

Table. Range of variation in landscape structure for Pinyon-Juniper Sagebrush Woodland 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	Herb Dominated	0.020	28	0.000	0.000	0.016	0.068	0.216	0.909	1.892	1338	54
	Herbs - Shrubs	0.306	21	0.028	0.116	0.355	0.658	1.147	1.740	2.163	247	
	Shrubs - Trees	0.118	0	0.088	0.368	0.809	1.146	1.625	2.088	2.392	150	
	Tree Dominated	2.141	100	0.003	0.030	0.124	0.312	0.600	0.984	1.311	306	
<i>Class Configuration⁵</i>												
PD	Herb Dominated	0.002	7	0.000	0.001	0.039	0.058	0.081	0.143	0.456	243	93
	Herbs - Shrubs	0.007	0	0.067	0.133	0.169	0.215	0.269	0.643	0.943	238	
	Shrubs - Trees	0.002	0	0.062	0.120	0.212	0.288	0.358	0.480	0.689	125	
	Tree Dominated	0.004	0	0.025	0.207	0.304	0.361	0.439	0.803	1.243	165	
ED	Herb Dominated	0.057	13	0.000	0.002	0.121	0.336	0.738	1.831	3.342	544	61
	Herbs - Shrubs	0.341	1	0.207	0.654	1.274	1.910	2.585	3.612	4.170	155	
	Shrubs - Trees	0.138	0	0.563	1.556	2.256	2.864	3.308	3.979	5.327	85	
	Tree Dominated	1.747	62	0.035	0.362	0.937	1.466	1.964	2.871	3.836	171	
AREA_MN	Herb Dominated	9.490	93	0.000	0.115	0.399	1.001	3.010	12.343	30.769	1222	93
	Herbs - Shrubs	41.211	100	0.229	0.559	1.259	2.515	5.033	11.065	22.891	418	
	Shrubs - Trees	55.333	100	0.602	1.045	2.153	3.953	7.137	17.306	38.844	411	
	Tree Dominated	504.094	100	0.091	0.113	0.208	0.854	1.614	2.897	4.788	326	
AREA_AM	Herb Dominated	11.392	47	0.000	0.136	2.483	12.887	92.456	736.430	2255.481	5713	25
	Herbs - Shrubs	267.704	59	1.833	8.435	59.533	167.802	454.433	1384.336	1828.942	820	
	Shrubs - Trees	182.390	26	6.490	40.503	177.035	349.429	865.426	1324.872	1796.850	368	
	Tree Dominated	1653.677	100	0.150	0.385	1.670	47.718	200.488	606.897	1267.600	1271	
GYRATE_AM	Herb Dominated	233.429	59	0.000	15.302	77.497	186.799	510.445	1371.336	2852.444	726	25
	Herbs - Shrubs	761.051	59	69.152	132.092	347.410	630.204	1041.225	1884.288	2354.252	278	
	Shrubs - Trees	650.128	29	112.123	263.588	608.500	905.258	1519.202	1912.753	2315.391	182	
	Tree Dominated	2300.345	100	16.530	24.058	47.630	293.122	649.842	1218.322	2171.874	407	
SHAPE_MN	Herb Dominated	2.116	100	1.000	1.051	1.194	1.286	1.367	1.479	1.650	33	100

	Herbs - Shrubs	2.053	100	1.133	1.208	1.265	1.315	1.373	1.471	1.660	20	
	Shrubs - Trees	2.482	100	1.193	1.210	1.284	1.353	1.404	1.589	1.851	28	
	Tree Dominated	4.494	100	1.026	1.048	1.115	1.186	1.221	1.264	1.322	18	
SHAPE_AM	Herb Dominated	2.296	38	1.000	1.106	1.915	2.794	4.622	7.846	13.588	241	33
	Herbs - Shrubs	3.354	21	1.779	2.295	3.640	5.136	6.705	9.333	12.813	137	
	Shrubs - Trees	3.201	6	2.248	3.134	4.653	6.265	8.249	12.499	17.089	149	
	Tree Dominated	6.919	84	1.088	1.222	1.583	3.234	5.443	9.255	18.394	248	
CPLAND	Herb Dominated	0.009	33	0.000	0.000	0.005	0.031	0.137	0.708	1.474	2251	51
	Herbs - Shrubs	0.264	24	0.013	0.077	0.272	0.527	0.944	1.502	1.859	270	
	Shrubs - Trees	0.104	0	0.070	0.308	0.695	1.011	1.437	1.832	2.081	151	
	Tree Dominated	1.913	100	0.002	0.027	0.102	0.259	0.522	0.840	1.179	313	
CORE_MN	Herb Dominated	4.188	88	0.000	0.000	0.108	0.451	1.836	9.485	26.036	2105	88
	Herbs - Shrubs	35.500	100	0.108	0.370	0.943	1.972	4.225	9.553	19.670	466	
	Shrubs - Trees	49.094	100	0.459	0.856	1.842	3.447	6.287	15.080	33.792	413	
	Tree Dominated	450.391	100	0.066	0.098	0.181	0.740	1.402	2.519	4.240	327	
CORE_AM	Herb Dominated	5.340	44	0.000	0.000	1.011	7.578	70.760	595.209	1913.829	7854	25
	Herbs - Shrubs	241.962	60	0.789	6.669	49.800	147.982	401.133	1295.488	1721.628	871	
	Shrubs - Trees	167.523	27	5.745	32.718	155.262	313.019	821.661	1248.185	1711.992	388	
	Tree Dominated	1483.660	100	0.084	0.361	1.584	42.531	186.736	552.232	1136.713	1298	
CAI_MN	Herb Dominated	41.306	99	0.000	0.000	8.585	13.200	19.627	29.693	64.172	225	50
	Herbs - Shrubs	62.588	78	35.560	40.718	49.004	54.183	61.171	76.474	81.938	66	
	Shrubs - Trees	67.842	16	56.575	63.547	70.138	74.409	78.734	83.678	86.417	27	
	Tree Dominated	87.246	89	30.212	60.291	77.120	81.977	85.114	88.666	95.189	35	
CAI_AM	Herb Dominated	44.127	48	0.000	0.000	27.593	46.772	61.899	77.567	84.863	166	12
	Herbs - Shrubs	86.141	81	42.323	64.549	75.794	80.669	84.637	88.297	91.700	29	
	Shrubs - Trees	88.724	72	72.911	82.466	85.581	87.381	88.907	91.213	93.139	10	
	Tree Dominated	89.347	81	45.011	75.845	83.638	87.246	88.772	91.001	95.855	17	
PROX_MN	Herb Dominated	5.013	37	0.000	0.000	2.662	10.827	50.008	435.609	2585.651	4023	25
	Herbs - Shrubs	131.256	69	0.945	4.592	20.303	53.231	166.966	477.453	963.382	888	
	Shrubs - Trees	0.007	0	3.873	12.587	54.105	138.066	369.477	844.220	1714.619	602	
	Tree Dominated	30.161	54	0.156	0.536	2.575	22.549	84.462	364.588	801.332	1614	
PROX_AM	Herb Dominated	6.402	33	0.000	0.000	3.493	16.318	59.855	326.099	3593.517	1998	25

	Herbs - Shrubs	76.748	46	1.713	10.458	33.651	86.707	218.184	516.530	3353.342	584	
	Shrubs - Trees	0.004	0	4.794	21.464	60.314	139.628	265.781	596.968	2152.347	412	
	Tree Dominated	4.170	27	0.165	0.760	3.544	37.736	120.997	358.228	2115.661	947	
CWED	Herb Dominated	0.020	17	0.000	0.001	0.030	0.086	0.179	0.484	0.847	562	52
	Herbs - Shrubs	0.100	7	0.033	0.090	0.199	0.308	0.432	0.589	0.735	162	
	Shrubs - Trees	0.037	0	0.091	0.190	0.338	0.490	0.627	0.787	0.922	122	
	Tree Dominated	0.425	70	0.008	0.077	0.216	0.335	0.447	0.659	0.868	173	
TECI	Herb Dominated	34.414	100	15.455	21.900	24.214	25.694	27.410	29.973	33.073	31	90
	Herbs - Shrubs	28.133	100	4.773	9.154	14.579	16.788	18.525	21.013	24.762	71	
	Shrubs - Trees	25.537	100	5.994	9.318	14.298	17.694	19.618	22.109	23.620	72	
	Tree Dominated	23.694	90	20.063	20.921	21.678	22.509	23.150	24.259	27.703	15	
CLUMPY	Herb Dominated	0.851	81	-1.000	0.343	0.562	0.704	0.822	0.901	1.000	79	81
	Herbs - Shrubs	0.935	100	0.427	0.620	0.747	0.818	0.867	0.902	0.922	35	
	Shrubs - Trees	0.936	100	0.571	0.715	0.805	0.846	0.879	0.906	0.927	23	
	Tree Dominated	0.950	100	0.136	0.236	0.428	0.726	0.799	0.846	0.875	84	
IJI	Herb Dominated	46.707	13	16.929	41.566	50.148	54.318	57.566	63.578	70.181	41	65
	Herbs - Shrubs	58.154	87	24.487	36.941	48.978	52.471	55.887	60.034	62.828	44	
	Shrubs - Trees	58.052	91	28.812	35.869	44.002	49.596	54.098	60.634	65.105	50	
	Tree Dominated	62.110	100	12.816	16.129	24.242	30.361	35.812	42.843	48.539	88	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	54
<i>Class Configuration Departure Index</i>	55
<i>Cover Type Departure Index</i>	54

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.