Table. Range of variation in landscape structure for Ponderosa Pine-Oak Forest (67,933 ha) under the simulated HRV disturbance scenario on the 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] Metric Value	Current Landscape[1] Percentile of HRV	Percentiles of Simulated Distribution 0	5	25	50	75	95	100	CV[2]	HRV Departure Index[3]
Seral Stage Composition[4]												
PLAND	Stand Initiation	0.681	75	0.348	0.418	0.501	0.570	0.681	0.900	1.087	85	80
	Stem Exclusion	5.405	100	0.531	0.565	0.649	0.718	0.797	0.984	1.120	58	
	Understory Reinitiation	1.885	100	0.387	0.470	0.526	0.585	0.673	0.746	1.004	47	
	Shifting Mosaic	0.044	0	0.258	0.546	0.948	1.248	1.518	2.144	2.593	128	
	Fire Maintain Open Canopy	0.000	0	3.122	3.862	4.515	4.811	5.175	5.642	6.182	37	
Class Configuration[5]												
PD	Stand Initiation	0.032	0	0.846	1.073	1.271	1.421	1.638	1.980	2.317	64	100
	Stem Exclusion	0.096	0	0.994	1.428	1.617	1.724	1.884	2.133	2.379	41	
	Understory Reinitiation	0.044	0	0.419	0.675	1.482	1.615	1.760	1.922	2.136	77	
	Shifting Mosaic	0.001	0	0.174	0.323	0.478	0.592	0.702	0.853	0.973	89	
	Fire Maintain Open Canopy	0.000	0	0.463	0.563	0.629	0.680	0.737	0.821	0.913	38	
ED	Stand Initiation	0.713	0	2.658	3.312	3.961	4.510	5.255	6.925	8.133	80	84
	Stem Exclusion	4.997	20	3.982	4.566	5.118	5.559	6.122	7.478	8.538	52	
	Understory Reinitiation	1.920	0	2.169	3.015	4.213	4.743	5.301	5.842	6.495	60	
	Shifting Mosaic	0.054	0	1.018	2.304	3.793	4.831	5.874	8.004	9.700	118	
	Fire Maintain Open Canopy	0.000	0	9.656	10.659	12.065	12.915	13.683	14.868	15.791	33	
AREA_MN	Stand Initiation	21.363	100	0.345	0.363	0.383	0.402	0.429	0.468	0.551	26	100
	Stem Exclusion	56.489	100	0.350	0.362	0.380	0.408	0.459	0.545	0.702	45	
	Understory Reinitiation	43.311	100	0.307	0.318	0.331	0.360	0.414	0.797	1.772	133	
	Shifting Mosaic	52.839	100	1.152	1.489	1.818	2.039	2.343	2.959	3.672	72	
	Fire Maintain Open Canopy	0.000	0	4.060	5.267	6.190	6.991	7.915	9.869	12.102	66	
AREA_AM	Stand Initiation	632.838	100	2.242	2.610	3.126	3.521	4.039	5.408	50.715	79	80
	Stem Exclusion	1229.465	100	2.227	2.542	2.971	3.403	4.283	17.592	58.282	442	
	Understory Reinitiation	496.270	100	1.749	1.973	2.298	2.777	4.089	29.330	105.656	985	
	Shifting Mosaic	97.321	74	18.937	30.494	50.658	67.499	100.465	168.548	471.697	205	
	Fire Maintain Open Canopy	0.000	0	141.201	284.792	408.408	500.610	607.222	791.480	990.973	101	
GYRATE_AM	Stand Initiation	1037.277	100	62.782	67.832	74.736	78.009	82.481	94.295	191.568	34	88

	Stem Exclusion	1330.241	100	65.040	68.341	72.574	77.887	86.170	147.730	253.797	102	
	Understory Reinitiation	931.831	100	56.639	59.383	63.182	68.614	81.816	201.482	492.376	207	
	Shifting Mosaic	481.855	85	209.964	259.553	319.973	368.247	436.585	562.132	967.124	82	
	Fire Maintain Open Canopy	0.000	0	502.971	700.734	818.309	909.104	993.158	1103.255	1219.343	44	
SHAPE_MN	Stand Initiation	1.534	100	1.202	1.214	1.227	1.238	1.250	1.268	1.288	4	100
	Stem Exclusion	1.928	100	1.211	1.218	1.229	1.242	1.257	1.273	1.289	4	
	Understory Reinitiation	1.861	100	1.189	1.197	1.208	1.220	1.239	1.262	1.344	5	
	Shifting Mosaic	2.061	100	1.253	1.321	1.361	1.381	1.394	1.420	1.438	7	
	Fire Maintain Open Canopy			1.502	1.521	1.548	1.569	1.589	1.622	1.673	6	
SHAPE_AM	Stand Initiation	3.273	100	1.867	1.961	2.054	2.121	2.189	2.290	2.863	16	95
	Stem Exclusion	4.391	100	1.907	1.972	2.041	2.128	2.258	2.605	3.349	30	
	Understory Reinitiation	3.232	95	1.808	1.844	1.895	1.981	2.141	3.383	5.931	78	
	Shifting Mosaic	3.001	0	3.064	3.743	4.420	4.924	5.509	6.757	12.107	61	
	Fire Maintain Open Canopy			5.470	6.814	8.465	9.340	10.211	11.468	12.659	50	
CPLAND	Stand Initiation	0.597	100	0.032	0.036	0.043	0.052	0.066	0.099	0.149	121	100
	Stem Exclusion	4.705	100	0.461	0.488	0.559	0.621	0.696	0.857	0.968	59	
	Understory Reinitiation	1.514	100	0.217	0.268	0.325	0.357	0.430	0.492	0.581	63	
	Shifting Mosaic	0.039	0	0.148	0.299	0.538	0.737	0.905	1.396	1.739	149	
	Fire Maintain Open Canopy	0.000	0	2.222	2.607	2.998	3.267	3.544	3.890	4.207	39	
CORE_MN	Stand Initiation	18.738	100	0.026	0.028	0.033	0.036	0.042	0.059	0.107	85	100
	Stem Exclusion	49.175	100	0.302	0.311	0.329	0.354	0.399	0.475	0.611	46	
	Understory Reinitiation	34.776	100	0.163	0.179	0.205	0.228	0.269	0.465	1.026	126	
	Shifting Mosaic	46.714	100	0.508	0.791	1.017	1.228	1.436	1.928	2.399	93	
	Fire Maintain Open Canopy	0.000	0	2.889	3.428	4.143	4.719	5.387	6.867	8.501	73	
CORE_AM	Stand Initiation	589.348	100	0.370	0.486	0.628	0.756	0.948	2.033	38.785	204	87
	Stem Exclusion	1081.469	100	2.007	2.337	2.745	3.138	3.964	16.511	55.781	452	
	Understory Reinitiation	430.403	100	1.123	1.393	1.610	2.041	3.047	18.920	61.388	859	
	Shifting Mosaic	85.115	83	10.015	20.068	33.437	47.946	73.196	129.065	320.324	227	
	Fire Maintain Open Canopy	0.000	0	111.523	210.154	292.041	368.677	444.216	575.260	713.479	99	
CAI_MN	Stand Initiation	58.839	100	1.223	1.328	1.486	1.636	1.886	2.767	5.071	88	93
	Stem Exclusion	72.475	0	76.865	78.136	79.167	79.711	80.211	80.885	81.386	3	
	Understory Reinitiation	58.247	92	35.052	42.965	49.693	53.555	55.991	58.950	61.582	30	
	Shifting Mosaic	78.009	100	22.491	26.239	30.816	33.870	37.006	41.903	45.200	46	
	Fire Maintain Open Canopy	0.000	0	26.168	30.942	36.641	40.241	43.315	47.301	52.768	41	

CAI_AM	Stand Initiation	87.714	100	7.015	7.704	8.494	9.052	9.836	12.691	19.613	55	82
	Stem Exclusion	87.051	78	84.666	85.472	86.158	86.607	87.017	87.637	89.040	2	
	Understory Reinitiation	80.295	100	50.128	53.873	59.351	62.902	65.188	68.175	71.102	23	
	Shifting Mosaic	88.408	100	43.647	49.688	55.541	59.724	63.187	68.019	72.662	31	
	Fire Maintain Open Canopy	0.000	0	59.188	62.267	66.344	68.221	69.500	70.916	73.164	13	
PROX_MN	Stand Initiation	15.770	100	1.572	1.889	2.332	2.783	3.490	4.712	6.334	101	100
	Stem Exclusion	302.555	100	2.066	2.335	2.756	3.266	4.086	6.001	12.285	112	
	Understory Reinitiation	80.469	100	1.648	1.897	2.192	2.662	3.274	10.216	82.729	313	
	Shifting Mosaic	0.564	0	16.307	30.702	47.851	63.815	87.338	145.673	515.408	180	
	Fire Maintain Open Canopy	0.000	0	182.660	320.028	465.380	591.209	729.896	966.664	1197.014	109	
PROX_AM	Stand Initiation	38.264	100	1.926	2.459	3.191	3.911	5.081	7.012	10.282	116	100
	Stem Exclusion	752.177	100	2.545	3.193	3.768	4.683	6.180	12.724	35.807	204	
	Understory Reinitiation	253.890	100	2.252	2.513	2.959	3.725	4.958	28.070	190.823	686	
	Shifting Mosaic	1.335	0	18.042	41.724	73.524	107.052	161.964	298.984	871.238	240	
	Fire Maintain Open Canopy	0.000	0	140.339	347.646	583.745	850.448	1182.696	1567.610	1793.955	143	
CWED	Stand Initiation	0.199	0	0.990	1.235	1.465	1.665	1.934	2.547	2.988	79	85
	Stem Exclusion	1.438	86	0.868	0.974	1.093	1.187	1.306	1.598	1.829	53	
	Understory Reinitiation	0.636	96	0.311	0.375	0.436	0.486	0.531	0.612	0.966	49	
	Shifting Mosaic	0.011	0	0.245	0.524	0.837	1.088	1.355	1.804	2.177	118	
	Fire Maintain Open Canopy	0.000	0	1.975	2.460	2.825	3.119	3.359	3.771	4.189	42	
TECI	Stand Initiation	27.435	0	36.073	36.432	36.733	36.889	37.035	37.215	37.544	2	99
	Stem Exclusion	28.332	100	21.168	21.227	21.290	21.329	21.380	21.464	21.748	1	
	Understory Reinitiation	32.691	100	7.984	8.489	9.282	9.948	10.826	18.066	26.074	96	
	Shifting Mosaic	19.382	2	18.057	19.946	21.355	22.459	23.818	26.108	29.190	27	
	Fire Maintain Open Canopy			19.477	21.476	22.647	23.935	25.109	27.060	30.447	23	
CLUMPY	Stand Initiation	0.936	100	0.477	0.487	0.497	0.504	0.515	0.535	0.583	10	100
	Stem Exclusion	0.939	100	0.477	0.485	0.494	0.505	0.522	0.577	0.642	18	
	Understory Reinitiation	0.936	100	0.454	0.461	0.471	0.485	0.512	0.656	0.755	40	
	Shifting Mosaic	0.934	100	0.684	0.717	0.737	0.750	0.765	0.793	0.824	10	
	Fire Maintain Open Canopy			0.788	0.800	0.815	0.823	0.832	0.848	0.880	6	
IJI	Stand Initiation	71.798	100	31.684	35.081	38.161	39.959	41.534	43.055	44.340	20	94
	Stem Exclusion	72.013	100	32.940	36.150	39.129	40.850	41.889	43.412	46.522	18	
	Understory Reinitiation	75.060	100	33.562	36.781	39.740	41.747	43.277	51.326	59.990	35	

Shifting Mosaic	62.906	94	53.861	57.075	58.628	59.726	61.052	63.116	66.150	10
Fire Maintain Open Canopy			54.976	56.297	57.521	58.628	59.946	61.979	64.736	10

Summary Indices[6]:	
Seral-Stage Departure Index	80
Class Configuration Departure Index	94
Cover Type Departure Index	87

[1]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.

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

[3]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 percentile range of variation, where a 0 represents no departure (i.e., within the 25-75 percentiles of variation) and 100 represents complete departure (i.e., outside the 0-100 percentiles of variation).

[4]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.

[5]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.

[6]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.