Fire Regime Condition Class (FRCC) Interagency Handbook
Reference Conditions

Modeler: Dave Cleland, Jim Merzenich   **Date:** 29 November 2007   **PNVG Code:** ELAS

Potential Natural Vegetation Group: Elm-Ash

Geographic Area: MI, IN, and OH in glacial lakebeds.

Description: Elm Ash bottomlands. This type is now practically non-existent due to conversion to agriculture and the elimination of Elm.

Fire Regime Description: Fire Regime Group V. Severe wind events replace mature stands on an approximate 500 yr rotation. Replacement fire is primarily in windthrown stands.

Vegetation Type and Structure

Class*	Percent of Landscape	Description
A: early seral all	20	Early seral stands characterized by silver maple, red maple, white pine, and quaking aspen 0 to 75 years.
B: mid-seral closed	15	Mid seral elm, ash, and white pine 76 to 150 yrs
C: late-seral closed	65	Old elm, ash, hemlock, with remnant white pine > 150 yrs
Total	100	

*Formal codes for classes A-E are: AE1A, BM1C and CL1C respectively.

Fire Frequency and Severity

| Fire Severity	Frequency (yrs)	Probability	Percent, All Fires	Description
Replacement Fire	625	.0016	100	
Non-Replacement Fire	none	0	0	
All Fire Frequency*	625	.0016	100	

*All Fire Probability = sum of replacement fire and non-replacement fire probabilities. All Fire Fire Frequency = inverse of all fire probability (previous calculation).

References

U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (2002, December). Fire Effects Information System, [Online 12 February 2004]. Available: http://www.fs.fed.us/database/feis/.

PERSONAL COMMUNICATION (if applicable):

VDDT File Documentation: Model is located in C:\FRCC\ELAS Text files must be located in C:\FRCC for project file to work. Diagram shows succession only.
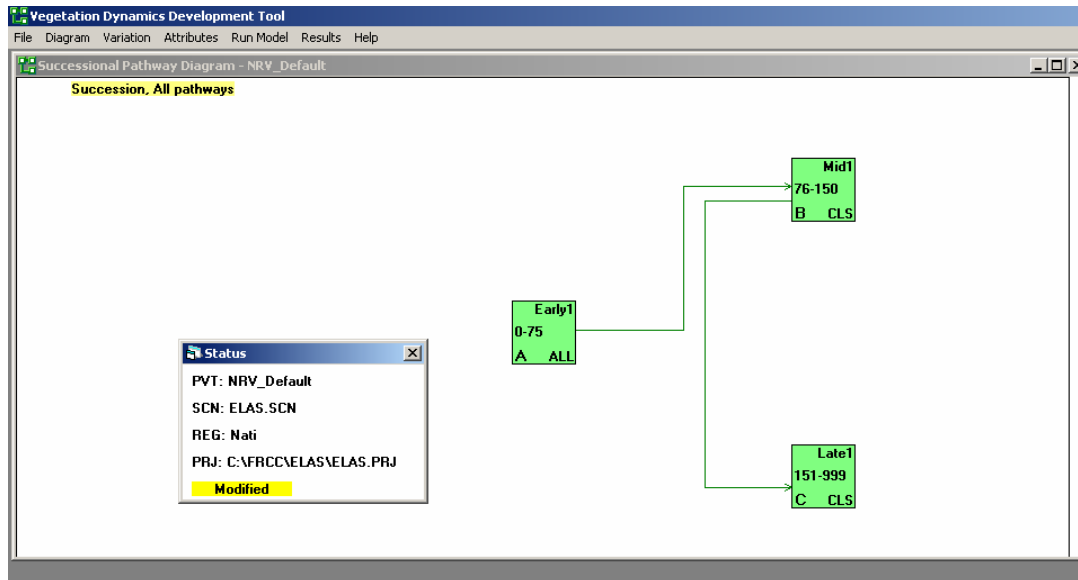
**Disturbance probabilities by class: VDDT model ELAS**

Class	To	Agent	Prob	TSD	Freq/ FRI	Rel Age
A	A	Replacement fire	.004	0	250	-75
A	A	Wind/weather/stress	.001	0	1000	-75
B	A	Replacement fire	.001	0	1000	0
B	A	Wind/weather/stress	.002	0	500	0
C	A	Replacement fire	.001	0	1000	0
C	A	Wind/weather/stress	.002	0	500	0

Class A – early seral maple, aspen, white pine < 75 yrs: A succeeds B. Higher burn frequency is due to presence of windthrow. Less prone to wind damage than older stands.

Class B – mid-seral elm, ash, white pine (76-150 yrs): Succeeds to class C. This class is more prone to windthrow and less prone to fire than class A.

Class C – late-seral elm, ash (>150 yrs): Class C has the same disturbance probabilities as class B. Through gap dynamics this class can perpetuate itself.

Percent acres by class
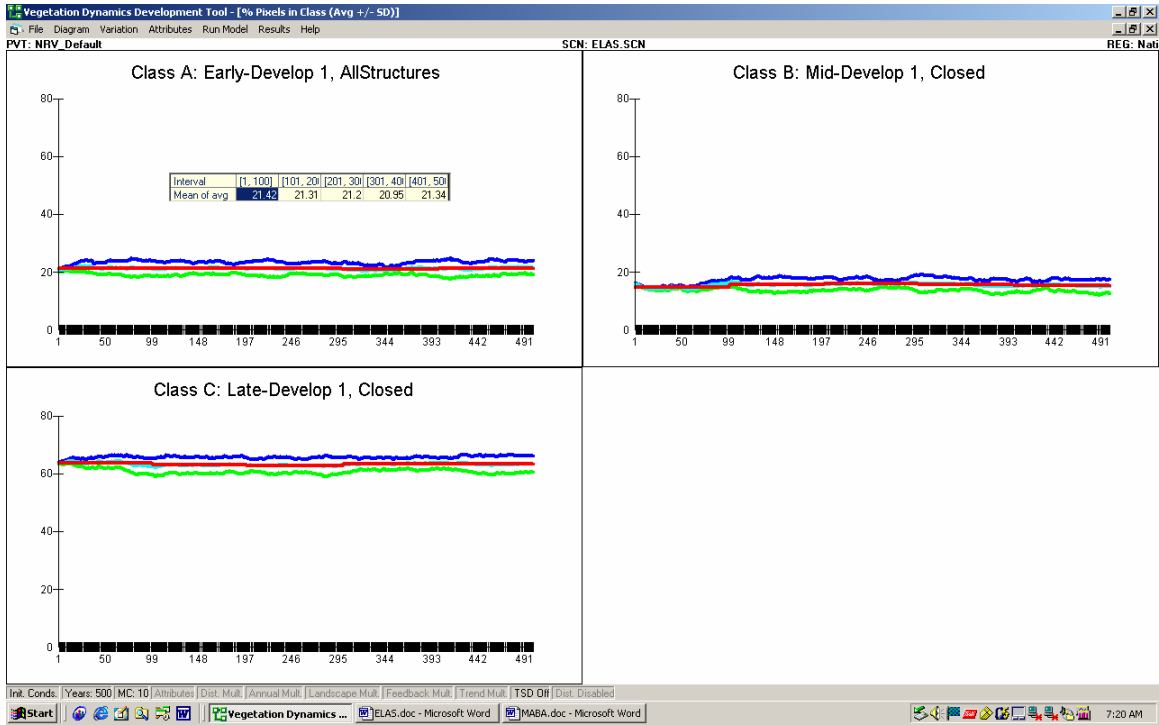
Percent of area affected by replacement fires per year (0.16 % per year corresponds to a 625 year fire interval)
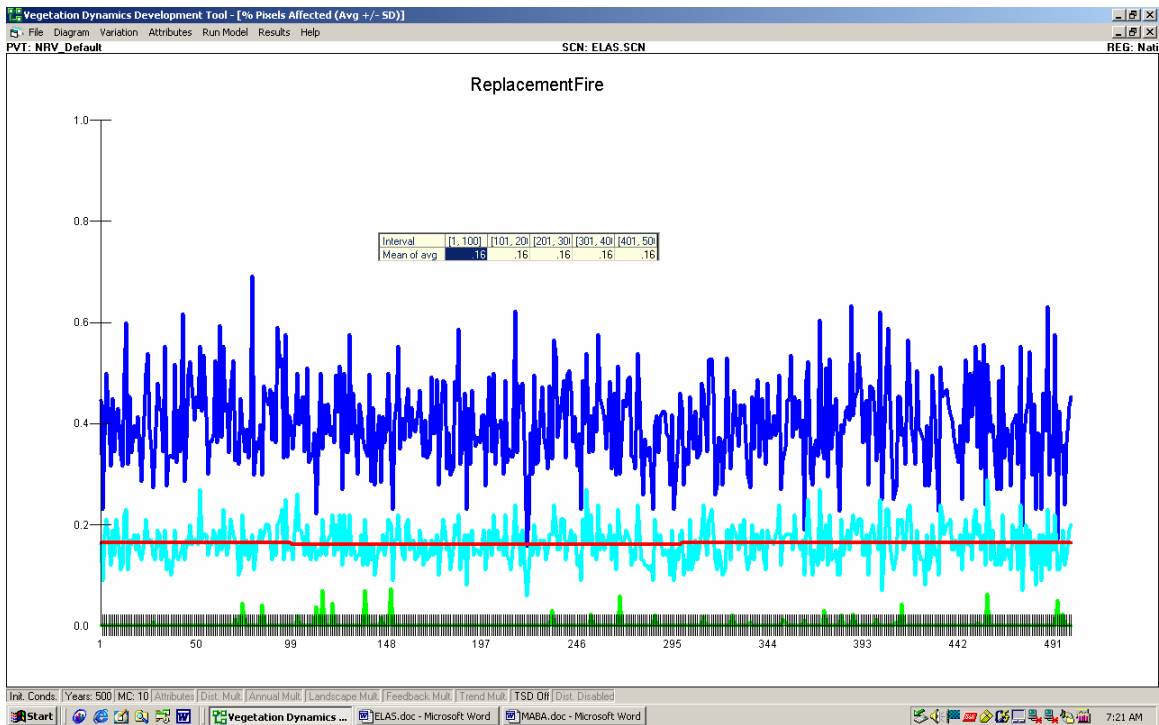
Per cent of area affected by stand replacing windthrow per year. ().18%/yr corresponds to a wind rotation of 555 years)