11/4/03 DRAFT

Fire Regime Condition Class (FRCC) Interagency Handbook Reference Conditions

Modeler: Kelly PohlDate: 8/13/03PNVG Code: LPSC

Potential Natural Vegetation Group: Lodgepole Pine-Subalpine (Calif.)

Geographic Area: California Sierra Nevada.

Description: PNVG generally occurs in upper montane and subalpine sites on moderate to slopes and rocky ridges, sometimes occurring in krummholz form. Sites are typified by xeric conditions, shallow rocky soils, short growing seasons, and intense solar radiation.

Fire Regime Description: Fire Regimes III and IV, primarily moderately long- to long interval (e.g., 80-120 yr) mixed severity- and stand replacement fires.

Class	Percent of	Description			
	Landscape				
A: post	20	Bare ground with some grasses and forbs;			
replacement		shrubs emerging (snow bush, bush			
_		chinquapin)			
B: mid-	10				
development		>40% canopy cover; occurring lower in			
closed	20	elevation range.			
C: mid- open	30	Sapling-pole sized lodgepole pines at <40%			
		cover with little understory; occurring on			
D: late- open	30	rockier, higher elevation sites. Uneven aged stands of mature to very large			
D. late- open	50	lodgepole pines at <40% cover; gap patches			
		and little understory. White fir emerging at			
		lower elevations; limber pine emerging at			
		higher elevations.			
E: late- closed	10	5			
		strata of fir; occurring lower in elevation range.			
Total	100				
Fire Frequency and Severity					
Fire Frequency-	Modeled	Pct, All Description			
Severity	Probability	Fires			
Replacement Fire	.003	25 Occasional stand-replacing fire			

Vegetation Type and Structure

-			where terrain does not provide
			•
			natural fire breaks.
Non-Replacement	.013	75	99% mosaic fire, generally very
Fire			spotty and small in area, depending
			on proximity to lightning strike.
			on provining to light ling strike.
All Fire Frequency*	.013	100	
*0		1	

*Sum of replacement fire and non-replacement fire probabilities.

References

Brown, James K.; Smith, Jane Kapler, eds. 2000. Wildland fire in ecosystems: effects of fire on flora. Gen. Tech. Rep. RMRS-GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p.

Chang, Chi-Ru. 1996. Ecosystem responses to fire and variations in fire regimes. In: Status of the Sierra Nevada. Sierra Nevada Ecosystem Project: Final report to Congress. Volume II: Assessments and scientific basis for management options. Wildland Resources Center Report No. 37. Davis, CA: University of California, Centers for Water and Wildland Resources: 1079-1099.

Parker, A. 1986. Persistence of lodgepole pine forests in the central Sierra Nevada. Ecology 67(6): 1560-1567.

Peterson, David L., Arbaugh, Michael J., Robinson, Lindsay J., and Derderian, Berg R. 1990. Growth trends of whitebark pine and lodgepole pine in a subalpine Sierra Nevada forest, California, U.S.A. Arctic and Alpine Research 22 (3): 233-243.

Rendel, Philip W., Parsons, David J., Gordon, Donald T. 1988. Montane and subalpine vegetation of the Sierra Nevada and Cascade Ranges. In Barbour, Michael G., and Major, Jack, eds. Terrestrial Vegetation of California. California Native Plant Society Special Publication #9.

Schmidt, Kirsten M, Menakis, James P., Hardy, Colin C., Hann, Wendel J., Bunnell, David L. 2002. Development of coarse-scale spatial data for wildland fire and fuel management. Gen. Tech. Rep. RMRS-GTR-87. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 41 p. + CD.

Sheppard, Paul R., Lassoie, James P. 1998. Fire regime of the lodgepole pine forest of Mt. San Jacinto, California. Madroño 45 (1): 47-56.

U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (2002, December). Fire Effects Information

System, [Online]. Available: <u>http://www.fs.fed.us/database/feis/</u> [User, supply access date here].

VDDT RESULTS







