Rapid Assessment Reference Condition Model

The Rapid Assessment is a component of the LANDFIRE project. Reference condition models for the Rapid Assessment were created through a series of expert workshops and a peer-review process in 2004 and 2005. For more information, please visit www.landfire.gov. Please direct questions to helpdesk@landfire.gov.

Potential Natural Vegetation Group (PNVG)

R3DGRA   **Desert Grassland**

General Information

Contributors *(additional contributors may be listed under "Model Evolution and Comments")*

Modelers		**Reviewers**	
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Vegetation Type
Grassland

Dominant Species*
BOGR
PLMU
PLEU

General Model Sources
☑ Literature
☐ Local Data
☑ Expert Estimate

LANDFIRE Mapping Zones

14	24	28
15	25	
23	27	

Rapid AssessmentModel Zones

☐ California   ☐ Pacific Northwest
☐ Great Basin   ☐ South Central
☐ Great Lakes   ☐ Southeast
☐ Northeast   ☐ S. Appalachians
☐ Northern Plains   ☑ Southwest
☐ N-Cent.Rockies

Geographic Range
Southwest, AZ, NM and southern Great Plains.

Biophysical Site Description
This type typically occurs in the plains or on valley benches below the foothills in the mountainous areas.

Vegetation Description
Vegetation is grassland dominated by blue gramma, tobosa grass, galleta grass, and buffalo grass, with intermingled forbs and half-shrubs. This type correlates with Kuchler (1964) types 53 and 54.

Disturbance Description
Fire regime group II, frequent replacement. The mean fire interval is about 10 years long, with high variation due to drought, which reduces fire frequency and moist periods that increase fire frequency. Grazing of grassy fuels by large ungulate herds (buffalo) also substantially influenced fire mosaic pattern 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.

Adjacency or Identification Concerns

Scale Description

Sources of Scale Data	☐ Literature	☐ Local Data	☐ Expert Estimate

Issues/Problems

Model Evolution and Comments
Model based on FRCC DGRA1, Wendel Hann, reviewed by Tim Christiansen and Reese Lolley and adopted for R3DGRA. Christiansen recommended adoption of FRCC DGRA1 with edits for R3DGRA which were made by Mike Babler 5/2005.

Dominant Species are from the NRCS PLANTS database. To check a species code, please visit http://plants.usda.gov.

Succession Classes**

Succession classes are the equivalent of "Vegetation Fuel Classes" as defined in the Interagency FRCC Guidebook (www.frcc.gov).

Class A   15 %

Early1 All Struct

Description

Post replacement 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 and C.

Dominant Species* and Canopy Position

BOGR2 All
PLEUR All
PLMU3 All

Upper Layer Lifeform
☑ Herbaceous
☐ Shrub
☐ Tree

Fuel Model 1

Structure Data (for upper layer lifeform)

	Min	Max
Cover	0 %	40 %
Height	Herb Short <0.5m	Herb Short <0.5m
Tree Size Class	no data	

☐ Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:

Class B   20 %

Mid1 Closed

Description

Greater than 40 percent grass and forb cover; generally associated with productive soils on concave gentle slopes and undulating plains.

Dominant Species* and Canopy Position

BOGR2 Upper
PLEUR Upper
PLMU3 Upper

Upper Layer Lifeform
☑ Herbaceous
☐ Shrub
☐ Tree

Fuel Model 1

Structure Data (for upper layer lifeform)

	Min	Max
Cover	40 %	90 %
Height	Herb Short <0.5m	Herb Medium 0.5-0.9m
Tree Size Class	no data	

☐ Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:

Class C   65 %

Mid1 Open

Description

Less than 40 percent grass and forb cover generally associated with gentle convex slopes or gravelly and cobbly soils on the plains.

Dominant Species* and Canopy Position

BOGR3 Upper
PLEUR Upper
PLMU3 Upper

Upper Layer Lifeform
☑ Herbaceous
☐ Shrub
☐ Tree

Fuel Model 1

Structure Data (for upper layer lifeform)

	Min	Max
Cover	10 %	40 %
Height	Herb Short <0.5m	Herb Medium 0.5-0.9m
Tree Size Class	no data	

☐ Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:

Class D   0 %

Late1 All Structu

Description

Dominant Species* and Canopy Position

Structure Data (for upper layer lifeform)

	Min	Max
Cover	0 %	0 %
Height	NONE	NONE
Tree Size Class	no data	

Upper Layer Lifeform

☐ Herbaceous

☐ Shrub

☐ Tree

☐ Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:

Fuel Model no data

Class E   0 %

Late1 All Structu
Description

Dominant Species* and Canopy Position

Structure Data (for upper layer lifeform)

	Min	Max
Cover	%	%
Height	NONE	NONE
Tree Size Class	no data	

Upper Layer Lifeform

☐ Herbaceous

☐ Shrub

☐ Tree

☐ Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:

Fuel Model no data

Disturbances

Disturbances Modeled

☑ Fire

☐ Insects/Disease

☑ Wind/Weather/Stress

☑ Native Grazing

☑ Competition

☐ Other:

☐ Other

Historical Fire Size (acres)

Avg: no data

Min: no data

Max: no data

Sources of Fire Regime Data

☑ Literature

☐ Local Data

☐ Expert Estimate

Fire Regime Group: 2

I: 0-35 year frequency, low and mixed severity
II: 0-35 year frequency, replacement severity
III: 35-200 year frequency, low and mixed severity
IV: 35-200 year frequency, replacement severity
V: 200+ year frequency, replacement severity

Fire Intervals (FI)

Fire interval is expressed in years for each fire severity class and for all types of fire combined (All Fires). Average FI is central tendency modeled. Minimum and maximum show the relative range of fire intervals, if known. Probability is the inverse of fire interval in years and is used in reference condition modeling. Percent of all fires is the percent of all fires in that severity class. All values are estimates and not precise.

	Avg FI	Min FI	Max FI	Probability	Percent of All Fires
Replacement	12			0.08333	85
Mixed					
Surface	67			0.01493	15
All Fires	10			0.09827	

References

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