

Table. Range of variation in landscape structure for aspen-dominated stands under the simulated HRV disturbance scenario on the Dolores 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							CV <sup>2</sup>	HRV Departure Index <sup>3</sup>
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100		
<i>Seral Stage Composition</i> <sup>4</sup>												
PLAND	Early seral	0.058	0	0.155	0.579	1.344	2.122	3.470	7.846	13.209	342	64
	Mid seral	4.188	41	0.926	1.958	3.186	4.787	6.668	11.167	15.777	192	
	Late seral	5.086	98	1.630	2.362	3.419	3.928	4.382	4.938	5.485	66	
<i>Class Configuration</i> <sup>5</sup>												
PD	Early seral	0.010	0	0.056	0.144	0.230	0.284	0.357	0.470	0.629	115	98
	Mid seral	0.138	0	0.297	0.401	0.505	0.582	0.649	0.744	0.849	59	
	Late seral	0.129	2	0.102	0.142	0.162	0.173	0.185	0.208	0.259	38	
ED	Early seral	0.119	0	0.631	1.944	3.356	4.777	6.844	12.564	17.647	222	73
	Mid seral	5.067	2	3.470	5.775	8.046	10.597	12.995	16.886	21.803	105	
	Late seral	6.121	82	2.876	3.760	4.980	5.531	5.994	6.474	6.854	49	
AREA_MN	Early seral	5.716	31	2.238	3.373	5.267	7.616	10.905	19.728	33.977	215	67
	Mid seral	30.321	100	2.472	3.919	6.196	7.924	11.128	18.063	23.470	178	
	Late seral	39.501	100	9.125	13.517	19.279	22.431	25.510	29.632	33.393	72	
AREA_AM	Early seral	18.925	2	7.771	27.420	107.645	239.164	474.177	1981.664	3791.651	817	30
	Mid seral	414.194	52	18.641	61.910	197.458	383.343	709.401	2294.021	3837.169	582	
	Late seral	267.448	61	77.724	121.280	192.960	242.759	295.829	351.051	391.243	95	
GYRATE_AM	Early seral	186.050	3	125.060	219.669	406.958	632.799	894.885	1845.799	2687.303	257	30
	Mid seral	888.739	57	178.377	314.645	560.691	825.464	1127.220	1959.639	2619.796	199	
	Late seral	716.540	67	382.237	483.949	612.384	672.469	730.769	797.373	851.764	47	
SHAPE_MN	Early seral	1.316	0	1.610	1.713	1.760	1.807	1.842	1.901	2.012	10	91
	Mid seral	1.762	7	1.702	1.750	1.799	1.836	1.864	1.917	1.958	9	
	Late seral	1.953	100	1.701	1.771	1.827	1.852	1.879	1.914	1.939	8	
SHAPE_AM	Early seral	1.620	0	1.951	2.465	3.065	3.856	5.204	9.200	12.316	175	38
	Mid seral	3.600	21	2.244	2.951	3.746	4.748	5.907	9.594	12.274	140	
	Late seral	3.207	37	2.545	2.780	3.141	3.282	3.469	3.673	3.829	27	

CPLAND	Early seral	0.035	0	0.043	0.283	0.720	1.303	2.317	5.944	10.118	435	63
	Mid seral	3.379	53	0.477	1.098	2.081	3.245	4.750	8.771	12.201	236	
	Late seral	4.078	97	1.126	1.776	2.639	3.085	3.528	3.983	4.494	72	
CORE_MN	Early seral	3.406	33	0.620	1.414	3.000	4.895	7.404	14.343	26.733	264	67
	Mid seral	24.465	100	1.156	2.213	4.094	5.520	8.024	13.983	18.770	213	
	Late seral	31.671	100	6.502	10.216	14.704	17.796	20.491	23.868	27.361	77	
CORE_AM	Early seral	13.733	4	4.302	19.805	81.748	192.467	367.933	1610.711	3175.795	827	28
	Mid seral	364.311	53	12.997	47.614	163.700	322.050	595.813	1963.018	3263.139	595	
	Late seral	220.070	62	58.606	98.358	162.355	201.148	237.689	284.839	316.580	93	
CAI_MN	Early seral	36.006	100	9.337	11.991	15.334	18.482	21.729	27.712	37.442	85	95
	Mid seral	59.758	100	18.932	21.672	24.770	26.919	28.884	34.029	43.919	46	
	Late seral	68.923	97	30.013	42.012	53.833	60.255	64.169	68.084	73.266	43	
CAI_AM	Early seral	59.588	42	23.800	42.309	54.459	61.727	67.563	75.237	78.679	53	33
	Mid seral	80.685	100	46.164	55.364	65.267	69.064	72.998	77.672	79.977	32	
	Late seral	80.178	62	67.861	73.028	77.819	79.605	80.728	82.081	84.130	11	
PROX_MN	Early seral	4.486	2	1.180	6.345	21.509	49.439	131.587	696.325	1822.936	1396	31
	Mid seral	85.028	48	4.931	14.967	39.138	94.057	213.346	804.300	1424.155	839	
	Late seral	61.788	40	9.345	30.071	52.799	67.581	84.183	105.756	123.408	112	
PROX_AM	Early seral	4.371	1	1.647	13.253	54.567	162.463	633.425	2517.194	5596.902	1541	43
	Mid seral	116.252	16	5.774	40.177	157.089	411.360	1085.613	2854.332	6656.326	684	
	Late seral	102.745	45	13.592	36.459	72.760	110.960	148.541	213.612	252.262	160	
CWED	Early seral	0.045	0	0.247	0.760	1.337	1.911	2.765	4.851	6.726	214	88
	Mid seral	1.544	2	1.037	1.731	2.445	3.232	3.954	5.164	6.935	106	
	Late seral	1.963	93	0.953	1.286	1.564	1.739	1.845	1.996	2.165	41	
TECI	Early seral	38.056	27	32.006	35.718	37.945	39.484	41.129	42.816	44.599	18	0
	Mid seral	30.398	54	27.768	29.361	29.987	30.326	30.695	31.212	31.870	6	
	Late seral	31.891	68	27.128	28.479	29.840	30.979	32.337	35.285	37.192	22	
CLUMPY	Early seral	0.890	85	0.713	0.784	0.830	0.861	0.880	0.904	0.920	14	80
	Mid seral	0.923	100	0.733	0.790	0.840	0.859	0.879	0.898	0.911	12	
	Late seral	0.922	100	0.874	0.894	0.906	0.910	0.914	0.918	0.920	3	

IJI	Early seral	54.811	0	56.070	60.348	63.688	65.717	68.039	70.938	73.186	16	62
	Mid seral	64.581	32	55.024	59.703	63.651	66.326	68.440	70.963	73.486	17	
	Late seral	61.072	3	56.713	61.429	63.336	65.244	66.626	68.313	70.808	11	

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

<i>Seral-Stage Departure Index</i>	64
<i>Class Configuration Departure Index</i>	56
<i>Cover Type Departure Index</i>	60

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<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 = interspersed 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.