

Appendix-1: Vegetation Classification

The vegetation description for Wolf Creek focuses primarily on the types, species composition, age, and structural characteristics of the trees. This was done to describe the vegetation in a consistent manner across all ownerships and obtain information useful for the analysis. The following is a description of the classes used to describe the vegetation in Wolf Creek¹:

Non Forest: All areas not producing a stand of trees with \geq 40% canopy closure. This also includes rockland areas, quarries, agricultural and pasture lands, brushfields, and other miscellaneous barren ground.

Hardwoods: Primarily red alder and bigleaf maple with $>$ 60% hardwood canopy closure. These stands are often associated with wetlands or streamside areas. Some large scattered conifers including Douglas-fir, hemlock, and cedar may be present, which increases the structural complexity and attributes of the stand.

Mixed Conifer Hardwood: Hardwood species, primarily red alder and bigleaf maple, make up at least 40% of the canopy closure. The remaining stand is dominated by Douglas-fir and may include western hemlock or red cedar.

Clearcut: Approximate age range is 0 to 10 years, but may remain for 20 to 30 years if reforestation was delayed or unsuccessful. Shrub and tree regeneration is less than 40% of the canopy closure and generally less than 3 meters (- 10 feet) in height. The units may range from recently harvested and mainly devoid of vegetation to areas dominated by herbaceous species (grasses and forbs), shrubs, tree seedlings, and/or resprouting hardwoods.

Sapling - Pole: These areas range in age from approximately 10 to 29 years. Saplings are 3 to 13 cm (- 1 to 5 inches) in diameter; poles are from 13 to 28 cm (- 5 to 11 inches) diameter breast height (DBH). The average canopy closure varies with tree density. The sapling stands form a branching habit that is very dense and limber. Dead limbs tend to be retained, restricting access to the canopy. The pole stands form a less dense branching habit.

Pole - Young: The approximate age of these stands is 30 to 79 years. Pole stands are 13 to 28 cm (- 5 to 11 inches) DBH whereas the young stands range from 28 to 53 cm (- 11 to 21 inches) DBH. These areas average greater than 60% tree canopy. The branch structure on the young stands is moderately stout creating availability to most of the canopy for owls. Mistletoe brooms may start to develop and live crown ratios are variable but are decreasing with increasing crown closure. Within the dense stands, competition related mortality (suppression) creates small diameter snags and down woody material.

Mature over Young: These are "uneven" aged stand, usually in the pole-young condition, with less than 50% of the canopy in mature size timber in the overstory. An element of old-growth sized trees (greater than 86 cm, 34 inches) may be present as well as a hardwood understory. These stands may exhibit structural characteristics associated with large mature or old forest stands.

Mature: These areas range in age from 80 to 199 years. The average stand DBH is greater than or

equal to 53 cm to 86 cm (- 21 to 34 inches). The canopy closure is greater than/equal to 40% and may be fully stocked at 100%. The branch structure is stout. The more open or patchy stands may have developed a layered canopy with varied understory. Dense stands, which have developed under intense competition, may retain a small live crown ratio and little or no understory. The stand development is directional towards a more open canopy and understory.

Old over Young: These areas are "uneven" aged stand usually in the pole-young condition with less than 50% of the canopy in old forest sized trees. An element of, generally less than 10%, of mature size trees may be present as well as a hardwood understory. These areas generally exhibit structural features associated with old forest stands.

Old Forest: These areas are 200 year old stands with the dominant overstory in trees 86 cm (34 inches) at DBH. A well developed multi-layer, multi species canopy exists. Large snags, downed wood, and decadence are also present. The overstory may be composed of long lived successional species such as Douglas-fir and western red cedar or climax species like western hemlock. The understory may be dominated by conifers, hardwoods, and/or shrubs.

1. Thraikill, J.A., J. Perkins, and E.C. Meslow. 1990. unpublished data . Northern Spotted Owl Habitat Classification Scheme; Eugene BLM spotted owl demography study area, central Coast Range Province, Oregon. Oregon Cooperative Wildlife Research Unit, Oregon State University, Corvallis.