

Table. Range of variation in landscape structure for Cool Moist Mixed-Conifer Forest 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 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 Composition</i> ⁴												
PLAND	Stand Initiation	0.000	0	0.022	0.045	0.092	0.140	0.203	0.383	0.648	242	94
	Stem Exclusion	0.641	99	0.121	0.154	0.223	0.306	0.399	0.527	0.751	122	
	Understory Reinitiation	0.581	95	0.086	0.137	0.238	0.304	0.409	0.582	0.730	146	
	Shifting Mosaic	0.004	0	0.093	0.127	0.314	0.404	0.516	0.707	0.754	143	
<i>Class Configuration</i> ⁵												
PD	Stand Initiation	0.001	0	0.027	0.048	0.064	0.085	0.107	0.146	0.220	116	100
	Stem Exclusion	0.031	0	0.062	0.095	0.158	0.191	0.220	0.289	0.398	101	
	Understory Reinitiation	0.036	0	0.096	0.148	0.198	0.242	0.285	0.359	0.424	87	
	Shifting Mosaic	0.000	0	0.050	0.119	0.164	0.195	0.227	0.256	0.281	70	
ED	Stand Initiation	0.001	0	0.149	0.224	0.363	0.521	0.722	1.243	1.871	196	55
	Stem Exclusion	0.984	29	0.410	0.621	0.953	1.212	1.463	1.813	2.179	98	
	Understory Reinitiation	0.991	20	0.513	0.732	1.077	1.345	1.627	1.960	2.354	91	
	Shifting Mosaic	0.015	0	0.505	0.753	1.127	1.302	1.504	1.931	2.164	90	
AREA_MN	Stand Initiation	0.063	0	0.451	0.778	1.317	1.692	2.209	2.744	3.651	116	100
	Stem Exclusion	20.519	100	0.363	0.844	1.331	1.716	2.137	2.723	3.687	110	
	Understory Reinitiation	16.367	100	0.362	0.599	0.993	1.270	1.553	2.472	5.394	147	
	Shifting Mosaic	9.188	100	0.549	0.815	1.437	2.238	2.863	5.034	5.965	189	
AREA_AM	Stand Initiation	0.063	0	1.990	5.914	12.998	21.867	29.420	50.531	85.419	204	89
	Stem Exclusion	69.209	100	4.668	11.315	17.780	21.880	29.578	43.899	66.939	149	
	Understory Reinitiation	42.044	93	4.150	8.576	14.887	19.746	26.098	47.541	66.910	197	
	Shifting Mosaic	9.188	4	5.261	14.224	22.822	34.627	48.575	73.655	77.247	172	
GYRATE_AM	Stand Initiation	12.500	0	64.188	116.671	178.868	212.330	251.058	302.967	376.298	88	72
	Stem Exclusion	393.994	100	104.729	162.092	191.291	219.850	250.396	285.797	346.019	56	
	Understory Reinitiation	324.394	97	97.951	134.657	174.969	202.780	233.116	276.136	355.780	70	
	Shifting Mosaic	264.954	41	113.881	171.752	227.648	282.451	306.582	374.123	396.909	72	
SHAPE_MN	Stand Initiation	1.000	0	1.190	1.254	1.310	1.354	1.405	1.477	1.589	16	100

	Stem Exclusion	1.813	100	1.193	1.261	1.326	1.370	1.412	1.464	1.521	15	
	Understory Reinitiation	1.804	100	1.230	1.260	1.310	1.337	1.383	1.468	1.548	16	
	Shifting Mosaic	3.040	100	1.229	1.253	1.301	1.336	1.394	1.569	1.786	24	
SHAPE_AM	Stand Initiation	1.000	0	1.678	2.026	2.215	2.382	2.697	3.199	3.733	49	61
	Stem Exclusion	2.284	18	1.965	2.121	2.349	2.571	2.830	3.405	4.513	50	
	Understory Reinitiation	2.104	6	1.968	2.088	2.312	2.531	2.791	3.574	5.575	59	
	Shifting Mosaic	3.040	86	2.001	2.191	2.405	2.592	2.866	3.396	4.227	46	
CPLAND	Stand Initiation	0.000	0	0.004	0.015	0.043	0.068	0.112	0.222	0.394	303	93
	Stem Exclusion	0.577	99	0.102	0.132	0.193	0.270	0.354	0.476	0.677	128	
	Understory Reinitiation	0.473	95	0.052	0.091	0.167	0.229	0.322	0.485	0.601	172	
	Shifting Mosaic	0.004	0	0.045	0.092	0.242	0.325	0.415	0.595	0.623	155	
CORE_MN	Stand Initiation	0.000	0	0.092	0.292	0.580	0.873	1.221	1.775	2.303	170	100
	Stem Exclusion	18.478	100	0.322	0.718	1.159	1.505	1.911	2.377	3.324	110	
	Understory Reinitiation	13.324	100	0.234	0.417	0.734	0.924	1.211	1.946	4.510	165	
	Shifting Mosaic	8.875	100	0.295	0.512	1.109	1.801	2.358	4.109	5.068	200	
CORE_AM	Stand Initiation	0.000	0	0.589	3.308	7.405	13.802	21.806	37.132	66.224	245	88
	Stem Exclusion	64.692	100	4.412	9.913	15.806	19.760	26.325	42.150	66.014	163	
	Understory Reinitiation	35.948	92	2.742	6.529	12.010	16.871	21.989	45.056	63.602	228	
	Shifting Mosaic	8.875	4	4.057	10.001	19.236	29.510	44.405	69.036	72.880	200	
CAI_MN	Stand Initiation	0.000	0	5.489	7.847	10.869	13.885	17.076	22.514	34.049	106	65
	Stem Exclusion	82.127	65	69.569	74.309	78.680	80.794	82.960	86.168	89.798	15	
	Understory Reinitiation	70.783	90	16.538	41.127	53.696	60.574	66.675	72.854	84.368	52	
	Shifting Mosaic	96.599	100	12.419	37.421	50.858	57.100	63.267	69.700	73.402	57	
CAI_AM	Stand Initiation	0.000	0	20.383	32.671	43.955	51.881	58.408	64.458	70.387	61	58
	Stem Exclusion	90.055	81	79.057	83.129	85.703	87.578	89.592	91.466	92.226	10	
	Understory Reinitiation	81.407	77	50.000	60.397	70.170	76.395	81.210	84.333	86.857	31	
	Shifting Mosaic	96.599	100	36.401	62.659	76.175	80.372	82.697	85.747	88.256	29	
PROX_MN	Stand Initiation	0.000	0	0.871	1.865	3.535	5.955	9.017	17.788	28.390	267	50
	Stem Exclusion	8.203	46	2.406	4.125	6.398	8.461	12.407	17.534	23.281	158	
	Understory Reinitiation	6.229	30	1.730	3.036	5.774	7.995	11.357	16.889	36.681	173	
	Shifting Mosaic	0.000	0	1.172	2.382	6.568	9.466	12.742	22.678	34.581	214	
PROX_AM	Stand Initiation	0.000	0	0.535	0.749	2.183	4.361	9.153	24.645	59.323	548	72

	Stem Exclusion	18.754	86	1.162	2.882	5.438	8.310	13.565	28.185	40.044	304	
	Understory Reinitiation	3.875	14	1.208	2.727	5.717	9.890	15.811	31.354	46.148	289	
	Shifting Mosaic	0.000	0	0.638	1.975	6.264	11.505	26.525	77.045	95.630	653	
CWED	Stand Initiation	0.000	0	0.051	0.075	0.116	0.168	0.223	0.369	0.562	175	50
	Stem Exclusion	0.228	36	0.093	0.137	0.207	0.258	0.315	0.374	0.457	92	
	Understory Reinitiation	0.193	39	0.083	0.113	0.161	0.219	0.272	0.337	0.411	102	
	Shifting Mosaic	0.001	0	0.072	0.120	0.171	0.204	0.235	0.299	0.420	88	
TECI	Stand Initiation	38.333	100	25.839	28.410	30.193	31.726	32.706	34.278	35.377	18	81
	Stem Exclusion	23.130	99	19.199	20.029	20.872	21.535	22.084	22.714	23.363	12	
	Understory Reinitiation	19.466	82	7.979	11.464	14.364	16.334	18.351	23.384	30.233	73	
	Shifting Mosaic	5.526	0	7.802	11.354	13.340	15.476	17.942	22.949	32.711	75	
CLUMPY	Stand Initiation	-1.000	0	0.589	0.674	0.739	0.774	0.803	0.833	0.858	21	75
	Stem Exclusion	0.909	100	0.509	0.668	0.736	0.769	0.795	0.818	0.839	19	
	Understory Reinitiation	0.899	100	0.507	0.619	0.697	0.738	0.766	0.811	0.874	26	
	Shifting Mosaic	0.810	55	0.605	0.709	0.769	0.802	0.829	0.857	0.869	18	
IJI	Stand Initiation	32.392	0	53.379	58.710	62.778	65.433	67.561	70.399	73.626	18	78
	Stem Exclusion	66.297	80	44.672	52.192	58.558	62.548	65.501	69.341	72.158	27	
	Understory Reinitiation	67.725	98	42.466	49.322	53.878	57.815	60.436	64.400	71.403	26	
	Shifting Mosaic	27.741	0	48.947	52.945	57.990	60.891	63.793	67.339	70.090	24	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	94
<i>Class Configuration Departure Index</i>	77
<i>Cover Type Departure Index</i>	85

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.