

Environmental Protection

There are two main factors that need to be addressed in order to make sure that the environment around a proposed facility is protected.

1) Significant affects to the environment.

The proposed facility will be built at an existing communications facility. This site is not an "Historic Place" as described in section 1.1307(a) (4). Therefore, this application is excluded from the preparation of an "Environmental Assessment" pursuant to Section 1.1306 Note 1.

2) Human exposure to excess levels of radiofrequency radiation.

The proposed facility is to be built using a 6-bay horizontally polarized full -wave spaced antenna.

As can be seen in Exhibit 22A, the maximum theoretical RF value would be 78.71 $\mu\text{W}/\text{cm}^2$ at a distance of 9 meters from the tower, which is 39.35% of the 200 $\mu\text{W}/\text{cm}^2$ permitted for public (uncontrolled) exposure, and 7.87% of the 1000 $\mu\text{W}/\text{cm}^2$ permitted for worker (controlled) exposure.

Therefore, the proposed facility complies with the requirements of OET 65.

EMF will fully cooperate with other future site users to reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.

Exhibit 22-A
RF Analysis: KMJC.P 300C1 Mount Shasta, CA

KMJC.P
Site type: Application
Channel: 300
Class: C1
ERP: 20 kw
Antenna: SWR
 FM3H/6
 6-bay
 full-wave
COR AGL: 44 m
Polarization: Horizontal

Distance From Tower (m)	KMJC.P Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	65.5771	65.58	32.79
1	67.3060	67.31	33.65
2	68.9760	68.98	34.49
3	70.5606	70.56	35.28
4	72.1321	72.13	36.07
5	74.1666	74.17	37.08
6	75.9549	75.95	37.98
7	77.4074	77.41	38.70
8	78.3862	78.39	39.19
9	78.7073	78.71	39.35
10	78.3859	78.39	39.19
11	77.3272	77.33	38.66
12	75.4302	75.43	37.72
13	72.5862	72.59	36.29
14	68.8765	68.88	34.44
15	64.3311	64.33	32.17
16	59.0262	59.03	29.51
17	53.0260	53.03	26.51
18	46.5718	46.57	23.29
19	39.8663	39.87	19.93
20	33.1335	33.13	16.57
21	26.6718	26.67	13.34
22	20.6575	20.66	10.33
23	15.2071	15.21	7.60
24	10.4903	10.49	5.25
25	6.6257	6.63	3.31
26	3.6494	3.65	1.82
27	1.6057	1.61	0.80
28	0.4361	0.44	0.22
29	0.0098	0.01	0.00
30	0.1676	0.17	0.08
31	0.7375	0.74	0.37
32	1.5540	1.55	0.78
33	2.4610	2.46	1.23
34	3.3254	3.33	1.66
35	4.0438	4.04	2.02
36	4.5469	4.55	2.27
37	4.8017	4.80	2.40
38	4.8299	4.83	2.41
39	4.6210	4.62	2.31
40	4.2132	4.21	2.11
41	3.6584	3.66	1.83
42	3.0155	3.02	1.51
43	2.3436	2.34	1.17
44	1.6970	1.70	0.85
45	1.1286	1.13	0.56

Distance From Tower (m)	KMJC.P Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	0.6573	0.66	0.33
47	0.3070	0.31	0.15
48	0.0887	0.09	0.04
49	0.0022	0.00	0.00
50	0.0372	0.04	0.02
51	0.1755	0.18	0.09
52	0.3939	0.39	0.20
53	0.6652	0.67	0.33
54	0.9617	0.96	0.48
55	1.2589	1.26	0.63
56	1.5350	1.53	0.77
57	1.7721	1.77	0.89
58	1.9573	1.96	0.98
59	2.0826	2.08	1.04
60	2.1445	2.14	1.07
61	2.1437	2.14	1.07
62	2.0845	2.08	1.04
63	1.9720	1.97	0.99
64	1.8087	1.81	0.90
65	1.6157	1.62	0.81
66	1.4039	1.40	0.70
67	1.1841	1.18	0.59
68	0.9659	0.97	0.48
69	0.7580	0.76	0.38
70	0.5676	0.57	0.28
71	0.4002	0.40	0.20
72	0.2599	0.26	0.13
73	0.1493	0.15	0.07
74	0.0695	0.07	0.03
75	0.0204	0.02	0.01
76	0.0006	0.00	0.00
77	0.0082	0.01	0.00
78	0.0407	0.04	0.02
79	0.0952	0.10	0.05
80	0.1686	0.17	0.08
81	0.2571	0.26	0.13
82	0.3571	0.36	0.18
83	0.4650	0.46	0.23
84	0.5770	0.58	0.29
85	0.6900	0.69	0.34
86	0.8007	0.80	0.40
87	0.9065	0.91	0.45
88	1.0049	1.00	0.50
89	1.0940	1.09	0.55
90	1.1722	1.17	0.59
91	1.2384	1.24	0.62
92	1.2916	1.29	0.65
93	1.3315	1.33	0.67
94	1.3579	1.36	0.68
95	1.3665	1.37	0.68
96	1.3598	1.36	0.68
97	1.3411	1.34	0.67
98	1.3115	1.31	0.66
99	1.2720	1.27	0.64
100	1.2238	1.22	0.61