

Table. Range of variation in landscape structure for Mesic Sagebrush 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 <sup>1</sup>		Percentiles of Simulated Distribution							CV <sup>2</sup>	HRV Departure Index <sup>3</sup>
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100		
<i>Seral Stage Composition</i> <sup>4</sup>												
PLAND	Herbs - Shrubs	1.993	90	0.306	0.652	0.931	1.354	1.802	2.069	2.202	105	61
	Shrubs - Herbs	0.303	10	0.094	0.227	0.494	0.943	1.365	1.644	1.990	150	
<i>Class Configuration</i> <sup>5</sup>												
PD	Herbs - Shrubs	0.048	1	0.046	0.052	0.061	0.070	0.084	0.094	0.110	60	98
	Shrubs - Herbs	0.012	0	0.059	0.076	0.096	0.111	0.132	0.198	0.262	109	
ED	Herbs - Shrubs	2.136	95	0.687	1.209	1.470	1.701	1.931	2.133	2.397	54	89
	Shrubs - Herbs	0.322	0	0.280	0.553	0.977	1.348	1.765	2.084	2.319	114	
AREA_MN	Herbs - Shrubs	41.200	98	4.881	7.664	11.262	19.132	29.880	38.121	46.878	159	96
	Shrubs - Herbs	25.032	100	0.729	2.204	3.776	7.433	12.622	17.444	26.704	205	
AREA_AM	Herbs - Shrubs	1132.778	56	28.584	75.709	153.187	770.764	1468.046	1683.516	1994.065	209	0
	Shrubs - Herbs	216.136	45	18.352	29.811	115.498	327.018	1211.888	1565.688	1945.392	470	
GYRATE_AM	Herbs - Shrubs	1259.868	55	249.390	378.195	560.925	1091.404	1447.645	1553.222	1760.352	108	0
	Shrubs - Herbs	666.515	42	191.904	263.526	501.964	826.469	1437.333	1662.738	1951.499	169	
SHAPE_MN	Herbs - Shrubs	1.969	100	1.429	1.470	1.528	1.603	1.707	1.846	1.942	23	100
	Shrubs - Herbs	1.638	100	1.138	1.176	1.243	1.328	1.393	1.475	1.630	22	
SHAPE_AM	Herbs - Shrubs	4.563	57	2.122	2.555	3.063	3.920	4.999	5.447	6.265	74	24
	Shrubs - Herbs	2.523	13	1.929	2.206	3.070	4.112	5.728	6.548	8.044	106	
CPLAND	Herbs - Shrubs	1.728	88	0.241	0.526	0.781	1.189	1.578	1.823	1.939	109	50
	Shrubs - Herbs	0.261	13	0.057	0.161	0.393	0.796	1.196	1.457	1.766	163	
CORE_MN	Herbs - Shrubs	35.718	98	3.582	6.166	9.459	16.857	26.039	33.802	41.457	164	95
	Shrubs - Herbs	21.554	100	0.525	1.447	2.980	6.149	11.218	15.550	23.698	229	
CORE_AM	Herbs - Shrubs	1071.779	56	22.841	66.085	138.528	749.012	1386.935	1574.106	1905.987	201	0

	Shrubs - Herbs	194.725	45	8.748	23.086	104.908	294.072	1136.290	1508.340	1836.174	505	
CAI_MN	Herbs - Shrubs	68.238	70	54.636	58.870	63.351	66.152	68.766	72.942	81.057	21	50
	Shrubs - Herbs	57.527	0	53.475	63.274	67.697	71.976	75.844	80.850	87.093	24	
CAI_AM	Herbs - Shrubs	86.694	55	73.379	78.741	83.589	86.140	88.437	89.745	91.541	13	0
	Shrubs - Herbs	86.107	60	51.167	67.717	79.716	84.768	87.921	91.363	96.242	28	
PROX_MN	Herbs - Shrubs	259.055	70	6.814	28.778	67.451	179.567	290.455	475.172	682.770	249	50
	Shrubs - Herbs	1.034	0	1.385	5.608	33.458	166.586	605.412	925.949	1543.333	552	
PROX_AM	Herbs - Shrubs	224.706	83	4.139	17.780	78.586	144.562	204.550	262.254	469.554	169	67
	Shrubs - Herbs	0.701	0	2.133	7.674	36.425	93.700	162.382	381.242	1646.168	399	
CWED	Herbs - Shrubs	0.538	99	0.116	0.219	0.286	0.353	0.429	0.496	0.572	78	98
	Shrubs - Herbs	0.079	0	0.064	0.122	0.184	0.268	0.339	0.428	0.500	114	
TECI	Herbs - Shrubs	24.544	97	14.987	16.348	18.644	20.364	21.946	23.805	25.493	37	81
	Shrubs - Herbs	23.492	94	11.536	15.766	17.971	19.331	20.820	24.076	30.100	43	
CLUMPY	Herbs - Shrubs	0.933	61	0.850	0.880	0.899	0.926	0.936	0.940	0.943	6	43
	Shrubs - Herbs	0.939	97	0.755	0.843	0.878	0.901	0.922	0.935	0.947	10	
IJI	Herbs - Shrubs	72.855	97	53.730	57.227	62.866	66.259	69.060	71.854	76.664	22	49
	Shrubs - Herbs	68.756	77	52.398	60.638	64.390	66.326	68.269	72.697	79.223	18	

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

<i>Seral-Stage Departure Index</i>	61
<i>Class Configuration Departure Index</i>	55
<i>Cover Type Departure Index</i>	58

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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.