

Table. Range of variation in landscape structure for aspen-dominated stands under the simulated HRV disturbance scenario on the Pagosa District, San Juan National Forest, Colorado, and the degree of departure of the current landscape from the simulated range of variation (see text for details).

Landscape Metric	Condition Class (seral stage)	Current Landscape <sup>1</sup>		Percentiles of Simulated Distribution							HRV Departure	
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100	CV <sup>2</sup>	Index <sup>3</sup>
<i>Seral Stage Composition</i> <sup>4</sup>												
PLAND	Early seral	0.028	0	0.097	0.390	1.046	1.625	2.628	4.643	7.968	262	79
	Mid seral	2.205	6	1.245	2.067	3.241	4.202	5.317	7.422	9.240	127	
	Late seral	0.348	90	0.137	0.193	0.250	0.285	0.317	0.365	0.407	60	
<i>Class Configuration</i> <sup>5</sup>												
PD	Early seral	0.003	0	0.055	0.115	0.200	0.262	0.336	0.456	0.603	130	67
	Mid seral	0.071	0	0.318	0.385	0.495	0.551	0.608	0.680	0.718	54	
	Late seral	0.026	29	0.016	0.022	0.025	0.027	0.030	0.033	0.038	41	
ED	Early seral	0.054	0	0.475	1.418	3.088	4.258	6.148	9.662	14.439	194	67
	Mid seral	2.715	0	4.199	6.316	8.529	10.135	11.939	14.607	16.994	82	
	Late seral	0.570	63	0.312	0.397	0.486	0.546	0.596	0.666	0.704	49	
AREA_MN	Early seral	9.703	87	1.772	2.971	4.714	6.473	8.173	11.819	14.966	137	81
	Mid seral	30.989	100	3.666	4.877	6.336	7.668	9.123	12.255	14.455	96	
	Late seral	13.666	99	6.209	7.394	9.268	10.549	11.470	12.951	14.553	53	
AREA_AM	Early seral	19.828	5	4.013	18.643	56.481	126.518	236.159	548.446	1858.236	419	34
	Mid seral	362.002	76	41.167	65.861	130.380	206.020	355.344	791.168	1683.208	352	
	Late seral	35.678	80	15.026	21.452	28.258	31.209	34.732	39.126	42.436	57	
GYRATE_AM	Early seral	253.044	13	91.731	188.295	321.367	471.101	636.971	1025.103	1694.185	178	38
	Mid seral	994.944	91	265.350	347.453	480.071	585.992	772.035	1132.659	1594.369	134	
	Late seral	261.699	68	168.463	200.472	233.846	249.811	266.059	284.011	307.917	33	
SHAPE_MN	Early seral	1.496	0	1.639	1.722	1.787	1.826	1.865	1.929	2.113	11	65
	Mid seral	1.819	16	1.729	1.789	1.834	1.864	1.898	1.952	1.993	9	
	Late seral	1.611	10	1.521	1.593	1.640	1.660	1.690	1.732	1.784	8	
SHAPE_AM	Early seral	2.081	1	1.857	2.507	3.058	3.640	4.239	5.502	9.337	82	81
	Mid seral	3.290	6	2.804	3.222	3.690	4.101	4.615	6.128	9.023	71	
	Late seral	1.834	7	1.718	1.811	1.906	1.980	2.037	2.109	2.232	15	

CPLAND	Early seral	0.018	0	0.017	0.130	0.474	0.831	1.526	2.938	5.466	338	66
	Mid seral	1.729	15	0.676	1.197	1.982	2.642	3.517	5.218	6.684	152	
	Late seral	0.266	90	0.083	0.142	0.183	0.214	0.242	0.279	0.317	64	
CORE_MN	Early seral	6.180	88	0.302	0.922	2.044	3.373	4.709	7.577	10.392	197	81
	Mid seral	24.303	100	1.913	2.693	3.902	4.807	6.114	8.818	10.455	127	
	Late seral	10.431	98	4.201	5.336	6.806	7.874	8.766	10.001	11.053	59	
CORE_AM	Early seral	13.569	8	1.244	8.925	37.627	89.852	184.120	446.314	1485.221	487	31
	Mid seral	315.512	79	26.771	46.998	102.345	164.738	291.701	646.348	1398.629	364	
	Late seral	30.335	78	10.508	15.808	22.642	26.081	29.925	33.619	39.158	68	
CAI_MN	Early seral	34.817	100	7.011	10.271	13.497	15.380	18.062	21.796	27.150	75	88
	Mid seral	54.033	100	19.031	21.738	24.411	26.298	28.569	32.653	40.095	42	
	Late seral	69.774	91	39.203	50.964	58.950	62.906	66.485	70.678	75.119	31	
CAI_AM	Early seral	63.688	90	15.403	29.066	43.858	51.845	59.023	66.618	69.923	72	53
	Mid seral	78.422	100	49.354	54.242	60.764	64.187	67.735	71.969	74.351	28	
	Late seral	76.332	64	60.936	68.389	72.751	74.989	77.483	80.124	82.227	16	
PROX_MN	Early seral	0.000	0	1.058	3.948	15.134	31.881	61.373	187.465	450.483	576	68
	Mid seral	25.576	9	8.238	22.261	39.418	61.376	99.688	199.166	453.175	288	
	Late seral	4.501	15	1.867	3.684	4.927	5.946	7.189	10.104	12.505	108	
PROX_AM	Early seral	0.000	0	0.909	6.361	31.698	91.730	250.948	752.089	1504.591	813	76
	Mid seral	19.366	0	12.784	44.483	101.307	195.678	330.512	735.164	1386.111	353	
	Late seral	5.163	18	0.809	3.579	5.942	7.228	8.615	10.934	21.002	102	
CWED	Early seral	0.020	0	0.205	0.610	1.281	1.768	2.508	4.005	5.548	192	67
	Mid seral	0.850	0	1.241	1.849	2.560	3.065	3.620	4.462	5.282	85	
	Late seral	0.169	67	0.096	0.118	0.141	0.161	0.175	0.193	0.208	47	
TECI	Early seral	36.863	1	36.250	38.436	40.178	41.665	42.721	44.505	45.545	15	64
	Mid seral	31.311	99	28.206	29.185	29.818	30.095	30.513	30.976	31.934	6	
	Late seral	29.597	58	24.694	26.440	27.697	29.146	30.324	32.665	35.949	21	
CLUMPY	Early seral	0.903	100	0.696	0.755	0.806	0.836	0.856	0.879	0.890	15	100
	Mid seral	0.924	100	0.776	0.797	0.828	0.843	0.859	0.877	0.892	10	
	Late seral	0.904	100	0.859	0.870	0.883	0.888	0.893	0.898	0.905	3	

IJI	Early seral	63.461	50	49.249	56.865	60.537	63.477	65.808	69.407	73.402	20	27
	Mid seral	64.282	63	52.910	57.509	61.175	63.143	65.313	68.251	72.487	17	
	Late seral	58.549	4	53.391	59.126	61.678	63.825	66.431	69.547	73.175	16	

---

**Summary Indices<sup>6</sup>:**

<i>Seral-Stage Departure Index</i>	79
<i>Class Configuration Departure Index</i>	64
<i>Cover Type Departure Index</i>	71

---

<sup>1</sup>Some stand conditions are not represented in the current landscape. Certain metrics are logically zero if the class is absent, while others are undefined (indicated by missing data). HRV departure index is undefined if the current landscape condition is undefined.

<sup>2</sup>CV = coefficient of variation in the simulated distribution, computed as the difference between the 5 and 95<sup>th</sup> percentiles divided by the median and multiplied by 100 to convert to a percentage. n/d = not defined (division by zero).

<sup>3</sup>HRV departure index represents the degree of departure of the current landscape condition from the historic range of variability and is given here specifically as the degree of departure from the 25-75<sup>th</sup> percentile range of variation, where a 0 represents no departure (i.e., within the 25-75<sup>th</sup> percentiles of variation) and 100 represents complete departure (i.e., outside the 0-100<sup>th</sup> percentiles of variation).

<sup>4</sup>Landscape composition here represents the distribution of area among seral stages for the corresponding cover type. PLAND = the percent of the landscape encompassed by the corresponding seral stage. Note, PLAND = the percentage of the entire landscape, not as a percent of the corresponding cover type.

<sup>5</sup>Landscape configuration here represents the spatial character, distribution, and arrangement of the corresponding cover type. The landscape metrics listed here are described in detail in the FRAGSTATS methods section. PD = patch density; ED = edge density; AREA\_MN = mean patch size; AREA\_AM = area-weighted mean patch size; GYRATE\_AM = area-weighted mean patch radius of gyration (correlation length); SHAPE\_MN = mean patch shape index; SHAPE\_AM = area-weighted mean patch shape index; CPLAND = core area percent of landscape; CORE\_MN = mean patch core area; CORE\_AM = area-weighted mean patch core area; CAI\_MN = mean patch core area index; CAI\_AM = area-weighted mean patch core area index; PROX\_MN = mean proximity index; PROX\_AM = area-weighted mean proximity index; CWED = contrast-weighted edge density; TECI = total edge contrast index; CLUMPY = clumpiness index; IJI = interspersion and juxtaposition index.

<sup>6</sup>Seral-stage departure index is based on the distribution of area (percentage of landscape) among seral stages and is computed as the mean departure across seral stages. Class configuration departure index is based on several landscape metrics that quantify different aspects of the spatial distribution of the cover type and is computed as the mean departure across metrics. Cover type departure index is computed as the mean of the seral-stage and class configuration departure indices.