

Table. Range of variation in landscape structure for Cool Moist Mixed-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 ¹		Percentiles of Simulated Distribution						HRV Departure		
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100	CV ²	Index ³
<i>Seral Stage Composition⁴</i>												
PLAND	Stand Initiation	0.049	0	0.199	0.420	0.633	0.889	1.280	1.977	3.213	175	84
	Stem Exclusion	1.630	16	0.887	1.315	1.753	2.042	2.500	3.050	3.825	85	
	Understory Reinitiation	5.102	100	0.537	0.770	1.552	1.992	2.345	2.929	3.699	108	
	Shifting Mosaic	0.176	0	0.864	1.133	1.436	1.809	2.212	3.123	3.474	110	
<i>Class Configuration⁵</i>												
PD	Stand Initiation	0.002	0	0.180	0.236	0.319	0.383	0.458	0.608	0.758	97	100
	Stem Exclusion	0.060	0	0.337	0.584	0.792	0.896	1.037	1.449	2.091	97	
	Understory Reinitiation	0.142	0	0.459	0.730	0.998	1.174	1.299	1.493	1.836	65	
	Shifting Mosaic	0.002	0	0.407	0.636	0.841	0.972	1.100	1.187	1.251	57	
ED	Stand Initiation	0.047	0	0.975	1.454	2.141	2.902	3.630	5.354	7.503	134	78
	Stem Exclusion	2.100	0	3.175	4.611	5.969	6.744	7.705	8.910	12.018	64	
	Understory Reinitiation	6.159	22	2.529	3.477	6.433	7.464	8.508	10.014	12.272	88	
	Shifting Mosaic	0.192	0	3.615	4.219	4.914	5.734	6.498	7.231	8.413	53	
AREA_MN	Stand Initiation	27.913	100	0.886	1.415	1.936	2.242	2.783	3.937	5.492	112	100
	Stem Exclusion	27.247	100	0.725	1.118	1.843	2.396	2.916	3.918	5.200	117	
	Understory Reinitiation	36.035	100	0.616	0.870	1.378	1.637	2.029	2.429	3.093	95	
	Shifting Mosaic	82.865	100	0.901	1.121	1.515	1.834	2.311	4.598	7.955	190	
AREA_AM	Stand Initiation	102.154	98	10.934	21.636	33.410	41.711	53.592	74.621	119.171	127	97
	Stem Exclusion	187.288	100	22.429	30.215	41.282	51.280	63.588	77.969	93.915	93	
	Understory Reinitiation	130.890	98	17.108	23.212	37.723	50.325	60.172	77.451	162.219	108	
	Shifting Mosaic	266.949	100	18.706	30.984	48.145	64.547	87.959	114.629	143.121	130	
GYRATE_AM	Stand Initiation	429.218	99	134.365	211.423	257.863	291.938	324.063	387.742	474.742	60	97
	Stem Exclusion	644.110	100	207.240	243.143	285.623	320.399	356.980	405.059	430.516	51	
	Understory Reinitiation	532.050	98	175.519	213.016	266.221	307.735	336.137	382.709	570.303	55	
	Shifting Mosaic	1022.075	100	184.127	232.729	296.451	338.290	401.800	469.038	541.667	70	
SHAPE_MN	Stand Initiation	1.727	100	1.260	1.307	1.336	1.365	1.391	1.438	1.483	10	100

	Stem Exclusion	1.806	100	1.256	1.299	1.349	1.375	1.403	1.440	1.477	10	
	Understory Reinitiation	1.917	100	1.228	1.295	1.330	1.352	1.383	1.452	1.511	12	
	Shifting Mosaic	2.443	100	1.238	1.255	1.279	1.292	1.313	1.415	1.695	12	
SHAPE_AM	Stand Initiation	1.556	0	2.171	2.549	2.772	2.941	3.142	3.488	3.905	32	96
	Stem Exclusion	2.843	3	2.510	2.880	3.061	3.214	3.451	3.741	4.479	27	
	Understory Reinitiation	2.572	0	2.617	2.835	3.032	3.309	3.479	4.265	5.424	43	
	Shifting Mosaic	3.665	99	2.416	2.668	2.845	2.978	3.154	3.524	4.195	29	
CPLAND	Stand Initiation	0.039	0	0.074	0.205	0.345	0.508	0.744	1.267	2.250	209	85
	Stem Exclusion	1.475	15	0.808	1.216	1.614	1.895	2.303	2.805	3.519	84	
	Understory Reinitiation	4.467	100	0.390	0.587	1.199	1.582	1.891	2.338	3.198	111	
	Shifting Mosaic	0.170	0	0.611	0.803	1.119	1.404	1.789	2.549	2.831	124	
CORE_MN	Stand Initiation	22.163	100	0.329	0.643	0.999	1.300	1.713	2.550	3.845	147	100
	Stem Exclusion	24.660	100	0.677	1.027	1.708	2.220	2.705	3.630	4.784	117	
	Understory Reinitiation	31.550	100	0.463	0.653	1.065	1.297	1.642	1.985	2.674	103	
	Shifting Mosaic	79.875	100	0.639	0.830	1.152	1.426	1.829	3.712	6.834	202	
CORE_AM	Stand Initiation	89.183	100	6.766	13.067	22.812	29.583	38.944	54.640	94.061	141	98
	Stem Exclusion	174.700	100	21.132	28.744	39.171	48.792	60.629	74.539	89.293	94	
	Understory Reinitiation	117.443	99	13.928	19.794	32.567	43.302	54.239	67.770	136.709	111	
	Shifting Mosaic	262.983	100	15.244	25.925	40.503	58.360	79.741	102.587	122.699	131	
CAI_MN	Stand Initiation	31.458	100	7.303	9.927	13.151	15.897	18.950	23.164	28.619	83	95
	Stem Exclusion	83.187	5	81.028	83.383	85.320	86.471	87.402	89.085	90.996	7	
	Understory Reinitiation	80.500	100	30.205	47.038	57.524	63.689	68.207	74.512	78.999	43	
	Shifting Mosaic	87.277	100	26.081	43.230	55.667	63.951	67.830	72.649	78.547	46	
CAI_AM	Stand Initiation	79.400	100	36.117	44.312	52.477	57.308	61.512	67.767	70.999	41	96
	Stem Exclusion	90.503	4	89.589	90.563	91.768	92.522	93.091	93.781	94.861	3	
	Understory Reinitiation	87.553	100	62.279	71.046	76.269	79.780	82.146	84.691	87.118	17	
	Shifting Mosaic	96.392	100	62.966	70.502	76.479	79.221	81.117	83.114	85.906	16	
PROX_MN	Stand Initiation	0.000	0	2.860	5.966	10.472	14.422	18.834	35.126	50.082	202	81
	Stem Exclusion	17.450	19	10.066	12.524	18.575	23.244	28.379	38.802	57.457	113	
	Understory Reinitiation	58.185	100	4.716	9.082	14.560	19.762	24.467	29.894	36.466	105	
	Shifting Mosaic	0.042	0	6.405	8.920	13.395	17.899	23.548	35.047	62.393	146	
PROX_AM	Stand Initiation	0.000	0	1.848	6.422	11.798	19.700	33.906	64.389	140.948	294	91

	Stem Exclusion	8.095	0	9.511	16.316	24.551	33.346	50.591	83.246	131.410	201	
	Understory Reinitiation	75.879	91	6.940	14.383	23.108	35.262	51.294	84.536	136.354	199	
	Shifting Mosaic	0.016	0	9.847	13.182	22.532	38.785	49.085	83.976	144.825	183	
CWED	Stand Initiation	0.018	0	0.333	0.474	0.670	0.912	1.134	1.647	2.115	129	79
	Stem Exclusion	0.512	0	0.650	0.953	1.226	1.388	1.568	1.822	2.422	63	
	Understory Reinitiation	1.027	21	0.441	0.600	1.078	1.240	1.420	1.730	2.166	91	
	Shifting Mosaic	0.009	0	0.607	0.696	0.820	0.944	1.085	1.324	1.522	66	
TECI	Stand Initiation	38.660	100	27.094	28.570	30.394	31.440	32.327	33.601	34.795	16	75
	Stem Exclusion	24.185	100	19.259	19.852	20.189	20.392	20.596	20.870	21.577	5	
	Understory Reinitiation	16.626	46	11.836	14.080	15.545	16.732	18.140	20.811	25.569	40	
	Shifting Mosaic	4.779	0	11.505	13.375	14.973	16.486	18.381	22.046	26.544	53	
CLUMPY	Stand Initiation	0.961	100	0.696	0.742	0.782	0.804	0.823	0.843	0.865	13	100
	Stem Exclusion	0.921	100	0.647	0.717	0.771	0.799	0.817	0.846	0.869	16	
	Understory Reinitiation	0.922	100	0.535	0.670	0.733	0.761	0.784	0.813	0.835	19	
	Shifting Mosaic	0.942	100	0.713	0.738	0.778	0.802	0.822	0.865	0.876	16	
IJI	Stand Initiation	47.080	0	54.549	58.360	61.161	62.952	65.005	67.122	70.634	14	97
	Stem Exclusion	67.881	98	42.167	48.688	55.316	58.489	61.104	65.648	71.103	29	
	Understory Reinitiation	62.714	99	40.011	45.479	52.348	54.600	56.832	60.403	64.560	27	
	Shifting Mosaic	45.191	0	49.478	52.015	54.683	56.384	59.376	63.809	66.224	21	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	84
<i>Class Configuration Departure Index</i>	93
<i>Cover Type Departure Index</i>	88

¹Some 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.

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

³HRV 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 25-75th percentile range of variation, where a 0 represents no departure (i.e., within the 25-75th percentiles of variation) and 100 represents complete departure (i.e., outside the 0-100th percentiles of variation).

⁴Landscape 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.

⁵Landscape 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.

⁶Seral-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.