

Appendix A

Glossary



The following references are among those used in developing the glossary:

USDA Forest Service et al. 1994. Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl. Also known as the Clinton Forest Plan or the Final SEIS. USDA Forest Service, Pacific Northwest Region, Portland, OR. February 1994.

Dunster, Julian and Katherine Dunster. 1996. Dictionary of Natural Resource Management. UBC Press, University of British Columbia, Vancouver, Canada.

abiotic	The non-living components of the planet not currently part of living organisms, such as soils, rocks, water, air, light, and nutrients.
active channel width	The average width of the stream channel at the normal high water level. The normal high water level is the stage reached during average annual high flow. This high water level mark often corresponds with the edge of streamside terraces; a change in vegetation, soil, or litter characteristics; or the uppermost scour limit (bankfull stage) of a channel.
activity center	For northern spotted owls, the nest tree, or the location best describing the focal point of the activity of a northern spotted owl or pair of owls when the nest location is not known.
adaptive management	Adaptive management is a system of making, implementing, and evaluating decisions, which recognizes that ecosystems and society are always changing. It is a systematic and rigorous approach to learning from our actions, improving management, and accommodating change.
advanced structure stand	Stands with advanced structure are more developed than intermediate structure stands in the understory reinitiation stage. Tree crowns show significant layering from the tallest trees to the forest floor. Advanced structure stands that are highly diverse may develop structural characteristics typically linked with older forests or old growth.
aggregate	Sand and pebbles added to cement to make concrete, or that are used in road construction.
alluvial	Soil, debris, and other materials that have been deposited by currents of water.
ambient	Surrounding.
anadromous fish	Those species of fish (e.g., salmon) that hatch and rear for a portion of their life history in fresh water rivers and streams, then mature in the ocean, and then migrate back into freshwater rivers and streams to spawn.
aquatic	In or on the water; aquatic habitats are in streams or other bodies of water, as contrasted with riparian habitats, which are near water.
aquifer	A sand, gravel, or rock formation that is capable of storing or transporting water below the surface of the ground.
archaeological and historical resources	Districts, sites, buildings, structures, and artifacts that possess material evidence of human life and culture of the prehistoric and historic past.

archaeological object	An object that is at least 75 years old; is part of the physical record of an indigenous or other culture found in the state or waters of the state; and is material remains of past human life or activity that are of archaeological significance, including, but not limited to, monuments, symbols, tools, facilities, technological by-products, and dietary by-products (ORS 358.905).
archaeological site	<p>A geographic locality in Oregon, including but not limited to, submerged and submersible lands and the bed of the sea within the state's jurisdiction, that contains archaeological objects and the contextual associations of the archaeological objects with each other, or with biotic or geological remains or deposits (ORS 358.905). Specific types of sites, as defined in Oregon law, are:</p> <p>pre-historic archaeological site—Created and/or used by humans indigenous to the area before Euro-American inhabitation.</p> <p>historic archaeological site—Created and/or used by humans since the time of Euro-American inhabitation; usually belowground and/or aboveground diminishing remains.</p> <p>historic site—Created and/or used by humans since the time of Euro-American inhabitation; usually aboveground structurally intact remains.</p> <p>site of archaeological significance—Any archaeological site on, or eligible for inclusion on, the National Register of Historic Places as determined in writing by the State Historic Preservation Officer, or any archaeological site that has been determined significant in writing by an Indian tribe (ORS 358.905).</p>
average annual high flow period	High flows generally occur between November and March, with some variability in timing year to year. Average high flows are typically represented with a 2.5-year return interval.
average high water level	The stage reached during the average annual high flow period. This level often corresponds with the edge of streamside terraces, marked changes in vegetation, changes in soil or litter characteristics, or the bankfull stage of a channel.
basal area	The area of the cross-section of a tree stem near the base, generally at breast height (4.5 feet aboveground) and including the bark. The basal area per acre is the total basal area of all trees on that acre.
biodiversity or biological diversity	The genetic variation and the variety of microbial, plant, and animal life.

biotic	Any living aspect of the planet.
board foot	The amount of wood equivalent to a piece of wood one foot wide by one foot high by one inch thick.
Board of Forestry	The Oregon Board of Forestry is a seven-member board appointed by the Governor and confirmed by the state Senate. At least one member must reside in each of the state's three administrative regions (east, south, and northwest). No more than three members may receive any significant portion of their income from the forest products industry. The Board of Forestry supervises all matters of forest policy within Oregon; appoints the State Forester; adopts rules regulating forest practices; and provides general supervision of the State Forester's management of the Oregon Department of Forestry.
Board of Forestry Lands	Board of Forestry Lands were acquired by the Board of Forestry under ORS 530.010 to 530.040. Most were transferred from counties to the Board of Forestry in exchange for a portion of future revenue from the lands. Some lands were acquired by direct purchase.
bog	A wetland that is characterized by the formation of peat soils and that supports specialized plant communities. A bog is a hydrologically closed system without flowing water. It is usually saturated, relatively acidic, and is dominated by ground mosses, especially sphagnum. Bogs are distinguished from other wetlands by the dominance of mosses and the presence of extensive peat deposits.
burial	Any natural or prepared physical location, whether originally below, on, or above the surface of the earth, into which, as a part of a death rite or death ceremony of a culture, human remains were deposited (ORS 358.905).
channel migration zone	An area adjacent to an unconfined stream channel where channel course changes are likely to occur during high flow events. The presence of side channels or oxbows, stream-associated wetlands, and low terraces are indicators of these zones. The extent of these areas will be determined through site inspections using professional judgment.
chlorosis	Yellowing of normally green plant tissue due to destruction or limited production of chlorophyll; often a symptom of mineral deficiencies, disease (such as Swiss needle cast), feeding by sucking insects, root or stem girdling, or serious light deficiencies.
Clean Air Act	Federal law passed in 1970, and amended several times since. The authority to implement the act is delegated to the states. The act is implemented, in part, through a permit system.

clearcut	Traditionally, a silvicultural system in which the entire stand of trees is cleared from an area at one time. Clearcutting and planting (if needed) results in the establishment of a new even-aged stand of trees. In the Elliott State Forest, a modified clearcutting system is used, in which live trees, snags, and down wood remain on the unit after harvest.
coarse filter – fine filter	For the Elliott State Forest, an operational approach to managing for biological diversity is the “coarse filter – fine filter” concept proposed by The Nature Conservancy (1982), and described in Hunter (1990). The coarse-filter component is based on the premise that maintaining a range of seral stages, stand structures, and sizes, across a variety of ecosystems and landscapes, will meet the needs of most organisms. Fine-filter management superimposes specific management actions for individual species or habitats that require special consideration, such as species with unique or limited distributions.
colluvial	Soil, debris, and other materials that have been moved downslope by gravity and biological activity.
Common School Forest Lands	A subset of the Common School Trust Lands that have been listed by the State Land Board for the primary use of timber production.
Common School Fund	A permanent fund or account managed to provide revenues to the common schools. The State Land Board (Governor, Secretary of State and Treasurer) is the trustee of the Common School Fund.
Common School Trust Lands	State lands owned by the State Land Board. In Oregon, the lands originally granted by Congress under the Oregon Admission Act included approximately six percent of the new state's land for the use of schools. The primary goal in managing Common School Trust Lands is the generation of the greatest amount of income for the Common School Fund over the long-term, consistent with sound techniques of land management.
composition	The different species of plants and animals that live in an ecosystem. The dynamic attributes of a forest ecosystem are composition, function, and structure. Composition is the proportion of various species. Function is the processes taking place in the system. Structure includes kinds and distribution of stand components such as trees, snags, and logs of various sizes and shapes.
concept	An abstract or generic idea generalized from particular instances.

connectivity	A measure of how well different areas (patches) of a landscape are connected by linkages, such as habitat patches or corridors. At a landscape level, the connectivity of ecosystem functions and processes is of equal importance to the connectivity of habitats.
conservation area	Designated land where conservation strategies are applied for the purpose of attaining specific conservation objectives; this may include cultural or biological aspects. In the Elliott State Forest, conservation areas include habitats utilized by northern spotted owls and marbled murrelets, riparian management areas, rare or unique habitats, and areas requiring special protection for visual or other resource values. Management within conservation areas is aimed at maintaining desired conditions.
corridor	Areas of habitat that connect separate but similar habitat patches, within the landscape mosaic. For example, an area of mature timber, such as a riparian buffer, may connect larger patches of mature timber.
culmination of mean annual increment	Mean annual increment is the total increment of growth of a stand divided by the age of the stand. The culmination age is the age at which the mean annual increment reaches its maximum. If maximization of wood volume is the objective for the stand, this age is generally used as the rotation age. Periodic thinning enhances growth and extends the culmination age.
debris flow	A rapidly moving mass of rock fragments, soil, and mud, with more than half of the particles being larger than grains of sand.
debris torrent	Rapid movement of a large quantity of materials, including wood and sediment, down a stream channel. This generally occurs in smaller streams during storms or floods, and scours the stream bed.
demographic study	A study of population dynamics; the quantitative analysis of population structure and trends in size, growth rate, and distribution.
density	The number or size of a population (trees, species, etc.) in relation to a unit of space. In silviculture, stand density is measured as the amount of tree biomass per unit area of land. This can be measured as the number of trees, basal area, wood volume, or foliage cover. Also see “Stand density” and “Stand density index.”
desired future condition	An explicit description of the physical and biological characteristics of the Elliott State Forest in the future, as described in the forest vision.

dissected	A landscape that has been cut into hills and valleys by the process of erosion.
disturbance	A force that causes significant change in an ecosystem's structure and/or composition. Disturbance can be caused by natural events such as fire, flood, wind, earthquake, and insect or disease outbreak, or by human activities.
early structure stand	Following a disturbance, an early structure stand develops through the stand initiation process. In the early years of this stage, the site is occupied primarily by tree seedlings or saplings, herbs, grass, or shrubs. In later years, increasing crown closure shades the ground, and herbs, shrubs, and grasses begin to die out or lose vigor. At this point, the stand transitions from an early stand initiation stage to an intermediate stem exclusion stage, leading to an intermediate structure stand.
earthflow	Movement of material, both sediment and vegetation, down a slope. Earthflows are typically large, but move only a few centimeters each year. (See also "landslide.")
ecosystem	A complex system comprising populations of organisms considered together with their physical environment and the interacting processes between them (e.g., marsh, watershed, lake ecosystem). Ecosystems do not have boundaries fixed in time or space because the form and function of ecosystems change at various rates, depending on prevailing environmental factors.
ecosystem functions	The many and varied biotic and abiotic processes that make an ecosystem functional, changing, and interactive (e.g., biogeochemical processes, nutrient cycling, decomposition, regeneration, and succession).
ecosystem management	A management practice and philosophy aimed at selecting, maintaining, and/or enhancing the ecological integrity of an ecosystem to ensure continued ecosystem health while providing resources, products, or non-consumptive values for humans. The actions taken reflect the management goals, and range from protection from human influence through to an increasing intensity of interventions to serve human needs.
edge	The point where two different plant communities (different vegetation types, successional stages, or conditions) meet. Edges may be created by a soil or topographical feature of the site, or where short-term effects are created by natural or human-caused disturbances.
ephemeral stream	Ephemeral streams occur in direct response to precipitation, running only during or shortly after periods of heavy rainfall or rapid snowmelt.

evolutionarily significant unit

A group of stocks or populations that: 1) are substantially reproductively isolated from other population units of the same species; and 2) represent an important component in the evolutionary legacy of the species (National Marine Fisheries Service 1991). This term is used by NOAA Fisheries (formerly the National Marine Fisheries Service) as guidance for determining what constitutes a “distinct population segment” for the purposes of listing Pacific salmon species under the Endangered Species Act. For example, the “Oregon Coast chinook ESU” is a delineation that encompasses all populations of chinook salmon from the Necanicum River on the northern Oregon coast, to Cape Blanco on the south coast.

extensive management

Extensive forest management is a term used for protection of the forest from fire and insects, and the reliance on natural regeneration for provision of the next forest.

fine filter

For the Elliott State Forest, an operational approach to manage for biological diversity is the “coarse filter–fine filter” concept proposed by Hunter (1990). The coarse-filter component is based on the premise that maintaining a range of seral stages, stand structures, and sizes, across a variety of ecosystems and landscapes, will meet the needs of most organisms. Fine-filter management superimposes specific management actions for individual species or habitats that require special consideration, such as species with unique or limited distributions.

Land Management Classification System

Under OAR 629-035-055, state forest lands are classified according to the management that will be applied. The classification describes the management emphasis for the land as determined by Forest Management Plans and any applicable Habitat Conservation Plan. State forest lands are classified as General Stewardship, Focused Stewardship, or Special Stewardship. Focused and Special Stewardship classifications are used when a particular forest resource may need a more focused approach or priority in management compared to other resources.

formation

A group of strata, or layers, of the same sort of rock or mineral, or rock having common characteristics.

fractal

Irregular shapes and surfaces that cannot be represented by classical geometry. Fractal dimension is an index of the complexity of spatial patterns.

fragmentation	The relationship of the landscape matrix to other types of patches; as fragmentation increases, the matrix becomes geometrically more complex. Maximum landscape fragmentation occurs when no dominant patch exists. Fragmentation is also the spatial arrangement of successional stages across the landscape as the result of disturbance, and is often used to refer specifically to the process of reducing the size and connectivity of late successional or old growth forests.
function	An activity or process that occurs in an ecosystem; some typical functions are plant growth, animal reproduction, and decay of dead plants.
geographic information system	A system for management analysis and display of geographic knowledge that is represented using a series of information sets such as maps and globes, geographic data sets, processing and workflow models, data models, and meta data.
geotechnical	The study of soil stability in relation to engineering.
geothermal	Of or relating to the internal heat of the earth.
goals	A concise, broad statement of an organization's end or process that programs are designed to achieve. A goal is normally expressed as a broad, general statement of purpose, is usually not quantifiable, and is timeless in that it usually has no specific date by which it is to be completed.
groundwater	The subsurface water supply (below the water table) that saturates the pores and fractures of sand, gravel, and rock formations.
guidelines	A set of recommended or suggested methods or actions that should be followed in most circumstances to assist administrative and planning decisions, and their implementation in the field. They are provided as a broad framework of recommended actions to be taken, and thus provide some flexibility for decision-making.
guiding principles	The overall rules, goals, and responsibilities that guide the planning process for the Elliott State Forest.
Habitat Conservation Plan	A comprehensive planning document that is a mandatory component of an Incidental Take Permit application pursuant to section 10(a)(2)(A) of the ESA.
headwall	The steep slope or rocky cliffs at the head of a valley.
high water line	The stage reached during the average annual high flow period. This level often corresponds with the edge of streamside terraces, marked changes in vegetation, or changes in soil or litter characteristics.

historic artifacts	Three-dimensional objects including furnishings, art objects, and items of personal property that have historic significance. “Historic artifacts” does not include paper, electronic media, or other media that are classified as public records (ORS 358.635).
historic property	Real property that is currently listed in the National Register of Historic Places, established and maintained under the National Historic Preservation Act of 1966, or approved for listing on an Oregon register of historic places.
home range	The area that an animal traverses in the scope of normal activities, such as feeding; not to be confused with territory.
hydrology	The study of the properties, distribution, and effects of water on the landscape, under the surface, in the rocks, and in the atmosphere.
Implementation Plan	An Oregon Department of Forestry plan that describes in more detail than the long-range Forest Management Plan how the management strategies will be applied. These plans are designed to describe forest management activities for a ten-year period, and are revised at least every ten years.
incidental take	Under the federal Endangered Species Act, the taking of a federally listed wildlife species, if the taking is incidental to, and not the purpose of, carrying out otherwise lawful activities.
Incidental Take Permit	Permit issued by the U.S. Fish and Wildlife Service or NOAA Fisheries that allows incidental take of a threatened or endangered species. The permit requires specified actions that minimize and mitigate the incidental take.
integrated pest management	A systematic approach that uses a variety of techniques to reduce pest damage or unwanted vegetation to economically and socially tolerable levels. IPM techniques may include the use of natural predators and parasites, genetically resistant hosts, environmental modifications, and, when necessary and appropriate, chemical pesticides or herbicides.
integrated resource management	The management of two or more resources in the same general area and period of time (e.g., water, soil, timber, grazing, fish, wildlife, and forests). For the Elliott State Forest, integrated resource management means that the design and application of management practices must consider the effects and benefits of all of the forest resources in such a way that those effects and benefits lead to achieving the goals in the Forest Management Plan over time and across the landscape.

intensive management	<p>Intensive forest management: A management concept promoting basic forest management in combination with juvenile-stand improvement and/or the use of artificial regeneration to ensure reasonably uniform stand establishment and stocking.</p> <p>Intensive silviculture: Any silvicultural practices designed to accelerate stand development and improve the stand value and final yields in stands that are well established.</p>
interior habitat area	That portion of the older forest patch that remains effective when the negative effects of high contrast edge are removed.
intermediate structure stand	As early structure stands develop and transition into the stem exclusion stage, trees fully occupy the site and form a single, main canopy layer. The stem exclusion process begins when new trees, shrubs, and herbs no longer appear and existing ones begin to die, due to competition for light, nutrients, and moisture. Later, as more of the trees die, the understory reinitiation process begins, when enough light and nutrients become available so that herbs, shrubs, and young trees again appear in the understory.
intermittent stream	A stream with surface flow only part of the year. In the Forest Practices Act, defined as a stream that normally does not have summer surface flow after July 15.
landscape	Many sets of stands that cover an area ranging from many hundreds to tens of thousands of acres.
landslide	The dislodging and fall of a mass of earth and rock. There are many types of landslides, including debris slides, earthflows, rock block slides, slumps, slump blocks, and slump earthflows. The different types of landslides vary tremendously in how they occur, how far they move, what type of materials move, etc.
late successional habitat	A forest stand whose typical characteristics are a multi-layered, multi-species canopy dominated by large overstory trees; numerous large snags; and abundant large woody debris (such as fallen trees) on the ground. Other characteristics such as canopy closure may vary by the forest zone (lodgepole, ponderosa, mixed conifer, etc.).
leave area	An area of standing timber retained among areas of logging activity to satisfy management objectives, such as seed source, wildlife habitat, or landscape management constraints.
lieu lands	“Lieu lands” were offered by the federal government to the state to compensate for original land grants that had conflicting claims. The Elliott State Forest includes approximately 7,700 acres of lieu lands.

lithic scatter	A location where prehistoric stone tools were made, usually from obsidian. The tools and weapons were used locally or traded.
loading	The quantity of a substance entering a body of water.
management basin	An area used for forest planning. Management basins range from 4,100 to 11,300 acres. Their boundaries are based primarily on drainage and topographic patterns within the major drainage basins and watersheds.
management prescription	The management practices and intensity selected and scheduled for application on a specific area to attain predefined goals and objectives.
Marbled Murrelet Management Area	The area designated for the protection of marbled murrelets, according to Oregon Department of Forestry policy. (The acronym for Marbled Murrelet Management Area—MMMA—is sometimes pronounced “trima.”)
mature forest condition	Desired mature forest condition consists of a stand dominated by large conifer trees, or where hardwood-dominated conditions are expected to be the natural plant community, a mature hardwood/shrub community. For conifer stands, this equates to a basal area of 220 square feet or more per acre, inclusive of all conifers over 11 inches diameter breast height. At a mature age (80 to 100 years or greater), this equals 40 to 45 conifer trees 32 inches in diameter breast height per acre.
minor tree species	For a given stand, tree species that occur as a relatively small component of the stand, such as western redcedar or alder in a stand consisting mostly of Douglas-fir trees.
monitoring	<p>The measurement of environmental characteristics and conditions over an extended period of time to determine status or trends in some aspect of environmental quality.</p> <p>Implementation Monitoring—Asks the question, “Did we do what we said we would do?”</p> <p>Effectiveness Monitoring—Asks the question, “Are the management practices producing the desired results?”</p> <p>Validation Monitoring—Asks the question, “Are the planning assumptions valid, or are there better ways to meet planning goals and objectives?”</p>
morphology	Form and structure.

National Environmental Policy Act	Commonly known as NEPA and signed into law in 1969., The Act requires all federal agencies to consider and analyze all significant environmental impacts of any action proposed by those agencies; to inform and involve the public in the agency’s decision-making process; and to consider the environmental impacts in the agency’s decision-making process.
native	Indigenous to Oregon and not introduced.
natural ecosystem	An ecosystem that is minimally influenced by humans and that is, in the larger sense, diverse, resilient, and sustainable.
nonpoint source	Entry of a pollutant into a body of water from widespread or diffuse sources, with no identifiable point of entry. The source is not a distinct, identifiable source such as a discharge pipe. Erosion is one example of a nonpoint source.
non-salmonid fish	Any fish species outside the family <i>Salmonidae</i> . A salmonid may be resident or anadromous; examples are Pacific lamprey and sculpins.
non-silviculturally capable	Areas that are rocky, swampy, covered by water, or for various other reasons have little to no commercial value for timber production. The Elliott State Forest has a few parcels of rocky or swampy lands scattered throughout the forest. Most are less than 5 acres, though a few are as large as 20 acres.
nutrient cycling	Circulation or exchange of elements, such as nitrogen and carbon dioxide, between living and nonliving portions of the environment.
objective	A clear and specific statement of results to be achieved within a stated time period. An objective is measurable and implies precise time-phased steps to be taken and resources to be used, which, together, represent the basis for defining and controlling the work to be done.
old growth	A forest stand whose typical characteristics are a patchy, multi-layered, multi-species canopy dominated by large overstory trees, some with broken tops and decaying wood; numerous large snags; and abundant large woody debris (such as fallen trees) on the ground. In western Oregon, old-growth characteristics begin to appear in unmanaged forests at 175 to 250 years of age. (See “late successional habitat.”)
orographic	A process in which air masses are lifted up by mountains or similar obstructions, leading to higher amounts of precipitation on the windward side of the mountain.

**Ownership, Site,
Cover, Use, and
Recommendations**

The old inventory system developed by the Department of Forestry, that includes 1:12,000 scale maps and overlays, data files by type and various sorts, and data summaries. The system is now being replaced by Stand Level Inventory.

owl circle

The area defined for the purpose of identifying the home range of a northern spotted owl pair or resident single owl; the circle size varies by physiographic province. In the Oregon Coast Range, the radius of an owl circle is 1.5 miles, encompassing the area of 4,766 acres. Guidelines established by the U.S. Fish and Wildlife Service (later rescinded) required protecting 70 acres of owl habitat immediately around an owl activity center, 500 acres within 0.7 miles, and 1,906 acres within 1.5 miles.

particulate

Small particles in smoke produced by burning wood and other forest debris. Two kinds of particulate are controlled under federal and/or state requirements: total suspended particulates and PM₁₀ (particulate matter less than 10 microns in diameter).

patch

The landscape patch is an environmental unit between which “quality” differs, such as a habitat patch.

perennial stream

A stream with year-round surface flow. In the Oregon Forest Practices Act, a perennial stream is defined as a stream that normally has summer surface flow after July 15.

point source

The release of a pollutant from a pipe or other distinct, identifiable point, directly into a body of water or into a water course leading to a body of water.

policy

A definite, stated method or course of action adopted and pursued by an entity that guides and determines present and future decisions and actions. A policy establishes a commitment by which an entity is held accountable.

pollutant

A substance of such character and existing in such quantities as to degrade an environmental resource (i.e., water, air, or soil) by impairing its usefulness (including its ability to support living organisms).

population

The organisms that constitute a particular group of a species, or that live in a particular habitat or area.

A group of fish (e.g., Nehalem River fall chinook salmon) that spawn in a particular area at a particular time and that do not interbreed to any substantial degree with any other group spawning in a different area, or in the same area at a different time are considered a population (OAR, Division 7, 635-07-501(38)).

potential murrelet habitat	For the purposes of surveys for marbled murrelets, any forested area with a residual tree component, small patches of residual trees, or one or more platforms (Mack et al. 2003).
prescribed burning	Controlled fire burning under specified conditions to accomplish planned objectives; also called slash burning, as a frequent objective is to reduce the amount of slash left after logging. Objectives may include site preparation for planting and reduction of fire hazards or pest problems.
properly functioning aquatic systems	The range of diverse aquatic and riparian conditions over time and space that emulate the habitat conditions that resulted from natural disturbance regimes under which native species evolved. There is no one condition that is properly functioning.
refugia	Locations and habitats that support population of organisms that are limited to small fragments of their previous geographic range, and areas that remain unchanged while surrounding areas change markedly (the areas serve as a refuge for those species requiring specific habitats). The changes could be short term, such as wildfires or human activity, or much longer term, such as periods of glaciation.
regeneration	Regeneration refers to the process of renewal of a forest or stand of trees, or to the young trees in a stand.
regeneration harvest	The removal of trees to make regeneration possible or to assist in the development of the established regeneration (young trees). The most common type of regeneration harvest in the Elliott State Forest is a modified clearcut, leaving specified amounts of live trees, snags, and down wood.
reserve	An area of land set aside to maintain it in a desired condition, e.g., as functional habitat for wildlife.
resident fish	Fish species that complete their entire life cycle in freshwater; non-anadromous fish. One example is a resident population of cutthroat trout.
riparian area	Three-dimensional zone of direct influence and/or interaction between terrestrial and aquatic ecosystems. The boundaries of the riparian area extend outward from the stream bed or lakeshore.
Riparian Management Area	A protected area with site-specific boundaries established by the Department of Forestry; the width varies according to the stream classification or special protection needs. The purpose of the RMA is to protect the stream, aquatic resources, and riparian area. Aquatic resources include water quality, water temperature, fish, stream structure, and other resources.

rock block slide	Type of landslide in which the weakness and initial breaking is in the underlying rock, not the soil. See also “Landslide.”
rotation	Also called tree age rotation. The time needed from regeneration of a crop of trees through to harvestable timber, or the time period to reach other stand criteria (e.g., complex habitat function).
salmonid	Fish species belonging to the family <i>Salmonidae</i> ; includes trout, salmon, and whitefish species.
salvage	Salvage cutting is the utilization of standing or down trees that are dead, dying, or deteriorating, for whatever reason, before the timber values are lost.
seasonal stream	A stream with surface flow only part of the year. In the Forest Practices Act, defined as a stream that normally does not have summer surface flow after July 15.
seral stages	Developmental stages that succeed each other as an ecosystem changes over time; specifically, the stages of ecological succession as a forest develops.
silviculture	The art, science, and practice of controlling the establishment, composition, health, quality, and growth of the vegetation of forest stands. Silviculture involves the manipulation, at the stand and landscape levels, of forest and woodland vegetation, and the control or production of stand structures such as snags and down logs to meet the needs and values of society and landowners.
site class	<p>Site class is a measure of an area’s relative capacity for producing timber or other vegetation. It is an index of the rate of tree height growth, with lower values indicating faster growing trees. The site index is expressed as the height of the tallest trees in a stand at an index age (King 1966). In this document, an age of 50 years is used. The five site classes are defined below. Most of the Elliott State Forest is site class II or III.</p> <p style="padding-left: 40px;">Site class I 135 feet and up Site class II 115 to 134 feet Site class III 95 to 114 feet Site class IV 75 to 94 feet Site class V below 75 feet</p>
site index	A measure of forest productivity, expressed as the height of the tallest trees in a stand at an index age. In this document, an age of 50 years is used. (See “site class.”)
slope stability	The degree to which a slope resists the downward pull of gravity. The more resistant, the more stable.

slump	A type of landslide; involves a failure in the soil, tends to be spoon-shaped, and the base often oozes out. (See also “landslide.”)
slump blocks, slump earthflows	Types of landslides. (See “landslide,” “slump,” and “earthflow.”)
spatial forest modeling	Spatial forest modeling is the assignment of harvest activities to specific forest parcels, thereby controlling the size and juxtaposition of treatment areas. Examples of spatial control include the size of regeneration harvests, the shape and size of older forest patches, establishing and maintaining connectivity, scheduling of transportation, and coordination of upslope and riparian activities. Spatial forest modeling is contrasted with strata-based forest modeling where parcels with common characteristics are merged together into strata with harvest activities assigned to percentages of the strata. However, with strata-based modeling, it is not known which parcels in the strata are scheduled, and it is not possible to control the size and juxtaposition of treatments.
species	When referring to the federal ESA, species also means: “...any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature” [Section 3(15) of the Endangered Species Act].
stand	A patch of forest distinct in composition or structure or both from adjacent areas.
stand density	In silviculture, stand density is measured as the amount of tree biomass per unit area of land. This can be measured as the number of trees, basal area, wood volume, or foliage cover.
stand density index	A relative measure of stand density; converting a stand’s current density into a density at a reference size. It is usually expressed in the equivalent number of trees that are 10 inches in diameter, e.g., 65 trees per acre that average 26 inches in diameter have the same stand density index as 300 trees per acre that average 10 inches in diameter.
stand initiation	This stand development process begins when a disturbance such as timber harvest, fire, or wind has killed or removed most or all of the larger trees, or when brush fields are cleared for planting.

Stand Level Inventory	The Oregon Department of Forestry’s Stand Level Inventory acquires and updates state forest vegetation information at the specific site level (forest stand). This information is used for tactical and operational decision-making. The Stand Level Inventory includes vegetation sampling protocols, forest stand data arranged in a database, computer programs for managing and using the information, and documentation of inventory elements.
stand structure	For the purposes of this Forest Management Plan, a series of three stand structures have been defined depicting the typical progression of stand development following a natural or human-caused disturbance. The stand initiation process is represented by the early stand structure . The stem exclusion and early understory reinitiation processes are represented by the intermediate structure . Structural complexity and larger tree size inherent to the advanced understory reinitiation process are characteristic of the advanced stand structure . Old growth stands are included in the advanced stand structure.
standard	A working principle that establishes the measure of performance extent, values, quantity, or quality for a given activity or item.
State Agency Coordination Program	Required under law for each state agency, to establish procedures to assure compliance with statewide land use goals and acknowledged city and county comprehensive plans and land use regulations.
state forests	In this Forest Management Plan, “state forests” or “state forest lands” refers to Common School Forest Lands owned by the State Land Board, and to lands owned by the Board of Forestry, and managed by the Oregon Department of Forestry.
State Historic Preservation Office	Oregon’s State Historic Preservation Office was created in 1966 by federal statute. It administers the Statewide Plan for Historic Preservation and submits Oregon’s nominations for the National Register of Historic Places.
State Land Board	The Oregon State Land Board is composed of the Governor, Secretary of State and State Treasurer. It was established under the Oregon Constitution to manage Common School Trust Lands and serve as trustee of the Common School Fund.
stem exclusion process	The stem exclusion process begins when new trees, shrubs, and herbs no longer appear and existing ones begin to die, due to competition for light, nutrients, and moisture.
stocking	A measure of the adequacy of tree cover on an area. Unless otherwise specified, stocking includes trees of all ages.

Statewide Planning Goals	Statewide Planning Goals are adopted by the Land Conservation and Development Commission to set standards for local land use planning. They have the force of law.
stock	For the purposes of fisheries management, a stock is an aggregation of fish populations that typically share common characteristics such as life histories, migration patterns, or habitats (OAR, Division 7, 635-07-501(51)). For example, “north-mid coast fall chinook salmon” can be defined as a stock. This stock includes a number of fall chinook “populations” from basins in this area such as the Siuslaw, Yaquina, and Tillamook Bay watersheds.
stocking	A measure of the adequacy of tree cover on an area. Unless otherwise specified, stocking includes trees of all ages.
strategy	A carefully considered plan or method, more encompassing and larger scale than tactics, for achieving an objective.
stream	To qualify as a stream, a water course must have a distinct channel that carries flowing surface water during some portion of the year, including associated beaver ponds, oxbows, side channels, and stream-associated wetlands if these features are connected to the stream by surface flow during any portion of the year. Ephemeral overland flow is not a stream since this type of flow does not have a defined channel.
stream-associated wetland	A wetland that is immediately adjacent to a stream. This includes wetlands that are adjacent to beaver ponds, side channels, or oxbows that are hydrologically connected to the stream channel by surface flow at any time of the year.
stream classifications	<p>Under the Department of Forestry’s Forest Practices Act, streams are classified in two categories based on their beneficial use.</p> <p>Type F — Fish-bearing stream</p> <p>Type N — Not a fish-bearing stream</p> <p>Streams are also classified by size and amount of flow. Large streams have an average annual flow greater than ten cubic feet per second (cfs); medium streams have an average annual flow of two to ten cfs; and small streams have an average annual flow less than two cfs.</p>

Perennial streams—Year-round surface flow. In the Forest Practices Act, defined as a stream that normally has summer surface flow after July 15.

Intermittent streams—Surface flow only part of the year. In the Forest Practices Act, defined as a stream that normally does not have summer surface flow after July 15. Ephemeral streams may run only during or shortly after periods of heavy rainfall or rapid snowmelt.

stream reach	A section of stream that is geomorphically distinct, and that can be delineated from other adjacent sections based on channel gradient, form, or other physical parameters.
structure	The physical parts of an ecosystem that can be seen and touched; typical structures in a forest are tree sizes, standing dead trees (snags), and fallen dead trees.
stumpage	The price charged for the right to harvest timber from publicly or privately owned forest land.
subcanopy behavior	For marbled murrelets, behaviors that occur at or below the forest canopy and that strongly indicate that the site has some importance for breeding (Mack et al. 2003).
succession	A series of changes by which one group of organisms succeeds another group; a series of developmental stages in a plant community.
sustainability	<p>Sustainability is the ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time.</p> <p>Sustainable forest management describes forest management regimes that maintain the productive and renewal capacities, as well as the genetic, species, and ecological diversity of forest ecosystems.</p>
sustainable economic and social benefit	Key strategies in this Forest Management Plan. These strategies focus on legal mandates and trust obligations, predictable and dependable products and revenues, and social benefit through forest management.

sustainable forest ecosystem management

Key strategies in this Forest Management Plan. A management approach that is based on the synthesis of knowledge from various disciplines, including forestry, fisheries, wildlife, and hydrology. It is an approach to forest management that seeks to achieve a broad range of resource goals and provide a balance of social, economic, and environmental benefits from the forest over time. In addition, Sustainable Forest Ecosystem Management is a landscape approach to the management of forested ecosystems utilizing silvicultural tools emulating natural disturbances to provide forest products, maintain forest health, and retain a high level of social value.

sustained yield

- (1) An ideal forest management objective at which point the volume of wood removed is equal to growth within the total forest. Sustained-yield management implies continuous production planned to achieve at the earliest practical time a balance between increment to the mature forest and its cutting.
- (2) Achieving and maintaining in perpetuity a nearly equal annual or regular periodic output of the various renewable resources, without impairment of the productivity of the land.

tectonic

Resulting from changes in the Earth's crust.

territory

The area that an animal defends, usually during breeding season, against intruders of its own species.

threatened and endangered species

Federal and state agencies make formal classifications of wildlife species, according to standards set by federal and state Endangered Species Acts. The various classifications are defined below. Federal designations are made by the U.S. Fish and Wildlife Service (USFWS) or NOAA Fisheries. State of Oregon designations are made by the Oregon Department of Fish and Wildlife (ODFW).

Federal Classifications

candidate species—Those species for which the USFWS or NOAA Fisheries has sufficient information on hand to support proposals to list as threatened or endangered.

endangered species—A species determined to be in danger of extinction throughout all or a significant portion of its range.

federally listed species—Species, including subspecies and distinct vertebrate populations, of fish, wildlife, or plants, listed at 50 CFR 17.11 and 17.12 as either endangered or threatened.

proposed threatened or endangered species—Species proposed by the USFWS or NOAA Fisheries for listing as threatened or endangered; not a final designation.

threatened species—Species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future.

State Classifications

endangered species — Any native wildlife species determined by the State Fish and Wildlife Commission to be in danger of extinction throughout any significant portion of its range within Oregon, or any native wildlife species listed as endangered by the federal ESA.

sensitive species — A watchlist, developed by the ODFW, of wildlife species that are likely to become threatened or endangered throughout all or a significant portion of their range in Oregon. Subdivided into four categories: critical, vulnerable, peripheral, and undetermined status.

threatened species — Any native wildlife species that the State Fish and Wildlife Commission determines is likely to become endangered within the foreseeable future throughout any significant portion of its range within Oregon.

threshold phenomenon

Pattern or trend in population growth (climate, etc.) that exhibits relatively long periods of slow change followed by sudden increase or decrease in response to a gradually changing environment.

triad approach

An approach described by Hunter and Calhoun (1996) in which three land-use types are distinguished that can coexist without compromising the goal of sustaining biological diversity. The types are: 1) intensive commodity production areas; 2) areas with little or no resource use by people except low-intensity recreation; and 3) areas in which modest resource use is allowed while ecological values are protected (maintenance of diversity and ecosystem function takes precedence over commodity production).

understory reinitiation

The understory reinitiation process begins when enough light and nutrients become available to allow forest floor herbs, shrubs, and tree regeneration to again appear in the understory. The amount of brush and herbaceous species is minimal at the beginning, but increases to a substantial part of the stand by the end of the stage.

unsaturated zone

The layer of soil or rock between the aquifer and the surface of the ground. In this layer, some water is suspended in the spaces between soil or rocks, but the zone is not completely saturated.

watershed	In general, a watershed is defined as an area within which all water that falls as rain or snow drains to the same stream or river. There are different levels of watersheds, from the watershed of a small stream to the watershed of the Umpqua River.
watershed analysis	A process where data is evaluated and interpreted in order to understand causal linkages between watershed-scale processes. This process informs the design and execution of management plans and activities.
water table	The top of the groundwater. The water table is generally subsurface; marshes and lakes form where the water table meets the land surface.
wetland	As defined in Oregon’s Forest Practice Rules OAR 629-24-101 (77), wetlands are “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.”
windthrow	Trees felled by high winds.

