

Table. Range of variation in landscape structure for Cool Moist Mixed-Conifer with Aspen Forest (78,407 ha) under the simulated HRV disturbance scenario on the 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							CV ²	HRV Departure Index ³
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100		
<i>Seral Stage Composition</i> ⁴												
PLAND	Stand Initiation	0.333	9	0.049	0.220	0.580	0.889	1.353	1.961	3.156	196	91
	Stem Exclusion	0.759	0	0.725	1.246	1.768	2.115	2.575	3.201	3.776	92	
	Understory Reinitiation	8.131	100	2.850	3.138	3.749	4.068	4.410	5.024	5.749	46	
	Shifting Mosaic	0.027	0	0.572	1.276	1.726	1.951	2.234	2.834	3.695	80	
<i>Class Configuration</i> ⁵												
PD	Stand Initiation	0.094	1	0.079	0.148	0.251	0.318	0.383	0.489	0.618	107	99
	Stem Exclusion	0.021	0	0.402	0.481	0.590	0.649	0.705	0.802	0.916	49	
	Understory Reinitiation	0.192	0	0.697	0.861	1.029	1.151	1.236	1.386	1.626	46	
	Shifting Mosaic	0.001	0	0.184	0.390	1.007	1.117	1.208	1.325	1.477	84	
ED	Stand Initiation	0.805	5	0.299	0.793	1.837	2.569	3.387	4.762	7.203	155	70
	Stem Exclusion	0.820	0	2.598	3.678	4.876	5.529	6.372	7.699	8.768	73	
	Understory Reinitiation	8.826	27	7.036	7.765	8.759	9.528	10.122	10.907	12.329	33	
	Shifting Mosaic	0.036	0	1.916	3.629	5.673	6.191	6.675	7.469	8.849	62	
AREA_MN	Stand Initiation	3.527	70	0.494	1.118	2.071	2.984	3.771	5.147	6.781	135	75
	Stem Exclusion	35.534	100	1.561	2.142	2.786	3.199	3.874	4.975	6.994	89	
	Understory Reinitiation	42.413	100	1.914	2.537	3.053	3.564	4.162	5.486	7.878	83	
	Shifting Mosaic	25.750	100	1.076	1.304	1.538	1.872	2.228	3.441	5.571	114	
AREA_AM	Stand Initiation	61.428	17	4.438	29.076	77.874	125.702	188.447	287.949	364.645	206	58
	Stem Exclusion	488.229	100	52.582	81.264	117.415	153.845	197.025	311.298	448.409	150	
	Understory Reinitiation	540.347	100	105.645	130.852	175.244	208.666	249.888	337.951	485.355	99	
	Shifting Mosaic	82.157	34	50.501	56.726	77.210	96.059	132.765	196.668	261.142	146	
GYRATE_AM	Stand Initiation	353.689	19	89.201	239.937	394.406	485.279	588.875	762.585	934.947	108	56
	Stem Exclusion	1145.148	100	317.732	400.603	467.671	529.294	603.484	772.759	960.677	70	
	Understory Reinitiation	1127.773	100	431.505	492.466	574.638	629.138	693.416	829.867	1033.674	54	
	Shifting Mosaic	423.257	52	294.092	323.188	372.263	420.959	493.340	615.129	719.175	69	
SHAPE_MN	Stand Initiation	1.301	13	1.194	1.274	1.322	1.351	1.373	1.417	1.505	11	87

	Stem Exclusion	1.750	100	1.250	1.310	1.336	1.355	1.373	1.404	1.455	7	
	Understory Reinitiation	1.836	100	1.250	1.291	1.317	1.338	1.354	1.381	1.431	7	
	Shifting Mosaic	1.755	100	1.216	1.239	1.256	1.270	1.290	1.378	1.621	11	
SHAPE_AM	Stand Initiation	2.753	3	1.980	3.009	3.538	3.967	4.445	5.160	6.942	54	63
	Stem Exclusion	3.722	15	3.060	3.511	3.867	4.094	4.376	5.064	6.599	38	
	Understory Reinitiation	3.853	20	3.188	3.582	3.899	4.069	4.285	4.800	5.135	30	
	Shifting Mosaic	2.514	0	2.845	3.009	3.187	3.434	3.690	4.483	5.661	43	
CPLAND	Stand Initiation	0.186	15	0.012	0.077	0.256	0.461	0.731	1.123	1.799	227	82
	Stem Exclusion	0.632	3	0.411	0.715	1.123	1.403	1.719	2.229	2.631	108	
	Understory Reinitiation	7.129	100	2.049	2.339	2.914	3.179	3.518	4.066	4.805	54	
	Shifting Mosaic	0.024	0	0.431	0.949	1.313	1.530	1.803	2.339	3.092	91	
CORE_MN	Stand Initiation	1.967	72	0.094	0.349	0.962	1.525	2.021	3.076	4.372	179	75
	Stem Exclusion	29.606	100	0.885	1.264	1.776	2.088	2.629	3.542	5.271	109	
	Understory Reinitiation	37.187	100	1.376	1.886	2.354	2.783	3.332	4.471	6.606	93	
	Shifting Mosaic	22.451	100	0.772	0.956	1.160	1.483	1.740	2.790	4.718	124	
CORE_AM	Stand Initiation	44.338	22	1.252	12.642	47.049	81.443	131.548	213.680	298.286	247	53
	Stem Exclusion	431.601	100	37.777	59.359	90.005	119.927	155.039	246.663	378.348	156	
	Understory Reinitiation	478.130	100	86.670	112.279	151.778	183.496	222.478	298.239	410.547	101	
	Shifting Mosaic	71.414	33	41.258	47.699	67.307	84.280	114.156	171.173	230.300	147	
CAI_MN	Stand Initiation	9.107	33	4.556	6.211	8.478	10.569	12.853	16.292	20.406	95	50
	Stem Exclusion	60.609	100	6.536	9.807	13.399	16.139	19.843	26.666	35.746	104	
	Understory Reinitiation	59.923	100	15.739	23.716	29.031	33.121	38.089	44.499	54.200	63	
	Shifting Mosaic	47.032	37	24.213	34.664	42.840	50.679	55.246	61.597	69.979	53	
CAI_AM	Stand Initiation	55.777	76	16.198	28.988	44.341	50.692	55.618	60.871	64.466	63	76
	Stem Exclusion	83.316	100	51.025	58.648	62.840	65.722	68.154	71.706	75.366	20	
	Understory Reinitiation	87.679	100	70.050	73.154	76.677	78.898	80.340	82.953	85.142	12	
	Shifting Mosaic	87.190	100	67.473	71.625	75.624	78.529	80.771	83.085	85.052	15	
PROX_MN	Stand Initiation	33.086	44	1.599	5.636	20.502	34.907	52.130	101.251	176.714	274	25
	Stem Exclusion	49.914	55	16.487	25.139	37.504	47.135	65.776	108.203	150.880	176	
	Understory Reinitiation	232.628	100	33.254	44.834	59.866	72.354	88.003	125.009	163.461	111	
	Shifting Mosaic	33.901	68	11.296	15.495	20.921	27.627	36.408	58.420	110.465	155	
PROX_AM	Stand Initiation	54.482	38	1.008	10.564	37.071	71.691	134.124	283.079	837.168	380	75

	Stem Exclusion	22.914	0	25.219	44.154	74.705	110.871	171.454	342.724	608.891	269	
	Understory Reinitiation	511.043	100	62.058	94.620	129.487	172.638	238.788	342.883	519.113	144	
	Shifting Mosaic	5.405	0	10.996	33.151	47.723	74.027	103.908	175.375	258.237	192	
CWED	Stand Initiation	0.287	4	0.119	0.317	0.696	0.980	1.294	1.802	2.705	152	71
	Stem Exclusion	0.229	0	0.726	1.012	1.339	1.516	1.750	2.081	2.350	70	
	Understory Reinitiation	1.676	46	1.154	1.369	1.562	1.693	1.815	2.022	2.448	39	
	Shifting Mosaic	0.005	0	0.271	0.516	0.765	0.867	0.973	1.145	1.397	73	
TECI	Stand Initiation	35.671	6	33.543	35.375	37.025	38.297	39.691	41.089	43.566	15	19
	Stem Exclusion	27.905	72	25.516	26.571	27.068	27.484	27.940	28.492	29.000	7	
	Understory Reinitiation	18.977	70	12.380	14.607	16.597	17.913	19.384	22.327	28.866	43	
	Shifting Mosaic	14.234	50	8.430	10.683	12.591	14.205	15.911	18.614	21.956	56	
CLUMPY	Stand Initiation	0.852	81	0.594	0.721	0.799	0.828	0.846	0.866	0.877	18	81
	Stem Exclusion	0.935	100	0.764	0.800	0.820	0.834	0.845	0.866	0.884	8	
	Understory Reinitiation	0.927	100	0.804	0.824	0.838	0.848	0.859	0.877	0.900	6	
	Shifting Mosaic	0.934	100	0.744	0.768	0.785	0.805	0.821	0.851	0.862	10	
IJI	Stand Initiation	40.866	0	51.273	57.471	60.848	62.939	64.704	66.983	71.039	15	75
	Stem Exclusion	71.414	100	51.502	57.261	59.984	61.628	63.234	65.935	68.232	14	
	Understory Reinitiation	71.774	98	54.644	58.314	60.603	62.195	63.762	68.401	73.936	16	
	Shifting Mosaic	55.078	78	43.286	46.326	49.497	51.615	54.430	59.682	62.985	26	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	91
<i>Class Configuration Departure Index</i>	66
<i>Cover Type Departure Index</i>	79

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 95 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 25-75 percentile range of variation, where a 0 represents no departure (i.e., within the 25-75 percentiles of variation) and 100 represents complete departure (i.e., outside the 0-100 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.