed to capture and store rainwater or snowmelt.

**Waters of the State** – Includes lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private which are wholly or partially within or bordering the State or within its jurisdiction. ORS 468B.005(10).

**Watershed** – An area in which all surface waters flow to a common point.

**Wet season (for roads)** – An annually variable period of time, starting after precipitation amounts saturate soils. This occurs after the onset of fairly continuous fall rains, which result in seasonal runoff in ephemeral and intermittent stream channels and from the road surface and ditches. Generally November through May, but could start or end earlier depending on seasonal precipitation influences.

**Wetland** – Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the 1972 Federal Clean Water Act. These wetlands generally meet the jurisdictional wetland criteria.

**Wild and Scenic Rivers system** – A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values and are preserved in a free-flowing condition.

**Wilderness** – An area defined in Section 2(c) of the Wilderness Act, and formally designated by Congress as part of the National Wilderness Preservation System.

**Wilderness characteristics** – These attributes include the area’s size, its apparent naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. They may also include supplemental values. Lands with wilderness characteristics are those lands that have been inventoried and determined by the BLM to contain wilderness characteristics as defined in section 2(c) of the Wilderness Act.

**Wilderness Study Area** – Areas with wilderness characteristics identified and designated through the inventory and study processes authorized by Section 603 of the FLPMA, and, prior to 2003, through the planning process authorized by Section 202 of the FLPMA.

**Wildfire** – Unplanned ignition of a wildland fire (such as a fire caused by lightning or unauthorized and accidental human – caused fires) and escaped prescribed fires.

**Wildfire risk** – The likelihood and susceptibility for a wildfire to adversely affect human values (e.g., life, property, and ecological functions and resources).

**Wildland Developed Areas** – A delineation of where people live in the wildland, classifying a minimum of one structure per 40 acres as a developed area.

**Wildland fire** – A general term describing a non-structure fire that occurs in the wildland.

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

**Windthrow** – A tree or trees uprooted or felled by the wind.

**Yarding** – The process of moving cut logs to a landing, particularly by cable, ground-based or helicopter yarding systems

## References

- Curtis, R. O. 1982. A simple index of stand density for Douglas-fir. *Forest Science* **28**(1): 92–94.  
[http://www.fs.fed.us/pnw/olympia/silv/publications/opt/232\\_Curtis1982.pdf](http://www.fs.fed.us/pnw/olympia/silv/publications/opt/232_Curtis1982.pdf).
- Oregon Department of Fish and Wildlife (ODFW). 2008. Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources. June 2008. 12 pp.  
[http://www.dfw.state.or.us/lands/inwater/Oregon\\_Guidelines\\_for\\_Timing\\_of\\_%20InWater\\_Work2008.pdf](http://www.dfw.state.or.us/lands/inwater/Oregon_Guidelines_for_Timing_of_%20InWater_Work2008.pdf).
- Reineke, L. H. 1933. Perfecting a stand-density index for even-aged forests. *Journal of Agricultural Research* **46**(7): 627–638. 12 pp. <http://naldc.nal.usda.gov/naldc/download.xhtml?id=IND43968212&content=PDF>.

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