

****11/4/03 DRAFT****

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

Modeler: Steve Barrett

Date: 9/17/03

PNVG Code: AAOW

Potential Natural Vegetation Group: Alder-Ash, Oregon/Washington

Geographic Area: Primarily coastal areas of western Oregon and Washington (and adjacent areas of northern California).

Description: Dense low-elevation (<2500 ft) riparian forests, generally bordering major rivers and wetlands in broad valleys near coastal mountain ranges. Relatively short-lived stands usually are dominated by low- to medium height broadleaf deciduous trees such as red alder, Oregon ash, black cottonwood, and bigleaf maple; stands also have diverse understories dominated by shrubs, forbs, and grasses, such as snowberry, *Carex* spp., *Juncus* spp., and tufted hairgrass.

Fire Regime Description: Fire Regime IV (and III); primarily moderately long-interval (e.g., 50-100 yr) stand replacement fires.

Vegetation Type and Structure

Class	Percent of Landscape	Description
A: post replacement	22	Post-replacement community dominated by re-sprouting shrubs, forbs, and grasses.
B: mid-development closed	52	Densely stocked young- to mid age hardwoods such as red alder, ash, cottonwood.
C: mid- open	3	Community dominated by young- to mid age hardwoods of variable stocking density, interspersed with dense tall shrubs in openings.
D: late- open	2	Variable density mid- to relatively old age hardwoods, interspersed with dense tall shrubs in openings.
E: late- closed	21	Late seral community dominated by dense mid- to relatively old age (senescent) hardwoods.
Total	100	

Fire Frequency and Severity

Fire Frequency-	Modeled	Pct, All	Description
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Severity	Probability	Fires	
Replacement Fire	.013	80	Moderately long-interval stand replacement fires, esp. in classes B-E.
Non-Replacement Fire	.003	20	Mixed severity fires, esp. in classes C and D.
All Fire Frequency*	.016	100	

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

References

Agee, James K. 1993. Fire ecology of Pacific Northwest forests. Island Press, Washington DC, 493 p.

Arno, Stephen F. 2000. Fire in western forest ecosystems. In: Brown, James K.; Smith, Jane Kapler, eds. 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: 97-120.

Arno, Stephen F.; Hammerly, Ramona P. 1977. Northwest trees. Seattle, WA: The Mountaineers. 222 p.

Atzet, Thomas; McCrimmon, Lisa A. 1990. Preliminary plant associations of the southern Oregon Cascade Mountain Province. Grants Pass, OR: U.S. Department of Agriculture, Forest Service, Siskiyou National Forest. 330 p.

Bailey, Arthur W.; Poulton, Charles E. 1968. Plant communities and environmental interrelationships in a portion of the Tillamook Burn, northwestern Oregon. Ecology. 49(1): 1-13.

Barbour, Michael G. 1987. Community ecology and distribution of California hardwood forests and woodlands. In: Plumb, Timothy R.; Pillsbury, Norman H., technical coordinators. Proceedings of the symposium on multiple-use management of California's hardwood resources; 1986 November 12-14; San Luis Obispo, CA. Gen. Tech. Rep. PSW-100. Berkeley, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Forest and Range Experiment Station: 18-25.

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.

Campbell, Alsie Gilbert; Franklin, Jerry F. 1979. Riparian vegetation in Oregon's western Cascade Mountains: composition, biomass, and autumn phenology.

Bull. No. 14. Seattle, WA: U.S./International Biological Program, University of Washington, Ecosystem Analysis Studies, Coniferous Forest Biome. 90 p.

Eyre, F. H., ed. 1980. Forest cover types of the United States and Canada. Washington, DC: Society of American Foresters. 148 p.

Fowells, H. A., compiler. 1965. Silvics of forest trees of the United States. Agric. Handbook 271. Washington, DC: U.S. Department of Agriculture, Forest Service. 762 p.

Franklin, Jerry F. 1979. Vegetation of the Douglas-fir region. In: Heilman, Paul E.; Anderson, Harry W.; Baumgartner, David M., eds. Forest soils of the Douglas-fir region. Pullman, Wa: Washington State University, Cooperative Extension Service: 93-112.

Franklin, Jerry F.; Dyrness, C. T. 1973. Natural vegetation of Oregon and Washington. Gen. Tech. Rep. PNW-8. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station. 417 p.

Franklin, Jerry F.; Pechanec, Anna A. 1968. Comparison of vegetation in adjacent alder, conifer, and mixed alder-conifer communities. Chapter I. Understory vegetation and stand structure. In: Trappe, J. M.; Franklin, J. F.; Tarrant, R. F.; Hansen, G. M., eds. Biology of alder: Proceedings of a symposium: 40th annual meeting of the Northwest Scientific Association; 1967 April 14-15; Pullman, WA. Portland, OR: U. S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station: 37-43.

Harrington, Constance A. 1984. Factors influencing initial sprouting of red alder. Canadian Journal of Forest Research. 14: 357-361.

Hemstrom, Miles A.; Logan, Sheila E. 1986. Plant association and management guide: Siuslaw National Forest. R6-Ecol 220-1986a. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Region. 121 p.

Kuchler, A. W. 1964. Manual to accompany the map of potential vegetation of the conterminous United States. Special Publication No. 36. New York: American Geographical Society. 77 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/> (Accessed: 9/17/03).

Wright, Henry A.; Bailey, Arthur W. 1982. Fire ecology: United States and southern Canada. New York: John Wiley & Sons. 501 p.

VDDT Results





