

Table. Range of variation in landscape structure for Pinyon-Juniper-Oak-Serviceberry 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 <sup>1</sup>		Percentiles of Simulated Distribution							HRV Departure	
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100	CV <sup>2</sup>	Index <sup>3</sup>
<i>Seral Stage Composition<sup>4</sup></i>												
PLAND	Herb Dominated	0.011	53	0.000	0.000	0.002	0.009	0.036	0.134	0.250	1493	49
	Herbs - Shrubs	0.103	50	0.003	0.016	0.047	0.103	0.160	0.244	0.286	221	
	Shrubs - Trees	0.027	1	0.020	0.040	0.093	0.147	0.201	0.263	0.293	152	
	Tree Dominated	0.181	100	0.000	0.003	0.010	0.022	0.045	0.100	0.194	440	
<i>Class Configuration<sup>5</sup></i>												
PD	Herb Dominated	0.001	13	0.000	0.000	0.004	0.009	0.014	0.026	0.060	295	87
	Herbs - Shrubs	0.003	0	0.010	0.017	0.024	0.031	0.041	0.068	0.102	164	
	Shrubs - Trees	0.002	0	0.016	0.022	0.033	0.044	0.054	0.065	0.091	99	
	Tree Dominated	0.003	0	0.001	0.014	0.029	0.040	0.056	0.093	0.166	197	
ED	Herb Dominated	0.032	44	0.000	0.000	0.013	0.042	0.127	0.293	0.544	701	33
	Herbs - Shrubs	0.150	17	0.028	0.092	0.191	0.299	0.391	0.505	0.565	138	
	Shrubs - Trees	0.048	0	0.112	0.191	0.274	0.377	0.456	0.552	0.644	96	
	Tree Dominated	0.160	59	0.001	0.029	0.079	0.133	0.192	0.311	0.474	213	
AREA_MN	Herb Dominated	7.891	91	0.000	0.063	0.305	0.982	2.716	11.482	32.040	1163	89
	Herbs - Shrubs	36.336	100	0.221	0.526	1.421	2.498	5.515	10.547	19.228	401	
	Shrubs - Trees	15.188	98	0.448	0.795	1.618	3.398	5.509	11.116	18.469	304	
	Tree Dominated	72.911	100	0.070	0.104	0.225	0.525	1.076	3.277	8.596	605	
AREA_AM	Herb Dominated	8.799	59	0.000	0.063	0.905	5.682	18.701	152.861	267.919	2689	34
	Herbs - Shrubs	73.907	75	0.615	3.575	13.352	41.180	69.647	190.042	259.361	453	
	Shrubs - Trees	17.716	16	2.399	8.469	29.436	54.616	144.559	192.415	261.316	337	
	Tree Dominated	222.815	100	0.076	0.266	1.473	6.259	14.475	157.118	234.432	2506	
GYRATE_AM	Herb Dominated	149.107	61	0.000	12.500	43.395	118.223	211.366	571.829	843.171	473	34
	Herbs - Shrubs	455.993	80	36.461	83.561	175.771	296.069	393.983	681.159	825.840	202	
	Shrubs - Trees	201.635	19	71.962	118.789	233.498	364.722	569.052	686.149	850.474	156	
	Tree Dominated	734.980	98	12.500	20.905	48.395	98.278	173.521	634.817	897.680	625	
SHAPE_MN	Herb Dominated	2.010	100	1.000	1.000	1.173	1.296	1.412	1.700	2.333	54	97

	Herbs - Shrubs	2.179	100	1.084	1.196	1.284	1.361	1.454	1.627	1.913	32	
	Shrubs - Trees	1.745	97	1.123	1.195	1.269	1.337	1.453	1.646	1.867	34	
	Tree Dominated	2.004	100	1.000	1.036	1.108	1.155	1.219	1.287	1.356	22	
SHAPE_AM	Herb Dominated	1.992	43	1.000	1.000	1.594	2.153	2.732	4.173	7.165	147	30
	Herbs - Shrubs	2.727	38	1.387	1.837	2.390	2.973	3.552	4.148	7.044	78	
	Shrubs - Trees	1.880	3	1.703	1.956	2.602	3.176	3.742	5.120	6.980	100	
	Tree Dominated	2.853	83	1.000	1.126	1.511	1.781	2.311	5.238	7.211	231	
CPLAND	Herb Dominated	0.005	51	0.000	0.000	0.000	0.004	0.023	0.101	0.181	2319	48
	Herbs - Shrubs	0.080	51	0.001	0.009	0.035	0.079	0.128	0.199	0.237	241	
	Shrubs - Trees	0.023	2	0.017	0.033	0.078	0.121	0.170	0.219	0.241	153	
	Tree Dominated	0.168	100	0.000	0.001	0.009	0.019	0.041	0.091	0.175	468	
CORE_MN	Herb Dominated	3.234	85	0.000	0.000	0.057	0.466	1.596	8.320	26.551	1787	84
	Herbs - Shrubs	28.234	100	0.114	0.328	0.997	1.877	4.590	8.444	15.958	432	
	Shrubs - Trees	13.113	99	0.388	0.619	1.355	2.792	4.619	9.115	15.307	304	
	Tree Dominated	67.750	100	0.031	0.087	0.188	0.437	0.895	2.963	7.975	657	
CORE_AM	Herb Dominated	3.856	55	0.000	0.000	0.238	3.076	11.379	126.123	230.631	4100	33
	Herbs - Shrubs	57.516	74	0.276	2.584	9.974	33.080	61.376	172.737	234.771	514	
	Shrubs - Trees	15.255	16	2.206	6.845	25.707	47.159	129.795	176.221	239.009	359	
	Tree Dominated	207.721	100	0.039	0.240	1.308	5.446	12.959	142.854	218.494	2618	
CAI_MN	Herb Dominated	35.859	86	0.000	0.000	7.217	17.146	28.141	45.030	76.274	263	61
	Herbs - Shrubs	77.011	100	19.761	31.668	42.663	49.332	57.680	67.299	78.028	72	
	Shrubs - Trees	86.771	100	50.283	58.678	65.253	70.256	74.789	80.471	85.824	31	
	Tree Dominated	89.348	72	22.785	57.553	78.965	86.232	89.969	93.072	100.000	41	
CAI_AM	Herb Dominated	40.990	43	0.000	0.000	21.087	46.374	62.730	78.168	84.401	169	23
	Herbs - Shrubs	77.704	57	40.101	58.680	70.383	76.671	81.056	85.708	89.954	35	
	Shrubs - Trees	86.337	85	69.839	76.348	81.386	83.291	85.197	88.064	91.264	14	
	Tree Dominated	92.922	88	32.292	70.583	83.455	88.353	91.105	94.470	100.000	27	
PROX_MN	Herb Dominated	2.243	40	0.000	0.000	0.739	3.677	13.540	62.829	247.230	1709	49
	Herbs - Shrubs	26.703	70	0.485	1.951	7.053	16.588	30.280	79.420	124.482	467	
	Shrubs - Trees	0.003	0	0.634	3.630	9.190	22.745	41.858	85.171	142.440	359	
	Tree Dominated	0.063	1	0.009	0.266	1.004	2.369	9.215	88.934	450.288	3743	
PROX_AM	Herb Dominated	2.866	56	0.000	0.000	0.375	1.933	7.336	37.608	170.477	1946	65

	Herbs - Shrubs	45.672	90	0.061	0.838	4.128	12.018	25.943	54.227	89.603	444	
	Shrubs - Trees	0.003	0	0.179	1.772	4.565	12.079	25.553	55.948	182.843	449	
	Tree Dominated	0.020	0	0.010	0.193	1.043	3.201	10.144	53.355	194.811	1661	
CWED	Herb Dominated	0.011	51	0.000	0.000	0.003	0.011	0.031	0.080	0.130	746	25
	Herbs - Shrubs	0.045	43	0.005	0.014	0.029	0.051	0.070	0.090	0.105	149	
	Shrubs - Trees	0.012	0	0.010	0.019	0.041	0.060	0.084	0.109	0.131	150	
	Tree Dominated	0.026	43	0.000	0.006	0.017	0.028	0.042	0.066	0.097	214	
TECI	Herb Dominated	35.000	100	10.000	19.792	23.255	25.176	27.436	30.137	35.340	41	100
	Herbs - Shrubs	29.930	100	7.292	11.064	14.988	17.098	18.839	20.985	23.924	58	
	Shrubs - Trees	24.288	100	6.335	8.779	13.499	16.381	19.330	22.303	23.938	83	
	Tree Dominated	15.532	0	18.586	19.761	20.612	21.191	22.092	24.539	27.836	23	
CLUMPY	Herb Dominated	0.860	83	-1.000	0.246	0.595	0.745	0.837	0.912	1.000	89	82
	Herbs - Shrubs	0.921	99	0.431	0.603	0.753	0.820	0.870	0.901	0.931	36	
	Shrubs - Trees	0.911	99	0.540	0.704	0.795	0.840	0.874	0.901	0.924	23	
	Tree Dominated	0.953	100	0.037	0.199	0.470	0.667	0.762	0.858	0.893	99	
IJI	Herb Dominated	48.228	37	13.734	24.633	44.258	51.736	59.015	67.346	73.327	83	25
	Herbs - Shrubs	52.881	34	34.096	42.373	50.467	55.910	60.906	65.016	66.602	40	
	Shrubs - Trees	56.878	54	32.580	39.128	49.555	55.783	61.961	67.038	70.765	50	
	Tree Dominated	59.676	100	14.944	20.015	28.602	35.751	43.177	52.289	58.542	90	

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**Summary Indices<sup>6</sup>:**

<i>Seral-Stage Departure Index</i>	49
<i>Class Configuration Departure Index</i>	56
<i>Cover Type Departure Index</i>	52

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<sup>1</sup>Some 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.

<sup>2</sup>CV = coefficient of variation in the simulated distribution, computed as the difference between the 5 and 95<sup>th</sup> percentiles divided by the median and multiplied by 100 to convert to a percentage. n/d = not defined (division by zero).

<sup>3</sup>HRV 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 25-75<sup>th</sup> percentile range of variation, where a 0 represents no departure (i.e., within the 25-75<sup>th</sup> percentiles of variation) and 100 represents complete departure (i.e., outside the 0-100<sup>th</sup> percentiles of variation).

<sup>4</sup>Landscape 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.

<sup>5</sup>Landscape 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.

<sup>6</sup>Seral-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.