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):

R#MEVG **California Mixed Evergreen North**

General Information

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

Modelers		Reviewers	
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Vegetation Type

Forested

Dominant Species*

PSME
PIPO
ARME
LIDE3

General Model Sources

- [x] Literature
- [x] Local Data
- [x] Expert Estimate

LANDFIRE Mapping Zones

1 8
2 9
7

Rapid Assessment Model Zones

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

Geographic Range

This PNVG covers large areas of Southwest Oregon interior landscapes from about the Umpqua divide south into Northern California.

Biophysical Site Description

This PNVG occurs on hot and dry sites, on a variety of slopes and geology. Soils are generally shallow and skeletal, and retain little water. The elevation ranges from about 1000 ft. to 5000 ft; and is most common around 3000 ft.

Vegetation Description

Douglas-fir is one of the climax species since the environment is so limiting. Common associates include ponderosa pine, tanoak, madrone, canyon liveoak, California black oak, and sugar pine.

Late seral stands are generally open (less than 35 percent overstory cover); hence this is close to a woodland in character.

Disturbance Description

This is a Fire Regime I. Bark beetles and mistletoe also generate important disturbances.

Adjacency or Identification Concerns

Reaches into northern California, and covers large areas in southwest Oregon.

This PNVG may be similar to the PNVG R1MEVGn from the California model zone. R#MEVG contains conifer-dominated classes and open structures not present in R1MEVGn.

Scale Description

Sources of Scale Data [x] Literature [x] Local Data [x] Expert Estimate

Replacement fires generate patches in the range of hundreds of acres. Insects and diseases will generate

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

patches in the 10s and 100s of acres.

Issues/Problems

Tom Atzet suggested to combine plant communities in this area on moisture and elevational gradients rather than the mixed hardwood vs. mixed conifer groups of an earlier approach. In the proposed system, coastal tanoak would be combined with other wet inland series, not the dry inland series; and fire return intervals are likely closer to 70-90 years than the current model's 250 year return for replacement fires.

Model Evolution and Comments

During review, mixed fire in Class A was redirected to recycle back into Class A, resulting in current (increased) cover for Class A with negligible changes to other classes.

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 PostRep

Description

Scattered Douglas-fir and ponderosa pine seedlings with thickets of madrone, canyon liveoak, and tanoak.

Indicator Species* and Canopy Position

PIPO
PSME
ARME
LIDE3

Upper Layer Lifeform

☐ Herbaceous
☐ Shrub
☐ Tree

Fuel Model no data

Structure Data (for upper layer lifeform)

	Min	Max
Cover	0 %	35 %
Height	no data	no data
Tree Size Class	no data	

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

Class B 10 %

Mid1 Closed

Description

More dense Douglas-fir, ponderosa pine, and hardwoods.

[Insect/disease transitions the stand to class C.]

Indicator Species* and Canopy Position

PIPO
PSME
LIDE3
ARME

Upper Layer Lifeform

☐ Herbaceous
☐ Shrub
☐ Tree

Fuel Model no data

Structure Data (for upper layer lifeform)

	Min	Max
Cover	55 %	80 %
Height	no data	no data
Tree Size Class	no data	

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

Class C 50 %

Mid1 Open

Description

Pole sized conifers and hardwoods

Indicator Species* and Canopy Position

PSME
PIPO
ARME
LIDE3

Structure Data (for upper layer lifeform)

	Min	Max
Cover	15 %	35 %
Height	no data	no data
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 D 20 %

Late1 Open

Description

Scattered ponderosa pine and Douglas-fir with understory of madrone, canyon liveoak, and tanoak.

Indicator Species* and Canopy Position

PSME
PIPO
ARME
LIDE3

Structure Data (for upper layer lifeform)

	Min	Max
Cover	25 %	35 %
Height	no data	no data
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 5 %

Late1 Closed

Description

Douglas-fir and pine species with relatively large canyon liveoak, madrone, and tanoak.

[Insect/disease transitions the stand to class D.]

Indicator Species* and Canopy Position

PSME
PILA
ARME
LIDE3

Structure Data (for upper layer lifeform)

	Min	Max
Cover	55 %	80 %
Height	no data	no data
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

Non-Fire Disturbances Modeled

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

Fire Regime Group: 1

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

Historical Fire Size (acres)

Avg:
Min:
Max:

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.

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Sources of Fire Regime Data

- ☐ Literature
- ☑ Local Data
- ☑ Expert Estimate

	Avg FI	Min FI	Max FI	Probability	Percent of All Fires
Replacement	150	100	200	0.00667	6
Mixed	33	15	50	0.03030	29
Surface	15	5	30	0.06667	64
All Fires	10			0.10364	

References

Atzet, T., D.E. White, L.A. McCrimmon, P.A. Martinez. P.R. Fong. and V.D. Randall. 1996. Field guide to the forested plant associations of Southwestern Oregon. Portland, OR: USDA For. Serv. Tech. Pap. R6-NR-ECOL-TP-17-96.