

Table. Range of variation in landscape structure for Pinyon-Juniper 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 Composition</i> ⁴												
PLAND	Herb Dominated	0.046	51	0.000	0.000	0.010	0.043	0.115	0.346	0.648	796	57
	Herbs - Shrubs	0.488	84	0.025	0.076	0.170	0.274	0.418	0.661	0.778	214	
	Shrubs - Trees	0.044	0	0.069	0.146	0.264	0.414	0.536	0.695	0.800	132	
	Tree Dominated	0.332	98	0.004	0.014	0.047	0.095	0.161	0.257	0.398	256	
<i>Class Configuration</i> ⁵												
PD	Herb Dominated	0.005	10	0.000	0.001	0.023	0.039	0.053	0.097	0.246	249	90
	Herbs - Shrubs	0.011	0	0.046	0.075	0.102	0.121	0.145	0.235	0.305	132	
	Shrubs - Trees	0.001	0	0.069	0.090	0.124	0.150	0.174	0.202	0.254	75	
	Tree Dominated	0.012	0	0.018	0.051	0.120	0.150	0.174	0.329	0.394	186	
ED	Herb Dominated	0.113	36	0.000	0.001	0.068	0.214	0.413	0.963	1.779	451	29
	Herbs - Shrubs	0.648	21	0.159	0.379	0.685	0.990	1.332	1.638	1.792	127	
	Shrubs - Trees	0.081	0	0.418	0.616	0.954	1.251	1.446	1.692	1.923	86	
	Tree Dominated	0.536	54	0.040	0.121	0.349	0.512	0.682	0.923	1.330	156	
AREA_MN	Herb Dominated	9.353	99	0.000	0.110	0.369	0.891	2.054	6.009	12.766	662	99
	Herbs - Shrubs	43.115	100	0.328	0.632	1.261	1.958	3.438	6.922	10.164	321	
	Shrubs - Trees	31.250	100	0.477	0.886	1.564	2.544	3.905	7.726	11.524	269	
	Tree Dominated	27.548	100	0.096	0.132	0.266	0.753	1.106	1.556	2.790	189	
AREA_AM	Herb Dominated	14.990	67	0.000	0.146	1.935	7.053	22.758	118.945	300.022	1684	44
	Herbs - Shrubs	334.144	100	1.672	6.326	15.446	33.326	91.865	144.742	195.811	415	
	Shrubs - Trees	53.709	32	4.087	15.146	37.942	77.403	123.069	182.449	248.664	216	
	Tree Dominated	75.614	94	0.178	0.588	2.851	14.099	38.415	91.200	146.359	643	
GYRATE_AM	Herb Dominated	212.498	67	0.000	15.000	67.474	136.429	262.139	546.197	886.797	389	46
	Herbs - Shrubs	1081.180	100	57.283	127.000	208.294	308.264	458.220	612.104	742.913	157	
	Shrubs - Trees	432.932	53	84.444	175.189	287.352	424.316	540.865	693.115	874.059	122	
	Tree Dominated	468.469	96	17.722	30.210	60.678	166.268	262.987	455.861	596.544	256	
SHAPE_MN	Herb Dominated	1.919	100	1.000	1.000	1.192	1.286	1.389	1.549	1.791	43	100

	Herbs - Shrubs	2.204	100	1.146	1.236	1.309	1.366	1.447	1.579	1.833	25	
	Shrubs - Trees	2.841	100	1.158	1.222	1.287	1.357	1.450	1.609	1.785	29	
	Tree Dominated	2.227	100	1.035	1.059	1.117	1.195	1.226	1.268	1.316	17	
SHAPE_AM	Herb Dominated	2.065	35	1.000	1.000	1.784	2.408	3.059	4.156	6.362	131	30
	Herbs - Shrubs	4.736	98	1.573	2.206	2.726	3.221	3.800	4.458	5.198	70	
	Shrubs - Trees	2.813	18	1.742	2.276	3.059	3.552	4.065	4.961	6.832	76	
	Tree Dominated	2.701	65	1.117	1.286	1.642	2.333	2.985	3.725	4.410	105	
CPLAND	Herb Dominated	0.022	59	0.000	0.000	0.002	0.014	0.054	0.196	0.412	1400	65
	Herbs - Shrubs	0.416	92	0.015	0.036	0.103	0.182	0.296	0.492	0.572	250	
	Shrubs - Trees	0.032	0	0.050	0.108	0.204	0.324	0.418	0.541	0.618	134	
	Tree Dominated	0.296	99	0.002	0.009	0.037	0.074	0.134	0.213	0.340	277	
CORE_MN	Herb Dominated	4.527	98	0.000	0.000	0.074	0.313	0.945	3.665	8.139	1172	98
	Herbs - Shrubs	36.727	100	0.159	0.353	0.768	1.301	2.436	5.205	7.642	373	
	Shrubs - Trees	22.516	100	0.346	0.660	1.182	1.972	3.062	6.066	8.909	274	
	Tree Dominated	24.605	100	0.052	0.106	0.192	0.588	0.944	1.335	2.384	209	
CORE_AM	Herb Dominated	8.939	69	0.000	0.000	0.549	3.136	12.630	87.141	231.676	2779	43
	Herbs - Shrubs	308.568	100	0.951	4.051	10.659	24.670	78.808	126.386	172.736	496	
	Shrubs - Trees	44.707	30	3.349	12.087	32.150	68.032	108.859	162.022	214.887	220	
	Tree Dominated	69.629	93	0.132	0.372	2.021	12.271	35.409	82.928	133.789	673	
CAI_MN	Herb Dominated	37.117	100	0.000	0.000	6.705	11.686	17.159	28.747	42.142	246	64
	Herbs - Shrubs	61.360	99	18.158	27.362	33.336	40.527	46.781	55.298	67.494	69	
	Shrubs - Trees	55.305	19	45.440	50.740	56.470	61.257	65.998	69.785	73.602	31	
	Tree Dominated	81.186	84	13.505	53.638	68.243	74.250	78.786	85.721	91.380	43	
CAI_AM	Herb Dominated	48.401	76	0.000	0.000	18.186	34.730	47.197	62.860	74.692	181	67
	Herbs - Shrubs	85.182	100	36.754	51.612	60.585	66.827	71.814	76.158	84.158	37	
	Shrubs - Trees	72.050	8	67.973	71.266	75.293	77.663	79.255	82.538	85.881	15	
	Tree Dominated	89.317	99	16.809	62.296	75.814	81.039	84.633	88.381	90.145	32	
PROX_MN	Herb Dominated	2.229	28	0.000	0.004	1.954	6.084	15.459	62.361	177.821	1025	46
	Herbs - Shrubs	80.517	96	0.927	4.318	8.503	16.988	36.208	73.619	146.007	408	
	Shrubs - Trees	0.029	0	1.822	5.490	15.000	28.494	49.817	84.429	150.226	277	
	Tree Dominated	5.083	45	0.253	0.565	1.536	7.343	18.796	36.809	81.035	494	
PROX_AM	Herb Dominated	1.169	18	0.000	0.003	2.375	6.915	20.818	89.292	376.285	1291	38

	Herbs - Shrubs	10.364	19	0.358	4.338	13.639	24.641	48.875	143.413	348.458	564	
	Shrubs - Trees	0.025	0	2.199	6.339	25.056	47.808	113.557	230.471	295.731	469	
	Tree Dominated	5.960	41	0.378	0.920	2.310	10.905	34.958	79.606	193.136	722	
CWED	Herb Dominated	0.042	41	0.000	0.000	0.018	0.061	0.118	0.279	0.502	454	25
	Herbs - Shrubs	0.187	50	0.025	0.070	0.132	0.189	0.255	0.339	0.421	143	
	Shrubs - Trees	0.024	0	0.044	0.083	0.155	0.218	0.298	0.360	0.414	127	
	Tree Dominated	0.101	38	0.011	0.031	0.086	0.119	0.157	0.222	0.304	160	
TECI	Herb Dominated	36.646	100	20.000	23.523	26.023	27.513	29.761	32.810	36.432	34	100
	Herbs - Shrubs	28.131	100	9.928	14.016	17.774	19.889	21.351	23.596	26.413	48	
	Shrubs - Trees	28.753	100	8.827	10.864	15.394	18.775	20.890	23.133	24.497	65	
	Tree Dominated	18.368	0	20.745	21.486	22.237	23.209	24.265	25.885	32.281	19	
CLUMPY	Herb Dominated	0.863	96	-1.000	0.301	0.563	0.687	0.777	0.859	1.000	81	96
	Herbs - Shrubs	0.921	100	0.532	0.624	0.726	0.776	0.820	0.863	0.882	31	
	Shrubs - Trees	0.901	100	0.597	0.706	0.771	0.810	0.837	0.866	0.885	20	
	Tree Dominated	0.903	100	0.170	0.285	0.497	0.699	0.756	0.799	0.844	74	
IJI	Herb Dominated	63.091	81	13.734	33.788	52.283	56.647	61.520	68.022	70.427	60	31
	Herbs - Shrubs	59.339	71	40.725	47.355	53.326	56.762	59.887	63.122	64.856	28	
	Shrubs - Trees	54.576	38	35.558	43.649	51.817	57.334	61.051	65.868	68.673	39	
	Tree Dominated	61.820	100	18.763	25.925	32.503	38.116	42.956	48.756	54.191	60	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	57
<i>Class Configuration Departure Index</i>	62
<i>Cover Type Departure Index</i>	59

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.