



Addendum: DOT-VNTSC-NPS-06-06

A request has been made by the NPS for additional modeling of 6 new alternatives. The following excerpt is from the original NPS request:

The underlying travel factors have not changed from previous modeling. The X, Y, and Z options use Alternative 1e factors. The X1, Y1, and Z1 options use Alternative 1a factors. The number of snowmobiles and/or snowcoaches and their allocation by entrance is changed from alternatives 1a and 1e. For Yellowstone, the group size limits are 8 with 1 guide and 17 with 2 guides for all six options. For Grand Teton, Options X, Y, and Z consider group sizes of 6 on the CDST. All options have the same BAT requirements for snowmobiles and coaches.

Road Closures: The options include leaving the Sylvan Pass road open or closed and the Madison to Norris road open or closed. For simplicity of modeling, we have assumed either both roads would be open or both roads would be closed. If any of these options are part of a final decision, the decision could have one road open and the other closed. We assumed the modeling to support such a decision could be interpolated from the results from these options and previous modeling work.

This addendum includes updated graphics for Figures 3 and 4, Figures 32 and 34 as well as additions to the data in Tables 36 – 39 and Tables 43 – 54 and Table 101. Audibility contours for each unique hour are also included in this addendum.



Contents in Executive Summary

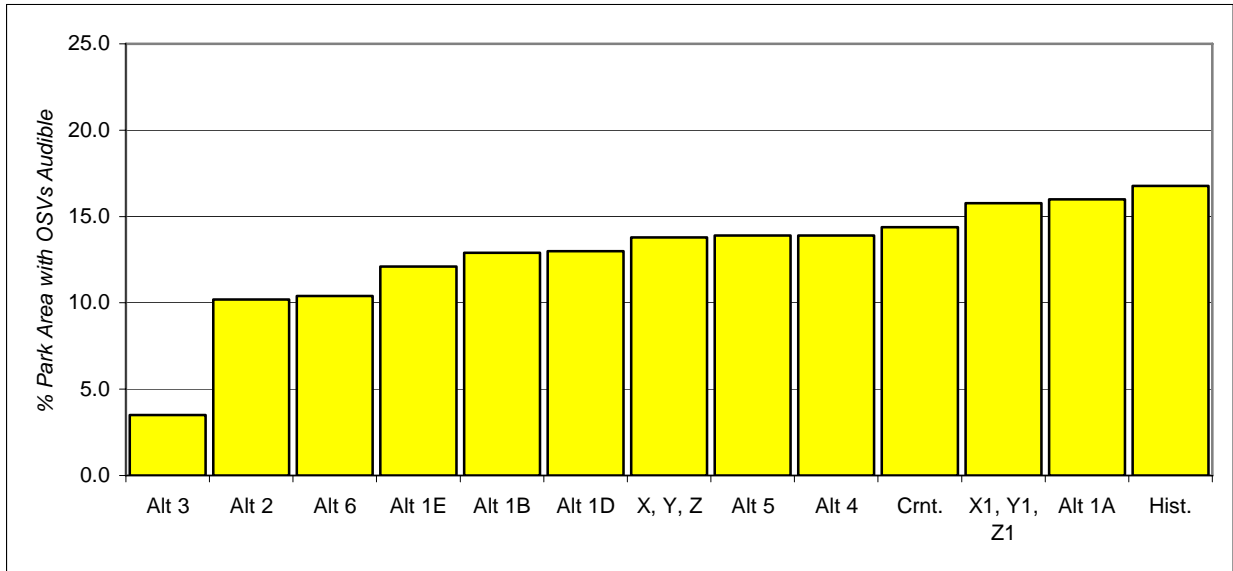


Figure 3: Percent of Yellowstone with any Level of OSV Audibility (updated 06 June 07)

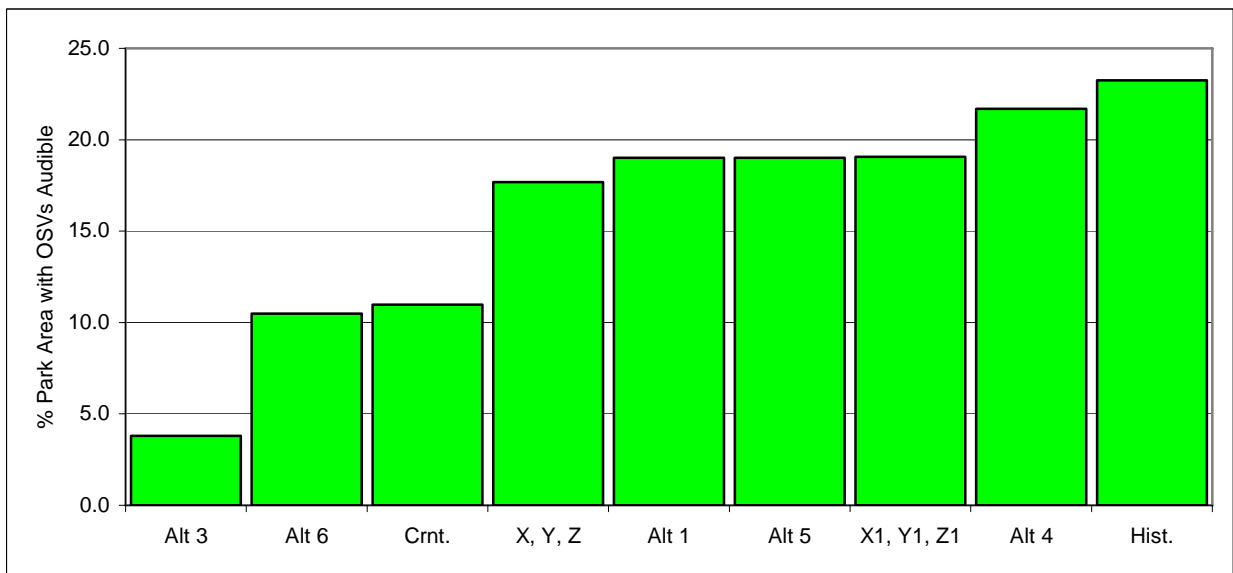


Figure 4: Percent of Grand Teton with any Level of OSV Audibility (updated 06 June 07)



Content in Results and Analysis

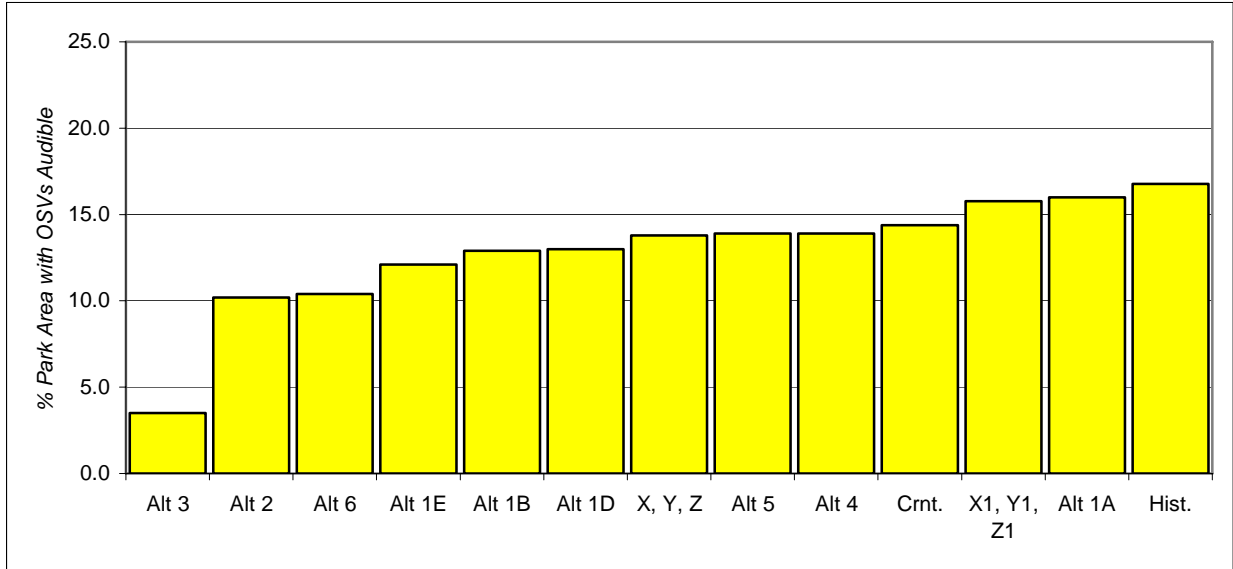


Figure 32: Percent of Yellowstone with any Level of OSV Audibility (updated 06 June 07)

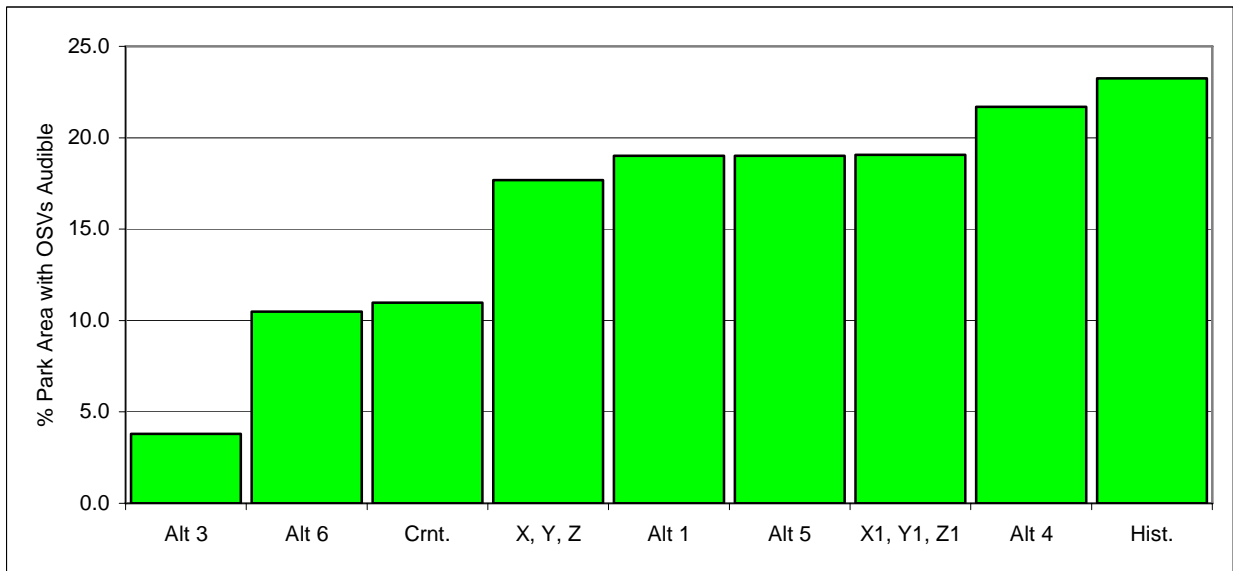


Figure 34: Percent of Grand Teton with any Level of OSV Audibility (updated 06 June 07)



Content in Appendix E

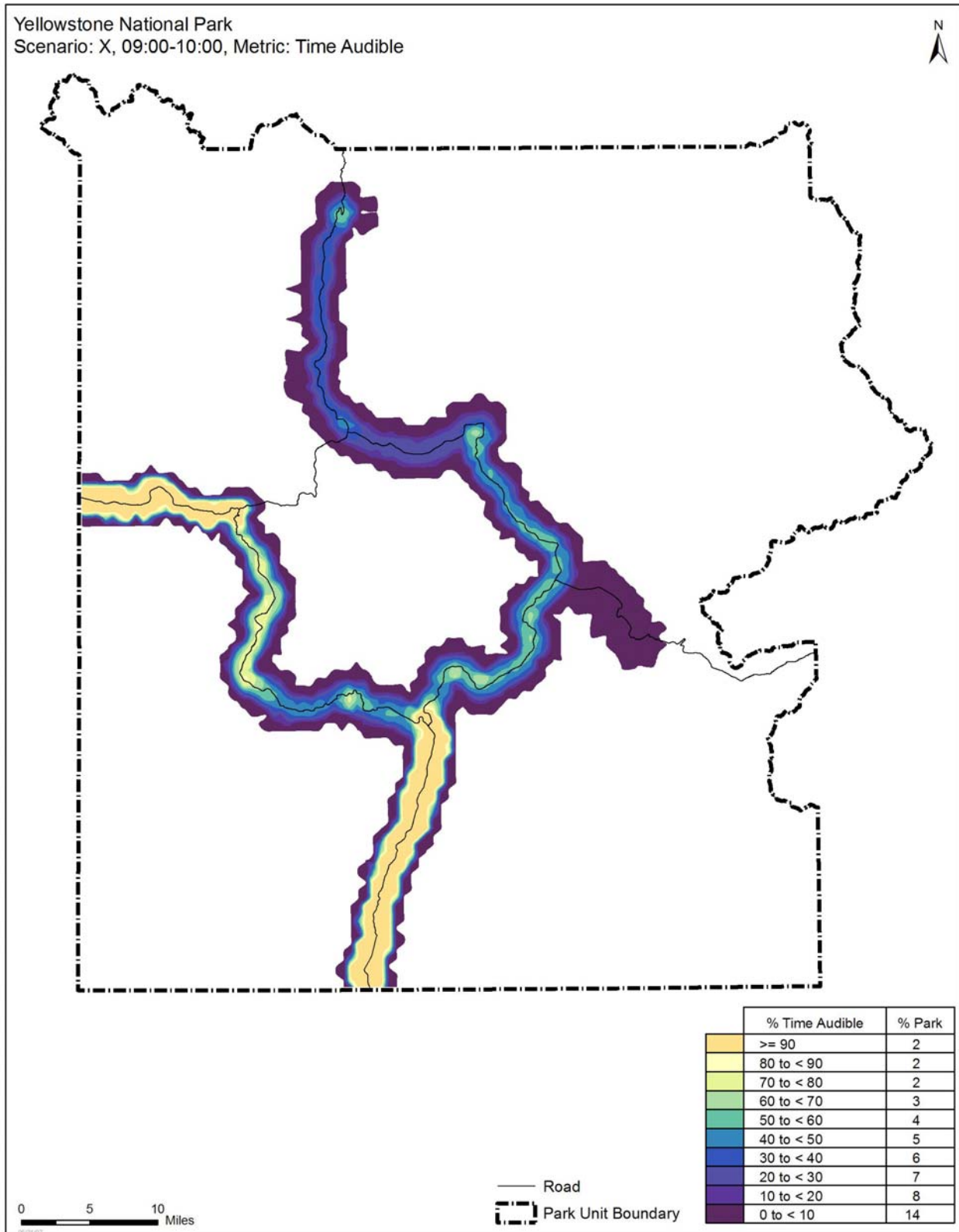


Figure X 09: - Yellowstone – Alternative X, 09:00 to 10:00 and 15:00 to 16:00

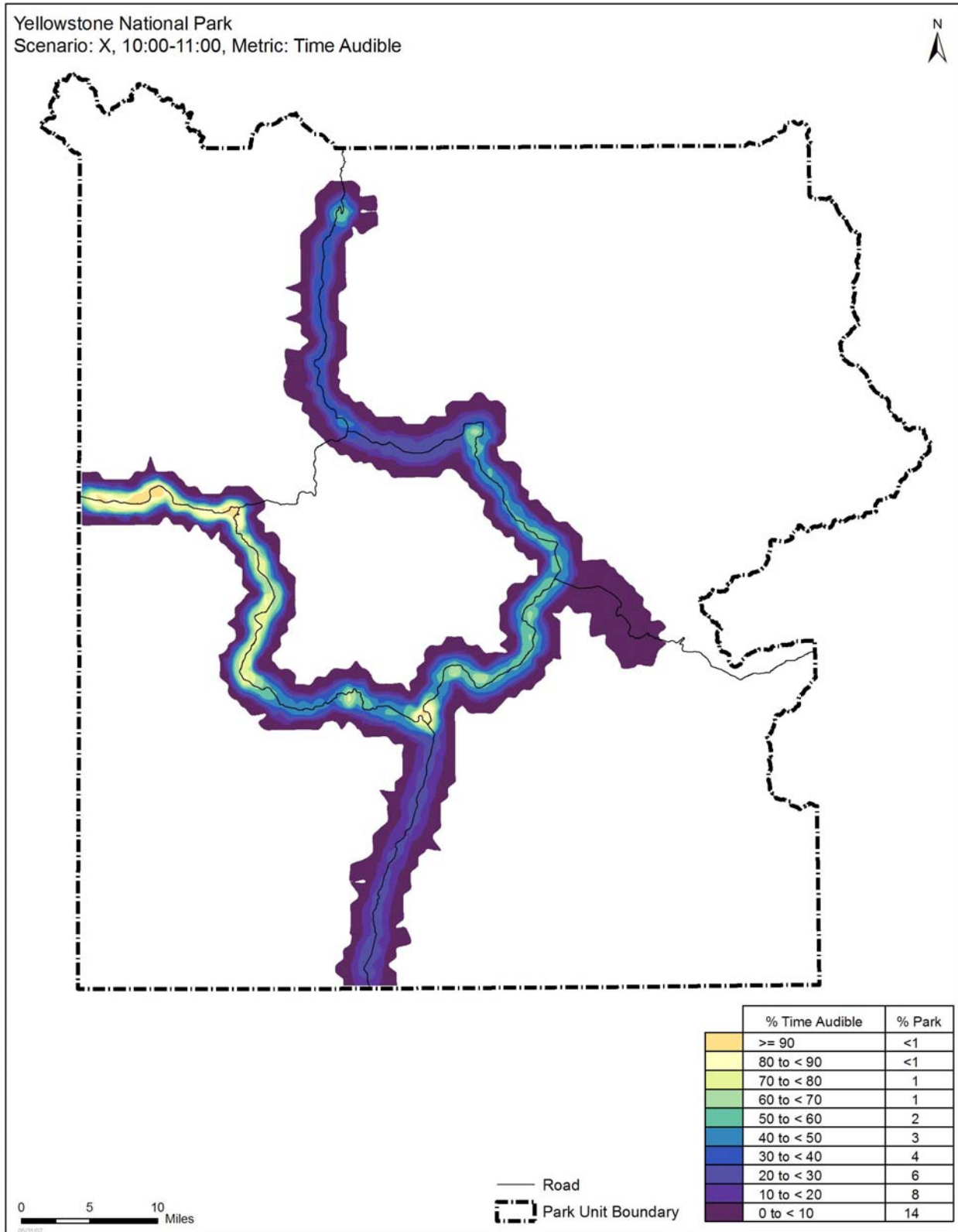


Figure X 10: - Yellowstone – Alternative X, 08:00 to 09:00, 10:00 to 11:00, and 14:00 to 15:00

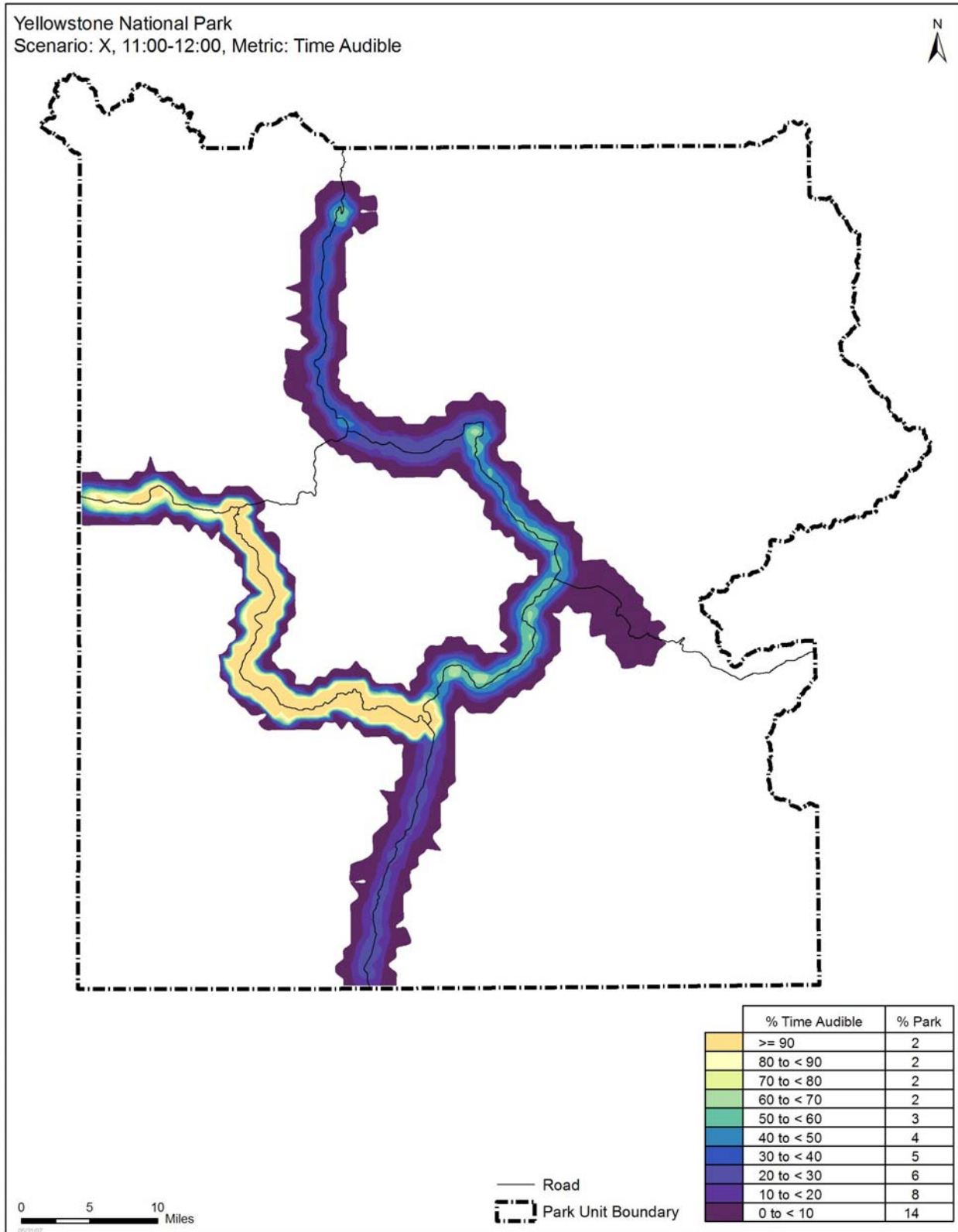


Figure X 11: - Yellowstone – Alternative X, 11:00 to 12:00, 12:00 to 13:00, and 13:00 to 14:00

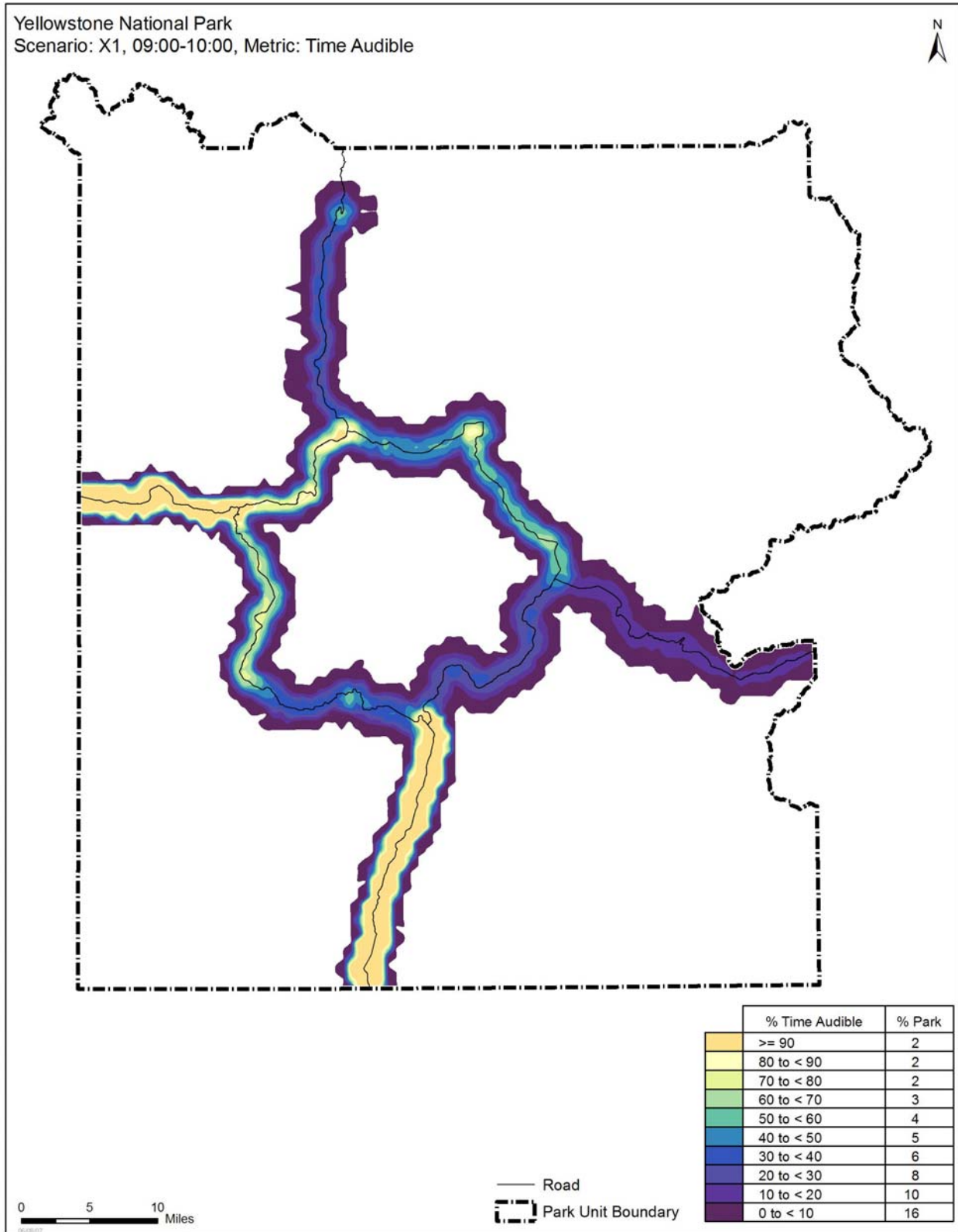


Figure X1 09: - Yellowstone – Alternative X1, 09:00 to 10:00 and 15:00 to 16:00

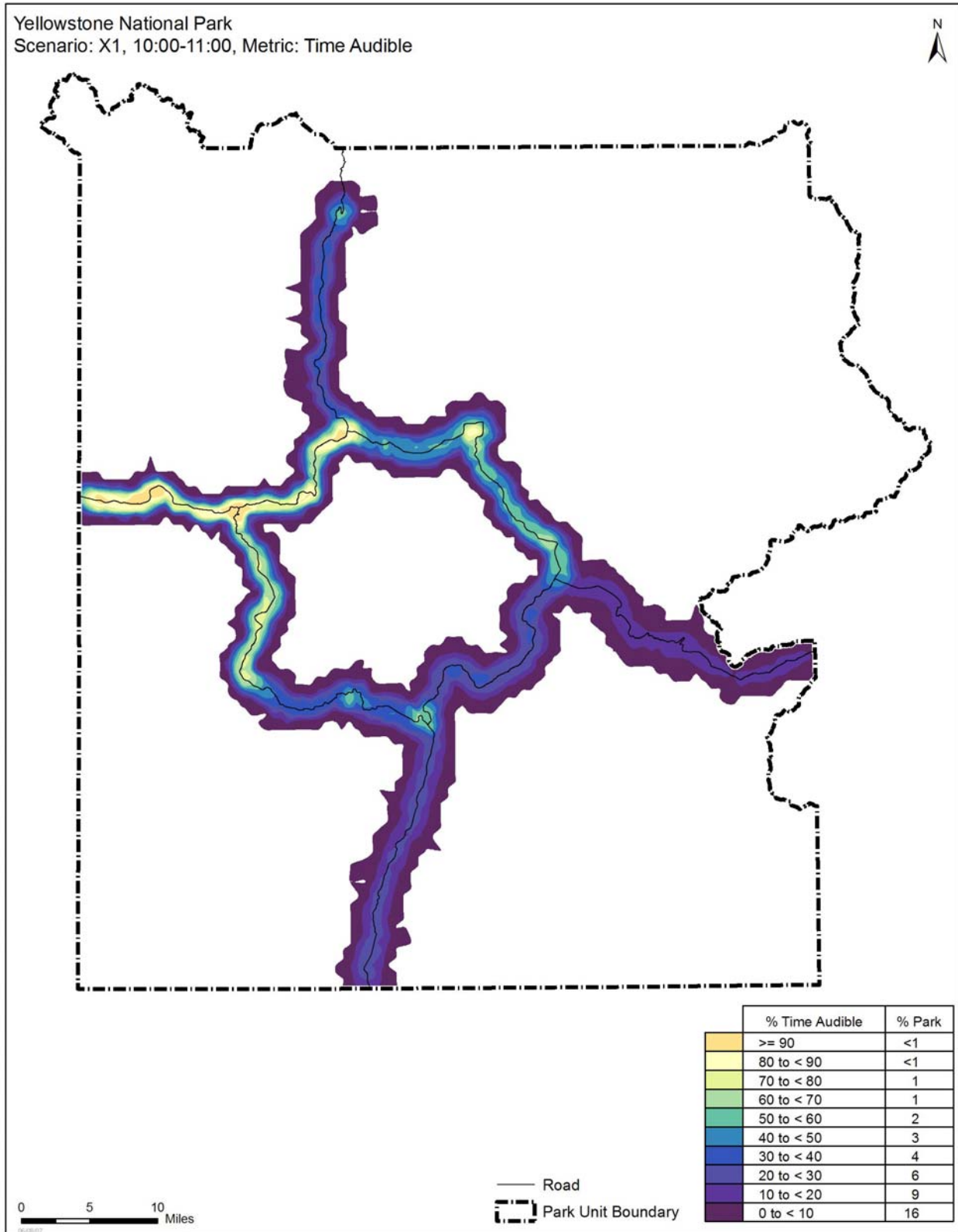


Figure X1 10: - Yellowstone – Alternative X1, 08:00 to 09:00, 10:00 to 11:00, and 14:00 to 15:00

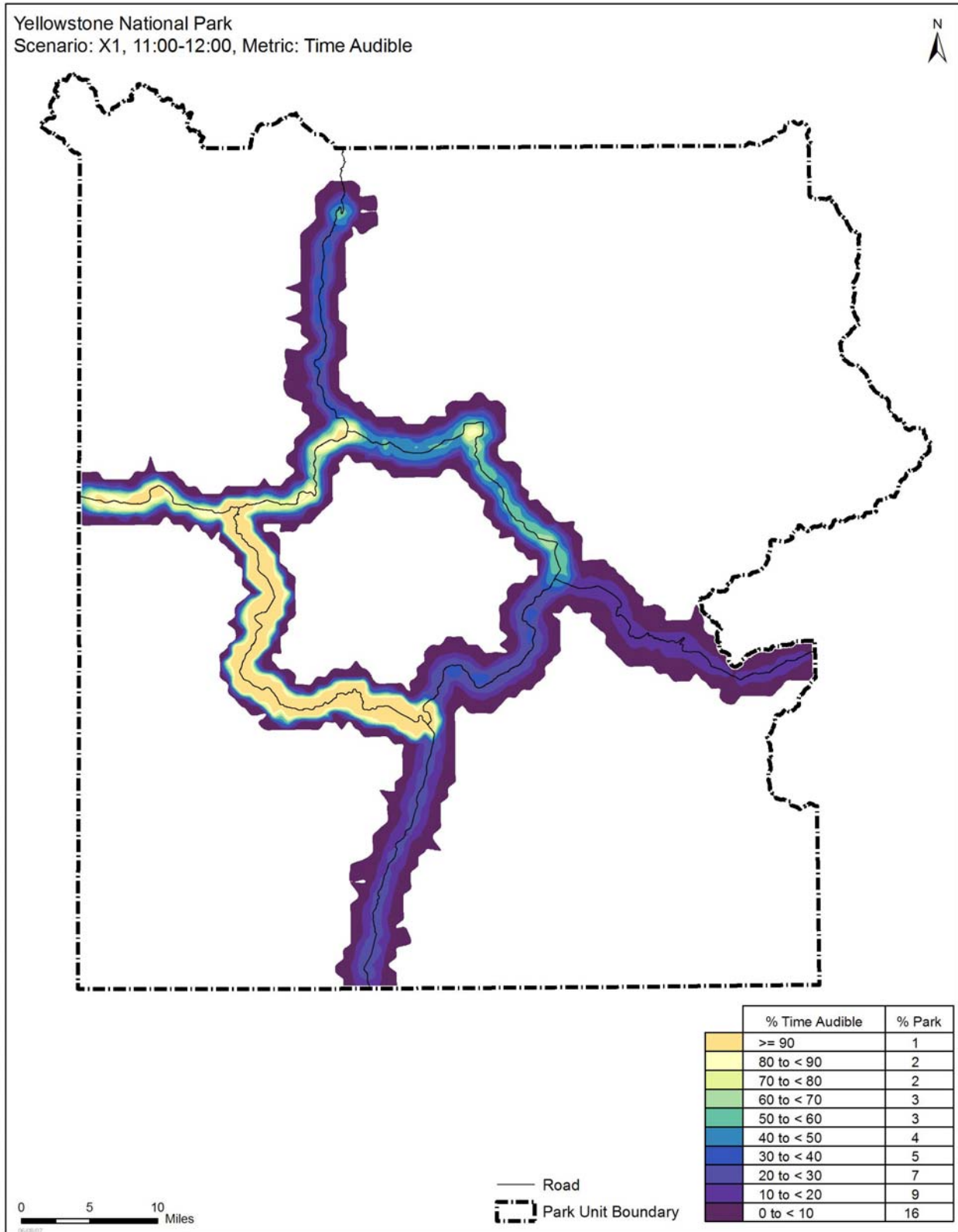


Figure X1 11: - Yellowstone – Alternative X1, 11:00 to 12:00, 12:00 to 13:00, and 13:00 to 14:00

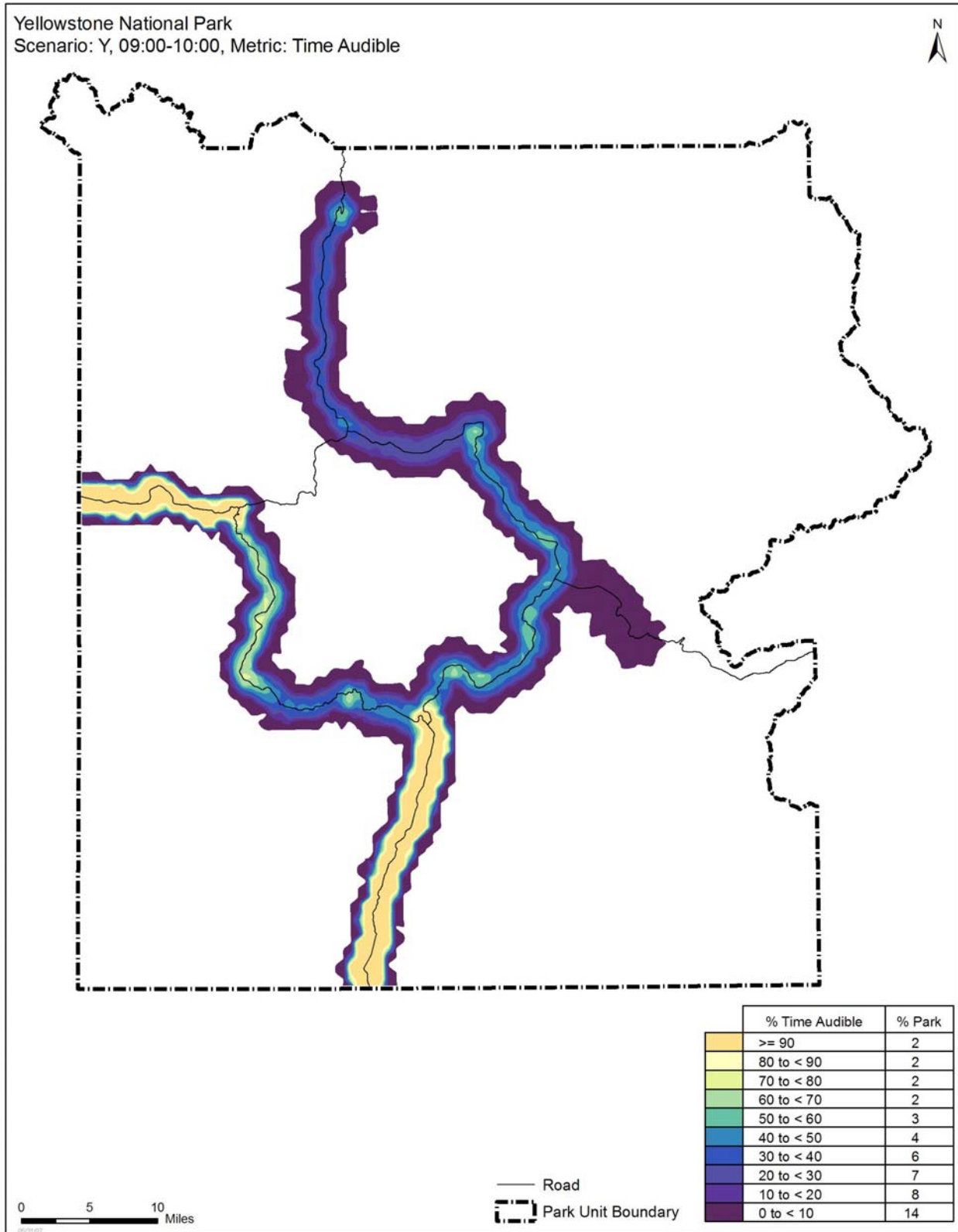


Figure Y 09: - Yellowstone – Alternative Y, 09:00 to 10:00 and 15:00 to 16:00

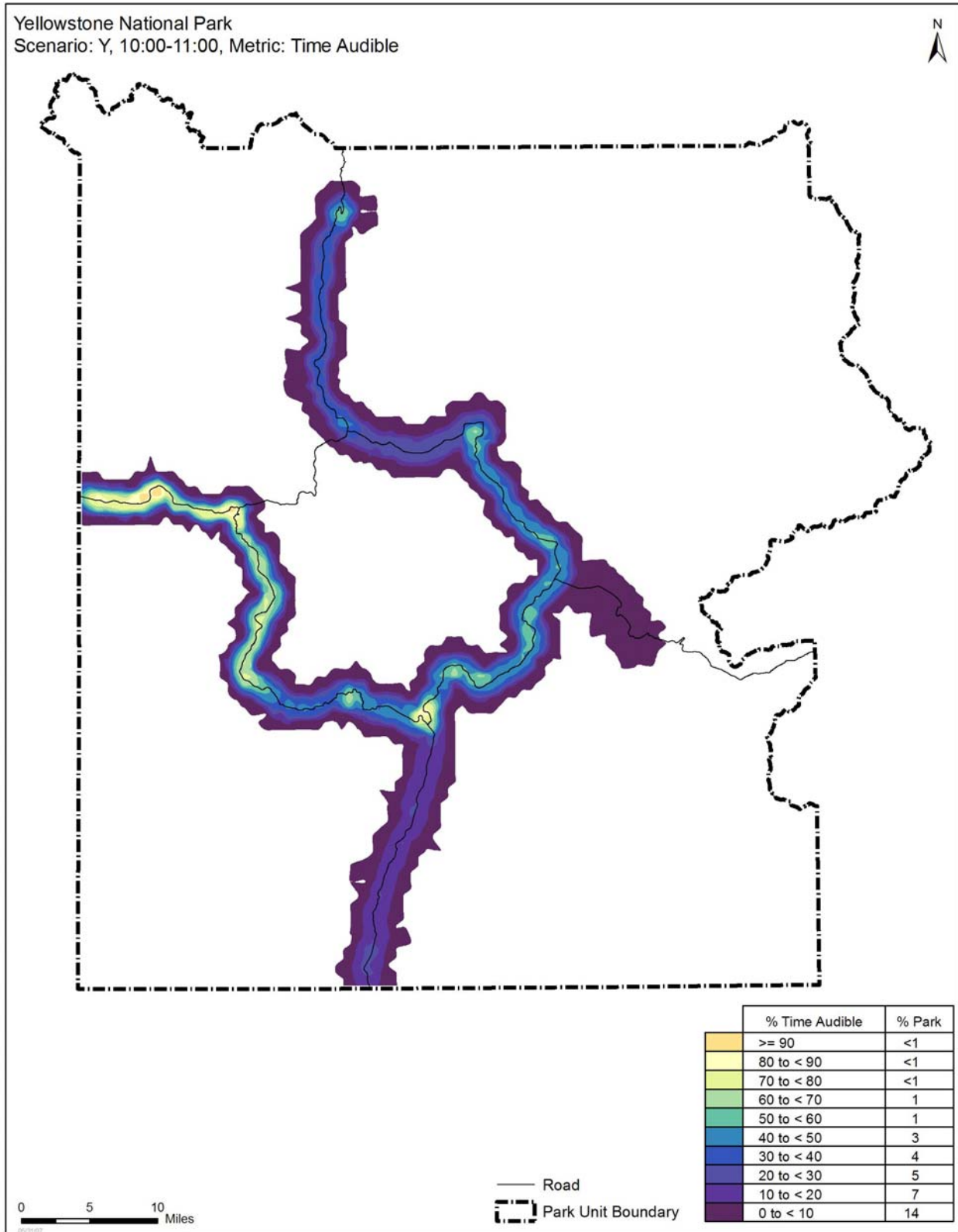


Figure Y 10: - Yellowstone – Alternative Y, 08:00 to 09:00, 10:00 to 11:00, and 14:00 to 15:00

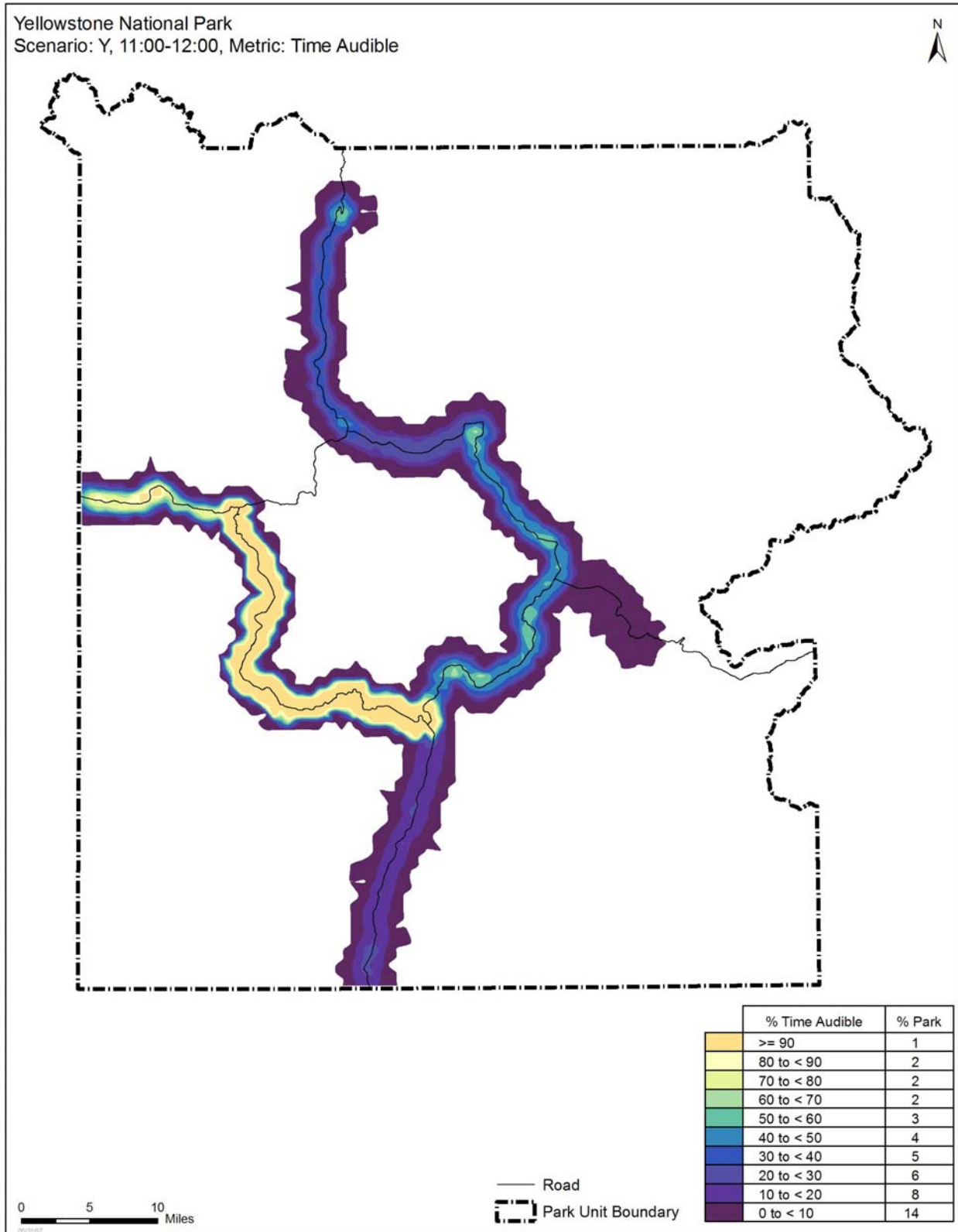


Figure Y 11: - Yellowstone – Alternative Y, 11:00 to 12:00, 12:00 to 13:00, and 13:00 to 14:00

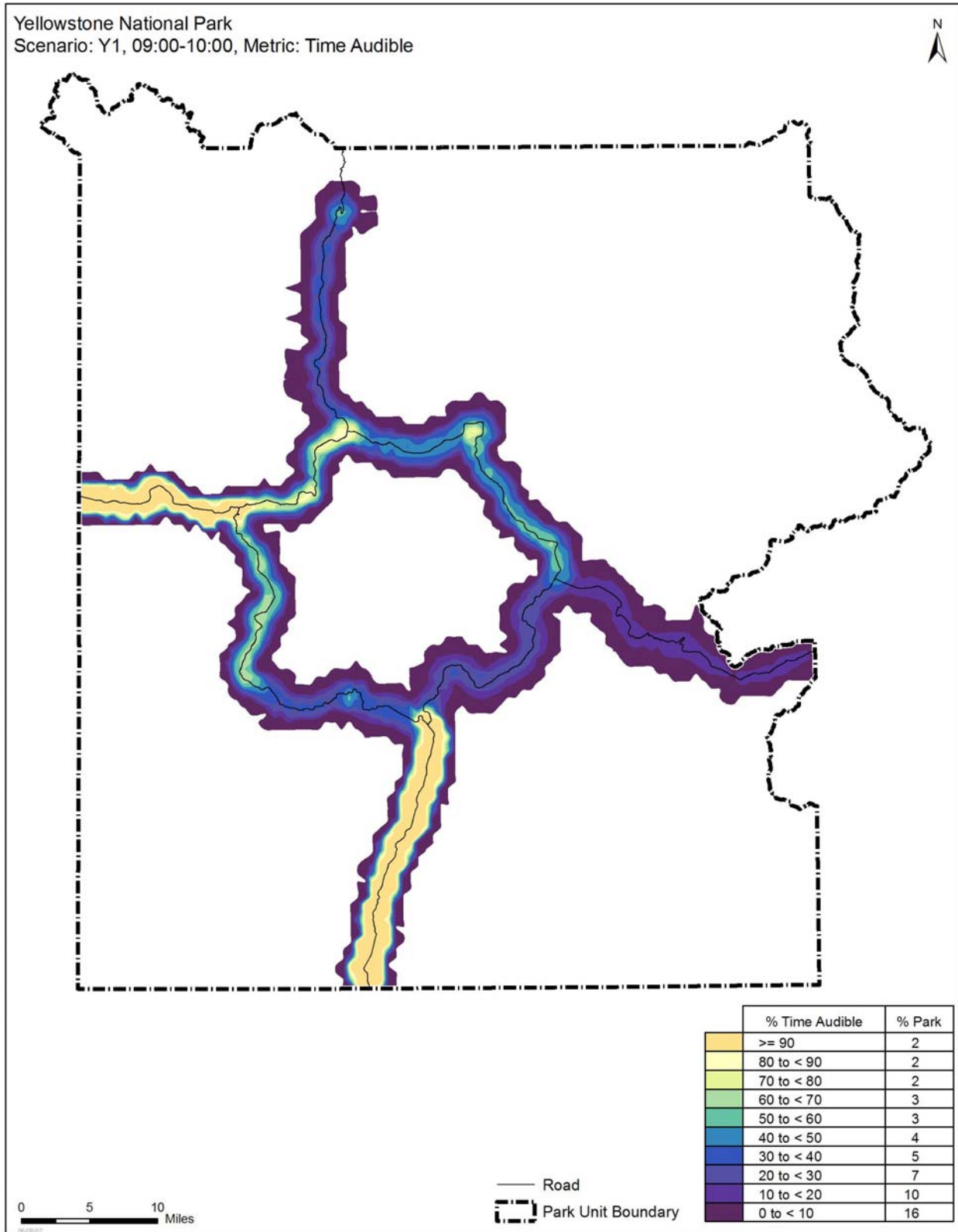


Figure Y1 09: - Yellowstone – Alternative Y1, 09:00 to 10:00 and 15:00 to 16:00

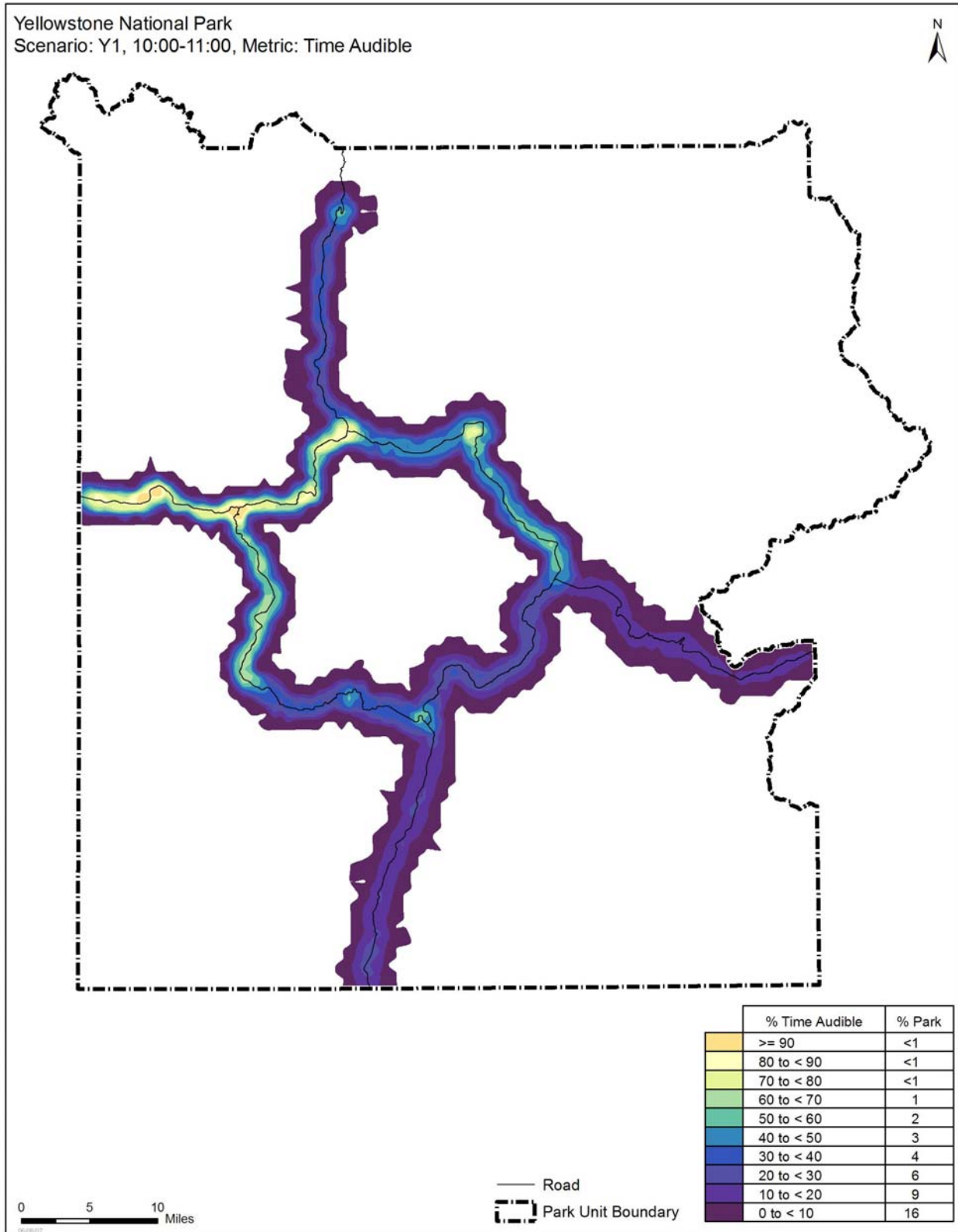


Figure Y1 10: - Yellowstone – Alternative Y1, 08:00 to 09:00, 10:00 to 11:00, and 14:00 to 15:00

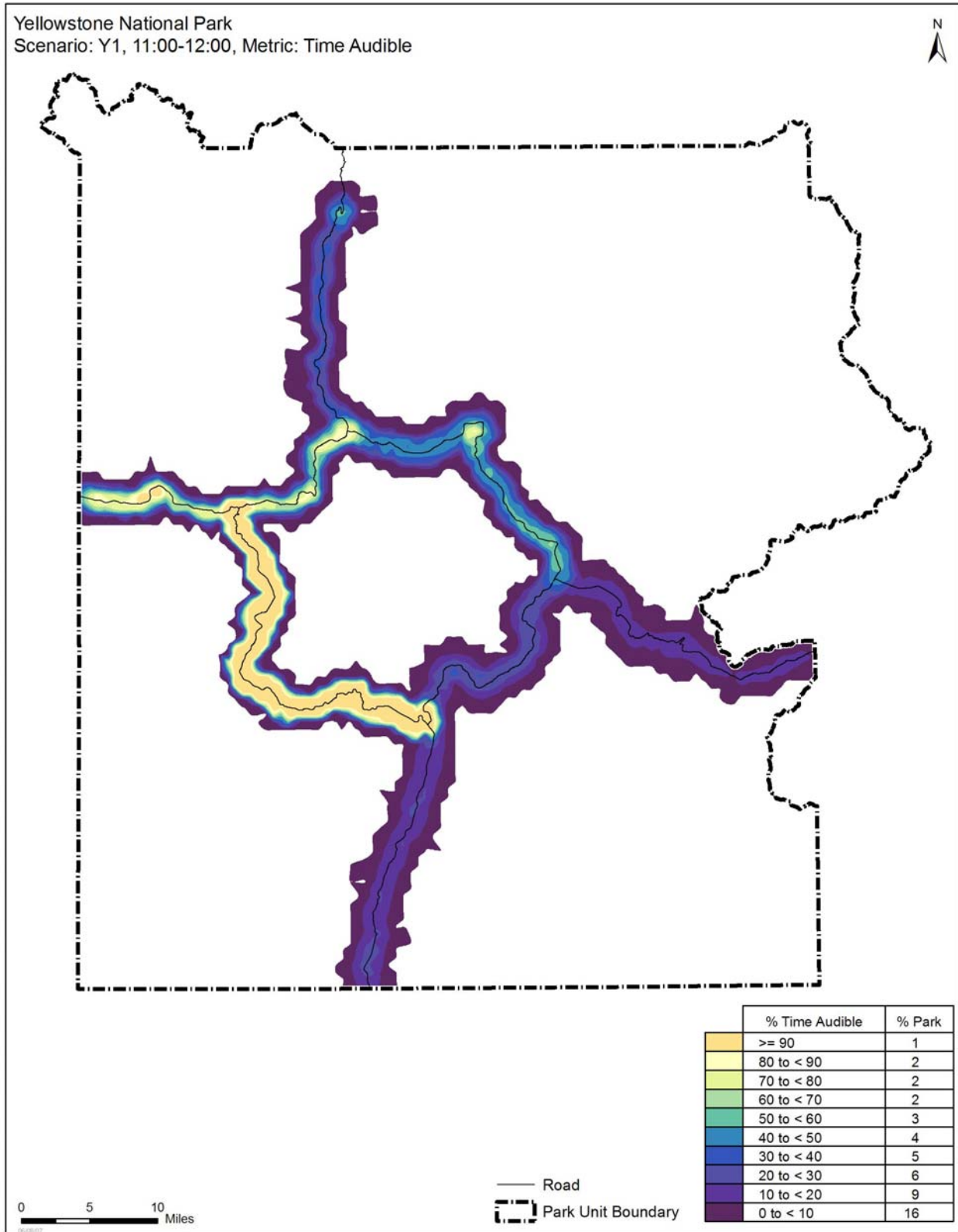


Figure Y1 11: - Yellowstone – Alternative Y1, 11:00 to 12:00, 12:00 to 13:00, and 13:00 to 14:00

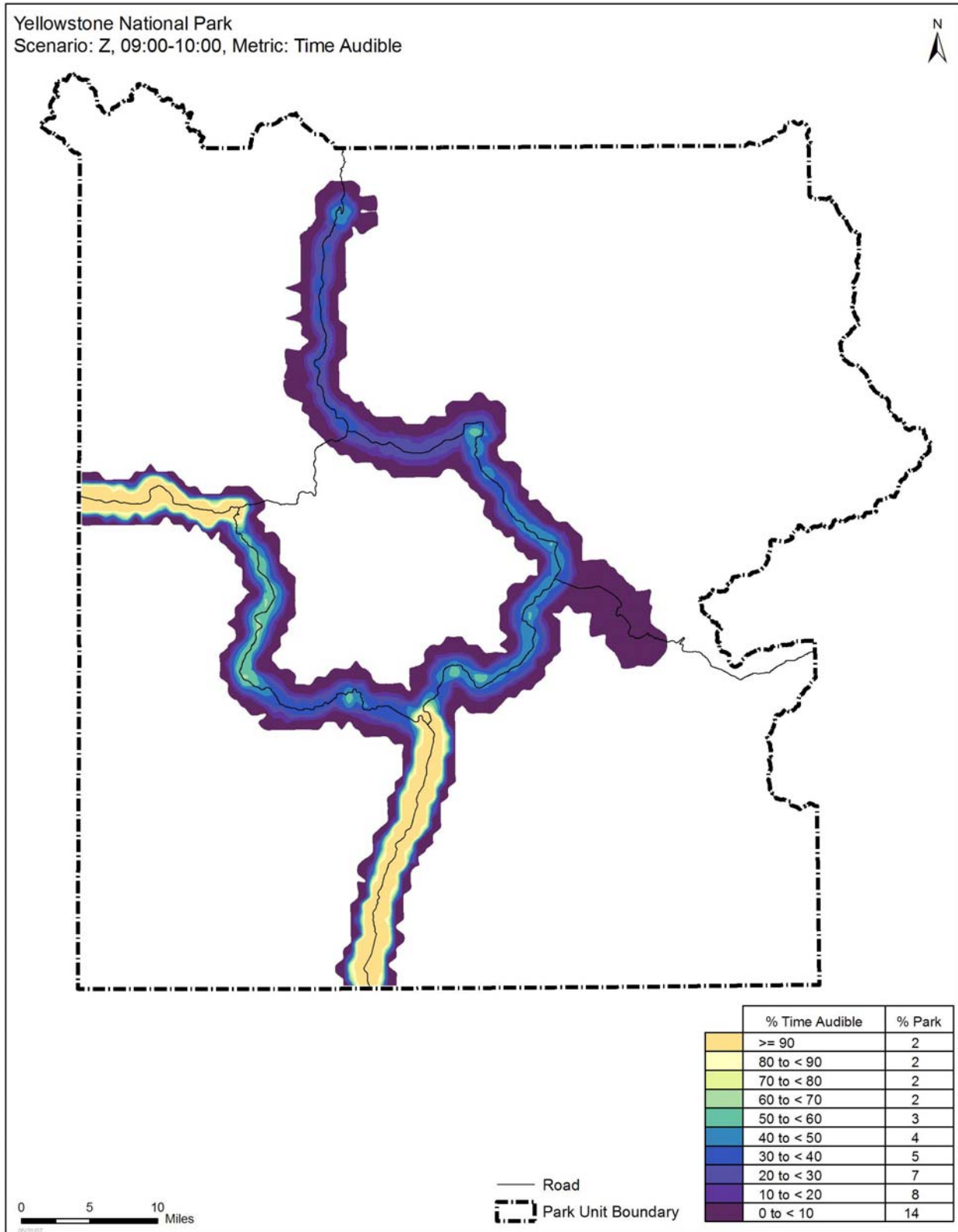


Figure Z 09: - Yellowstone – Alternative Z, 09:00 to 10:00 and 15:00 to 16:00

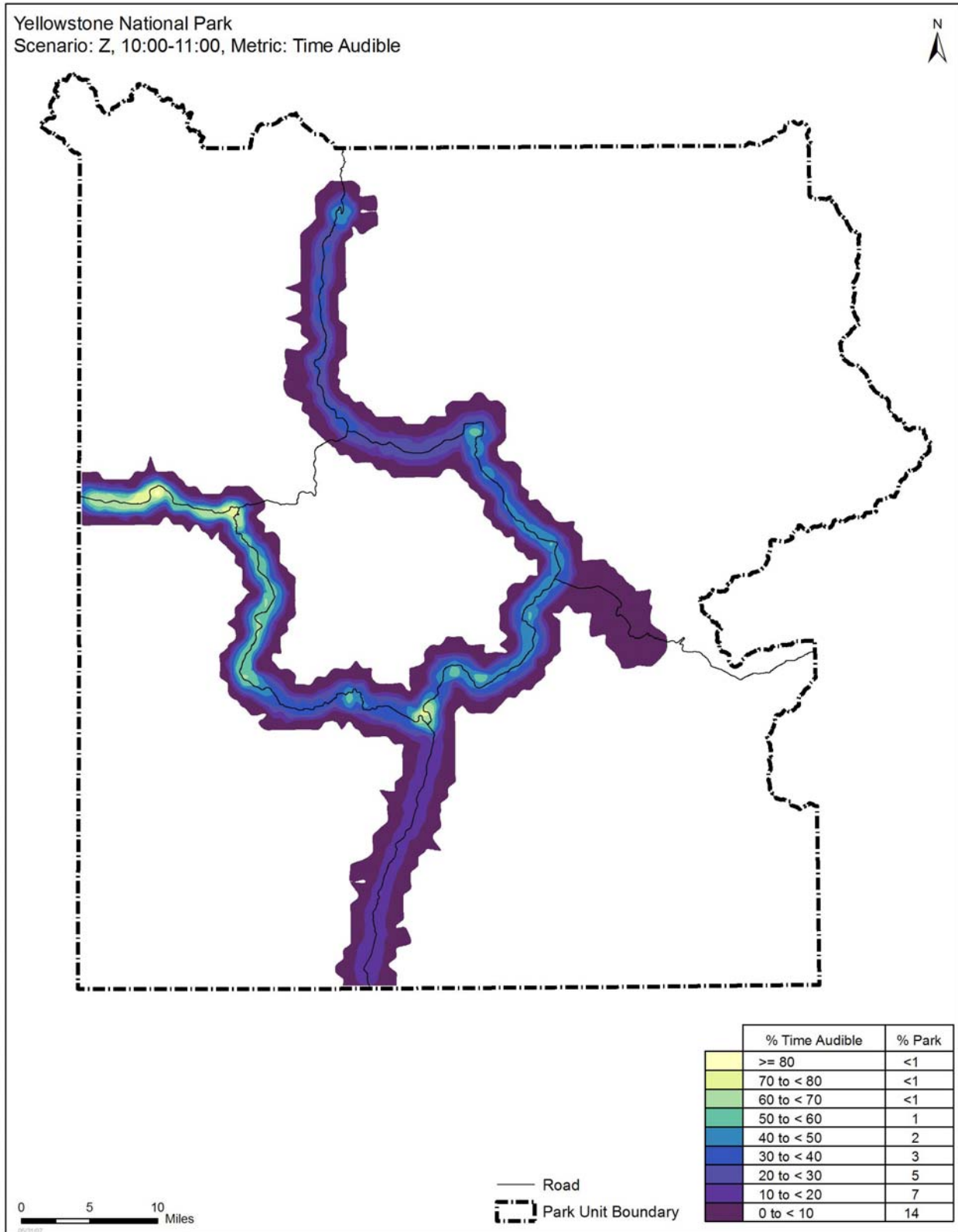


Figure Z 10: - Yellowstone – Alternative Z, 08:00 to 09:00, 10:00 to 11:00, and 14:00 to 15:00

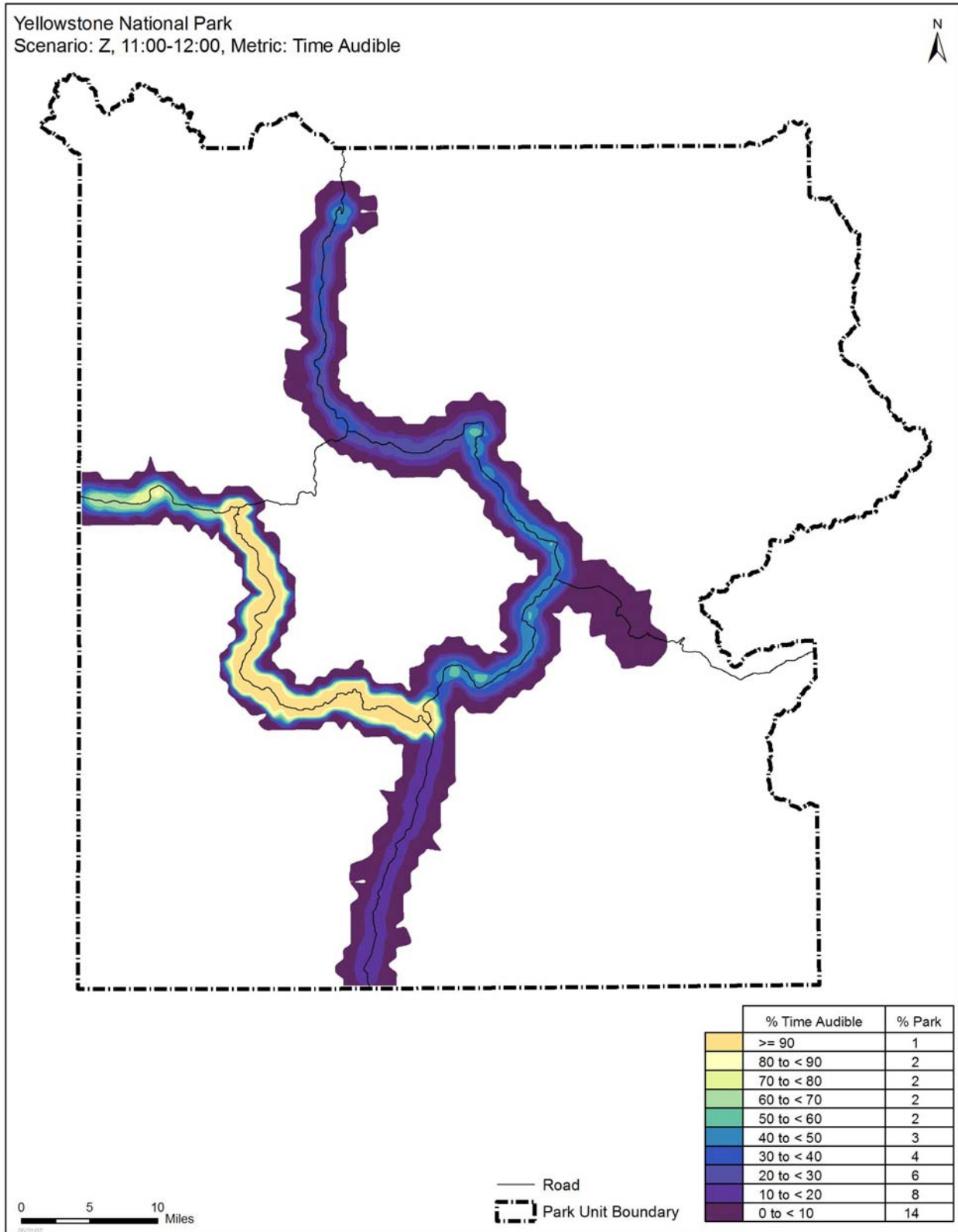


Figure Z 11: - Yellowstone – Alternative Z, 11:00 to 12:00, 12:00 to 13:00, and 13:00 to 14:00

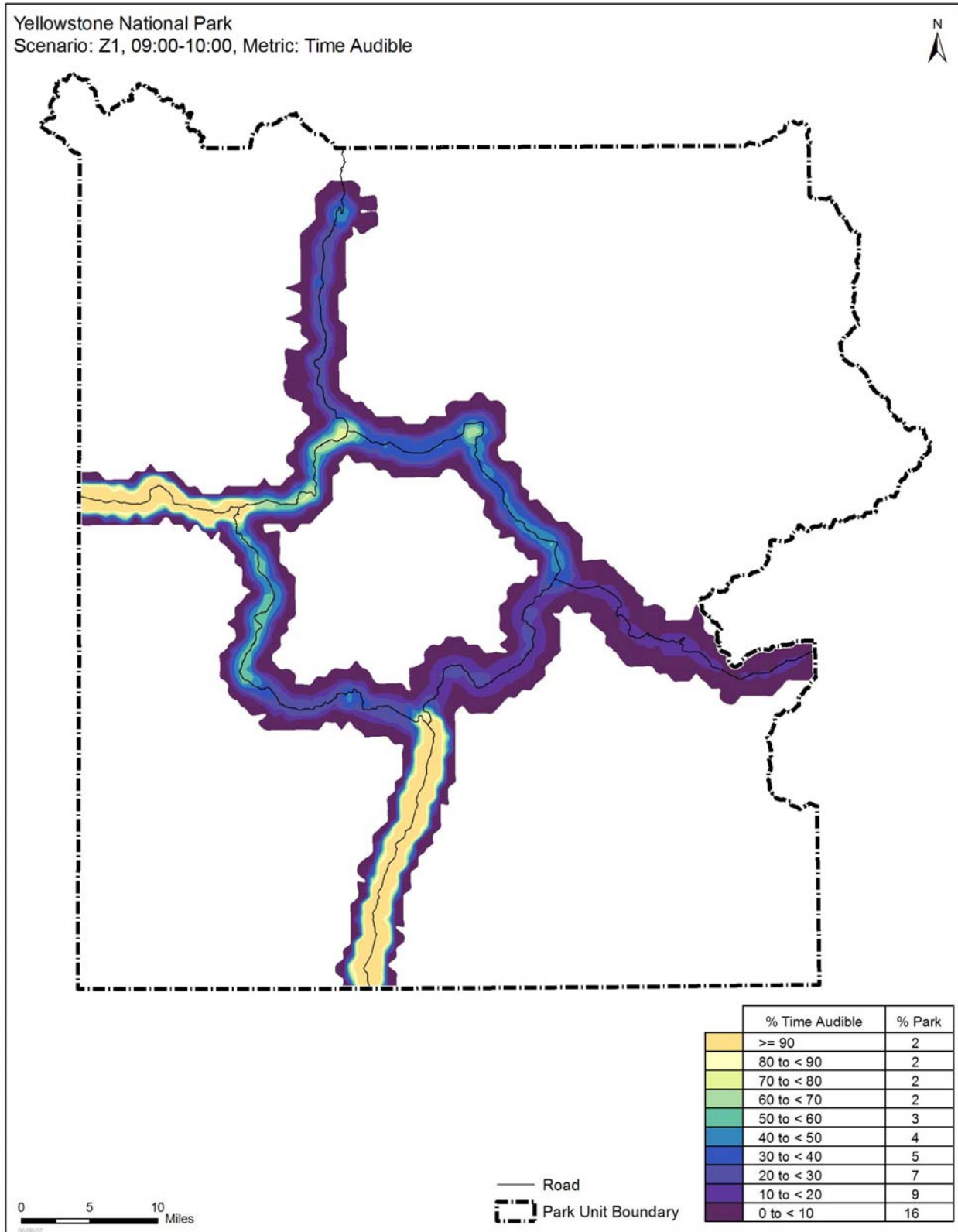


Figure Z1 09: - Yellowstone – Alternative Z1, 09:00 to 10:00 and 15:00 to 16:00

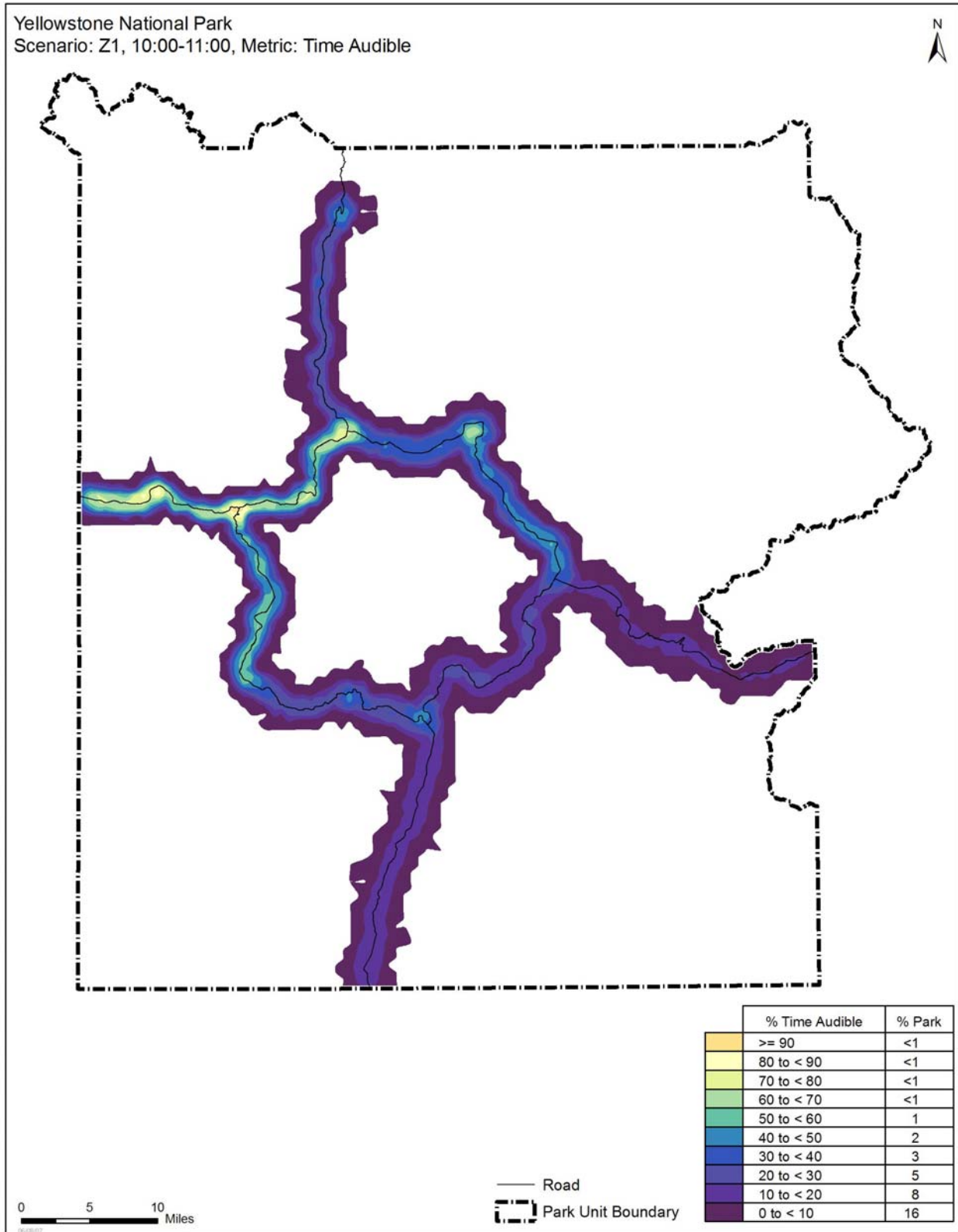


Figure Z1 10: - Yellowstone – Alternative Z1, 08:00 to 09:00, 10:00 to 11:00, and 14:00 to 15:00

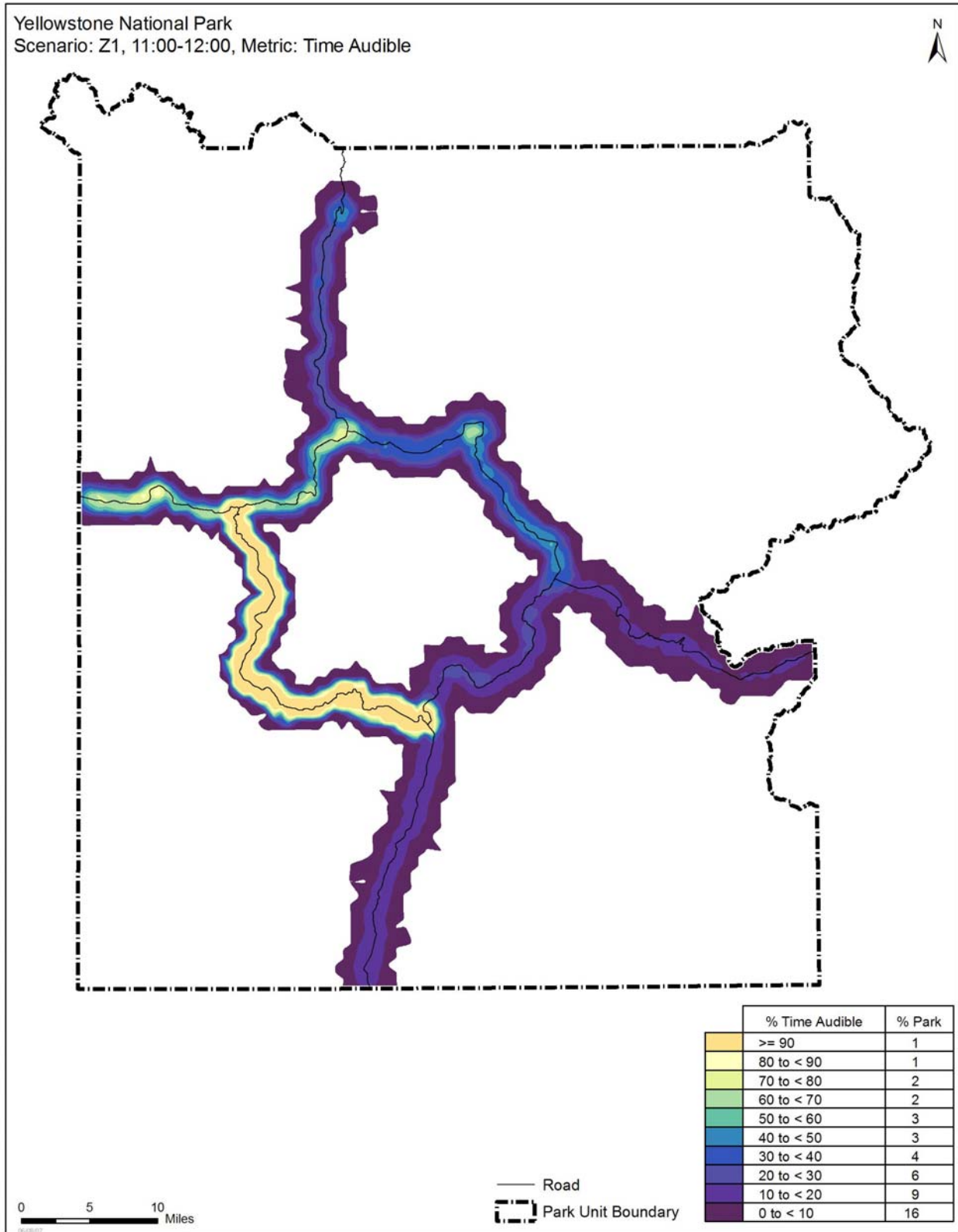


Figure Z1 11: - Yellowstone – Alternative Z1, 11:00 to 12:00, 12:00 to 13:00, and 13:00 to 14:00



Table 36A: Yellowstone: Percent of Park Area at a Specified Percent Time Audible

% TAUD (8-hours)	X	X1	Y	Y1	Z	Z1
0	13.8	15.8	13.8	15.8	13.8	15.8
10	8.0	9.4	7.8	9.1	7.6	8.5
20	6.4	6.8	6.0	6.3	5.6	5.5
30	4.8	4.9	4.6	4.5	4.1	3.9
40	3.7	3.8	3.4	3.5	2.8	2.7
50	2.7	2.9	2.3	2.5	1.8	2.0
60	1.9	2.2	1.7	1.9	1.4	1.5
70	1.6	1.7	1.4	1.5	1.2	1.2
80	1.3	1.4	1.1	1.2	1.0	1.0
90	1.1	1.0	1.0	0.9	0.9	0.8

Table 37A: Yellowstone: Square Miles of Park Area at a Specified Percent Time Audible

% TAUD (8-hours)	X	X1	Y	Y1	Z	Z1
0	477.6	550.8	477.7	551.1	479.5	551.1
10	275.6	323.1	270.3	315.1	260.5	293.8
20	220.8	234.6	205.9	215.8	193.6	189.8
30	165.4	168.2	158.3	155.8	141.0	134.6
40	128.8	130.3	117.8	119.5	96.5	94.1
50	93.3	99.2	78.4	86.6	62.7	68.6
60	66.8	75.7	59.5	65.4	48.0	52.5
70	54.8	59.2	47.3	51.4	39.8	40.1
80	44.3	47.1	39.2	39.8	34.7	33.5
90	36.4	36.0	33.2	32.0	30.5	29.1

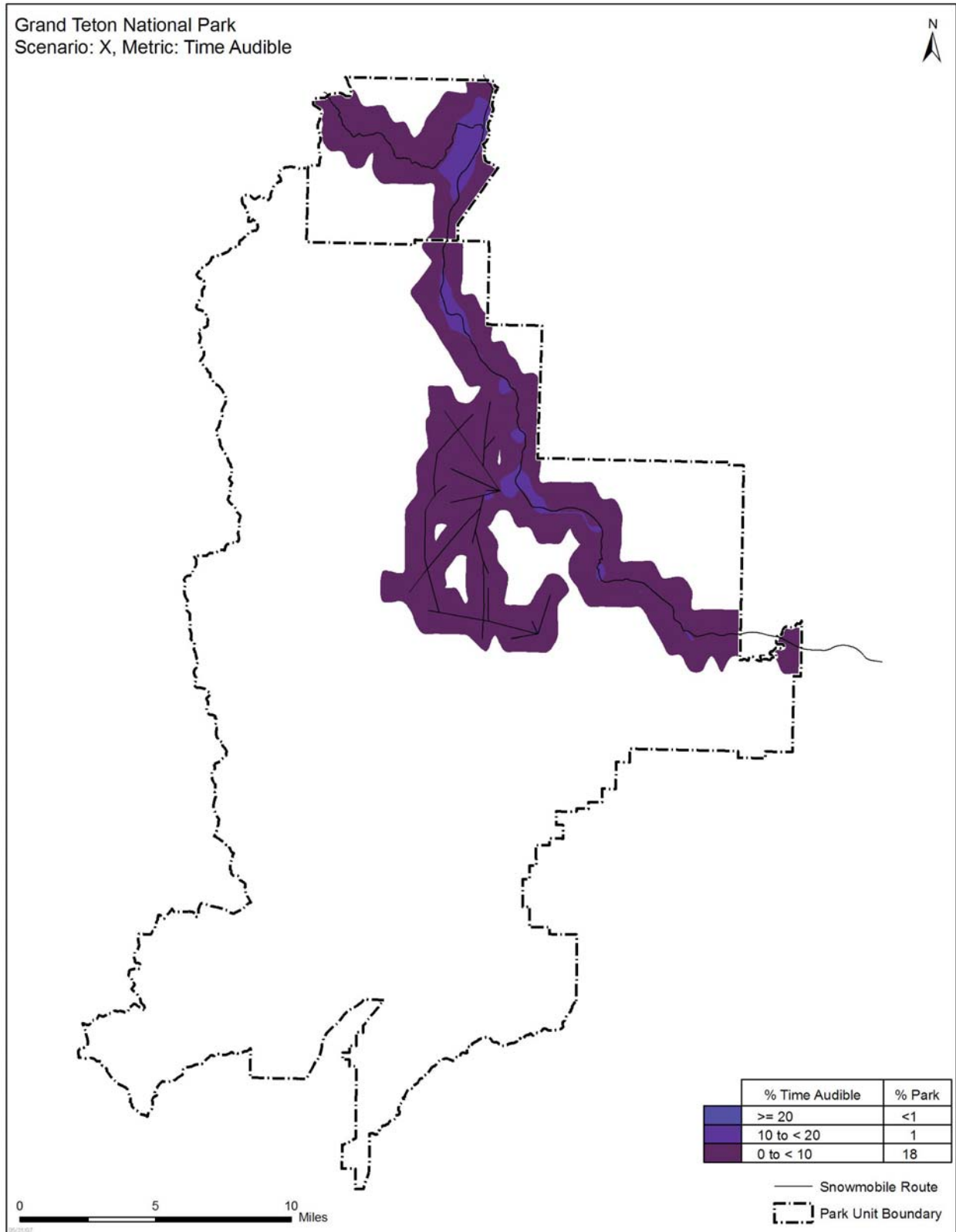


Figure X Y Z: Grand Teton – Alternatives X, Y, zed Z – All Hours

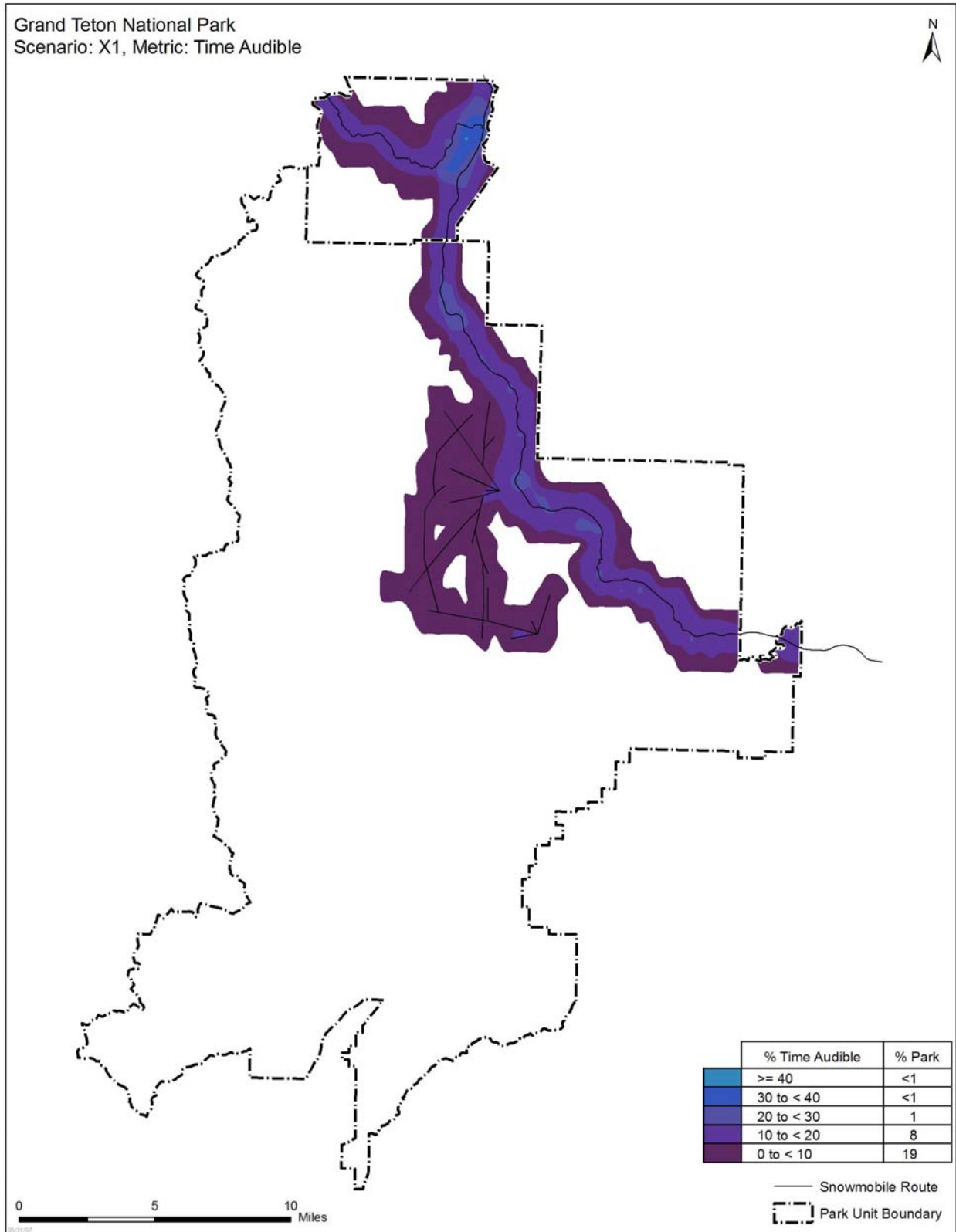


Figure X1 Y1 Z1: Grand Teton – Alternatives X1, Y1, zed Z1 – All Hours



Table 38A: Grand Teton: Percent of Park Area at a Specified Percent Time Audible

% TAUD (8-hours)	X	X1	Y	Y1	Z	Z1
0	17.7	19.1	17.7	19.1	17.7	19.1
10	1.3	7.9	1.3	7.9	1.3	7.9
20	0.0	1.2	0.0	1.2	0.0	1.2
30	0.0	0.3	0.0	0.3	0.0	0.3
40	0.0	0.0	0.0	0.0	0.0	0.0
50	0.0	0.0	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0	0.0

Table 39A: Grand Teton: Square Miles of Park Area at a Specified Percent Time Audible

% TAUD (8-hours)	X	X1	Y	Y1	Z	Z1
0	101.6	111.2	101.6	111.2	101.6	111.2
10	7.2	45.2	7.2	45.2	7.2	45.2
20	0.0	6.6	0.0	6.6	0.0	6.6
30	0.0	1.4	0.0	1.4	0.0	1.4
40	0.0	0.0	0.0	0.0	0.0	0.0
50	0.0	0.0	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0	0.0



Content in Appendix F

See Table 40, page 145, for hourly equivalents.

Table 43A: Yellowstone: Alternative X, 09:00 to 10:00

Entries indicate time, secs, within given range	Yellowstone: Alternative X, 09:00 to 10:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	198	47	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	450	418	184	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	0	0	0	0	0	1033	860	706	680	320	0	0
Mary Mt. 4000'	1048	709	389	94	0	0	0	0	0	0	0	0
Mary Mt. 8000'	626	122	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	997	619	428	338	338	140	4	0	0	0	0	0
Mud Volcano	652	479	364	306	227	187	25	0	0	0	0	0
Old Faithful	1382	1022	781	407	7	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	122	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	0	0	410	1458	1249	414	68	0	0	0	0	0

Table 43B: Yellowstone: Alternative X, 10:00 to 11:00

Entries indicate time, secs, within given range	Yellowstone: Alternative X, 10:00 to 11:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	198	47	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	450	418	184	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	356	929	652	475	360	259	191	155	151	72	0	0
Mary Mt. 4000'	1048	709	389	94	0	0	0	0	0	0	0	0
Mary Mt. 8000'	626	122	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	997	619	428	338	338	140	4	0	0	0	0	0
Mud Volcano	652	479	364	306	227	187	25	0	0	0	0	0
Old Faithful	1382	1022	781	407	7	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	122	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	1091	925	637	432	284	162	68	0	0	0	0	0



Table 43C: Yellowstone: Alternative X, 11:00 to 12:00

Entries indicate time, secs, within given range	Yellowstone: Alternative X, 11:00 to 12:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	1004	230	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	576	2092	914	18	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	338	947	652	475	360	259	191	155	151	72	0	0
Mary Mt. 4000'	0	1188	1937	475	0	0	0	0	0	0	0	0
Mary Mt. 8000'	2984	616	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	0	0	0	1192	1696	695	18	0	0	0	0	0
Mud Volcano	652	479	364	306	227	187	25	0	0	0	0	0
Old Faithful	0	0	1530	2034	36	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	122	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	0	0	1595	1166	562	209	68	0	0	0	0	0

Table 43D: Yellowstone: Alternative X1, 09:00 to 10:00

Entries indicate time, secs, within given range	Yellowstone: Alternative X1, 09:00 to 10:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	180	40	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	353	328	140	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	0	0	0	0	0	979	878	716	698	328	0	0
Mary Mt. 4000'	976	652	353	83	0	0	0	0	0	0	0	0
Mary Mt. 8000'	562	104	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	925	572	400	317	320	119	4	0	0	0	0	0
Mud Volcano	731	533	407	331	259	205	47	0	0	0	0	0
Old Faithful	1426	886	670	324	7	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	119	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	742	540	385	270	194	137	97	68	43	29	14	0
West Thumb	0	0	716	1375	1170	299	40	0	0	0	0	0



Table 43E: Yellowstone: Alternative X1, 10:00 to 11:00

Entries indicate time, secs, within given range	Yellowstone: Alternative X1, 10:00 to 11:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	180	40	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	353	328	140	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	295	943	666	482	367	263	194	162	155	72	0	0
Mary Mt. 4000'	976	652	353	83	0	0	0	0	0	0	0	0
Mary Mt. 8000'	562	104	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	925	572	400	317	320	119	4	0	0	0	0	0
Mud Volcano	731	533	407	331	259	205	47	0	0	0	0	0
Old Faithful	1426	886	670	324	7	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	119	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	742	540	385	270	194	137	97	68	43	29	14	0
West Thumb	835	637	461	320	209	90	40	0	0	0	0	0

Table 43F: Yellowstone: Alternative X1, 11:00 to 12:00

Entries indicate time, secs, within given range	Yellowstone: Alternative X1, 11:00 to 12:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	907	198	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	1253	1631	702	14	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	277	961	666	482	367	263	194	162	155	72	0	0
Mary Mt. 4000'	0	1426	1768	407	0	0	0	0	0	0	0	0
Mary Mt. 8000'	2801	526	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	0	0	0	1386	1602	598	14	0	0	0	0	0
Mud Volcano	731	533	407	331	259	205	47	0	0	0	0	0
Old Faithful	0	0	1944	1627	29	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	119	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	742	540	385	270	194	137	97	68	43	29	14	0
West Thumb	0	745	1382	882	425	126	40	0	0	0	0	0



Table 43G: Yellowstone: Alternative Y, 09:00 to 10:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Y, 09:00 to 10:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	180	40	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	410	378	162	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	0	0	0	0	256	1037	774	630	616	288	0	0
Mary Mt. 4000'	936	634	346	83	0	0	0	0	0	0	0	0
Mary Mt. 8000'	551	108	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	896	551	385	306	306	119	4	0	0	0	0	0
Mud Volcano	612	454	342	288	212	180	22	0	0	0	0	0
Old Faithful	1451	918	709	356	7	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	115	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	0	0	760	1310	1112	356	61	0	0	0	0	0

Table 43H: Yellowstone: Alternative Y, 10:00 to 11:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Y, 10:00 to 11:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	180	40	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	410	378	162	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	688	832	587	428	320	234	169	140	137	65	0	0
Mary Mt. 4000'	936	634	346	83	0	0	0	0	0	0	0	0
Mary Mt. 8000'	551	108	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	896	551	385	306	306	119	4	0	0	0	0	0
Mud Volcano	612	454	342	288	212	180	22	0	0	0	0	0
Old Faithful	1451	918	709	356	7	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	115	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	1163	842	580	392	256	148	61	0	0	0	0	0



Table 43I: Yellowstone: Alternative Y, 11:00 to 12:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Y, 11:00 to 12:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	889	202	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	878	1901	806	14	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	670	850	587	428	320	234	169	140	137	65	0	0
Mary Mt. 4000'	0	1462	1724	414	0	0	0	0	0	0	0	0
Mary Mt. 8000'	2765	533	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	0	0	0	1451	1530	605	14	0	0	0	0	0
Mud Volcano	612	454	342	288	212	180	22	0	0	0	0	0
Old Faithful	0	0	1778	1789	32	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	115	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	0	148	1652	1044	508	187	61	0	0	0	0	0

Table 43J: Yellowstone: Alternative Y1, 09:00 to 10:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Y1, 09:00 to 10:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	162	36	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	317	295	122	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	0	0	0	0	176	1062	792	644	630	295	0	0
Mary Mt. 4000'	882	590	317	72	0	0	0	0	0	0	0	0
Mary Mt. 8000'	497	94	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	835	515	364	288	292	104	4	0	0	0	0	0
Mud Volcano	670	490	371	306	238	187	40	0	0	0	0	0
Old Faithful	1289	796	605	288	4	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	112	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	724	526	374	263	187	133	94	65	43	29	11	0
West Thumb	0	0	1033	1238	1044	248	36	0	0	0	0	0



Table 43K: Yellowstone: Alternative Y1, 10:00 to 11:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Y1, 10:00 to 11:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	162	36	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	317	295	122	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	623	850	601	436	331	234	176	144	140	65	0	0
Mary Mt. 4000'	882	590	317	72	0	0	0	0	0	0	0	0
Mary Mt. 8000'	497	94	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	835	515	364	288	292	104	4	0	0	0	0	0
Mud Volcano	670	490	371	306	238	187	40	0	0	0	0	0
Old Faithful	1289	796	605	288	4	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	112	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	724	526	374	263	187	133	94	65	43	29	11	0
West Thumb	745	572	414	284	184	79	36	0	0	0	0	0

Table 43L: Yellowstone: Alternative Y1, 11:00 to 12:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Y1, 11:00 to 12:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	810	173	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	1498	1480	612	11	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	608	864	601	436	331	234	176	144	140	65	0	0
Mary Mt. 4000'	0	1656	1588	356	0	0	0	0	0	0	0	0
Mary Mt. 8000'	2498	457	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	0	0	162	1440	1465	522	11	0	0	0	0	0
Mud Volcano	670	490	371	306	238	187	40	0	0	0	0	0
Old Faithful	0	0	2153	1422	25	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	112	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	724	526	374	263	187	133	94	65	43	29	11	0
West Thumb	0	1048	1246	785	378	108	36	0	0	0	0	0



Table 43M: Yellowstone: Alternative Z, 09:00 to 10:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Z, 09:00 to 10:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	148	36	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	342	317	133	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	0	0	0	0	778	878	652	533	518	241	0	0
Mary Mt. 4000'	788	536	288	72	0	0	0	0	0	0	0	0
Mary Mt. 8000'	472	90	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	752	464	320	256	256	104	4	0	0	0	0	0
Mud Volcano	551	407	310	259	191	162	18	0	0	0	0	0
Old Faithful	1220	770	590	306	4	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	112	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	0	43	1285	1030	882	306	54	0	0	0	0	0

Table 43N: Yellowstone: Alternative Z, 10:00 to 11:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Z, 10:00 to 11:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	148	36	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	342	317	133	4	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	1116	702	493	360	274	194	144	119	115	54	0	0
Mary Mt. 4000'	788	536	288	72	0	0	0	0	0	0	0	0
Mary Mt. 8000'	472	90	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	752	464	320	256	256	104	4	0	0	0	0	0
Mud Volcano	551	407	310	259	191	162	18	0	0	0	0	0
Old Faithful	1220	770	590	306	4	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	112	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	994	716	490	328	216	130	54	0	0	0	0	0



Table 43O: Yellowstone: Alternative Z, 11:00 to 12:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Z, 11:00 to 12:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	749	173	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	1321	1584	684	11	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	1130	716	493	360	274	194	144	119	115	54	0	0
Mary Mt. 4000'	0	1793	1454	353	0	0	0	0	0	0	0	0
Mary Mt. 8000'	2340	457	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	0	0	515	1278	1278	518	11	0	0	0	0	0
Mud Volcano	551	407	310	259	191	162	18	0	0	0	0	0
Old Faithful	0	0	2056	1516	29	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	112	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	0	0	0	0	0	0	0	0	0	0	0	0
West Thumb	0	698	1382	875	428	162	54	0	0	0	0	0

Table 43P: Yellowstone: Alternative Z1, 09:00 to 10:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Z1, 09:00 to 10:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	140	29	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	266	248	104	0	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	0	0	0	0	698	900	670	547	533	252	0	0
Mary Mt. 4000'	752	500	270	61	0	0	0	0	0	0	0	0
Mary Mt. 8000'	425	79	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	713	439	306	245	252	86	4	0	0	0	0	0
Mud Volcano	554	400	306	248	194	155	36	0	0	0	0	0
Old Faithful	1091	673	515	241	4	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	104	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	580	421	302	212	151	108	76	54	36	22	11	0
West Thumb	0	259	1220	1022	864	205	29	0	0	0	0	0



Table 43Q: Yellowstone: Alternative Z1, 10:00 to 11:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Z1, 10:00 to 11:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	140	29	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	266	248	104	0	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	1076	720	508	371	281	202	148	122	119	54	0	0
Mary Mt. 4000'	752	500	270	61	0	0	0	0	0	0	0	0
Mary Mt. 8000'	425	79	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	713	439	306	245	252	86	4	0	0	0	0	0
Mud Volcano	554	400	306	248	194	155	36	0	0	0	0	0
Old Faithful	1091	673	515	241	4	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	104	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	580	421	302	212	151	108	76	54	36	22	11	0
West Thumb	612	468	346	234	151	65	29	0	0	0	0	0

Table 43R: Yellowstone: Alternative Z1, 11:00 to 12:00

Entries indicate time, secs, within given range	Yellowstone: Alternative Z1, 11:00 to 12:00											
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB
Fairy Falls	695	148	0	0	0	0	0	0	0	0	0	0
Heart Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lone Star G.	1336	1242	515	7	0	0	0	0	0	0	0	0
Mad. Jct. 2.3	1066	731	508	371	281	202	148	122	119	54	0	0
Mary Mt. 4000'	0	1940	1354	306	0	0	0	0	0	0	0	0
Mary Mt. 8000'	2135	392	0	0	0	0	0	0	0	0	0	0
Mary Mt. Trhd.	0	0	673	1224	1246	446	11	0	0	0	0	0
Mud Volcano	554	400	306	248	194	155	36	0	0	0	0	0
Old Faithful	0	0	2372	1206	22	0	0	0	0	0	0	0
Shoshone G.	0	0	0	0	0	0	0	0	0	0	0	0
Snow Pass	104	0	0	0	0	0	0	0	0	0	0	0
Sylvan Lake	580	421	302	212	151	108	76	54	36	22	11	0
West Thumb	274	1195	1044	655	313	90	29	0	0	0	0	0



Table 101A: Grand Teton: Alternative X, Y, and Z

Entries, secs w/in range	Grand Teton: Alternatives X, Y, Z																
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB	60 to < 65 dB	65 to < 70 dB	70 to < 75 dB	75 to < 80 dB	80 to < 85 dB
Catholic	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Colter	1048	389	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grassy	1102	619	270	194	140	97	65	47	32	18	7	0	0	0	0	0	0
Jackson	695	328	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oxbow	281	184	122	86	61	47	32	22	18	11	7	7	4	4	4	0	0
Signal	101	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spalding	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West	288	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 101B: Grand Teton: Alternative X1, Y1, and Z1

Entries, secs w/in range	Grand Teton: Alternatives X1, Y1, Z1																
	0 to < 5 dB	5 to < 10 dB	10 to < 15 dB	15 to < 20 dB	20 to < 25 dB	25 to < 30 dB	30 to < 35 dB	35 to < 40 dB	40 to < 45 dB	45 to < 50 dB	50 to < 55 dB	55 to < 60 dB	60 to < 65 dB	65 to < 70 dB	70 to < 75 dB	75 to < 80 dB	80 to < 85 dB
Catholic	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Colter	1447	616	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grassy	2358	1411	644	425	306	216	144	101	68	43	18	4	0	0	0	0	0
Jackson	1249	702	306	22	0	0	0	0	0	0	0	0	0	0	0	0	0
Oxbow	637	374	241	166	119	86	61	43	32	22	18	11	11	7	4	0	0
Signal	241	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spalding	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West	324	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0