11/4/03 DRAFT

Fire Regime Condition Class (FRCC) Interagency Handbook
Reference Conditions

Modeler: Kelly Pohl **Date:** 8/12/03 **PNVG Code:** DFIR2

Potential Natural Vegetation Group: Douglas-fir Interior.

Geographic Area: Northern and Central Rocky Mountains.

Description: PNVG generally occurs on moderate to steep slopes on northerly aspects in mid- to high-elevation zones. Can occur in rocky, mesic sites with lodgepole pine, western larch, and some true firs.

Fire Regime Description: Fire Regime I, primarily short- to moderately long interval (e.g., 30 yr MFI) mixed severity fires.

Vegetation Type and Structure

Class	Percent of Landscape	Description
A: post replacement	15	Grasses, forbs, and seedling to pole-sized aspen and lodgepole pine
B: mid-development closed	25	>50% Sapling to pole-sized lodgepole pine and larch; sapling-sized Douglas-fir; some patches of aspen
C: mid- open	20	<50% Douglas-fir and lodgepole pine pole with open understory; true firs, aspen, and larch in patches
D: late- open	25	<50% large Douglas-fir with open understory; patches of true firs, lodgepole pine, larch, and aspen
E: late- closed	15	>50% large, even-aged Douglas-fir with true firs, little understory
Total	100	

Fire Frequency and Severity

Fire Frequency-Severity	Modeled Probability	Pct, All Fires	Description
Replacement Fire	.003	10	Mostly crown fire with true-firs at higher elevations in B and E.
Non-Replacement Fire	.03	90	Mostly mosaic fires in C and D, occasional mosaic fires in lodgepole stands in B and E; infrequent

			surface fires in C and D
All Fire Frequency*	.033	100	

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

References

Agee, James K. 1993. Fire Ecology of Pacific Northwest Forests. Washington, D.C.: Island Press. 493 p.

Arno, S.F. 1980. Forest fire history in the northern Rockies. Journal of Forestry (78): 460-465.

Barrett, S. W., S. F. Arno, and J. P. Menakis. 1997. Fire episodes in the inland Northwest (1540-1940) Based on Fire History Data. USDA, Forest Service, Intermountain Research Station. General Technical Report INT-370.

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

Brown, James K., Arno, Stephen F., Barrett, Stephen W., and Menakis, James P. 1994. Comparing the prescribed natureal fire program with presettlement fires in the Selway-Bitterrot Wilderness. International Journal of Wildland Fire 4(3): 157-168.

Keane, Robert E., Arno, Stephen F., and Brown, James K. 1990. Simulating cumulative fire effects in ponderosa pine/Douglas-fir forests. Ecology 71(1): 189-203.

Peet, R. K. 1988. Forests of the Rocky Mountains. In: M. G. Barbour and W. D. Billings, eds. Terrestrial vegetation of North America. Cambridge: Cambridge University Press. Pp. 64-102

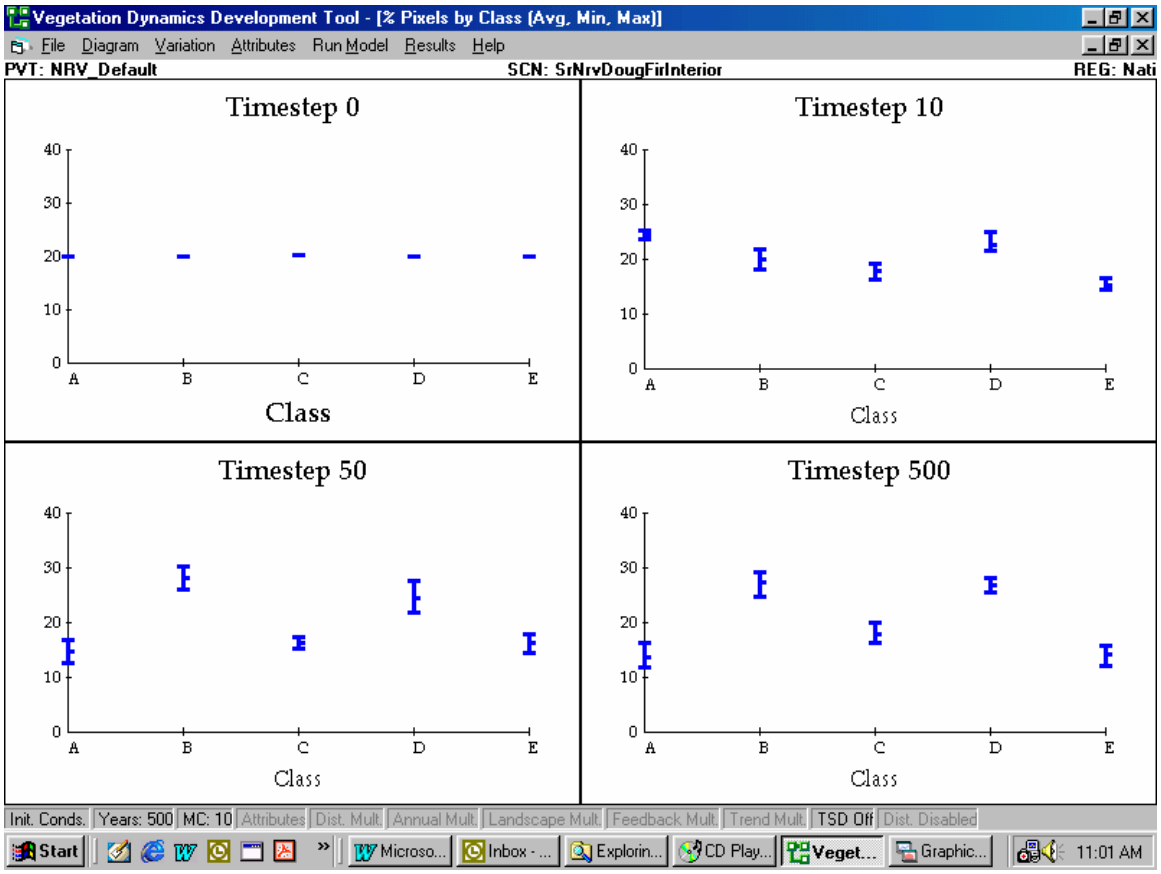
Schmidt, Kirsten M, Menakis, James P., Hardy, Colin C., Hann, Wendel J., Bunnell, David L. 2002. Development of coarse-scale spatial data for wildland fire and fuel management. Gen. Tech. Rep. RMRS-GTR-87. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 41 p. + CD.

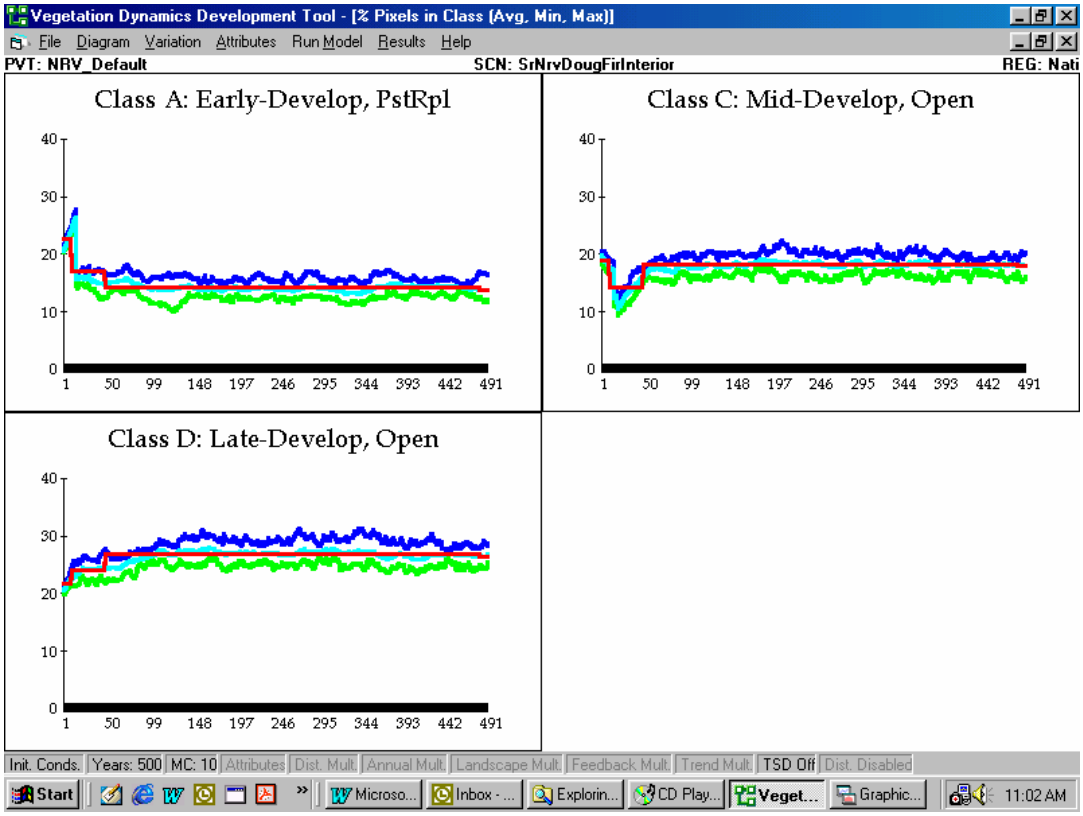
U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (2002, December). Fire Effects Information System, [Online]. Available: http://www.fs.fed.us/database/feis. [Accessed 01/08/03].

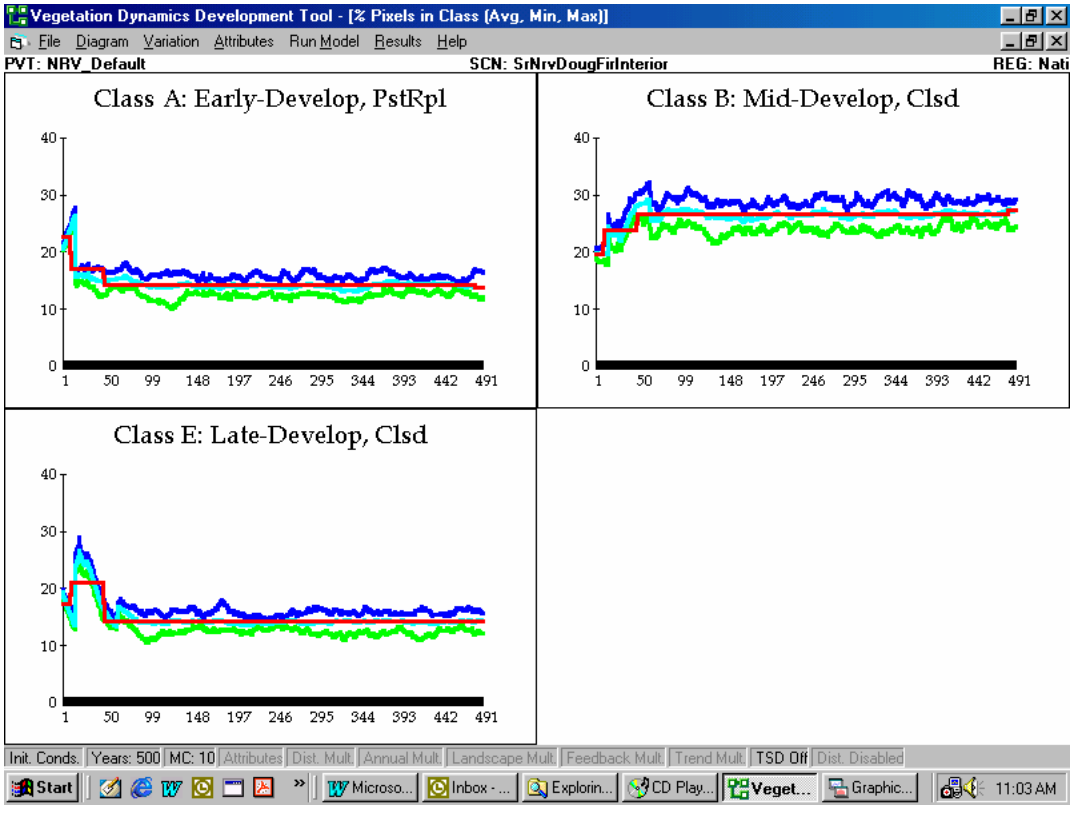
MODELER FIELD REVIEWS

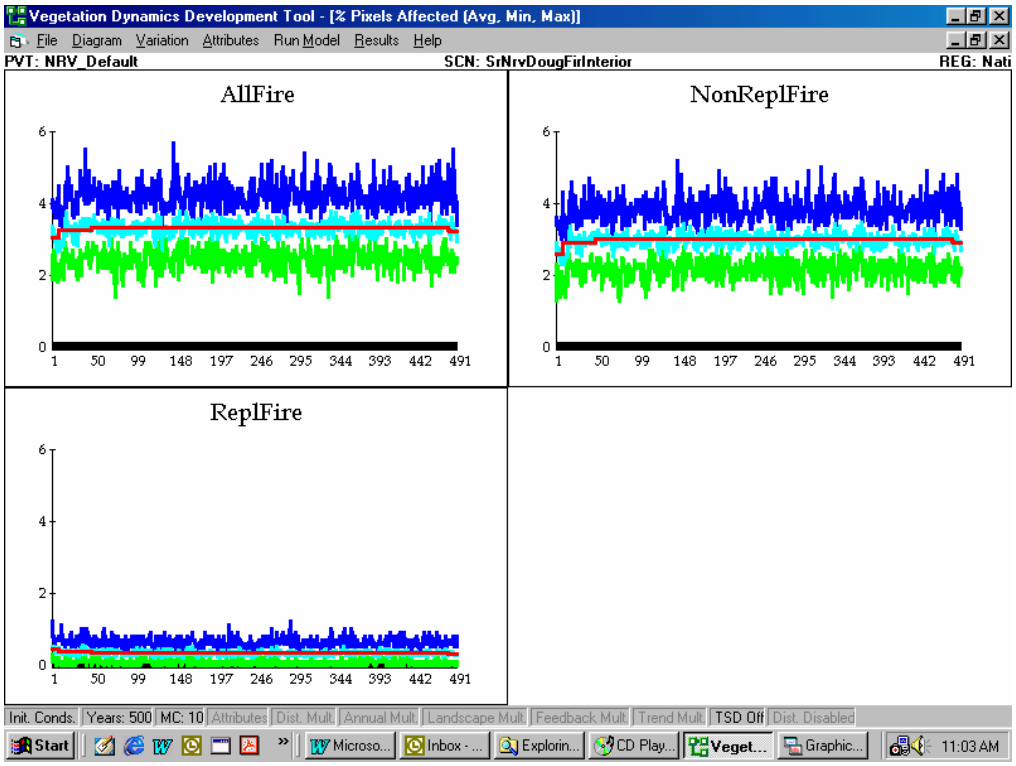
Pohl, Kelly. Centennial Mountains, Montana (Red Rock Lakes NWR, State of Montana, BLM Wilderness Study Area, private land). 2001. Results available at http://web.pdx.edu/~kellyp/centennial.

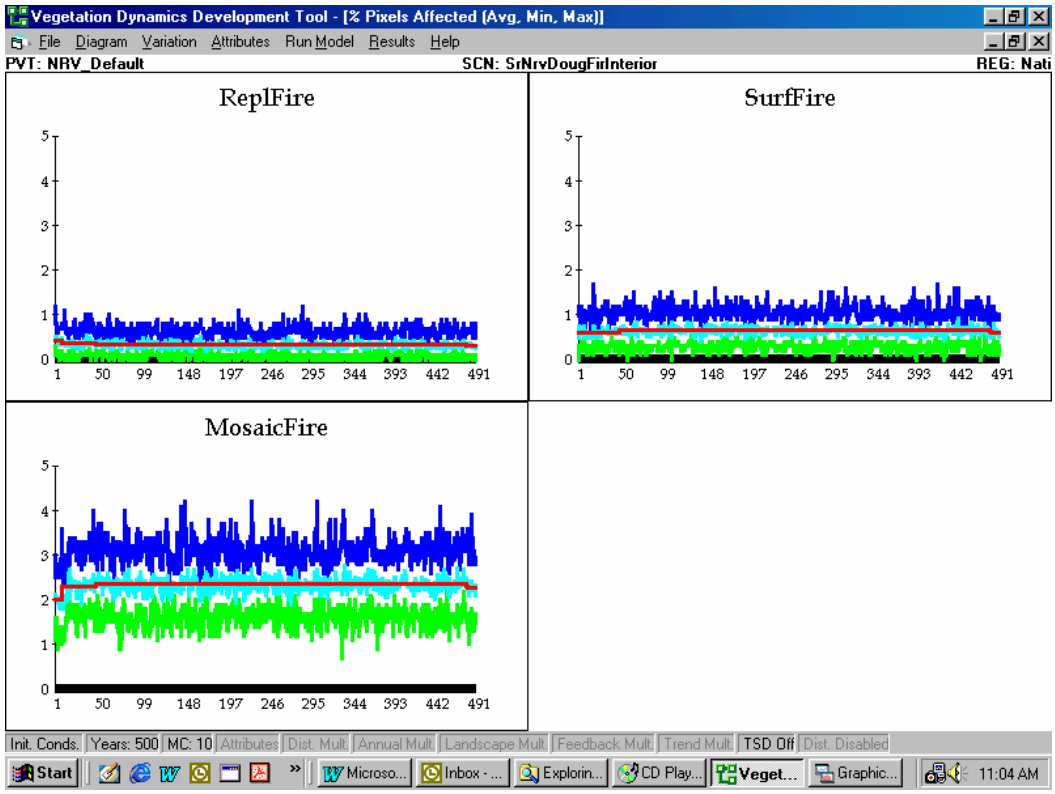
VDDT RESULTS




Vegetation Dynamics Development Tool - [% Pixels in Class (Avg, Min, Max)]
File Diagram Variation Attributes Run Model Results Help
PVT: NRV_Default
SCN: SrNrvDougFirInterior
REG: Nati
Class A: Early-Develop, PstRpl
Class C: Mid-Develop, Open
Class D: Late-Develop, Open
0 10 20 30 40
1 50 99 148 197 246 295 344 393 442 491
Init. Conds. Years: 500 MC: 10 Attributes Dist. Mult. Annual Mult. Landscape Mult. Feedback Mult. Trend Mult. TSD Off Dist. Disabled
Start
Microso... Inbox - ... Explorin... CD Play... Veget... Graphic...
11:02 AM


Vegetation Dynamics Development Tool - [% Pixels in Class (Avg, Min, Max)]
File Diagram Variation Attributes Run Model Results Help
PVT: NRV_Default
SCN: SrNrvDougFirInterior
REG: Nati
Class A: Early-Develop, PstRpl
Class B: Mid-Develop, Clsd
Class E: Late-Develop, Clsd
0 10 20 30 40
1 50 99 148 197 246 295 344 393 442 491
Init. Conds. Years: 500 MC: 10 Attributes Dist. Mult. Annual Mult. Landscape Mult. Feedback Mult. Trend Mult. TSD Off Dist. Disabled
Start
Microso... Inbox - ... Explorin... CD Play... Veget... Graphic...
11:03 AM


Vegetation Dynamics Development Tool - [% Pixels Affected (Avg, Min, Max)]
File Diagram Variation Attributes Run Model Results Help
PVT: NRV_Default
SCN: SrNrvDougFirInterior
REG: Nati
AllFire
NonReplFire
ReplFire
0 2 4 6
1 50 99 148 197 246 295 344 393 442 491
Init. Conds. Years: 500 MC: 10 Attributes Dist. Mult. Annual Mult. Landscape Mult. Feedback Mult. Trend Mult. TSD Off Dist. Disabled
Start
Microso... Inbox - ... Explorin... CD Play... Veget... Graphic...
11:03 AM


Vegetation Dynamics Development Tool - [% Pixels Affected (Avg, Min, Max)]
File Diagram Variation Attributes Run Model Results Help
PVT: NRV_Default
SCN: SrNrvDougFirInterior
REG: Nati
ReplFire
SurfFire
MosaicFire
0 1 2 3 4 5
1 50 99 148 197 246 295 344 393 442 491
Init. Conds. Years: 500 MC: 10 Attributes Dist. Mult. Annual Mult. Landscape Mult. Feedback Mult. Trend Mult. TSD Off Dist. Disabled
Start
Microso... Inbox - ... Explorin... CD Play... Veget... Graphic...
11:04 AM