Forest Structure and Spatial Arrangement

	Desired Condition	Current Condition	Alternative B	Alternative C
Species Composition	Shade intolerant species dominate. Southwestern white pine, aspen, oak and other hardwood species well represented and increasing	Dominant species composition shifting toward shade tolerant, fire intolerant species. (Southwestern white pine, aspen , oak ,and other hardwood species decreasing).	Shade intolerant species favored on 100% of the treated area (excluding MSO protected).	Shade intolerant species favored on 30% of the treated area (excluding MSO protected).
Density (stand avg. including regeneration gaps/openings)	PP BA range 45 - 55 MC BA range 55 – 75	PP BA range 11 – 360 (BA avg. 91) MC BA range 30-235 (BA avg. 99)	PP avg. BA @ 1 yr = 45 PP avg. BA @ 20yr= 65 MC avg. BA @ 1 yr = 59 MC avg. BA @20 yr =78	PP avg. BA @ 1 yr = 51 PP avg. BA @ 20 yr = 79 MC avg. BA @ 1 yr = 67 MC avg. BA @ 20 yr = 89
Age Class Distribution	Uneven-aged stands 100% of forest areas Balance of young, mid, old aged	Uneven-aged stands 55% of forested area Even- aged stands are 45% of forested area	• Uneven-aged stands maintained (55 %). • Regen gaps/openings created to develop a balance of young, mid, old aged in a mosaic. • Even-aged stands moved towards uneven-aged conditions (45 %).	• Uneven-aged stands (55%) moved toward an even-aged structure (reduced balance of ages) • Mature even-aged stands maintained as even-aged conditions (15%) • Immature even-aged stands maintained/ or progressed towards balanced uneven-aged conditions (30%)
Spatial Arrangement	• Variable canopy density • Groups /clump with Regen gaps/openings avg. 30-40% overall	•Typically closed canopy with few regen gaps/openings	• Variable canopy density, groups and clumps • Regen gaps/openings avg. 30-40 % overall	• Variable canopy density, with little definition between groups, clumps, and patches • Regen gaps/openings avg. less than 10% overall

Fire Analysis

	Desired Condition	Current Condition	Alternative B	Alternative C
FRCC	• FRCC 1 = 100% of area • High degree of consistency with reference conditions and the natural disturbance regime •Low risk of losing key ecosystem components	• FRCC 3 = 100% of area •Substantially departed from reference conditions and the natural disturbance regime •High risk of losing key ecosystem components	• FRCC 1 = 54% of area after 20 yrs • FRCC 2 and 3 = 46% of area after 20 yrs • Lower risk of losing key ecosystem components than C	• FRCC 1 = 14% of area after 20 yrs • FRCC 2 and 3 = 86% of area after 20 yrs • Higher risk of losing key ecosystem components than B
Fire Behavior Potential	• Reduced Potential for high-severity, stand replacing fires • Surface Fire >75% • Passive Crown Fire is occasional at the group or clump scale • Active Crown Fire at smaller scale under extreme conditions	• High potential for high-severity, stand replacing fires • Surface Fire = 32% • Passive Crown Fire = 44% • Active Crown Fire = 23%	• Reduced potential for high-severity stand replacing fires for 30+ years • Surface Fire = 66% • Passive Crown Fire = 16% • Active Crown Fire = 17%	• Reduced potential for high -severity, stand replacing fires for 10-15 years • Surface Fire = 51% • Passive Crown Fire = 30% • Active Crown Fire = 18%
Fire Management Potential	• Increased opportunity to manage Rx or wildfire to meet resource objectives under a wider range of fire conditions	• Limited opportunity to manage Rx or wildfire to meet resource objectives under a limited range of fire conditions	• Increased opportunity to manage Rx or wildfire to meet resource objectives under a wider range of fire conditions than current. •Opportunities to manage fire to meet resource objectives decline as canopies close in 30+ years.	•Increased opportunity to use Rx or wildfire to meet resource objectives under a wider range of fire conditions than current. • Opportunities to manage fire to meet resource objectives decline as canopies close in 10-15 years.

Other Resource Analysis

	Desired Condition	Current Condition	Alternative B	Alternative C
Herbaceous/ Shrub Understory	•Herbaceous/ shrub understory provides greater biological diversity due to effects from canopy gaps, spatial distribution of tree groups and reduced canopy cover	• Scarce herbaceous/ shrub understory and reduced biological diversity due to effects from dense trees and canopy cover	• Greater herbaceous/ shrub understory provides greater biological diversity than alternative C due to effects from canopy gaps, spatial distribution of tree groups and reduced canopy cover in treated areas Herbaceous response decline after 30 yrs as canopy gaps fill in.	• Less herbaceous/shrub understory provides less biological diversity than alternative B due to effects from less distinct canopy gaps spatial distribution of tree groups and reduced canopy cover in treated areas •Herbaceous response decline after 10 - 15 yrs as canopy closes
MSO Habitat Risk	MSO habitat at reduced risk due to 100% of Non-MSO constrained area in FRCC 1	MSO habitat at risk due to 100% of area being in FRCC3	MSO habitat at reduced risk due to 54% of area in FRCC 1. (46% in FRCC 2,3)	MSO habitat at risk due to 14% of area in FRCC1 (86% in FRCC 2,3)
Sustainability and Resilience	Create resilience to disturbance, insect disease, uncharacteristic fire, climate variability, resulting from reductions in forest density, heterogeneity of forest structure and understory vegetation Sustainable over time High severity forest vegetation mortality unlikely to occur following wildfire	Limited resilience to disturbance, insect disease, uncharacteristic fire, climate variability (dense forest conditions) Not sustainable overtime High severity forest vegetation mortality likely to occur following wildfire	Improved resilience to disturbances insect disease, uncharacteristic fire and climate variability (better than alternative C) Sustainability decreases beyond 30 years High severity forest vegetation mortality unlikely to occur following wildfire for 30+ years following treatment	Improved resilience over first 10 -15 yrs, decreasing over time as canopy gaps close Sustainability decreases beyond 10 -15 years High severity forest vegetation mortality likely to occur as canopy gaps close after 10-15 yrs
Hydrologic Function	Improved hydrologic function due to reduced density and canopy gaps	Hydrologic function decreased due to dense forest conditions	Improved hydrologic function due to reduced density and increased canopy gaps . Greater effective capture of precipitation, and soil moisture increase than alt. C	Short term improvement of hydrologic function (10 – 15 years) decreasing as canopy closes and density increases. Less effective capture of precipitation, and soil moisture increase than alt.B
Visuals	Increased visual diversity and variation due to reduced forest density with canopy gaps	Limited visual diversity and variations due to high density forest with closed canopy	Increased visual diversity and variation due to reduced forest density with canopy gaps. (better than alternative C)	Limited visual diversity and variation decreasing as canopy gaps close 10 -15years . (Less than alternative B)

Longevity and Cost of Treatment

Alternative B

➢ Longevity of treatment = 30+ years

➢ Cost of treatment is slightly less than alternative C (open-market)

Alternative C

• Longevity of treatments is 10 to 15 years

• Cost of treatment is slightly more than alternative B (open-market)

Trees 16" and Greater

Alternative B

• 89% of trees greater than 16" (256,000) would remain

• 11% of trees greater than 16" (31,000) removed to achieve canopy gaps with a longevity of 30 yrs +

Alternative C

• 100% of trees > 16" would remain

• Development of canopy gaps are achieved to a lesser degree with a longevity of 10-15yrs