Table. Range of variation in landscape structure for Ponderosa Pine-Oak-Aspen Forest 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] 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	0.010	0	0.020	0.036	0.061	0.091	0.127	0.208	0.300	190	84
	Stem Exclusion	0.308	80	0.126	0.160	0.202	0.240	0.282	0.381	0.422	92	
	Understory Reinitiation	2.948	100	0.158	0.226	0.312	0.366	0.414	0.490	0.717	72	
	Shifting Mosaic	0.022	0	0.104	0.290	0.539	0.751	0.949	1.243	1.578	127	
	Fire Maintained Open Canopy	0.000	0	0.948	1.265	1.604	1.797	2.044	2.380	2.738	62	
Class Configuration[5]												
PD	Stand Initiation	0.000	0	0.045	0.117	0.204	0.290	0.388	0.537	0.735	145	100
	Stem Exclusion	0.014	0	0.370	0.475	0.582	0.664	0.760	0.894	0.991	63	
	Understory Reinitiation	0.147	0	0.171	0.311	0.764	0.879	0.969	1.087	1.173	88	
	Shifting Mosaic	0.002	0	0.069	0.184	0.300	0.397	0.458	0.564	0.664	96	
	Fire Maintained Open Canopy	0.000	0	0.245	0.287	0.360	0.389	0.418	0.474	0.548	48	
ED	Stand Initiation	0.023	0	0.145	0.296	0.523	0.752	1.056	1.590	2.291	172	100
	Stem Exclusion	0.453	0	1.079	1.302	1.642	1.901	2.256	2.861	3.177	82	
	Understory Reinitiation	4.422	100	0.818	1.319	2.319	2.735	3.078	3.568	4.120	82	
	Shifting Mosaic	0.047	0	0.402	1.130	2.139	3.029	3.670	4.691	5.633	118	
	Fire Maintained Open Canopy	0.000	0	3.194	3.918	4.766	5.312	5.903	6.613	7.188	51	
AREA_MN	Stand Initiation	27.625	100	0.214	0.250	0.293	0.327	0.359	0.416	0.533	51	100
	Stem Exclusion	22.280	100	0.286	0.307	0.337	0.363	0.397	0.444	0.523	38	
	Understory Reinitiation	20.115	100	0.319	0.358	0.393	0.420	0.453	0.826	3.137	112	
	Shifting Mosaic	12.388	100	0.752	1.347	1.637	1.905	2.185	2.977	3.962	86	
	Fire Maintained Open Canopy	0.000	0	2.764	3.464	4.004	4.529	5.321	7.049	10.927	79	
AREA_AM	Stand Initiation	27.625	100	0.624	1.062	1.480	1.969	2.555	4.218	6.863	160	80
	Stem Exclusion	72.663	100	1.182	1.528	2.009	2.444	3.054	4.186	10.958	109	
	Understory Reinitiation	66.252	100	1.757	2.098	2.637	3.117	3.861	15.829	46.490	441	
	Shifting Mosaic	18.164	42	7.585	12.213	16.052	18.958	22.964	32.458	52.546	107	
	Fire Maintained Open Canopy	0.000	0	21.218	28.048	33.562	38.786	44.321	52.163	60.777	62	
GYRATE_AM	Stand Initiation	360.982	100	35.174	43.796	51.430	58.926	66.373	83.054	107.733	67	82

	Stem Exclusion	429.263	100	46.934	52.061	59.681	65.811	72.426	81.023	120.524	44	
	Understory Reinitiation	385.416	100	55.711	61.475	69.021	74.946	81.646	172.642	337.333	148	
	Shifting Mosaic	226.827	78	129.352	160.890	186.049	204.710	223.449	257.172	308.822	47	
	Fire Maintained Open Canopy	0.000	0	210.540	244.456	273.985	292.667	310.858	341.694	362.190	33	
SHAPE_MN	Stand Initiation	2.977	100	1.123	1.151	1.169	1.185	1.201	1.223	1.259	6	100
	Stem Exclusion	1.798	100	1.165	1.179	1.193	1.205	1.219	1.241	1.269	5	
	Understory Reinitiation	1.812	100	1.189	1.199	1.213	1.224	1.237	1.254	1.342	5	
	Shifting Mosaic	1.876	100	1.178	1.302	1.371	1.401	1.424	1.465	1.536	12	
	Fire Maintained Open Canopy			1.468	1.527	1.560	1.587	1.624	1.676	1.745	9	
SHAPE_AM	Stand Initiation	2.977	100	1.456	1.530	1.648	1.741	1.867	2.052	2.709	30	91
	Stem Exclusion	2.342	100	1.596	1.653	1.775	1.860	1.963	2.057	2.538	22	
	Understory Reinitiation	2.161	92	1.752	1.796	1.905	1.991	2.067	2.237	2.553	22	
	Shifting Mosaic	2.044	0	2.059	2.475	2.758	2.918	3.065	3.265	3.646	27	
	Fire Maintained Open Canopy			2.435	2.736	3.048	3.229	3.359	3.552	3.813	25	
CPLAND	Stand Initiation	0.008	90	0.000	0.001	0.002	0.003	0.005	0.010	0.024	269	92
	Stem Exclusion	0.232	100	0.015	0.022	0.028	0.034	0.044	0.061	0.083	115	
	Understory Reinitiation	2.176	100	0.078	0.123	0.169	0.201	0.235	0.288	0.472	82	
	Shifting Mosaic	0.013	0	0.051	0.147	0.287	0.410	0.518	0.724	0.911	141	
	Fire Maintained Open Canopy	0.000	0	0.553	0.744	0.926	1.063	1.190	1.417	1.693	63	
CORE_MN	Stand Initiation	21.188	100	0.001	0.004	0.008	0.012	0.016	0.027	0.058	186	100
	Stem Exclusion	16.814	100	0.029	0.037	0.045	0.053	0.062	0.077	0.104	76	
	Understory Reinitiation	14.850	100	0.156	0.186	0.213	0.235	0.264	0.476	2.065	123	
	Shifting Mosaic	7.513	100	0.371	0.670	0.870	1.036	1.204	1.677	2.373	97	
	Fire Maintained Open Canopy	0.000	0	1.613	1.915	2.326	2.707	3.130	4.376	6.757	91	
CORE_AM	Stand Initiation	21.188	100	0.007	0.042	0.101	0.178	0.302	0.711	1.448	376	80
	Stem Exclusion	59.748	100	0.250	0.371	0.544	0.758	0.998	1.574	4.664	159	
	Understory Reinitiation	52.070	100	0.993	1.316	1.664	2.072	2.572	10.214	32.752	429	
	Shifting Mosaic	11.966	50	4.222	6.894	9.829	11.947	14.644	21.084	36.558	119	
	Fire Maintained Open Canopy	0.000	0	13.614	18.291	22.096	25.850	29.379	34.986	40.695	65	
CAI_MN	Stand Initiation	76.697	100	0.219	0.385	0.572	0.730	0.925	1.379	1.788	136	100
	Stem Exclusion	59.153	100	1.875	2.078	2.338	2.571	2.853	3.334	3.775	49	
	Understory Reinitiation	64.475	100	33.479	39.360	43.314	46.083	48.500	50.804	52.961	25	
	Shifting Mosaic	56.584	100	21.005	26.286	30.900	33.400	36.228	40.117	46.700	41	
	Fire Maintained Open Canopy	0.000	0	24.569	29.079	33.903	36.977	40.072	43.522	46.435	39	

CAI_AM	Stand Initiation	76.697	100	0.530	1.660	2.769	3.671	4.662	7.001	14.571	146	95
	Stem Exclusion	75.466	100	9.859	11.699	13.456	14.704	15.818	17.709	21.616	41	
	Understory Reinitiation	73.824	100	44.571	49.087	53.730	56.380	58.798	62.247	67.778	23	
	Shifting Mosaic	60.646	94	39.678	46.919	51.623	54.179	57.497	60.911	64.809	26	
	Fire Maintained Open Canopy	0.000	0	49.164	53.389	56.988	59.200	60.902	63.190	66.202	17	
PROX_MN	Stand Initiation	0.000	0	0.223	0.431	0.644	0.898	1.161	1.693	2.518	140	81
	Stem Exclusion	1.220	24	0.669	0.979	1.231	1.518	1.931	2.630	3.534	109	
	Understory Reinitiation	24.791	100	1.240	1.575	2.056	2.389	2.819	3.923	18.347	98	
	Shifting Mosaic	0.000	0	3.331	9.884	14.418	17.464	20.266	26.164	35.472	93	
	Fire Maintained Open Canopy	0.000	0	17.461	25.226	31.646	37.525	43.263	53.157	61.067	74	
PROX_AM	Stand Initiation	0.000	0	0.175	0.405	0.735	1.063	1.517	2.690	4.509	215	84
	Stem Exclusion	1.413	20	0.636	1.097	1.493	1.930	2.548	3.859	6.491	143	
	Understory Reinitiation	54.039	100	1.142	1.958	2.715	3.238	3.995	6.657	30.922	145	
	Shifting Mosaic	0.000	0	2.856	8.185	12.101	14.844	18.771	27.618	62.388	131	
	Fire Maintained Open Canopy	0.000	0	10.128	17.306	24.503	31.729	37.180	50.864	62.776	106	
CWED	Stand Initiation	0.006	0	0.066	0.131	0.233	0.331	0.478	0.719	1.037	177	100
	Stem Exclusion	0.138	0	0.328	0.393	0.498	0.575	0.683	0.872	0.968	83	
	Understory Reinitiation	1.340	100	0.114	0.177	0.249	0.291	0.328	0.383	0.471	71	
	Shifting Mosaic	0.017	0	0.091	0.255	0.460	0.647	0.803	1.027	1.349	119	
	Fire Maintained Open Canopy	0.000	0	0.646	0.865	1.064	1.246	1.455	1.690	2.039	66	
TECI	Stand Initiation	28.203	0	42.852	43.832	44.402	44.755	45.170	45.766	46.200	4	89
	Stem Exclusion	30.466	89	29.707	29.942	30.160	30.287	30.371	30.523	30.661	2	
	Understory Reinitiation	29.966	100	8.531	9.286	9.975	10.656	11.710	15.597	25.895	59	
	Shifting Mosaic	36.410	100	16.425	18.128	19.934	21.185	22.810	26.708	28.964	40	
	Fire Maintained Open Canopy			19.041	20.223	21.752	23.338	25.043	27.029	30.988	29	
CLUMPY	Stand Initiation	0.899	100	0.373	0.431	0.469	0.490	0.511	0.549	0.641	24	100
	Stem Exclusion	0.915	100	0.453	0.469	0.491	0.507	0.520	0.541	0.572	14	
	Understory Reinitiation	0.905	100	0.472	0.501	0.518	0.529	0.545	0.721	0.843	42	
	Shifting Mosaic	0.894	100	0.704	0.721	0.740	0.755	0.767	0.799	0.841	10	
	Fire Maintained Open Canopy			0.766	0.787	0.802	0.813	0.821	0.852	0.871	8	
IJI	Stand Initiation	39.147	1	32.841	41.907	45.895	47.614	48.803	50.438	52.270	18	99
	Stem Exclusion	65.310	100	36.058	41.355	44.863	46.690	47.925	49.183	50.651	17	
	Understory Reinitiation	71.181	100	39.011	43.845	47.442	48.636	49.963	57.051	69.118	27	

Shifting Mosaic	53.375	0	56.881	61.469	63.604	65.068	67.007	70.223	73.073	13	
Fire Maintained Open Canopy			61.671	64.369	66.424	67.706	69.164	73.058	75.618	13	

Summary Indices[6]:	
Seral-Stage Departure Index	84
Class Configuration Departure Index	93
Cover Type Departure Index	89

[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 95th 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 25-75th 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).

[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.