

Table. Range of variation in landscape structure for Spruce-Fir Forest under the simulated HRV disturbance scenario on the Uncompahgre Plateau Landscape, 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		Percentiles of Simulated Distribution							HRV Departure	
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100	CV ²	Index ³
<i>Seral Stage Composition</i> ⁴												
PLAND	Stand Initiation	0.42	82	0.07	0.11	0.18	0.26	0.38	0.61	0.83	190	20
	Stem Exclusion	0.34	44	0.06	0.13	0.24	0.37	0.48	0.61	0.77	132	
	Understory Reinitiation	0.33	55	0.05	0.12	0.22	0.31	0.41	0.55	0.73	137	
	Shifting Mosaic	0.05	12	0.01	0.03	0.08	0.12	0.20	0.27	0.31	203	
<i>Class Configuration</i> ⁵												
PD	Stand Initiation	0.11	92	0.03	0.04	0.05	0.07	0.08	0.12	0.15	117	67
	Stem Exclusion	0.08	43	0.03	0.04	0.07	0.09	0.10	0.12	0.14	96	
	Understory Reinitiation	0.02	0	0.02	0.05	0.07	0.08	0.10	0.12	0.14	86	
	Shifting Mosaic	0.00	0	0.01	0.01	0.02	0.03	0.05	0.07	0.09	167	
ED	Stand Initiation	1.58	85	0.30	0.43	0.69	0.95	1.33	1.95	2.73	160	35
	Stem Exclusion	1.26	46	0.25	0.52	0.92	1.35	1.72	2.14	2.46	120	
	Understory Reinitiation	0.86	19	0.24	0.58	0.95	1.25	1.59	2.00	2.52	114	
	Shifting Mosaic	0.13	5	0.06	0.12	0.33	0.50	0.74	1.02	1.27	180	
AREA_MN	Stand Initiation	3.96	52	2.25	2.64	3.30	3.93	4.85	6.95	9.45	109	50
	Stem Exclusion	4.23	51	1.60	2.60	3.40	4.19	5.08	6.27	7.89	88	
	Understory Reinitiation	19.38	100	1.99	2.31	2.92	3.51	4.36	5.84	6.90	100	
	Shifting Mosaic	13.10	100	1.70	1.98	2.56	3.43	4.43	6.61	12.22	135	
AREA_AM	Stand Initiation	56.24	61	5.98	9.65	15.71	27.52	78.79	219.10	335.53	761	25
	Stem Exclusion	39.73	40	5.48	9.86	18.71	50.94	111.30	285.14	378.18	540	
	Understory Reinitiation	309.87	100	7.09	10.41	15.30	40.37	105.66	232.76	329.37	551	
	Shifting Mosaic	36.37	61	3.33	5.96	9.58	24.33	57.37	190.80	353.36	760	
GYRATE_AM	Stand Initiation	311.47	57	124.52	153.57	199.47	262.12	404.99	684.34	857.80	202	25
	Stem Exclusion	358.76	59	102.35	154.58	224.33	319.03	453.13	709.90	895.03	174	
	Understory Reinitiation	924.62	100	128.30	152.58	201.72	280.97	425.85	647.74	778.73	176	
	Shifting Mosaic	334.35	73	83.78	104.79	157.91	251.21	350.99	603.03	862.21	198	
SHAPE_MN	Stand Initiation	1.92	92	1.58	1.67	1.75	1.81	1.88	1.93	1.98	14	66

	Stem Exclusion	1.94	72	1.59	1.73	1.83	1.90	1.94	1.98	2.13	14	
	Understory Reinitiation	2.47	100	1.65	1.79	1.85	1.90	1.95	2.03	2.12	13	
	Shifting Mosaic	2.43	99	1.62	1.68	1.78	1.84	1.91	2.15	2.47	25	
SHAPE_AM	Stand Initiation	3.49	56	1.96	2.20	2.57	3.17	4.07	6.68	7.66	141	25
	Stem Exclusion	3.64	48	1.98	2.27	3.01	3.75	4.92	7.32	8.50	135	
	Understory Reinitiation	8.49	100	2.23	2.50	2.92	3.63	4.85	6.47	7.99	109	
	Shifting Mosaic	3.00	45	1.93	2.10	2.52	3.17	4.06	6.82	9.13	149	
CPLAND	Stand Initiation	0.21	69	0.03	0.05	0.09	0.14	0.23	0.38	0.64	224	17
	Stem Exclusion	0.29	48	0.05	0.11	0.20	0.30	0.40	0.51	0.63	135	
	Understory Reinitiation	0.21	50	0.02	0.08	0.15	0.21	0.30	0.39	0.55	147	
	Shifting Mosaic	0.03	8	0.01	0.02	0.05	0.09	0.15	0.21	0.25	221	
CORE_MN	Stand Initiation	1.99	41	0.86	1.24	1.67	2.18	3.00	4.45	5.72	147	48
	Stem Exclusion	3.66	57	1.35	2.17	2.93	3.47	4.17	5.14	6.45	86	
	Understory Reinitiation	12.46	100	0.83	1.39	1.98	2.48	3.05	4.12	4.85	110	
	Shifting Mosaic	7.46	98	0.85	1.35	1.82	2.53	3.29	5.18	10.28	151	
CORE_AM	Stand Initiation	35.06	60	2.86	5.76	10.01	18.24	55.34	152.86	253.73	806	23
	Stem Exclusion	33.65	43	4.48	8.61	16.95	40.45	92.84	234.72	318.98	559	
	Understory Reinitiation	194.49	98	3.44	6.95	12.35	28.40	70.38	163.90	246.83	553	
	Shifting Mosaic	18.62	49	1.95	3.44	7.44	19.70	38.42	142.51	282.94	706	
CAI_MN	Stand Initiation	29.89	22	20.64	25.56	30.41	34.91	42.02	56.68	68.03	89	15
	Stem Exclusion	83.02	72	52.99	75.15	79.69	81.47	83.28	84.99	87.50	12	
	Understory Reinitiation	58.20	23	28.53	45.95	58.80	64.01	68.01	73.50	77.25	43	
	Shifting Mosaic	60.11	16	26.76	49.52	63.81	70.25	74.92	79.55	85.11	43	
CAI_AM	Stand Initiation	50.28	25	37.15	43.96	50.26	54.57	60.68	72.47	79.13	52	32
	Stem Exclusion	86.39	80	65.75	78.72	81.87	83.74	85.56	88.61	90.65	12	
	Understory Reinitiation	64.30	18	38.82	55.48	65.61	69.24	72.61	77.45	83.95	32	
	Shifting Mosaic	56.99	5	41.36	56.47	67.54	73.56	78.76	84.12	88.47	38	
PROX_MN	Stand Initiation	10.25	41	2.08	3.71	6.92	13.68	25.57	115.28	176.97	815	13
	Stem Exclusion	14.18	34	2.56	4.67	11.36	21.99	43.80	112.98	209.46	493	
	Understory Reinitiation	31.66	67	0.99	5.17	9.57	20.46	42.31	103.99	149.35	483	
	Shifting Mosaic	3.14	12	0.49	1.24	5.52	13.04	29.06	88.76	132.84	671	
PROX_AM	Stand Initiation	11.79	32	2.39	4.80	9.69	17.41	38.25	232.76	604.77	1310	39

	Stem Exclusion	20.17	32	2.59	6.09	14.79	32.73	81.94	283.98	623.88	849	
	Understory Reinitiation	382.87	99	1.10	7.43	14.77	33.61	90.39	234.81	535.63	677	
	Shifting Mosaic	2.58	11	0.43	1.01	6.79	17.71	44.17	128.01	274.48	717	
CWED	Stand Initiation	0.50	94	0.09	0.13	0.20	0.26	0.35	0.51	0.81	147	23
	Stem Exclusion	0.26	41	0.05	0.10	0.19	0.28	0.37	0.47	0.59	129	
	Understory Reinitiation	0.22	58	0.06	0.09	0.16	0.21	0.25	0.35	0.42	130	
	Shifting Mosaic	0.04	21	0.01	0.02	0.04	0.06	0.09	0.13	0.19	188	
TECI	Stand Initiation	31.65	95	17.63	21.75	26.50	28.74	30.31	31.62	33.49	34	67
	Stem Exclusion	20.26	23	16.14	18.61	20.33	21.48	22.68	24.16	26.65	26	
	Understory Reinitiation	25.36	97	7.89	11.31	14.66	16.86	19.18	23.51	32.73	72	
	Shifting Mosaic	28.96	98	5.07	6.96	10.00	13.15	16.67	23.32	33.66	124	
CLUMPY	Stand Initiation	0.77	40	0.71	0.74	0.76	0.78	0.79	0.82	0.84	10	50
	Stem Exclusion	0.77	49	0.62	0.72	0.75	0.77	0.79	0.81	0.83	12	
	Understory Reinitiation	0.84	100	0.65	0.71	0.73	0.75	0.78	0.80	0.81	13	
	Shifting Mosaic	0.85	100	0.67	0.70	0.73	0.75	0.78	0.81	0.82	14	
IJI	Stand Initiation	51.30	13	40.95	47.12	53.82	58.52	62.16	66.65	72.67	33	61
	Stem Exclusion	43.73	4	34.02	44.37	50.12	53.57	57.70	63.06	70.32	35	
	Understory Reinitiation	44.23	21	34.52	40.23	44.71	47.80	51.80	55.87	59.86	33	
	Shifting Mosaic	56.34	99	29.07	33.68	40.87	44.50	47.77	53.50	56.67	45	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	20
<i>Class Configuration Departure Index</i>	38
<i>Cover Type Departure Index</i>	29

¹Some 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.

²CV = 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).

³HRV 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).

⁴Landscape 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.

⁵Landscape 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.

⁶Seral-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.