

# Appendix A

## Glossary

---

The following references were used in developing the glossary.

**Simpson Timber Company.** 1992. Habitat Conservation Plan for the Northern Spotted Owl on the California Timberlands of Simpson Timber Company. Simpson Timber Company, P.O. Box 1169, Arcata, CA, 95521-1169. With the assistance of Recon, Regional Environmental Consultants, San Diego, CA.

**USDA Forest Service et al.** July 1993. Forest Ecosystem Management: An Ecological, Economic, and Social Assessment (FEMAT Report). Portland, Oregon.

**Willamette National Forest.** 1990. Land and Resource Management Plan (Forest Plan). USDA Forest Service, Pacific Northwest Region.

**50/11/40 guideline** An element of the federal Draft Recovery Plan for the northern spotted owl; designed to protect sufficient dispersal habitat for juvenile spotted owls dispersing from their home nests. Within each quarter township, 50% of the acreage should have an average tree diameter of at least 11 inches, with crown closure of at least 40%.

**Activity center** A nest site or primary roost area for northern spotted owls.

**Adaptive management** The process of monitoring and analyzing management actions in order to understand their effects, and then adjusting plans accordingly. It acknowledges that we do not fully understand ecosystem processes, especially across landscapes, through time, and in response to natural or human-induced changes.

**Age class** A management classification using the age of a stand of trees. Ten year age classes are identified by the year in the middle of the ten years. For example, the 70 year age class represents ages 66-75 years.

**Anadromous fish** Those species of fish that mature in the ocean and migrate into freshwater rivers and streams to spawn; an example is salmon.

<b>Basal area</b>	The area of the cross-section of a tree stem near the base, generally at breast height and including the bark.
<b>Basin</b>	See “management basin.”
<b>Biodiversity</b>	The Society of American Foresters defines biodiversity as “the variety and abundance of species, their genetic composition, and the communities, ecosystems, and landscapes in which they occur.” Defined by Gast et al. (1991) as the variety, function, distribution and structure of ecosystems and their components, including all successional stages, arranged in space over time that support self-sustaining populations of all natural and desirable naturalized flora and fauna.
<b>BLM</b>	Bureau of Land Management
<b>Block</b>	Management subdivision used to develop a timber sale plan for an area; allows the planner to see the arrangement of harvest units over the area.
<b>Block plan</b>	A multi-year timber sale plan for a block.
<b>Board foot</b>	The amount of wood equivalent to a piece of wood one foot by one foot by one inch thick.
<b>Board of Forestry lands</b>	Lands owned by the Oregon Board of Forestry, and managed to produce income for the benefit of counties and local taxing districts.
<b>Broadcast burn</b>	A prescribed fire that burns over a designated area within defined boundaries, such as a logged unit, in order to accomplish planned objectives.
<b>Candidate species, category 1</b>	See “threatened and endangered species.”
<b>Candidate species, category 2</b>	See “threatened and endangered species.”
<b>Circle guidelines</b>	Guidelines established by the U.S. Fish and Wildlife Service for protecting the northern spotted owl. For the coast range of Oregon, the guidelines require protecting 70 acres immediately surrounding an owl activity center, 500 acres within 0.7 miles, and 1906 acres within 1.5 miles.
<b>Clearcut</b>	A harvest method in which all or almost all of the trees are removed in one cutting.
<b>Climax</b>	A highly stable stage of ecological succession; an ecosystem will stay at the climax stage until disturbance affects the ecosystem and the stages of ecological succession begin again.

<b>Coastal Oregon Productivity Enhancement Program</b>	A cooperative research and education program that aims to identify and evaluate opportunities to enhance long-term productivity and socio-economic benefits derived from the forest resources of coastal Oregon.
<b>Common School Forest Land</b>	State forest lands owned by the State Land Board; the primary goal in managing these lands is the generation of the greatest amount of revenue for the Common School Fund over the long-term, consistent with cost-effective and ecologically sound forest resource management.
<b>Composition</b>	The different species of plants and animals that live in an ecosystem.
<b>Conservancy land</b>	See “land use classifications.”
<b>Conservation plan</b>	A management plan for a species, group of species, or ecosystem, that if implemented provides that a viable population of the species (or group of species, or a viable ecosystem) will continue to exist in the planning area.
<b>Consultation</b>	A formal interaction between the Oregon Department of Forestry and another agency, such as the Oregon Department of Fish and Wildlife, on matters such as actions that could affect a threatened or endangered species.
<b>COPE</b>	See “Coastal Oregon Productivity Enhancement Program.”
<b>Critical habitat</b>	The specific areas within the general geographic area occupied by a federally 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. Critical habitat is designated by the USFWS pursuant to the Endangered Species Act.
<b>CSFL</b>	See “Common School Forest Land.”
<b>DBH</b>	See “diameter breast height.”
<b>Detection</b>	The unit of measure for murrelet surveys; the sighting or hearing of one or more birds acting in a similar manner.
<b>DFSIM, or Douglas-fir Simulator</b>	This computer model projects Douglas-fir growth and yield at the stand level. The projections are based on a large number of plots in stands throughout western Oregon and Washington. DFSIM was developed by the U.S. Forest Service.
<b>Diameter breast height</b>	The diameter of a tree, measured 4.5 feet above the ground on the uphill side of the tree.
<b>Dispersal habitat</b>	See “spotted owl habitat.”

<b>Disturbance</b>	A force that causes significant change in an ecosystem's structure and/or composition; can be caused by natural events or human activities.
<b>Down woody debris</b>	Large pieces of wood on the ground; includes logs, pieces of logs, and large chunks of wood.
<b>Ecosystem</b>	See "forest ecosystem."
<b>Endangered species</b>	See "threatened and endangered species."
<b>Endangered Species Act</b>	The federal Endangered Species Act of 1973, as amended, sets up processes by which plant or animal species can be designated as threatened or endangered. Two federal agencies, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, administer the act. Once species are listed, the Act also provides that these agencies develop recovery plans for these species, including conserving the ecosystems on which listed species depend.  The State of Oregon Endangered Species Act was enacted in 1987, and sets up processes by which plant or animal species can be designated as threatened or endangered at the state level.
<b>ESA</b>	See "Endangered Species Act."
<b>Foraging habitat</b>	See "spotted owl habitat."
<b>Forest ecosystem</b>	The interrelationships between the various trees and other organisms (both plants and animals) that form a community; and the interrelationships between these organisms and the physical environment in which they exist.
<b>Forest Practices Act</b>	See "Oregon Forest Practices Act."
<b>Forest stand</b>	See "stand."
<b>Fragmentation</b>	The spatial arrangement of successional stages across the landscape as the result of disturbance; often used to refer specifically to the process of reducing the size and connectivity of late successional or old growth forests.
<b>Function</b>	Activity or process that goes on in an ecosystem; some typical functions are plant growth, animal reproduction, decay of dead plants.
<b>Geographic information system</b>	A computer system that stores and manipulates spatial data, and can produce a variety of maps and analyses.
<b>GIS</b>	See "geographic information system."

<b>Goals</b>	General, non-quantifiable statements of vision for the management of each of the resources included in the forest management plan.
<b>Habitat</b>	The place where a plant or animal naturally or normally lives and grows; see also “spotted owl habitat” and “marbled murrelet habitat.”
<b>Habitat conservancy areas</b>	Reserves established to protect sensitive wildlife habitat areas, such as T&E species sites or fisheries areas. HCAs are part of the conservation strategy for the Elliott; these areas are not the same as Habitat Conservation Areas, also known as HCAs, proposed under the 1990 ISC Report (Thomas 1990).
<b>Habitat conservation plan</b>	An implementable program for the long-term protection and benefit of a species in a defined area; required as part of a Section 10 incidental take permit application under the federal Endangered Species Act.
<b>Habitat enhancement</b>	Management activities that speed up the development of late successional forest structure.
<b>Harvest regulation method</b>	Under a volume control method of timber harvest, an equal amount of timber volume is harvested each year. Since timber stands vary in their volume per acre, the harvest acreage fluctuates from year to year. Under an acreage control method, an equal number of acres is harvested each year, and the amount of timber volume fluctuates from year to year.
<b>HCAs</b>	See “Habitat conservancy areas.”
<b>Impact</b>	A spatial or temporal change in the environment.
<b>In-growth</b>	The amount of forest stands that grows into spotted owl or marbled murrelet habitat from decade to decade.
<b>Incidental take</b>	The taking of a federally listed wildlife species, if the taking is incidental to, and not the purpose of, carrying out otherwise lawful activities. See also “take.”
<b>Incidental take permit</b>	A permit issued by the U.S. Fish and Wildlife Service to either a private entity or a state, that allows incidental take of a threatened or endangered species; permit also requires permittee to carry out specified actions that minimize and mitigate the incidental take.

**Land use classifications**

All state forest lands are classified for various land uses. The two main categories are Production and Nonproduction. They are defined below and on the next page, along with the major subclassifications in each category.

**Production lands** — areas where timber production is the primary use.

**Regular production lands** — most production lands.

**Scenic production lands** — areas suited for timber production, but need harvest modifications to protect or enhance scenic values.

**Nonproduction lands** — areas where timber production is not the primary use; timber harvest may occur only under special circumstances.

**Special use lands** — areas set aside for special uses such as recreation, water supply, demonstration or research purposes, commerce-industry sites, government use, and organizational use.

**Conservancy lands** — areas where scenic values or resource protection preempts all timber production.

**Noncommercial lands** — areas that have no commercial timber production value because they are rocky, swampy, covered by water, etc.

**Landscape**

Large regional units of lands that are viewed as a mosaic of communities, or a unit of land with separate plant communities or ecosystems forming ecological units with distinguishable structure, function, geomorphology, and disturbance regimes.

**Large woody debris**

Large pieces of wood on the ground or in streams; includes logs, pieces of logs, and large chunks of wood.

**Late successional forest**

A mature and/or old growth forest stand. Typical characteristics are moderate to high canopy closure; 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. In this document, refers to stands 156 years or older (160 year age class and up).

**Listed**

Formally listed by a state or federal agency; example is a species on the threatened species list.

**Long-term productivity**

The ability of a site to grow timber and provide for other forest resources in perpetuity.

<b>Management basin</b>	An area used for forest planning. The Elliott is divided into 17 management basins averaging 5,500 acres of state forest land each. The basin size approximates estimates of the median home range size for spotted owls in the Oregon coast range, and is also about the size of a quarter township (5,760 acres). Most basins contain the drainage of one or two primary streams; boundaries are located on recognizable features such as ridge lines or roads.
<b>Marbled murrelet</b>	A robin-sized seabird that nests in mature or old growth forests within 50 miles of the ocean; listed as a threatened species by the U.S. Fish and Wildlife Service.
<b>Marbled murrelet habitat</b>	Primarily mature or old growth forest with large trees that have broad crowns and large, flat limbs suitable for murrelet nests; may also include trees where limbs are deformed by dwarf mistletoe, creating platforms also suitable for murrelet nests.
<b>Matrix</b>	State forest lands outside reserves and other areas withdrawn from timber management.
<b>MBF</b>	Thousand board feet; see “board foot.”
<b>MMBF</b>	Million board feet; see “board foot.”
<b>Morphology</b>	Form and structure.
<b>Nesting habitat</b>	See “spotted owl habitat.”
<b>Nesting-roosting-foraging habitat (NRF habitat)</b>	Habitat with the forest structure, sufficient area, and adequate food source to meet the need of a nesting pair of spotted owls. The desired forest structure is stands at least 80 years old with a three-layer canopy, that include very large diameter (200+ years) trees from the previous stand, large diameter (80+ years) trees, and small understory trees, along with snags and large woody debris.
<b>Noncommercial land</b>	See “land use classifications.”
<b>Nonproductive land</b>	See “land use classifications.”
<b>Occupied site</b>	A portion of a survey area where at least one of the following occurs, indicating potential occupying of the site by murrelets: 1) discovery of an active nest or a recent nest site as evidenced by a fecal ring or eggshell fragments; 2) discovery of a chick or eggshell fragments on the forest floor; 3) birds flying below, through, into, or out of the forest canopy within or adjacent to a stand; 4) birds perching, landing, or attempting to land on branches; 5) birds calling from a stationary location within the stand; 6) birds flying in small or large radius circles above the forest canopy.
<b>ODA</b>	Oregon Department of Agriculture

<b>ODF</b>	See “Oregon Department of Forestry.”
<b>ODFW</b>	Oregon Department of Fish and Wildlife.
<b>ONHP</b>	Oregon Natural Heritage Program
<b>Oregon Department of Forestry</b>	The state agency charged with managing state forests; providing fire protection on about 15.8 million acres of Oregon forest lands; administering the Forest Practices Act on all private, state, city, and county forest lands; providing a variety of forestry assistance services; and carrying out various other responsibilities in forest planning, policy, and management in the State of Oregon.
<b>Oregon Forest Practices Act</b>	Law passed in 1971 by Oregon legislature to prevent damage to forest resources on non-federal land during timber harvest and other activities. Board of Forestry carries out the Act by making rules; specific rules regulate the size of clearcuts, set standards for reforestation, protect streams and wetlands, conserve soil productivity, protect scenic corridors, protect wildlife habitat, and also regulate commercial forestry operations in other ways.
<b>OSCUR, or Ownership, Soil-site, Cover, Use, and Rating</b>	OSCUR is the state forest inventory system. It includes 1:12,000 scale maps and overlays, data files by type and various sorts, and data summaries. OSCUR was developed by the Department of Forestry.
<b>Partial cutting</b>	Removal of selected trees from a forest stand.
<b><i>Phellinus weirii</i></b>	Laminated root rot; an infectious root disease. Some tree species are more susceptible than others to the disease.
<b>Potential murrelet habitat</b>	For marbled murrelets, potential habitat is coniferous forests within 50 miles of the coast, (1) mature (with or without an old growth component) and old growth coniferous forests; and (2) younger (70-80 years) coniferous forests that have deformations or structures suitable for nesting.
<b>Prescribed burning</b>	Controlled fire burning under specified conditions in order to accomplish planned objectives; also called slash burning, as a frequent objective is to reduce the amount of slash left after logging.
<b>Production land</b>	See “land use classifications.”
<b>Proposed threatened or endangered species</b>	See “threatened and endangered species.”

<b>Recovery plan</b>	A plan developed by a government agency, that if implemented will result in the recovery of a threatened or endangered species, to the extent that the species can be delisted from threatened or endangered status.
<b>Rescission</b>	Revocation, annulling, or declaring void.
<b>Reserve</b>	Lands with a primary purpose other than timber production; purpose may be to provide habitat for a threatened or endangered species, or to protect streams and riparian areas, or various other purposes.
<b>Reserve trees</b>	Mature, standing trees that are not logged when a forest stand is harvested.
<b>Resident fish</b>	Fish species that complete their entire life cycle in freshwater; non-anadromous fish; an example is a resident population of cutthroat trout.
<b>Resident single</b>	An unpaired spotted owl that has an established home range; a resident single may be part of a pair but the mate was not detected during surveys.
<b>Riparian area</b>	Areas of land directly influenced by water or that influence water. Riparian areas usually have visible vegetative or physical characteristics reflecting the influence of water. River sides and lake borders are typical riparian areas.
<b>Riparian management area</b>	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; also an area bordering a stream whose primary purpose is to protect the stream and its riparian area. Protected stream resources include water quality and temperature, fish, stream structure, and other resources.
<b>Salmonids</b>	Fish species belonging to the family Salmonidae; includes trout, salmon, and whitefish species.
<b>Scenic production land</b>	See “land use classifications.”
<b>Seed tree cut</b>	A harvest method in which most mature trees are removed in one cutting, except for a small number of trees left as a seed source for the area.
<b>Sensitive species</b>	See “threatened and endangered species.”
<b>Seral stages</b>	Developmental stages that succeed each other as an ecosystem changes over time; specifically, the stages of ecological succession as a forest develops.

<b>SFDSFD, or State Forestry Department Simulated Forest Development</b>	This computer model calculates timber harvest levels, subject to sustained yield constraints. The model incorporates inventory data, yield tables, and planning decisions. It projects forest development and harvest over time. Through repetitive trials, the model determines the maximum sustainable harvest. SFDSFD was developed by the Department of Forestry.
<b>Shelterwood cut</b>	A harvest method in which the mature trees are removed in two or more cuttings. Some mature trees are kept after the first cut to act as a source of seed and/or protection during the regeneration period.
<b>Silviculture</b>	The theory and practice of controlling the establishment, composition, growth, and quality of forest stands in order to achieve management objectives.
<b>Site</b>	The specific location of a management unit on the landscape.
<b>Site class</b>	A measure of an area's relative capacity for producing timber or other vegetation. It is measured through the site index. There are 5 site classes, defined below. Site class I — 135 feet and up Site class II — 115-134 feet Site class III — 95-114 feet Site class IV — 75-94 feet Site class V — Below 75 feet
<b>Site index</b>	A measure of forest productivity. It is 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.
<b>Slash</b>	Woody debris left on the ground after logging, storms, or other disturbances; includes branches, logs, wood chunks, etc.
<b>SLB</b>	State Land Board.
<b>Snag</b>	Dead tree that is still standing.
<b>Special use land</b>	See "land use classifications."
<b>Spotted owl habitat</b>	Habitat used by spotted owls; defined in two main types. <b>Dispersal habitat</b> — Forest vegetation with at least 40% canopy closure and an average stand diameter of 11 inches or more. These stands are used by juvenile owls to disperse or by owls of any age to move from one area of nesting-roosting-foraging habitat to another. <b>Nesting-roosting-foraging habitat</b> — Forest vegetation with the age class, species of trees, structure, sufficient area, and adequate food source to meet the need of nesting spotted owls. This type of habitat is generally found in mature or older forests with multiple canopies, large diameter trees, large snags, and large down woody debris.

<b>SPS, or Stand Projection System</b>	This computer model projects growth rates for individual trees in a managed stand, independently of distance. SPS was developed by Dr. James D. Arney, a forestry consultant.
<b>Stand</b>	Areas of a few to several hundred acres occupied by trees or other vegetation similar in age, stocking, size, and species.
<b>State Land Board</b>	The members of the Oregon State Land Board are the Governor, Secretary of State, and Treasurer.
<b>Stewardship</b>	Stewardship is the practice of providing long-term responsible care for the forest by protecting or enhancing the resources provided by the forest, while using those resources in beneficial ways.
<b>Strategies</b>	A list of specific actions that will be taken to achieve the goals.
<b>Stream classifications</b>	<p>The Oregon Forest Practices Act classifies streams using the following definitions (OAR 629-24-101 and FPA Updates). The Board of Forestry is reviewing new stream classifications and protection measures during 1993.</p> <p><b>Class I waters</b> — Any portions of streams, lakes, or other waters of the state that are significant for domestic use, fishing, water-dependent recreation, or the spawning, rearing, or migration of anadromous or game fish.</p> <p><b>Influential Class II streams</b> — Class II streams where threatened, endangered, sensitive, or game fish are present at any time of the year; or the stream reach is perennial and has a gradient less than or equal to 8%; or the Class II stream reach for 500 feet upstream from a direct confluence with a Class I stream.</p> <p><b>Class II waters</b> — Any waters of the state, not classified as Class I waters, that have a definite channel or bed. However, does not include unchanneled overland flow, roadside ditches, puddles, or other surface waters that have no surface outlet.</p>
<b>Stream reach</b>	An identified section of stream, based on channel gradient, hill slope and valley morphology, and land use.
<b>Structure</b>	The physical parts of an ecosystem that we can see and touch; typical structures in a forest are trees, standing dead trees (snags), fallen dead trees.
<b>Succession</b>	A series of changes by which one group of organisms succeeds another group; a series of developmental stages in a plant community.
<b>Suitable habitat</b>	See “spotted owl habitat.”
<b>Superior habitat</b>	Forest stands that are 156 years or older are considered to be superior habitat for spotted owls and marbled murrelets. These stands have larger trees and more structural features that are important to owls and murrelets.

<b>Sustainable forestry</b>	A policy developed by the Oregon Department of Forestry that applies to all State Forest lands. It is defined as a concept of forest management that considers the ecological and biological long-term productivity of the land, along with the silvicultural and economic gains of that management.
<b>Sustained yield</b>	A timber harvest level for the next decade that can be maintained or increased through future planning decades without significant declines. Sustained yield is not the same as sustainable forestry, which is a general forest management policy for all state forests.
<b>T&amp;E</b>	Threatened and endangered.
<b>Take</b>	To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a federally listed threatened or endangered species, or to attempt to do so. See also “incidental take.”
<b>Threatened and endangered species</b>	Formal classifications of species. Federal designations are made by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service. State of Oregon designations include all federal species listed as of May 15, 1987; and those species determined by the Oregon Department of Fish and Wildlife since then to qualify for listing.

**Definitions for federally designated species:**

**Candidate species, category 1** — Species for which there is substantial information to support listing the species as threatened or endangered; listing proposals are either being prepared or are delayed by work on higher priority species.

**Candidate species, category 2** — Species for which information indicates that listing is possibly appropriate, but conclusive data are not available; additional information is being collected.

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

**Proposed threatened or endangered species** — Species proposed by the USFWS or NMFS 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.

**Continued on next page**

**Threatened and endangered species (continued)**

**Continued from previous page**

**Definitions for State of Oregon designated T&E species**

**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** — Species that are likely to become threatened or endangered throughout all or a significant portion of their range in Oregon; functions as a state candidate species list.

**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.

**USFWS**

U.S. Fish and Wildlife Service.

**Wetlands**

As defined in Oregon’s Forest Practice Rules OAR 629-24-101 (57), 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.” See also “significant wetlands.”