

Unit No.	Harvest Prescription	Acres in Harvest Unit	Management Area	BioPys Env.	Logging System	Current Structural Stage/ Condition	Target Structural Stage/ Condition	Fuels Treatment
10 (Incl ZA/ 10, ZB/ 10)	Release overstory to enhance wildlife habitat, keeping stand in a multistory structure. Uneven-aged selection targeting intermediate, suppressed, and pathogen infested trees. Quarter acre group openings may be used to accomplish desired objectives. Standing deadwood greater than 12" in diameter at breast height (DBH) will be protected if possible. Target crown closure is 50% or greater	298	7/5/3A,	WDDF	Ground Based	M5, DF and Mt pine beetle, WL/DF DMT, Past overstory removal followed wildfire. Habitat not meeting old growth dependant species requirements, lacking snags, large trees and down wood High/mod crown fire potential.	SS-6 Pmp Habitat Rx#1	Mechanical pile, selective pile burn for habitat. leave large down wood (177 ac) Underburn on western steep slope (136 ac).
11	Reduce stand BA by ½-1/3, reduce I & D, some just weed & release	233	7	WDDF	Ground Based	E3/M5 stand with DMT and DF beetle. Past overstory removal.	SS-7	Mechanical pile and burn piles.
12	Release overstory to enhance wildlife habitat, keeping stand in a multistory structure. Uneven-aged selection targeting intermediate, suppressed, and pathogen infested trees. Quarter acre group openings may be used to accomplish desired objectives. Standing deadwood greater than 12" in diameter at breast height (DBH) will be protected if possible. Target crown closure is 50% or greater	169	5/7,	WDDF	Ground Based	M5, Heavily infected with DMT, Habitat not meeting old growth dependant species requirements. Past OSR, variable stand, overstocked, diseased.	SS-6 PMP habitat Rx#1	Jackpot E ½ / Underburn W ½ where it meets habitat obj.
13	Reduce stand BA by ½-1/3, reduce I & D	235	7/5	WDDF CMA	Ground Based	M5 stand with DMT, Lynx. Part past overstory removal,	SS-6	Mechanical pile, selective pile burn for habitat.

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14	Release overstory to enhance wildlife habitat, keeping stand in a multistory structure. Uneven-aged selection targeting intermediate, suppressed, and pathogen infested trees. Quarter acre group openings may be used to accomplish desired objectives. Standing deadwood greater than 12" in diameter at breast height (DBH) will be protected if possible. Target crown closure is 50% or greater	37	7	CMA	Ground Based	E3/M5, LLP with beetle, DMT; Lynx, ½ in PMP, Pole sized, overstocked. Habitat not meeting old growth dependant species requirements	SS-6 PMP habitat Rx#1	Mechanical pile as needed, selective pile burn for habitat.
15	Release overstory to enhance wildlife habitat, keeping stand in a multistory structure. Uneven-aged selection targeting intermediate, suppressed, and pathogen infested trees. Quarter acre group openings may be used to accomplish desired objectives. Standing deadwood greater than 12" in diameter at breast height (DBH) will be protected if possible. Target crown closure is 50% or greater	79	7/5	WDDF,CMA	Ground Based	Lynx, E3; LPP, WL, DF Mt Pine beetle, 22 acres in PMP, Pole sized, overstocked. Habitat not meeting old growth dependant species requirements	SS-6, PMP habitat Rx#1	Leave tops attached
16	Joined w/15							
17	Reduce to ½ BA West part - weed & release	17	7	WDDF CMA	Ground Based /cable	E3/M5 DF, WL. Pole to mid-sized, overstocked, diseased with beetles, DMT. Lynx	SS-7	Mechanical pile, selective pile burn for habitat.
18	Reduce to ½ BA, weed & release	86	7	WDDF CMA	Ground Based	E3/M5; DF,WL. Pole sized, overstocked, diseased, beetles, DMT. Lynx	SS-7	Underburn S1/2 Mechanical pile N ½ , selective pile burn for habitat.
19	Reduce stand BA by ½-1/3, reduce l&d, patches of w/r only	213	5/7	WDDF	Ground Based	M5; DF with beetle, DMT. Past selection cut dense.	SS-7	Underburn

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20	Salvage	13	7	WDDF	Cable	M5, Mixed conifer, DF beetle	SS-6	Underburn
21	Thin & Salvage, Plant	51	7	WDDF	Ground Based	E3/M5 Mixed conifer, DF beetle	SS-7	Underburn mechanical pile, selective pile burn for habitat.
22	Thin & Salvage	51	7/5	WDDF	Ground Based	E3/M5 Mixed conifer, DF beetle	SS-7	Underburn
23	Release overstory Retain hiding cover clumps	90	5/7	WDDF	Ground Based	E3/M5 Mixed conifer, DF beetle, Some big PP	SS-7	Underburn
24	Thin & Salvage, Plant	43	5	WDDF CMA	Ground Based	M5, Mixed conifer, DF beetle	SS-6	Mechanical pile, selective pile burn for habitat.
25	Reduce stand BA by ½-1/3, reduce i&d, rd probs.	47	8	WDDF	Ground Based Winter log	M5, Mixed conifer, DF beetle, high crown fire potential. Past overstory removal.	SS-6	Underburn
26 (Incl ZC/ 26)	Reduce stand BA by ½-1/3, reduce i&d, rd probs	38	8	WDDF	Ground Based Winter log	M5 small pole sized stand, DMT and poor form. Past overstory removal.	SS-7	Underburn (15 ac) mechanical pile (23 ac)
27	Added to 28							
28 (Incl ZD/ 28)	Release overstory to enhance wildlife habitat, keeping stand in a multistory structure. Uneven-aged selection targeting intermediate, suppressed, and pathogen infested trees. Quarter acre group openings may be used to accomplish desired objectives. Standing deadwood greater than 12" in diameter at breast height (DBH) will be protected if possible. Target crown closure is 50% or greater	162	7	WDDF CMA	Ground Based Winter log	M5, mixed conifer stand, DMT & beetles. Habitat not meeting old growth dependant species requirements	SS-6 Pmp Habitat Rx#1	Mechanical pile and burn piles
29	Thin & Salvage	51	7	WDDF, CMA	Ground Based	M5, mixed conifer stand, DMT & beetles	SS-7	Underburn
30	Thin & Salvage	216	7	WDDF CMA	Ground Based	M5, Variable stand. LPP and mixed conifer, beetles	SS-7	Mechanical pile and burn piles east of 2086 rd and pile burn, jackpot burn west of 2086 rd

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31	Salvage & Thin	49	7	WDDF CMA	Ground Based	M5, Mixed conifer stand; DMT, beetles, lynx area	SS-6	Mechanical Pile, selective pile burn for habitat.
32	Reduce stand BA by ½-1/3, reduce I & D	29	7	WDDF	Cable	M5, Mixed conifer stand; DMT, beetles. Past overstory removal.	SS-6	Underburn
33	PCT	44	7	WDDF CMA	none	E2, Mixed conifer stand; DMT, beetles	SS-6	Lop & leave slash. (Handpile funding permitting, burn handpiles)
34	Salvage, thin	15	7	WDDF	Ground Based	M5, Mixed conifer stand; DMT, beetles	SS-6	Underburn
35	Dropped							
36	Reduce stand BA by ½-1/3, reduce I & D	28	7	WDDF	Ground Based	M5, Mixed conifer stand; DMT, beetles. Past overstory removal.	SS-6	Underburn
37	Reduce stand BA by ½-1/3, reduce I & D	110	7	WDDF CMA	Ground Based	E3/M5/L6; PP with DF; beetles and DMT in DF. Past overstory removal.	SS-7	Mechanical pile E ½ , Burn piles
38	Salvage, thin, part weed & release	7	7	WDDF CMA	Ground Based	E3/M5; PP with DF; beetles and DMT in DF	SS-6	Leave Tops Attached/ Jackpot burn
39	Salvage, thin	31	7	WDDF	Ground Based	M5; PP with DF; beetles and DMT in DF	SS-7	Underburn
40	Reduce stand BA by ½-1/3, reduce I & D	112	7	WDDF	Ground Based	E3/M5; PP with DF; beetles and DMT in DF. Past overstory removal.	SS-7	Partial underburn and mechanical pile, pile burn
41	Reduce stand BA by ½-1/3, reduce I & D	18	7	WDDF CMA	Ground Based	E3; PP with DF; beetles and DMT in DF. Past overstory removal.	SS-7/6	Mechanical pile and burn piles
42	Pre-Commercial Thin	22	7	WDDF	none		SS-6	Lop & leave slash. (Handpile funding permitting, burn handpiles)
43	Reduce stand BA by ½-1/3, reduce I & D	24	7	WDDF	Cable		SS-7	Underburn
44	Reduce stand BA by ½-1/3, reduce I & D	61	7	WDDF	Ground Based		SS-7	Underburn
45	Reduce stand BA by ½-1/3, reduce I & D	56	5/ 7	WDDF CMA	Ground Based		SS-6	Mechanical pile and burn piles

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46	Reduce stand BA by ½-1/3, reduce I & D	44	7	WDDF CMA	Ground Based		SS-6	Mechanical pile and burn piles
47	Reduce stand BA by ½-1/3, reduce I & D	44	7	WDDF CMA	Ground Based		SS-6	Mechanical pile and burn piles
48	Reduce stand BA by ½-1/3, reduce I & D Reduce stand BA by ½-1/3, reduce I & D	35	7	WDDF	Ground Based		SS-6	Mechanical pile and burn piles
49 (incl ZE/ 49)	Pre-Commercial Thin	38	7	WDDF	none		SS-6	Lop & leave slash west ½ (Handpile funding permitting, burn handpiles). Handpile, burn handpiles east ½ (ZE/49)

DF = Douglas-fir, WL = western larch, LPP = lodgepole pine, ES = spruce, SAF = subalpine fir. DMT = dwarf mistletoe, BB= bark beetles. WDDF=Warm dry Douglas-fir, CMA=cool moist subalpine fir, VMSB= very moist spruce bottoms. Structural Stages (SS) are defined as follows: E3=early structure, stem exclusion stage, closed canopy; M5 = middle structure, multi-stratum, without large trees; L6 = multi-stratum, with large trees.

Alternative B Supplemental Specifications

Units located in pileated woodpecker or pine martin areas (units 10, 12, 14, 15, 28): The management objective in these units will be to speed development of the desired wildlife habitat and to reduce fuels. The primary habitat component lacking in these areas is large live and dead standing trees. Thinning will be aimed at increasing the growth rate of the overstory and creating canopy layers. This will be accomplished by uneven-aged selection targeting intermediated, suppressed, and pathogen infested trees. Quarter acre group openings may be used to accomplish desired objectives. Standing deadwood greater than 12” in diameter at breast height (DBH) will be protected if possible. Target crown closure is 50% or greater (this will vary according to site specific conditions).

Units that have acres in early structural stage (units 1, 5, 11, 12, 13, 15, 21, 24, 33, 38, 40, 42, 49): The management objective for these stands is to reduce overstocking to encourage growth of large overstory and reduce insect and disease. Thinning will be an approximate spacing of 20 feet removing the least desirable trees based on incidence of forest pathogens, vigor, and species mix (eg. Thin from below removing those trees with greatest risk of forest pathogen infection. If available, large snags will be protected by surrounding them with retention trees.

Units located in the LAU (Lynx Analysis Unit) (units 1, 2, 13, 14, 15, 17, 18, 21, 22, 24, 30, 31, 37, 46): The management objective for these units is to hasten development of denning habitat. This will be done by thinning areas and opening up small patches to attain large overstory, and leaving clumps of trees for multistory stands. Down trees will be left.

Other Units: The management objective is to encourage attainment of either single storied old growth (for the Douglas fir plant associations) or multi-story old growth (for subalpine fir plant associations). Trees to remove will include suppressed, intermediate and some co-dominant trees, genetically inferior trees left by past

diameter limit cuts; trees with forest pathogen infestations. Where the unit and the rural interface overlap, additional techniques such as requiring removal of smaller trees ; pruning; and whole tree harvesting with tops piled at the landing may be used. Where access and landing space permit, firewood removal by the public will be allowed. Removal of firewood is expected to reduce smoke emissions during prescribed burning and to provide fuel for the public.

Harvest method will be ground based (approximately 3046 acres) or by cable systems (approximately 131 acres). Helicopter yarding is not planned for this project.

Planting of larch and ponderosa pine may occur in openings as necessary to achieve objectives and keep stand fully stocked.

Alternative C Treatment Units

Unit #	Acres	Treatment Type	Max. dbh	Preferred Leave Tree Species	Fuel Treatment	Other Prescription Specifications
6	3	Commercial Thin	12" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP, ES	Underburn	Restrict logging to within 100' of Road 2150.
7	29	Small Pole Thin		WL, PP, ES	Underburn	
8	35	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP, ES	Underburn	
10	270	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	
11	144	Commercial Thin	12" except LP. Leave all groupings of 2-6 trees 10" and larger.	DF, WL, PP	Underburn	
12	154	Commercial Thin	12" except LP and mistletoe class IV and higher. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	
15	55	Commercial Thin	8" except LP	WL	Leave tops attached, pile debris at landings	16' spacing except for groups of 2-6 WL or DF or mix of each.
17	18	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, ES	Mechanical pile, burn piles	
18	72	Small Pole Thin	8" except LP	WL	Underburn	
19	168	Small Pole Thin			Underburn	
21	26	Commercial Thin	12" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, SAF, ES	Mechanical pile, burn piles	
26	34	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	
29	51	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	Remove all LP
30	37	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	Remove all LP
32	23	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP, ES	Underburn	
33	44	Precommercial Thin			Buck and leave debris to decay	

Unit #	Acres	Treatment Type	Max. dbh	Preferred Leave Tree Species	Fuel Treatment	Other Prescription Specifications
37	118	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP, ES	Underburn	
39	8	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	Thin only along existing road.
40	67	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	
41	18	Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	
47	51	Small Pole Thin		ES, SAF, WL	Mechanical pile, burn piles	
A	25	Controlled Burn			Underburn or broadcast burn	
B	46	Controlled Burn			Underburn or broadcast burn	
C	13	Controlled Burn			Underburn or broadcast burn	
D	163	Controlled Burn			Underburn or broadcast burn	
E	55	Controlled Burn			Underburn or broadcast burn	
F	179	Controlled Burn			Underburn or broadcast burn	
G	869	Controlled Burn			Underburn or broadcast burn	
I	96	Controlled Burn			Underburn or broadcast burn	
J	511	Controlled Burn			Underburn or broadcast burn	
K	203	Controlled Burn			Underburn or broadcast burn	
M	201	Controlled Burn			Underburn or broadcast burn	
N	336	Controlled Burn			Underburn or broadcast burn	
O	890	Controlled Burn			Underburn or broadcast burn	
P	80	Controlled Burn			Underburn or broadcast burn	
Q	23	Controlled Burn			Underburn or broadcast burn	

Unit #	Acres	Treatment Type	Max. dbh	Preferred Leave Tree Species	Fuel Treatment	Other Prescription Specifications
R	174	Controlled Burn			Underburn or broadcast burn	
S	358	Controlled Burn			Underburn or broadcast burn	
T	341	Controlled Burn			Underburn or broadcast burn	
U	340	Controlled Burn			Underburn or broadcast burn	
V	81	Controlled Burn			Underburn or broadcast burn	
W	212	Controlled Burn			Underburn or broadcast burn	
X	299	Controlled Burn			Underburn or broadcast burn	
YA	10	Shaded Fuel Break			Hand pile, burn piles	Private Property
ZA/10	111	Shaded Fuel Break, Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	Included in Unit 10
ZA	28	Shaded Fuel Break, Non-Commercial Thin			Underburn	
ZB/10	42	Shaded Fuel Break, Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP	Underburn	Included in Unit 10
ZB	68	Shaded Fuel Break, Non-Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP, ES	Underburn	
ZC/26	34	Shaded Fuel Break, Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP, ES	Underburn	Included in Unit 26
ZC	50	Shaded Fuel Break, Non-Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP, ES	Underburn	
ZD/28	64	Shaded Fuel Break, Commercial Thin	10" except LP. Leave all groupings of 2-6 trees 10" and larger.	WL, PP, ES	Underburn	

Definitions applicable to both Alternative B and C

“**Commercial Thin**” implies that at least a portion of the trees to be removed meet Forest Service Timber Sale contract sawlog specifications [i.e., at least 7” dbh (diameter at breast height, or 4.5 feet above the ground), with 5” dib (diameter inside bark) top, or for lodgepole pine, 6” dbh with 5” dib top].

“**Small Pole Thin**” means to thin a stand such that most of the trees to be removed are smaller than Forest Service Timber Sale Contract sawlog specifications (i.e., smaller than 7” dbh with 5” dib top, or for lodgepole, 6” dbh with 5” dib top), but many of the cut-trees are large enough to make wood products (poles, posts, pulpwood, hew-wood, etc.). For the purpose of evaluating effects, it is assumed that these treatments would be accomplished with a machine capable of severing, limbing, topping, and bucking the trees, followed by a machine capable of picking up products and transporting the products to the roadside or landing. Leave tree spacing would be 20 to 30 feet.

“**Precommercial Thin**” means to thin a stand of sapling-sized trees. Trees that are cut are too small to have any commercial value. Leave tree spacing is usually 12-20 feet.

“**Non-Commercial Thin**” means to thin a stand without removing any wood products. Most of the cut-trees would be smaller than Forest Service Timber Sale Contract sawlog specifications, but some may be larger. No trees would be removed because of access or Riparian Habitat Conservation Area restrictions.

“**Controlled Burn**” (**Underburn in timbered stands; Broadcast Burn in non-timbered areas**) means to introduce a low-intensity surface fire under prescribed conditions for the purpose of consuming surface fuels and seedlings, killing unwanted small-diameter saplings, and scorching low-hanging limbs. This kind of fire has a cleaning and thinning effect, and reduces the possibility of intense wildfires that would easily climb into the tree crowns. Underburning or broadcast burning of natural fuels across the landscape typically creates a mosaic of burn patterns and rarely consumes 100% of the surface fuels as a wildfire might do in the heat of summer.

Whipfalling will be included in some underburning areas. Whipfalling is cutting and lopping sapling-sized trees in preparation for underburning, for the purpose of providing fuel to carry fire through the stand, and to aid in reducing ladder fuels where understory trees are not desired. The intent is not to thin the entire stand, but just to cut enough to enhance fire behavior to make the prescribed underburn effective.

“**Shaded Fuelbreak**” means to create a strip of land where a wildfire is deprived of surface and ladder fuels, causing the fire’s rate of spread to slow, and also decreasing the likelihood that long flamelengths will advance fire into the overstory canopy. A shaded fuel break is a stand of trees where hand or mechanical work reduces surface fuels, seedlings, saplings, and low-hanging limbs. Some overstory trees, usually from the smaller diameter size classes, may be thinned to increase space between tree crowns. The debris would be either removed from the site, underburned, or placed in small piles for burning.

“**Mechanical Pile and Burn Piles**” means that logging equipment would drop limbs and tops into small piles along the skid trail as it tops, limbs, and bucks logs. Sub-merchantable trees would also be severed from the stump, processed as needed, and dropped into piles in the same operation. These piles would be loose concentrations of logging slash.

“**Leave Tops Attached, Pile Debris at Landings**” Trees would be skidded or yarded to log landings with tops and limbs attached. The trees would be processed at the landing, and tops, limbs, and other debris would be piled at the landing for subsequent disposal by firewood removal, hauling off site, or burning. Where access and landing space permit, firewood removal by the public will be allowed.

“**Buck, Leave Debris to Decay**” means old logs, logging debris, and/or small, unmerchantable cut-trees would be cut into pieces so they lie on or nearly on the ground, so that soil organisms will facilitate decay of the woody material.