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) **R0PSMEdv Xeric Interior Douglas-Fir General Information** Contributors (additional contributors may be listed under "Model Evolution and Comments") Modelers Reviewers Jeff Jones jjones@fs.fed.us Steve Barrett sbarrett@mtdig.net Cathy Stewart cstewart@fs.fed.us **Vegetation Type General Model Sources** Rapid AssessmentModel Zones ✓ Literature Forested California Pacific Northwest Local Data Great Basin South Central Expert Estimate **Dominant Species*** Great Lakes Southeast Northeast S. Appalachians PSEU LANDFIRE Mapping Zones Northern Plains Southwest ARTR 10 21 ✓ N-Cent.Rockies FEID 19 22 20 29

Geographic Range

East of the Continental Divide in northern Montana, eastern Idaho, and Wyoming.

Biophysical Site Description

The xeric Douglas-fir type primarily exists on lower foothills immediately above grasslands/ shrublands in elevation. Slopes range from gentle to steep, but aspect is primarily south-facing.

Vegetation Description

Generally dominated by Douglas-fir with an understory of bunchgrasses and sparse shrubs. Stands are typically open and dominated by moderate to large diameter Douglas-fir.

Disturbance Description

Fire regime is predominantly (70%) frequent, low severity fires with a MFI of approximately 30 years. Mixed-severity fires occur with a typical frequency of 30-50 years primarily in dense stands (classes B and E). Native American burning was likely significant in many of these low-elevation forests.

Adjacency or Identification Concerns

This PNVG corresponds with cool, dry Douglas-fir habitat types (Pfister et al. 1977). Ecotone with mountain grasslands/ sagebrush. Class A in this model is equivalent with a Class A in neighboring grassland/shrubland types.

This PNVG may be similar to the PNVG R2PSMEdy from the Great Basin model zone.

Scale Description

Sources of Scale Data Literature Local Data VExpert Estimate

Since this type is dominated by surface fires and because this type represents an ecotone, patches tended to be smaller in size. Consequently, fire sizes were also relatively small. Analysis areas of several thousand acres would probably be adequate.

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

Issues/Problems

Model Evolution and Comments

Workshop code was DFIR3.

Review comments incorporated on 3/16/2005, resulting in clarification in description and slightly more surface fires and higher MFI overall.

		Succession (
Succession	classes are the equivalent of	0	v	e Interagency FRCC Guide	book (www.frcc.gov).			
Class A	10 %	Dominant Species* and Canopy Position	<u>Structur</u>	e Data (for upper layer l	<u>ifeform)</u>			
Early 1 Deet	Don	PSEUD		Min	Max			
Early1 PostRep <u>Description</u> Dominated by bunchgrasses, and seed/sapling sized Douglas-fir.		FEID ARTRV	Cover	0 %	20 %			
			Height	no data	no data			
			Tree Siz	e Class no data				
		Upper Layer Lifeform Herbaceous Shrub Tree	Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:					
Class B	5%	<u>Fuel Model</u> no data <u>Dominant Species* and</u> <u>Canopy Position</u>						
Mid1 Close	h	PSEUD		Min	Max			
	u .	ISLOD	Cover	40 %	100 %			
<u>Description</u>			Height	no data	no data			
Relatively dense pole sized			Tree Siz	e Class no data				
Douglas-fir. Sagebrush has largely dropped out of the stand. Mixed severity fire may open up the canopy.		Upper Layer Lifeform Herbaceous Shrub Tree Fuel Model no data	Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:					
Class C	25%	Dominant Species* and Canopy Position	Structure	e Data (for upper layer li				
Mid1 Open		PSEUD	-	Min	Max			
Description		FEID	Cover	0%	40 %			
Open poles	with bunchgrass and	ARTRV	Height	no data	no data			
sagebrush understory. Surface			Tree Size	Class no data				
Fires maintain the open condition.		Upper Layer Lifeform Herbaceous Shrub Tree		Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:				
		Fuel Model no data						

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	Canopy Position				Min	Max					
Late1 Open	PSEUD		Cover		0%	40 %					
Description	FEID		Height	no	data	no data					
Open canopy of medium to large	ARTRV		Tree Size		o data	no duita					
diameter trees with bunchgrass and sagebrush understory. Surface fires maintain the open condition.	Upper Laver Lifeform Upper laver lifeform differs from domin Herbaceous Height and cover of dominant lifeform a Shrub Tree Fuel Model no data										
Class E 10%	Dominant Species	s* and	Structure	e Data (foi	upper layer li	ifeform)					
	Canopy Position		Min			Max					
Late1 Closed	PSEUD		Cover		40 %	100 %					
Description			Height	no	data	no data					
Multi-storied Douglas-fir with sparse understory. Mixed severity			Tree Size	e Class n	o data						
	Herbaceous Shrub Tree Fuel Model no		Height	and cover	of dominant lif	eform are:					
	Distu		ces								
Disturbances Modeled	Fire Regime Grou	<u>ıp:</u> 1		I: 0-35 year frequency, low and mixed severity II: 0-35 year frequency, replacement severity							
Disturbances Modeled ✓Fire ✓Insects/Disease	I: 0-35 year fre II: 0-35 year fre	equency,	, replacem	ient severi	ty						
✓ Fire ✓ Insects/Disease	I: 0-35 year fre	equency, equency r freque	r, replacem ncy, low ai	ient severi nd mixed s	everity						
 ✓ Fire ✓ Insects/Disease ✓ Wind/Weather/Stress ○ Native Grazing 	l: 0-35 year fre II: 0-35 year fre III: 35-200 yea	equency, equency r freque r freque	r, replacem ncy, low ai ncy, replac	ient severi nd mixed s cement sev	ty everity verity						
 ✓ Fire ✓ Insects/Disease ✓ Wind/Weather/Stress ○ Native Grazing ○ Competition 	l: 0-35 year fre II: 0-35 year fre III: 35-200 yea IV: 35-200 yea V: 200+ year fr	equency, equency r freque ar freque requenc	r, replacem ncy, low ai ncy, replac	ient severi nd mixed s cement sev	ty everity verity						
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