

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

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

Modeler: Wendel Hann

Date: 9/25/03

PNVG Code: PRAR1

Potential Natural Vegetation Group: Prairie Grassland (Without Trees or Shrubs)

Geographic Area: Occurs in eastern portion of the Great Plains from North Dakota south to Texas.

Description: This type typically occurs on the rolling uplands of the Great Plains. Vegetation is tall and mid grasses dominated by big bluestem, little bluestem, needlegrass, grama grasses, and other tall and mid grasses, with intermingled forbs. This type correlates with Kuchler's (1964) types 70, 74, 75, and 76.

Fire Regime Description: Fire regime group II, frequent replacement. The mean fire interval is about 8 years with moderate variation due to year to year variation in grass production related to drought and moisture cycles. Grazing of the grassy fuels by large ungulates increases the variation of the fire interval.

Vegetation Type and Structure of Fire Regime Group II

| Class | Percent of Landscape | Description |
|---------------------------|----------------------|---|
| A: post replacement | 1 | Dominated by resprouts and seedlings of grasses and post-fire associated forbs. Low to medium height with variable canopy cover. This type typically occurs where fires burn relatively hot in classes B and C. |
| B: mid-development closed | 44 | Greater than 35 percent herb cover. Generally associated with more productive soils, but can be caused by cumulative high moisture seasons increasing the cover and productivity of class C. Medium to tall height. |
| C: mid- open | 55 | Less than 35 percent herb cover. Generally associated with less productive cobbly and gravelly soils, but can also be caused by cumulative drought shifting class B to this class. Medium to tall height. |
| D: late- open | | |
| E: late- closed | | |
| | Total | 100 |

Fire Frequency and Severity

| Fire Frequency-Severity | Modeled Probability | Percent, All Fires | Description |
|-------------------------|---------------------|--------------------|---|
| Replacement Fire | .112 | 90 | Replacement fires in A, B and C |
| Non-Replacement Fire | .013 | 10 | Mosaic fires in classes B and C |
| All Fire Frequency* | .125 | 100 | 8 year mean fire frequency with high variation due to complex interaction of drought cycles, herbivory, and Native American Burning |

*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.

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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VDDT Results



