

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 2004-2005. 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

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Vegetation Type

Grassland

Dominant Species*

BOGR2
PLMU3
PLEUR12

General Model Sources

- Literature
 Local Data
 Expert Estimate

LANDFIRE Mapping Zones

14	24	28
15	25	
23	27	

Rapid Assessment Model Zones

- | | |
|--|---|
| <input type="checkbox"/> California | <input type="checkbox"/> Pacific Northwest |
| <input type="checkbox"/> Great Basin | <input type="checkbox"/> South Central |
| <input type="checkbox"/> Great Lakes | <input type="checkbox"/> Southeast |
| <input type="checkbox"/> Northeast | <input type="checkbox"/> S. Appalachians |
| <input type="checkbox"/> Northern Plains | <input checked="" type="checkbox"/> Southwest |
| <input type="checkbox"/> 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 and Indicator 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 Structures

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.

Indicator Species* and Canopy Position

BOGR2 All
PLEUR12 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.

Indicator Species* and Canopy Position

BOGR2 Upper
PLEUR12 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.

Indicator Species* and Canopy Position

BOGR3 Upper
PLEUR12 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 Structures

Description

Indicator Species* and Canopy Position

Structure Data (for upper layer lifeform)

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

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

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 Structures
Description

Indicator Species* and Canopy Position**Structure Data (for upper layer lifeform)**

	<i>Min</i>	<i>Max</i>
<i>Cover</i>	%	%
<i>Height</i>	NONE	NONE
<i>Tree Size Class</i>	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

Non-Fire Disturbances Modeled

- Insects/Disease
 Wind/Weather/Stress
 Native Grazing
 Competition
 Other:
 Other:

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 the 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.

Historical Fire Size (acres)

Avg:
 Min:
 Max:

Sources of Fire Regime Data

- Literature
 Local Data
 Expert Estimate

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

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.

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