

Table. Range of variation in landscape structure for low-elevation conifer forest 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							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	0.023	0	0.054	0.134	0.235	0.314	0.401	0.571	0.779	139	100
	Mid seral	6.086	100	0.756	1.009	1.180	1.303	1.417	1.543	1.750	41	
	Late seral	17.918	100	2.670	5.021	7.091	8.884	10.353	12.590	15.356	85	
	Fire-maintained open canopy	0.000	0	6.505	9.342	11.492	13.085	14.776	16.665	19.166	56	
<i>Class Configuration</i> <sup>5</sup>												
PD	Early seral	0.004	0	0.034	0.066	0.108	0.144	0.179	0.245	0.292	124	100
	Mid seral	0.133	0	0.427	0.518	0.585	0.635	0.687	0.738	0.792	35	
	Late seral	0.226	0	0.388	0.591	0.843	0.937	0.993	1.069	1.122	51	
	Fire-maintained open canopy	0.000	0	0.410	0.486	0.530	0.559	0.579	0.615	0.645	23	
ED	Early seral	0.035	0	0.294	0.638	1.062	1.434	1.820	2.540	3.217	133	66
	Mid seral	6.296	36	4.138	5.172	6.047	6.594	7.190	7.890	8.529	41	
	Late seral	15.405	9	7.151	14.275	17.923	20.902	23.031	25.752	28.167	55	
	Fire-maintained open canopy	0.000	0	15.033	18.934	22.314	24.943	27.279	30.243	32.732	45	
AREA_MN	Early seral	5.966	100	1.544	1.764	1.985	2.145	2.340	2.726	3.421	45	100
	Mid seral	45.847	100	1.684	1.810	1.931	2.030	2.125	2.419	2.945	30	
	Late seral	79.467	100	3.507	5.128	7.587	9.354	12.377	17.207	22.156	129	
	Fire-maintained open canopy	0.000	0	11.352	16.548	20.061	23.318	27.153	32.974	45.043	70	
AREA_AM	Early seral	22.515	96	2.869	4.100	5.602	7.160	9.452	18.745	51.496	205	96
	Mid seral	558.013	100	4.329	5.094	5.919	6.971	8.828	13.426	36.616	120	
	Late seral	6860.687	100	38.838	100.833	183.774	304.775	502.179	1038.700	5191.757	308	
	Fire-maintained open canopy	0.000	0	248.723	388.722	688.892	1127.687	1803.777	4231.508	6629.646	341	
GYRATE_AM	Early seral	205.007	99	73.559	90.172	105.178	116.797	131.760	172.555	293.965	71	99
	Mid seral	1002.942	100	93.373	101.706	108.542	116.228	126.086	150.447	230.733	42	
	Late seral	3766.460	100	265.049	430.397	606.994	766.238	987.570	1420.492	3595.449	129	
	Fire-maintained open canopy	0.000	0	686.346	817.740	1137.973	1470.656	2018.241	3097.292	3932.401	155	
SHAPE_MN	Early seral	1.172	0	1.532	1.640	1.672	1.702	1.732	1.823	1.962	11	98

	Mid seral	1.914	100	1.733	1.767	1.788	1.809	1.829	1.860	1.894	5	
	Late seral	2.041	99	1.762	1.833	1.884	1.924	1.959	2.020	2.057	10	
	Fire-maintained open canopy			1.888	1.971	2.038	2.080	2.119	2.169	2.230	10	
SHAPE_AM	Early seral	1.570	0	1.630	1.909	2.035	2.140	2.255	2.465	2.805	26	92
	Mid seral	3.560	100	2.053	2.164	2.251	2.308	2.369	2.474	2.803	13	
	Late seral	8.085	94	2.801	3.598	4.640	5.486	6.450	8.260	15.622	85	
	Fire-maintained open canopy			5.480	6.432	8.178	9.709	11.948	15.846	21.630	97	
CPLAND	Early seral	0.020	1	0.010	0.034	0.063	0.088	0.120	0.183	0.257	169	99
	Mid seral	5.271	100	0.633	0.855	1.027	1.141	1.236	1.360	1.542	44	
	Late seral	14.863	100	1.894	3.540	5.129	6.439	7.571	9.217	10.982	88	
	Fire-maintained open canopy	0.000	0	4.691	6.711	8.160	9.253	10.337	11.766	13.126	55	
CORE_MN	Early seral	5.085	100	0.283	0.400	0.519	0.613	0.724	0.984	1.378	95	100
	Mid seral	39.707	100	1.401	1.545	1.679	1.773	1.865	2.089	2.524	31	
	Late seral	65.919	100	2.554	3.630	5.394	6.802	9.161	12.932	15.712	137	
	Fire-maintained open canopy	0.000	0	8.186	11.912	14.297	16.516	19.175	23.119	31.894	68	
CORE_AM	Early seral	19.813	99	0.667	1.542	2.190	3.034	4.536	11.253	35.425	320	99
	Mid seral	516.216	100	3.866	4.624	5.396	6.415	8.243	12.387	32.480	121	
	Late seral	6263.693	100	31.055	76.183	148.854	248.916	407.858	886.810	4670.020	326	
	Fire-maintained open canopy	0.000	0	191.641	293.273	530.449	858.535	1428.825	3397.882	5357.543	362	
CAI_MN	Early seral	22.856	100	8.524	11.664	13.622	14.763	15.911	17.623	19.091	40	75
	Mid seral	66.889	0	79.093	80.813	82.616	83.784	84.767	86.066	86.838	6	
	Late seral	62.742	73	47.438	53.808	57.932	60.547	63.111	65.663	68.159	20	
	Fire-maintained open canopy	0.000	0	37.103	41.692	47.127	50.899	54.237	58.172	61.645	32	
CAI_AM	Early seral	85.238	100	17.206	22.969	26.294	28.688	31.226	35.968	40.289	45	75
	Mid seral	86.607	30	82.626	84.659	86.281	87.272	88.134	89.225	90.466	5	
	Late seral	82.952	100	64.599	67.879	70.970	72.816	74.607	77.265	80.567	13	
	Fire-maintained open canopy	0.000	0	64.312	66.706	69.229	70.925	72.387	74.315	75.928	11	
PROX_MN	Early seral	0.009	0	0.215	0.990	1.612	2.327	2.837	3.699	9.168	116	100
	Mid seral	114.562	100	2.752	3.209	3.922	4.462	5.019	5.843	10.668	59	
	Late seral	1579.894	100	13.277	36.195	86.808	146.859	233.559	452.243	1498.417	283	
	Fire-maintained open canopy	0.000	0	140.300	240.949	488.069	793.049	1365.369	2985.177	4877.343	346	
PROX_AM	Early seral	0.000	0	0.176	0.897	1.816	2.862	3.736	5.907	24.053	175	93

	Mid seral	243.792	100	3.084	3.871	5.080	5.923	6.841	8.684	51.308	81	
	Late seral	1387.749	93	47.799	119.890	265.829	430.793	698.542	1574.785	7663.033	338	
	Fire-maintained open canopy	0.000	0	257.714	431.668	851.772	1714.142	3487.458	6983.975	12324.100	382	
CWED	Early seral	0.010	0	0.109	0.234	0.394	0.526	0.668	0.935	1.186	133	74
	Mid seral	1.782	99	0.921	1.154	1.317	1.436	1.565	1.706	1.859	38	
	Late seral	5.219	70	1.425	2.472	3.610	4.517	5.484	6.602	8.319	91	
	Fire-maintained open canopy	0.000	0	3.416	4.675	5.997	6.984	8.185	9.596	10.774	70	
TECI	Early seral	28.409	0	35.176	35.855	36.421	36.725	37.066	37.562	38.184	5	100
	Mid seral	27.941	100	21.129	21.350	21.554	21.702	21.898	22.245	22.607	4	
	Late seral	33.383	100	13.276	16.023	19.680	21.818	24.188	26.829	29.548	50	
	Fire-maintained open canopy			21.673	23.513	25.822	27.832	29.756	32.957	39.444	34	
CLUMPY	Early seral	0.935	100	0.638	0.680	0.702	0.715	0.729	0.754	0.787	10	100
	Mid seral	0.932	100	0.644	0.653	0.668	0.678	0.687	0.710	0.752	8	
	Late seral	0.935	100	0.759	0.803	0.827	0.838	0.851	0.864	0.883	7	
	Fire-maintained open canopy			0.840	0.850	0.857	0.862	0.866	0.885	0.895	4	
IJI	Early seral	63.823	100	31.404	39.972	43.325	45.750	47.875	50.897	54.320	24	67
	Mid seral	75.527	100	36.009	40.684	43.172	44.466	46.002	47.769	49.820	16	
	Late seral	73.949	66	53.098	61.353	67.729	71.257	75.061	78.783	81.152	24	
	Fire-maintained open canopy			64.641	68.692	71.434	73.569	75.923	79.250	82.853	14	

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

<i>Seral-Stage Departure Index</i>	100
<i>Class Configuration Departure Index</i>	91
<i>Cover Type Departure Index</i>	95

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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 = 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.