

Table. Range of variation in landscape structure for Cool Moist Mixed-Conifer with Aspen 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	0.005	0	0.039	0.184	0.578	0.978	1.660	2.871	4.967	275	98
	Stem Exclusion	1.081	2	0.524	1.249	1.944	2.555	3.338	4.678	5.557	134	
	Understory Reinitiation	10.060	100	2.778	3.265	4.305	4.980	5.429	6.251	8.348	60	
	Shifting Mosaic	0.005	0	0.719	1.340	1.840	2.245	2.729	3.701	4.308	105	
<i>Class Configuration⁵</i>												
PD	Stand Initiation	0.001	0	0.075	0.178	0.286	0.373	0.475	0.743	0.987	151	100
	Stem Exclusion	0.024	0	0.478	0.558	0.697	0.791	0.887	1.041	1.245	61	
	Understory Reinitiation	0.137	0	0.800	0.980	1.165	1.325	1.463	1.646	2.104	50	
	Shifting Mosaic	0.000	0	0.259	0.578	1.141	1.272	1.437	1.606	1.723	81	
ED	Stand Initiation	0.010	0	0.290	0.845	1.950	2.878	4.172	6.988	10.145	213	85
	Stem Exclusion	1.089	0	2.498	3.914	5.488	6.768	8.406	10.222	11.573	93	
	Understory Reinitiation	9.446	15	6.972	8.094	10.203	11.243	12.380	13.211	14.258	46	
	Shifting Mosaic	0.010	0	2.746	4.783	6.041	6.926	8.030	8.895	11.348	59	
AREA_MN	Stand Initiation	6.781	99	0.363	0.975	1.846	2.635	3.742	5.617	7.855	176	99
	Stem Exclusion	44.259	100	0.950	1.829	2.512	3.222	4.093	5.973	8.284	129	
	Understory Reinitiation	73.438	100	1.686	2.191	3.041	3.651	4.439	5.770	10.041	98	
	Shifting Mosaic	15.313	100	0.868	1.124	1.457	1.745	2.202	3.955	6.455	162	
AREA_AM	Stand Initiation	7.390	1	3.039	17.911	51.392	101.998	201.312	361.919	670.740	337	97
	Stem Exclusion	604.090	98	21.052	59.545	110.463	160.838	241.355	460.957	796.155	250	
	Understory Reinitiation	936.460	100	83.608	128.893	189.494	239.972	356.452	508.727	934.967	158	
	Shifting Mosaic	15.313	0	28.703	49.402	73.256	111.926	184.625	281.430	385.252	207	
GYRATE_AM	Stand Initiation	110.233	1	80.047	185.217	330.113	461.917	628.334	874.289	1349.522	149	99
	Stem Exclusion	1509.956	100	215.257	353.309	463.506	545.126	680.656	1004.320	1343.484	119	
	Understory Reinitiation	1621.866	100	364.365	495.029	607.791	713.357	883.850	1112.242	1696.070	87	
	Shifting Mosaic	173.117	0	223.046	277.480	355.720	464.922	603.555	775.789	950.271	107	
SHAPE_MN	Stand Initiation	1.278	15	1.177	1.243	1.298	1.339	1.376	1.418	1.495	13	85

	Stem Exclusion	1.790	100	1.231	1.282	1.324	1.351	1.377	1.420	1.460	10	
	Understory Reinitiation	2.040	100	1.231	1.265	1.307	1.332	1.355	1.380	1.439	9	
	Shifting Mosaic	1.688	100	1.209	1.229	1.245	1.257	1.272	1.353	1.669	10	
SHAPE_AM	Stand Initiation	1.294	0	1.866	2.731	3.419	3.944	4.646	5.639	7.495	74	50
	Stem Exclusion	3.976	29	2.943	3.464	3.925	4.352	4.824	5.710	7.478	52	
	Understory Reinitiation	4.631	62	3.401	3.634	4.076	4.447	4.844	5.591	6.334	44	
	Shifting Mosaic	1.688	0	2.509	2.943	3.298	3.629	4.002	5.201	6.504	62	
CPLAND	Stand Initiation	0.002	0	0.008	0.057	0.241	0.469	0.860	1.634	3.110	336	89
	Stem Exclusion	0.896	11	0.226	0.702	1.175	1.625	2.229	3.283	4.074	159	
	Understory Reinitiation	8.978	100	1.772	2.417	3.191	3.828	4.265	5.125	7.069	71	
	Shifting Mosaic	0.004	0	0.491	0.907	1.366	1.744	2.166	2.941	3.594	117	
CORE_MN	Stand Initiation	2.813	88	0.064	0.240	0.709	1.252	2.095	3.430	5.320	255	88
	Stem Exclusion	36.686	100	0.409	0.979	1.536	2.046	2.706	4.288	6.338	162	
	Understory Reinitiation	65.541	100	1.173	1.607	2.295	2.803	3.481	4.728	8.502	111	
	Shifting Mosaic	11.563	100	0.487	0.783	1.097	1.343	1.756	3.137	5.504	175	
CORE_AM	Stand Initiation	3.224	2	0.994	6.405	26.123	62.213	133.514	263.191	476.464	413	96
	Stem Exclusion	531.905	98	12.919	40.682	82.144	120.568	189.861	374.383	623.335	277	
	Understory Reinitiation	824.701	100	71.475	106.851	162.076	211.082	306.104	442.394	774.103	159	
	Shifting Mosaic	11.563	0	20.589	37.197	62.296	95.399	158.284	250.691	313.878	224	
CAI_MN	Stand Initiation	38.890	100	2.628	5.049	7.376	9.606	12.062	16.366	26.611	118	100
	Stem Exclusion	57.222	100	6.307	8.396	11.220	13.963	18.952	27.284	42.403	135	
	Understory Reinitiation	81.640	100	12.620	18.584	25.087	31.146	36.988	46.348	53.167	89	
	Shifting Mosaic	75.510	100	19.514	28.790	39.447	48.194	56.165	63.336	73.248	72	
CAI_AM	Stand Initiation	41.475	31	11.360	23.707	39.174	46.994	55.730	62.709	68.646	83	50
	Stem Exclusion	82.889	100	43.079	53.230	60.736	64.011	67.953	72.858	76.510	31	
	Understory Reinitiation	89.247	100	61.939	69.830	74.443	77.387	80.198	82.873	84.805	17	
	Shifting Mosaic	75.510	37	52.510	66.056	73.330	77.563	80.487	83.104	85.491	22	
PROX_MN	Stand Initiation	0.000	0	1.444	3.993	14.454	31.779	54.361	130.615	269.806	398	75
	Stem Exclusion	43.123	33	5.977	20.125	36.137	52.218	76.109	153.215	275.886	255	
	Understory Reinitiation	387.755	100	27.814	42.775	66.267	87.500	121.842	188.933	304.542	167	
	Shifting Mosaic	0.000	0	7.512	12.204	23.020	32.757	46.971	88.598	210.131	233	
PROX_AM	Stand Initiation	0.000	0	0.867	5.382	22.602	56.387	116.098	336.583	1080.187	587	100

	Stem Exclusion	15.379	0	9.420	32.938	58.546	96.227	175.895	444.009	1107.236	427	
	Understory Reinitiation	638.947	100	33.231	75.503	112.059	170.051	246.831	492.109	609.802	245	
	Shifting Mosaic	0.000	0	9.970	24.215	43.676	62.408	101.912	218.818	494.450	312	
CWED	Stand Initiation	0.005	0	0.108	0.342	0.755	1.150	1.623	2.698	3.813	205	88
	Stem Exclusion	0.327	0	0.716	1.124	1.585	1.941	2.346	2.925	3.349	93	
	Understory Reinitiation	1.714	12	1.252	1.548	1.881	2.088	2.318	2.717	3.246	56	
	Shifting Mosaic	0.002	0	0.445	0.635	0.875	1.022	1.206	1.459	1.740	81	
TECI	Stand Initiation	49.722	100	32.435	35.654	38.190	39.575	40.967	42.702	44.341	18	63
	Stem Exclusion	30.003	100	26.664	27.267	28.147	28.559	28.898	29.279	29.761	7	
	Understory Reinitiation	18.089	41	13.279	14.492	16.717	18.753	21.074	24.748	31.647	55	
	Shifting Mosaic	19.259	88	8.245	10.298	12.772	14.883	17.132	21.404	27.197	75	
CLUMPY	Stand Initiation	0.941	100	0.541	0.694	0.785	0.820	0.851	0.872	0.898	22	100
	Stem Exclusion	0.941	100	0.705	0.773	0.812	0.832	0.849	0.874	0.896	12	
	Understory Reinitiation	0.936	100	0.780	0.813	0.839	0.851	0.862	0.879	0.898	8	
	Shifting Mosaic	0.952	100	0.693	0.748	0.781	0.801	0.832	0.860	0.872	14	
IJI	Stand Initiation	31.561	0	48.187	54.507	57.764	60.593	63.305	66.948	70.891	21	99
	Stem Exclusion	71.439	100	49.544	53.549	56.917	59.580	61.774	65.601	68.397	20	
	Understory Reinitiation	70.025	99	49.635	54.784	58.786	60.665	62.180	66.257	72.787	19	
	Shifting Mosaic	33.255	0	40.651	42.143	45.830	48.398	52.701	58.973	64.050	35	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	98
<i>Class Configuration Departure Index</i>	87
<i>Cover Type Departure Index</i>	92

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.