

Vegetation / Fuels Treatment Prescription - Douglas-fir / Pine Series

Vegetation Condition Classes 7 & 8 General Px and Douglas-fir/Pine Plant Series Large Poles, 11 to 21" DBH and Mature, 21" DBH+		Adjustments To Px Specific To		
		Plant Association	Neighborhood or O.I. Unit	Land Allocation/ Soil Type
Stand Description Objectives	<p>These stands typically have west, southwest, southeast, and east aspects, and are found in the Douglas-fir plant associations. Pine sites (1ac or > areas where mature Ponderosa pine is a dominant overstory component) are intermixed as patches within the DF sites. Common vegetation in the understory includes black and white oak, canyon live oak, poison oak, hairy honeysuckle, Piper's Oregongrape and grass species.</p> <p>The Douglas-fir series tends to produce conditions that favor fire. This species is self-pruning, often sheds its needles and tends to increase the rate of fuel buildup and fuel drying. The Pine series occupies hot, dry aspects that burn frequently. Ponderosa Pine regeneration is restricted by reducing the number of fire events. Due to the success of fire suppression over the last 70 years, overall cover of this series has decreased (Atzet and Wheeler 1984).</p> <p style="text-align: center;">Goals</p> <p>Utilize the VRM 1 project guidelines for understory and overstory percent disturbance outlined in description of alternatives. Maintain plant series within its natural direction of succession by incorporating fuel treatment and silviculture strategies that aid in reducing stand density to more normal ranges. Reduce the overall stand basal area to increase tree growth, quality and vigor of the remaining trees. Release individual large Pine and DF trees. Create diversified stand structure (height, age and diameter classes) Maintain flexible parameters with adjacent land owners with a combination of approaches that can be applied to each situation. They may choose a moderate or more extensive approach. Reduce surface fuel hazard within the Defense Zone, Threat Zone and General Forest using on and offsite disposal of slashed material. Minimize return intervals and cost to reduce fuel hazard build up within 5-10 year treatment spectrum.</p>			
Side Boards/ Unique Features	<p>Adjustments to meet VRM 1 ??? <i>Screening, phased treatment intervals, irregular spacing pattern....</i> Botany Plants <i>plants that live in Pine crowns, in Oak Habitat, in the Upper Crust....</i> Osprey, Bald Eagle Nests, Migratory birds.....</p>	Apply PDF found in E.A.	Apply PDF to known areas	60% canopy retention in Late Successional Reserve land allocation

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Insects/ Diseases	GIS Disease Flight Coverage			
Silv Approach	Density Management by understory thinning & Individual Large Tree Release			
Understory Thinning	<p><i>Understory Thinning Seen Area and Seldom Seen Area:</i> Understory thinning is intended to improve growth, canopy width, and increase gap formation. An understory thinning will be applied to allow for increased growth by release from excessive competition. Also, thinning will reduce the amount of understory live fuel that contributes to ladder fuel conditions. Understory thinning will treat conifer, hardwood trees, and shrub species. 3/22/03 Size of material thinned will depend on alternative chosen.</p> <p>For all treatments, all maple species, dogwood, pacific yew, black oak, white oak, and alder will be reserved, regardless of spacing (<i>i.e.</i> not included in spacing or considered leave trees).</p>			
Fuels Reduction Treatments	<p><i>Fuels Reduction Treatments</i> Conifer trees, hardwood trees, and shrubs that are considered for treatment include those between one inch DBH and 16 inches DBH (depends on alternative chosen). All trees greater than depends on alternative chosen inches DBH in the seen area or (Selected alternative??/ inches DBH in the unseen area) are considered reserved trees. Treatment is to space out conifer trees, hardwood trees, and shrubs to specifications as described under Understory Thinning. Slashing excess trees and shrubs 1 inch to ??8 inch DBH would occur. Trees greater than 8 inches and less than 12?? (Depends on alternative chosen) inches DBH would be girdled where they exist in excessive amounts, do not pose a safety hazard, and are outside the seen area. Where available, slash treatment would be mechanical chipping, slash buster or offsite disposal. UB - Underburn, mosaic underburn burn under reserved overstory. HP - Hand pile slash 1"-8" x 2', cover, and burn piles.</p> <p style="text-align: center;">Seen Area:</p> <p>Individual Large Tree Release: Release large (> 20 inch DBH) Pine and DF trees by thinning around them to create less than or equal to a 20-foot crown space between surrounding trees. All trees beneath the crown of the Pine or DF tree should also be reduced (including seedlings and saplings). Spacing should decrease as the distance from the tree bole is increased.</p> <p>Density Management: Thin hardwoods and conifers primarily from the understory. All trees greater than (Depends on Alternative Selected) inches DBH are considered reserved trees. Spacing will vary and is dependent on the type of tree present, but</p>			

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	<p>should not exceed 15 ft between the boles of leave trees. Types of trees that can be thinned in order of preference include suppressed, intermediate and some codominant crown class trees with live crown ratios of less than 30%, trees lacking branches on one or more sides that are not conical in shape, dying trees (watch for pitch tubes or missing bark), trees with broken or forked tops subject to immediate breakage, and hazard trees. <u>Focus on reducing the stocking levels of Douglas-fir and increasing that of pine species, and creating/retaining structural diversity.</u></p> <p>When possible leave trees of varying crown classes (height) to create diversity in stand structure. Leave trees with old-growth characteristics. Favor PP, SP, IC and DF and Madrone respectively to leave.</p> <p>Madrone sprouts: Cut so that the two most dominate sprouts remain. All deer brush regardless of size should be severed at each entry.</p> <p style="text-align: center;">Seldom-seen Area:</p> <p>Individual Large Tree Release: Release large (>20 inch DBH) Pine and DF trees by thinning around them to create less than or equal to a 20-foot crown space between surrounding trees. All trees beneath the crown of the Pine or DF tree should also be reduced (including seedlings and saplings). Spacing should decrease as the distance from the tree bole is increased.</p> <p>Density Management: Thin hardwoods and conifers primarily from the understory. All trees greater than 14 inches DBH (depends on alternative chosen) are considered reserved trees. Spacing will vary and is dependent on the type of tree present, but should not exceed 25 ft between the boles of leave trees. Types of trees that can be thinned, in order of preference, include suppressed, intermediate and some codominant crown class trees with live crown ratios of less than 30%, trees lacking branches on one or more sides that are not conical in shape, dying trees (watch for pitch tubes or missing bark), trees with broken or forked tops subject to immediate breakage, and hazard trees. <u>Focus on reducing the stocking levels of Douglas-fir and increasing that of pine species, and creating/retaining structural diversity.</u></p> <p>When possible leave trees of varying crown classes (height) to create diversity in stand structure. Leave trees with old-growth characteristics. Favor PP, SP, IC and DF and Madrone respectively to leave.</p> <p>Madrone sprouts: Cut so that the two most dominate sprouts remain. All deer brush regardless of size should be severed at each entry.</p>			
Leave/Retain				
Snags	Leave Stage 1 snags in the interior of homogeneous conifer stands where snags are not			

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	prevalent. Buffer snags 17 inches DBH & greater from damage by leaving all green trees for a radius equal to the height of the snag. In areas where pockets of Stage 1 snags are found (adjacent to shrublands & woodlands), leave all snags that do not pose a safety hazard. Consider leaving trees with <u>Fomes pini</u> that have healthy crowns.			
CWD	Add PDF from E.A.			
Future Treatments	Maintenance brushing, thinning, burning would occur with a return interval of 3-5 years based on review using BLM Visual Contrast Rating and Vegetation/fuel decision matrix. Over all units leave scattered unthinned patches 1/10th to 1/4 acre in size to buffer sensitive plants, visual screening, sensitive soils, active nests, etc.			
Expected Outcomes	Immediately following all scheduled treatments, these stands will have density levels within the carrying capacity of the site. Species composition is well represented with Douglas-fir, ponderosa pine, sugar pine, and incense cedar. Hardwood species occur as an occasional stand component either singly (california black oak, bigleaf maple) or in clumps (madrone, white oak). Trees sizes include seedlings, saplings, and small and large conifer trees. The residual trees (greater than 8" dbh) are characterized by co-dominant or dominant attributes, such as, crown ratios greater than 35%, improved growth rates and larger diameters. The mosaic of size classes provides the structural diversity not found in adjacent meadows and shrublands. The reduced crown closure within these stands will range within 40-80 percent. Basal area ranges from 100 -280 square feet. The higher crown closure and basal area would occur in areas that are buffered or reserved from treatment. Unentered patches of 1/10th-3 acres will be scattered in most of the units to maintain diversity and for wildlife habitat. The larger hardwoods will be reserved. Scattered large conifer trees will be reserved for the future large-stand growth component. Pine sites (areas where mature Ponderosa pine is a dominant overstory component) will be thinned to density levels that will improve stand growth and individual tree vigor. In Pine site areas most of the competing second growth component will be removed, creating site conditions suitable to produce and maintain large ponderosa pine. Stage 1 and 2 snags will remain for wildlife. The large tree selection areas should create openings large enough to promote and establish Douglas-fir or pine regeneration. 5-10 years Upon completion of the secondary treatment, conditions should be created so that a distinct canopy layer of reproduction can be formed. 10-50 years Still operates as a DF/Pine ecosystem. Succession with regeneration and growth is not likely without the reintroduction of disturbance in all canopy layers.			