

**\*\*11/4/03 DRAFT\*\***

**Fire Regime Condition Class (FRCC) Interagency Handbook  
Reference Conditions**

**Modeler:** Wendel Hann

**Date:** 9/25/03

**PNVG Code:** DGRA3

**Potential Natural Vegetation Group:** Desert Grassland With Shrubs

**Geographic Area:** Interior Southwest (AZ, NM) and Southern Great Plains (W. TX)

**Description:** This type typically occurs in foothills where the plains transition to foothills landforms. Vegetation is grassland dominated by blue grama, tobosa grass, and galleta grass with intermingled forbs and half-shrubs. Shrubs (oak, mahogany, mesquite) are a minor component (less than 5%) of this type, typically occurring on rock outcrops or edges of steep draws and ravines. However, if fire is substantially reduced or excluded shrubs will encroach and substantially increase.

**Fire Regime Description:** Fire regime group II, frequent replacement. The mean fire interval is about 8 years with high variation due to drought, which reduces fire frequency and moist periods that increase fire frequency. Grazing of the grassy fuels by large ungulate herds (buffalo) also substantially influenced fire mosaic patterns in this type. This type typically burns during the late spring (May, June, early July) and fall (late September, October, November) in association with the hot, dry periods that follow the winter and late spring (December through April) rainy season and summer (late July, August, early September) monsoon season.

**Vegetation Type and Structure of Fire Regime Group II**

Class	Percent of Landscape	Description
A: post replacement	3	Dominated by resprouts of desert grassland species and post-fire associated forbs and half-shrubs. This type typically occurs where fires burn relatively hot in classes B, D, or E.
B: mid-development closed	20	Greater than 40 percent grasses and forbs; generally associated with productive soils on gentle slopes, flats, and mesa tops.
C: mid- open	65	Less than 40 percent grasses and forbs generally associated with gravelly and cobbly soils of the steeper more rugged slopes.
D: late- open	8	5-15 percent cover of mature oaks, mahogany, mesquite, sagebrush, yucca, opuntia, saltbush,

and other shrub species; typically associated with rock outcrops or draws that protect the shrubs from fire.

E: late- closed

- 4 Greater than 15 percent cover of oaks, mahogany, mesquite, sagebrush, yucca, opuntia, saltbush, and other shrub species; typically have multiple layers with young ingrowth and some litter/duff accumulation; often associated with small areas that escape 1-3 fire cycles because of grazing patterns or terrain; typically occurs on the more productive soils; can become somewhat fire resistant as a result of dense shade, but during dry years when this type burns it burns very hot.

Total 100

### Fire Frequency and Severity

Fire Frequency-Severity	Modeled Probability	Pct, All Fires	Description
Replacement Fire	.093	93	Replacement fires in B and C
Non-Replacement Fire	.007	7	Mosaic and surface fires in D and mosaic fires in C
All Fire Frequency*	.100	100	10 year mean fire frequency with high variation due to drought and large ungulate (buffalo) grazing influences

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

### References

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Kuchler, A. W. 1964. Manual to accompany the map of potential natural vegetation of the conterminous United States. American Geographical Society. Spec. Publ. No. 36. Lib. Congress Cat. Card Num. 64-15417. 156 p.

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.

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MODELER FIELD REVIEWS: \*SPECIFIC LOCN?  
Wendel Hann, West Texas 2001, New Mexico 2003.

# VDDT Results



