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

Modeler: Wendel Hann   **Date:** 9/26/03   **PNVG Code:** MBNM

Potential Natural Vegetation Group: Mesquite Bosques

Geographic Area: Southwest (NM, AZ)

Description: This type typically occurs in the valleys. Vegetation is woodland dominated by mesquite, cottonwood, catclaw, other associated shrubs and understory grasses and forbs. This type correlates with Kuchler's (1964) type 27.

Fire Regime Description: Fire regime group III, infrequent mixed. The mean fire interval is about 45 years with high variation due to complex influences of adjacent fire regime, drought, herbivory, and native anthropogenic ignitions. Fire years are typically correlated with drought. Grazing of the understory green shrubs, grasses, and forbs during the hot season can open the understory and increase or decrease chance of surface fire depending on amount of residual grassy understory fuels.

Vegetation Type and Structure of Fire Regime Group II

Class	Percent of Landscape	Description
A: post replacement	10	Dominated by resprouts and seedlings of shrubs and trees. This type typically occurs where flooding has occurred or fires have burned relatively hot .
B: mid-development closed	35	Greater than 40 percent immature tree and shrub cover; generally associated with more productive soils.
C: mid- open	20	Less than 40 percent immature tree and shrub cover generally associated with less productive cobbly and gravelly soils.
D: late- open	15	Less than 40 percent mature tree and tall shrub cover generallly associated with less productive cobbly and gravelly soils, herbivory, light flooding, or surface and mosaic fires.
E: late- closed	20	Greater than 40 percent mature tree and tall shrub cover generallly associated with more productive soils, lack of floods, lack of herbivory, and lack of surface and mosaic fires.
Total	100	

Fire Frequency and Severity

Fire Frequency-Severity	Modeled Probability	Percent, All Fires	Description
Replacement Fire	.007	32	Replacement fires in B, C, D, and E
Non-Replacement Fire	.015	68	Mosaic fires in B, C, D, and E
All Fire Frequency*	.022	100	45 year mean fire frequency with high variation due to complex interactions of adjacent fire regime, drought, and herbivory

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

Optional1 disturbance used for herbivory
Optional2 disturbance used for flooding

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.

U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (2002, December). Fire Effects Information System, [Online]. Available: http://www.fs.fed.us/database/feis/ *USER SUPPY ACCESS DATE.

MODELER FIELD REVIEWS:
Wendel Hann - New Mexico 2003. *NEED SPECIFIC LOCN

VDDT Results

Vegetation Dynamics Development Tool - [% Pixels in Class (Avg, Min, Max)]

PVT: PGRA2   SCN: MBNM.SCN   REG: NRV

Class A: Early-Develop, PstRpl

Class D: Late-Develop, Open

Class E: Late-Develop, Clsd

Init. Conds. | Years: 500 | MC: 10 | Attributes | Dist. Mult. | Annual Mult. | Landscape Mult. | Feedback Mult. | Trend Mult. | TSD On | Dist. Disabled

Vegetation Dynamics Development Tool - [% Pixels Affected (Avg, Min, Max)]

PVT: PGRA2   SCN: MBNM.SCN   REG: NRV

AllFire

NonReplFire

ReplFire

Init. Conds. | Years: 500 | MC: 10 | Attributes | Dist. Mult. | Annual Mult. | Landscape Mult. | Feedback Mult. | Trend Mult. | TSD On | Dist. Disabled