

Table. Range of variation in landscape structure for Pinyon-Juniper Sagebrush Woodland under the simulated HRV disturbance scenario on the Columbine 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	Herb Dominated	0.053	55	0.000	0.000	0.008	0.042	0.151	0.504	0.854	1202	42
	Herbs - Shrubs	0.346	44	0.031	0.077	0.210	0.398	0.580	0.875	1.101	201	
	Shrubs - Trees	0.275	7	0.095	0.234	0.428	0.566	0.791	1.094	1.204	152	
	Tree Dominated	0.694	99	0.002	0.016	0.047	0.158	0.356	0.536	0.733	330	
<i>Class Configuration</i> ⁵												
PD	Herb Dominated	0.007	12	0.000	0.001	0.019	0.036	0.052	0.088	0.174	244	88
	Herbs - Shrubs	0.010	0	0.052	0.073	0.099	0.122	0.147	0.279	0.433	169	
	Shrubs - Trees	0.002	0	0.065	0.093	0.140	0.169	0.200	0.238	0.309	86	
	Tree Dominated	0.008	0	0.007	0.095	0.149	0.185	0.215	0.359	0.572	142	
ED	Herb Dominated	0.128	37	0.000	0.002	0.063	0.196	0.449	1.088	1.738	553	44
	Herbs - Shrubs	0.437	6	0.225	0.418	0.676	1.089	1.422	1.788	2.048	126	
	Shrubs - Trees	0.224	0	0.562	0.861	1.159	1.421	1.677	2.031	2.521	82	
	Tree Dominated	0.692	52	0.016	0.190	0.383	0.669	1.064	1.495	1.874	195	
AREA_MN	Herb Dominated	7.128	91	0.000	0.117	0.376	1.016	3.196	9.212	20.539	895	91
	Herbs - Shrubs	35.656	100	0.328	0.621	1.437	2.919	4.408	9.309	16.790	298	
	Shrubs - Trees	141.563	100	0.591	1.271	2.233	3.291	5.072	11.660	16.898	316	
	Tree Dominated	85.738	100	0.089	0.111	0.195	1.017	1.879	3.083	4.317	292	
AREA_AM	Herb Dominated	34.340	69	0.000	0.162	2.209	10.557	53.771	196.484	306.922	1860	67
	Herbs - Shrubs	201.427	92	2.520	8.983	38.129	98.589	152.862	222.831	365.775	217	
	Shrubs - Trees	744.773	100	4.942	25.270	84.111	149.270	196.243	283.173	354.282	173	
	Tree Dominated	297.402	100	0.183	0.338	1.841	58.106	111.058	165.314	207.216	284	
GYRATE_AI	Herb Dominated	394.848	74	0.000	17.173	73.393	163.673	408.389	856.131	1869.999	513	50
	Herbs - Shrubs	641.405	70	73.998	137.725	323.091	512.628	707.081	995.157	1371.228	167	
	Shrubs - Trees	2091.013	100	104.205	250.278	452.311	596.645	834.707	1161.180	1314.600	153	
	Tree Dominated	1215.811	100	17.473	22.323	49.219	347.704	483.999	648.774	943.602	180	
SHAPE_MN	Herb Dominated	1.697	100	1.000	1.050	1.199	1.284	1.396	1.568	1.777	40	100

	Herbs - Shrubs	2.088	100	1.141	1.225	1.285	1.344	1.419	1.540	1.703	23	
	Shrubs - Trees	2.358	100	1.189	1.213	1.282	1.356	1.415	1.576	1.726	27	
	Tree Dominated	2.404	100	1.032	1.046	1.095	1.173	1.237	1.283	1.328	20	
SHAPE_AM	Herb Dominated	2.670	51	1.000	1.134	1.849	2.613	3.493	4.719	6.525	137	24
	Herbs - Shrubs	2.784	16	1.819	2.318	2.980	3.561	4.033	4.708	6.022	67	
	Shrubs - Trees	4.902	90	2.190	2.666	3.286	3.668	4.288	5.706	8.274	83	
	Tree Dominated	3.778	63	1.092	1.172	1.520	3.258	4.078	4.756	5.629	110	
CPLAND	Herb Dominated	0.030	58	0.000	0.000	0.002	0.018	0.087	0.329	0.624	1856	40
	Herbs - Shrubs	0.313	52	0.017	0.048	0.145	0.302	0.449	0.711	0.880	220	
	Shrubs - Trees	0.233	9	0.073	0.189	0.344	0.470	0.671	0.900	0.994	151	
	Tree Dominated	0.567	100	0.002	0.013	0.034	0.121	0.286	0.437	0.583	352	
CORE_MN	Herb Dominated	3.986	88	0.000	0.000	0.089	0.429	1.775	6.380	14.414	1487	88
	Herbs - Shrubs	32.244	100	0.195	0.393	1.043	2.205	3.465	7.357	13.546	316	
	Shrubs - Trees	120.115	100	0.453	0.966	1.809	2.675	4.238	9.634	13.958	324	
	Tree Dominated	70.028	100	0.069	0.085	0.151	0.754	1.432	2.557	3.504	328	
CORE_AM	Herb Dominated	21.932	69	0.000	0.000	0.734	5.472	36.869	152.303	231.678	2783	72
	Herbs - Shrubs	196.221	97	1.750	6.126	29.929	83.648	130.970	188.564	301.101	218	
	Shrubs - Trees	635.755	100	3.835	19.956	73.341	132.716	171.069	243.408	302.916	168	
	Tree Dominated	239.981	100	0.152	0.267	1.455	41.545	97.001	143.973	181.176	346	
CAI_MN	Herb Dominated	28.391	93	0.000	0.000	7.557	12.940	18.800	30.241	60.000	234	43
	Herbs - Shrubs	77.190	100	18.367	33.860	42.927	48.210	55.774	66.204	73.646	67	
	Shrubs - Trees	69.623	75	52.747	59.835	63.528	66.334	69.652	73.228	79.988	20	
	Tree Dominated	74.245	75	18.114	49.207	63.155	68.863	74.662	82.729	92.977	49	
CAI_AM	Herb Dominated	55.928	68	0.000	0.000	23.039	42.263	59.828	72.044	81.630	170	35
	Herbs - Shrubs	90.429	100	50.161	57.543	70.771	75.571	78.964	82.090	88.706	32	
	Shrubs - Trees	84.849	85	70.787	76.875	80.054	82.022	83.568	86.273	89.060	11	
	Tree Dominated	81.677	72	41.083	62.027	72.005	79.191	82.009	85.173	96.061	29	
PROX_MN	Herb Dominated	0.442	11	0.000	0.000	1.933	8.345	27.626	113.551	271.063	1361	30
	Herbs - Shrubs	47.789	70	1.702	4.150	13.489	32.263	56.836	102.199	207.708	304	
	Shrubs - Trees	43.785	49	2.772	9.075	26.374	44.043	68.322	138.407	253.820	294	
	Tree Dominated	90.613	91	0.162	0.561	1.318	23.148	59.446	117.519	158.168	505	
PROX_AM	Herb Dominated	0.211	9	0.000	0.000	2.466	9.836	34.891	247.578	637.897	2517	53

	Herbs - Shrubs	49.049	36	1.794	5.494	21.069	93.659	213.836	384.165	1187.004	404	
	Shrubs - Trees	3.596	0	3.494	12.256	69.510	158.658	260.034	558.341	950.835	344	
	Tree Dominated	148.337	87	0.336	0.612	2.336	31.573	80.849	219.591	287.214	694	
CWED	Herb Dominated	0.043	43	0.000	0.000	0.016	0.053	0.123	0.305	0.515	573	33
	Herbs - Shrubs	0.100	17	0.034	0.069	0.125	0.202	0.268	0.359	0.429	144	
	Shrubs - Trees	0.077	0	0.075	0.131	0.196	0.263	0.338	0.431	0.503	114	
	Tree Dominated	0.196	55	0.004	0.043	0.094	0.179	0.273	0.383	0.448	190	
TECI	Herb Dominated	33.331	97	13.333	22.600	25.335	27.143	29.193	32.513	40.000	37	64
	Herbs - Shrubs	22.192	90	5.846	12.452	16.664	18.706	20.722	22.930	26.523	56	
	Shrubs - Trees	33.860	100	8.418	12.413	16.244	18.650	20.954	22.996	25.459	57	
	Tree Dominated	27.056	78	20.731	22.039	23.256	24.680	26.758	29.242	32.136	29	
CLUMPY	Herb Dominated	0.864	83	-1.000	0.358	0.577	0.721	0.834	0.898	1.000	75	83
	Herbs - Shrubs	0.926	100	0.478	0.649	0.767	0.832	0.864	0.894	0.910	29	
	Shrubs - Trees	0.957	100	0.635	0.718	0.820	0.846	0.874	0.902	0.913	22	
	Tree Dominated	0.940	100	0.148	0.226	0.417	0.768	0.822	0.857	0.872	82	
IJI	Herb Dominated	62.483	88	16.372	35.998	49.382	54.429	59.109	65.346	69.915	54	63
	Herbs - Shrubs	64.799	100	25.758	43.848	50.623	54.468	57.641	61.570	64.453	33	
	Shrubs - Trees	52.076	51	36.307	41.212	47.618	51.829	56.409	61.808	66.587	40	
	Tree Dominated	54.145	100	11.895	19.315	27.964	35.035	40.138	46.466	52.509	77	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	42
<i>Class Configuration Departure Index</i>	59
<i>Cover Type Departure Index</i>	51

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.