Table. Range of variation in landscape structure under the simulated HRV disturbance scenario on the Columbine 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).

	Current Landscape		Percentiles of Simulated Distribution								HRV
Landscape Metric	Metric Value	Percentile of HRV	0	5	25	50	75	95	100	CV[1]	Departure Index[2]
Landscape Composition[3]											
PJ: Herb Dominated	0.015	54	0.000	0.000	0.002	0.012	0.035	0.151	0.288	1214	0
PJ: Herbs - Shrubs	0.153	72	0.006	0.022	0.047	0.087	0.169	0.253	0.298	266	0
PJ: Shrubs - Trees	0.036	3	0.011	0.041	0.082	0.145	0.214	0.268	0.303	157	87
PJ: Tree Dominated	0.129	95	0.000	0.003	0.009	0.026	0.065	0.131	0.169	496	78
PJS: Herb Dominated	0.053	55	0.000	0.000	0.008	0.042	0.151	0.504	0.854	1202	0
PJS: Herbs - Shrubs	0.346	44	0.031	0.077	0.210	0.398	0.580	0.875	1.101	201	0
PJS: Shrubs - Trees	0.275	7	0.095	0.234	0.428	0.566	0.791	1.094	1.204	152	72
PJS: Tree Dominated	0.694	99	0.002	0.016	0.047	0.158	0.356	0.536	0.733	330	97
PJOS: Herb Dominated	0.022	44	0.000	0.000	0.005	0.026	0.099	0.702	1.068	2684	0
PJOS: Herbs - Shrubs	0.231	43	0.013	0.047	0.146	0.280	0.610	1.021	1.095	348	0
PJOS: Shrubs - Trees	0.266	29	0.049	0.097	0.236	0.545	0.827	0.995	1.113	165	0
PJOS: Tree Dominated	0.670	100	0.001	0.005	0.019	0.047	0.213	0.489	0.752	1024	98
MTS: Herbs - Shrubs	6.727	99	0.192	0.587	1.553	2.290	3.177	4.954	8.138	191	95
MTS: Early Shrub Dominated	5.109	94	0.379	1.076	1.849	2.661	3.657	5.410	7.937	163	76
MTS: Late Shrub Dominated	0.631	0	3.020	4.486	6.272	7.093	8.009	9.258	10.362	67	100
PPO: Stand Initiation	0.242	13	0.149	0.213	0.272	0.323	0.374	0.527	0.668	97	48
PPO: Stem Exclusion	2.985	100	0.233	0.299	0.360	0.407	0.459	0.570	0.656	67	100
PPO: Understory Reinitiation	1.190	100	0.166	0.235	0.279	0.323	0.370	0.444	0.504	65	100
PPO: Shifting Mosaic	0.000	0	0.046	0.149	0.394	0.721	0.999	1.458	1.981	182	100
PPO: Fire Maintained Open Canopy	0.000	0	1.355	1.842	2.283	2.626	2.979	3.306	3.418	56	100
PPOA: Stand Initiation	0.114	88	0.008	0.023	0.046	0.068	0.091	0.148	0.216	183	50
PPOA: Stem Exclusion	0.155	34	0.085	0.113	0.145	0.170	0.207	0.270	0.337	92	0
PPOA: Understory Reinitiation	2.097	100	0.142	0.175	0.217	0.247	0.288	0.342	0.410	68	100
PPOA: Shifting Mosaic	0.000	0	0.056	0.159	0.335	0.499	0.660	0.917	1.122	152	100
PPOA: Fire Maintained Open Canopy	0.000	0	0.620	0.869	1.158	1.344	1.534	1.773	1.930	67	100
WMC: Stand Initiation	0.757	100	0.068	0.143	0.214	0.283	0.376	0.519	0.644	133	100
WMC: Stem Exclusion	1.905	100	0.421	0.532	0.649	0.724	0.805	0.901	1.055	51	100
WMC: Understory Reinitiation	3.954	100	0.778	0.857	0.949	1.032	1.153	1.310	1.514	44	100
WMC: Shifting Mosaic	0.154	0	0.443	0.704	1.023	1.532	1.923	2.452	3.041	114	100
WMC: Fire Maintained Open Canopy	0.000	0	1.696	2.171	2.761	3.149	3.641	4.044	4.318	59	100
WMCA: Stand Initiation	0.688	98	0.074	0.155	0.239	0.328	0.442	0.607	0.755	138	94
WMCA: Stem Exclusion	0.415	6	0.280	0.405	0.545	0.643	0.739	0.867	1.000	72	78
WMCA: Understory Reinitiation	5.776	100	0.773	0.875	1.014	1.131	1.263	1.411	1.814	47	100

WMCA: Shifting Mosaic	0.002	0	0.509	0.855	1.401	1.860	2.276	2.892	3.494	109	100
WMCA: Fire Maintained Open Canopy	0.000	0	1.362	1.855	2.454	2.876	3.362	3.903	4.180	71	100
CMC: Stand Initiation	0.215	5	0.113	0.219	0.378	0.555	0.819	1.164	1.589	170	82
CMC: Stem Exclusion	0.810	10	0.535	0.736	1.031	1.231	1.398	1.655	1.916	75	58
CMC: Understory Reinitiation	2.640	100	0.347	0.533	0.877	1.060	1.319	1.556	1.791	97	100
CMC: Shifting Mosaic	0.055	0	0.435	0.545	0.651	0.771	0.957	1.177	1.551	82	100
CMCA: Stand Initiation	0.882	52	0.054	0.188	0.454	0.845	1.535	2.810	4.592	310	0
CMCA: Stem Exclusion	0.296	0	0.513	0.947	1.581	2.386	3.084	4.142	4.898	134	100
CMCA: Understory Reinitiation	8.835	100	2.217	2.966	3.797	4.369	5.004	6.033	6.919	70	100
CMCA: Shifting Mosaic	0.043	0	0.338	1.126	1.717	2.010	2.495	3.197	3.952	103	100
ASP: Stand Initiation	0.068	11	0.008	0.045	0.116	0.199	0.359	0.690	0.825	325	55
ASP: Stem Exclusion	0.167	35	0.027	0.065	0.138	0.220	0.357	0.641	0.895	262	0
ASP: Understory Reinitiation	0.647	99	0.052	0.087	0.171	0.249	0.368	0.567	0.683	193	96
ASP: Shifting Mosaic	0.527	38	0.221	0.349	0.452	0.599	0.741	0.890	1.011	90	0
SF: Stand Initiation	1.297	2	1.054	1.554	2.487	3.275	4.792	7.271	9.274	175	92
SF: Stem Exclusion	7.023	93	1.522	2.400	3.496	4.687	5.771	7.414	9.680	107	70
SF: Understory Reinitiation	12.585	100	2.162	2.864	4.020	5.701	7.190	9.741	12.502	121	100
SF: Shifting Mosaic	0.229	0	2.479	3.909	5.130	6.676	8.338	9.792	11.421	88	100
SFA: Stand Initiation	0.201	24	0.008	0.040	0.208	0.480	1.081	2.563	4.535	526	3
SFA: Stem Exclusion	0.672	7	0.210	0.619	1.247	1.999	2.916	4.054	5.237	172	72
SFA: Understory Reinitiation	8.830	100	1.958	2.737	3.663	4.326	5.343	6.127	7.640	78	100
SFA: Shifting Mosaic	0.017	0	1.105	1.364	1.721	2.384	2.829	3.758	4.658	100	100
MS: Herbs - Shrubs	0.645	82	0.178	0.238	0.367	0.533	0.624	0.697	0.744	86	26
MS: Shrubs - Herbs	0.137	18	0.037	0.084	0.157	0.248	0.414	0.543	0.603	185	26
Landscape Configuration[4]											
Patch density	4.130	0	18.819	24.770	30.208	31.648	33.643	36.336	38.896	37	100
Edge density	58.597	0	94.303	105.847	115.596	118.978	123.600	129.750	135.773	20	100
Mean patch size	24.214	100	2.571	2.752	2.972	3.160	3.310	4.037	5.314	41	100
Area-weighted mean patch size	622.953	100	257.137	276.379	313.882	337.059	371.003	424.351	470.339	44	100
Correlation length	1086.502	100	642.594	682.774	721.828	745.384	777.920	819.548	854.357	18	100
Mean shape index	1.652	100	1.297	1.311	1.320	1.326	1.333	1.352	1.401	3	100
Area-weighted mean shape index	3.903	0	3.891	3.980	4.118	4.226	4.351	4.603	4.916	15	98
Mean core area	19.346	100	1.867	2.035	2.196	2.343	2.471	2.971	4.019	40	100
Area-weighted mean core area	538.627	100	217.106	234.445	266.191	285.923	313.808	360.086	398.148	44	100
Mean core area index	37.778	0	37.718	40.648	44.909	47.777	50.823	54.853	58.231	30	100
Area-weighted mean core area index	79.897	100	69.558	72.083	73.437	74.387	75.196	76.256	77.105	6	100
Mean proximity index	103.180	100	42.738	47.516	53.254	57.985	62.893	71.795	91.174	42	100
Area-weighted mean proximity index	326.658	97	160.923	186.156	214.062	240.644	267.631	321.008	461.687	56	87
Contrast-weighted edge density	18.976	0	24.451	26.190	27.608	28.701	29.642	31.180	33.126	17	100
Total edge contrast index	31.626	100	20.730	21.780	22.927	23.741	24.659	26.174	28.344	19	100

Contagion	56.166	100	47.640	48.103	48.639	49.077	49.517	50.135	50.825	4	100
Interspersion & juxtaposition index	70.075	32	65.564	67.783	69.710	70.904	71.639	72.619	74.356	7	0
Simpson's diversity index	0.935	0	0.946	0.950	0.954	0.956	0.957	0.959	0.960	1	100
Simpson's evenness index	0.952	0	0.962	0.966	0.970	0.971	0.973	0.974	0.976	1	100

Summary Indices[5]:	
Landscape Composition Departure Index	69
Landscape Configuration Departure Index	94
Landscape Structure Departure Index	82

[1]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).

[2]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 1 represents complete departure (i.e., outside the 0-100 percentiles of variation).

[3]Landscape composition represents the distribution of area among patch types (in this case, unique combinations of cover type and seral stage). Only dynamic patch types (I.e., those that change in area over time in response to disturbance and succession) are included here; static patch types (i.e., those that we treated as constant over time, such as water, barren, etc.) are excluded since they cannot exhibit any "departure". PJ = pinyon-juniper woodland; PJS = pinyon-juniper sagebrush woodland; PJOS = pinyon-juniper oak-serviceberry woodland; MTS = mountain shrubland; PPO = ponderosa pine oak forest; PPOA = ponderosa pine oak-aspen forest; WMC = warm, dry mixed-conifer forest; WMCA = warm, dry mixed-conifer with aspen forest; CMC = cool, moist mixed-conifer forest; CMCA = cool, moist mixed conifer with aspen forest; ASP = pure aspen forest; SF = spruce-fir forest; SFA = spruce-fir with aspen forest; MS = mesic sagebrush.

[4]Landscape configuration represents the spatial character, distribution, and arrangement of patches (across all patch types). The landscape metrics listed here are described in detail in the FRAGSTATS methods section. Note, Simpson's diversity and evenness indices are actually landscape composition metrics but are included here for organizational purposes.

[5]Landscape composition departure index = mean departure index across cover types; landscape configuration departure index = mean departure index across landscape configuration metrics; landscape structure departure index = mean of the landscape composition and cofiguration indices.