

## **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.**

EMF's proposed facility will be constructed on an existing tower (tower ID 1207199) and will cause no adverse effects to the surrounding environment at the site.

### **2) Human exposure to excess levels of radiofrequency radiation.**

The proposed facility is to be built using a 4-bay vertically polarized full-wave spaced antenna or equivalent.

There are no other AM, FM, TV stations within .2km of the proposed facility to factor into this study.

As can be seen in Exhibit 22A, the maximum theoretical RF value would be  $87.33\mu\text{W}/\text{cm}^2$  at a distance of 8 meters from the tower, which is 43.66% of the  $200\mu\text{W}/\text{cm}^2$  permitted for public (uncontrolled) exposure, and 8.73% 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 temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.

**RF Analysis: Thomson, GA****WQAI****208****C3****WQAI****Site type:** Application**Channel:** 208**Class:** C3**ERP:** 5.9KW**Antenna:** ERI

DIPOLE

4 BAY

FULL WAVE

**COR AGL:** 46M**Polarization:** VERTICAL

<b>Distance From Tower (m)</b>	<b>WQAI Facility</b>	<b>Total RF (uW/cm2)</b>	<b>Percent of 200uW/cm2</b>
0	75.4563	75.46	37.73
1	76.3416	76.34	38.17
2	77.1550	77.15	38.58
3	77.8858	77.89	38.94
4	78.5185	78.52	39.26
5	80.9277	80.93	40.46
6	83.2520	83.25	41.63
7	85.4017	85.40	42.70
<b>8</b>	<b>87.3291</b>	<b>87.33</b>	<b>43.66</b>
9	87.1788	87.18	43.59
10	86.5156	86.52	43.26
11	85.5342	85.53	42.77
12	84.2057	84.21	42.10
13	82.3690	82.37	41.18
14	80.0903	80.09	40.05
15	77.4321	77.43	38.72
16	74.3979	74.40	37.20
17	71.1495	71.15	35.57
18	67.9469	67.95	33.97
19	64.3682	64.37	32.18
20	60.4537	60.45	30.23
21	56.2548	56.25	28.13
22	51.4652	51.47	25.73
23	46.3269	46.33	23.16
24	41.2408	41.24	20.62
25	36.2747	36.27	18.14
26	31.4928	31.49	15.75
27	27.0709	27.07	13.54
28	23.0281	23.03	11.51
29	19.2430	19.24	9.62
30	15.7597	15.76	7.88
31	12.6122	12.61	6.31
32	9.8240	9.82	4.91
33	7.3331	7.33	3.67
34	5.2452	5.25	2.62
35	3.5631	3.56	1.78
36	2.2564	2.26	1.13
37	1.2893	1.29	0.64
38	0.6227	0.62	0.31
39	0.2155	0.22	0.11
40	0.0261	0.03	0.01
41	0.0139	0.01	0.01
42	0.1398	0.14	0.07
43	0.3678	0.37	0.18
44	0.6652	0.67	0.33
45	1.0031	1.00	0.50

Distance From Tower (m)	WQAI Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	1.3568	1.36	0.68
47	1.6920	1.69	0.85
48	2.0011	2.00	1.00
49	2.2722	2.27	1.14
50	2.4976	2.50	1.25
51	2.6726	2.67	1.34
52	2.7956	2.80	1.40
53	2.8671	2.87	1.43
54	2.8896	2.89	1.44
55	2.8821	2.88	1.44
56	2.9028	2.90	1.45
57	2.8825	2.88	1.44
58	2.8242	2.82	1.41
59	2.7318	2.73	1.37
60	2.6096	2.61	1.30
61	2.4626	2.46	1.23
62	2.2955	2.30	1.15
63	2.1134	2.11	1.06
64	1.9212	1.92	0.96
65	1.7234	1.72	0.86
66	1.5177	1.52	0.76
67	1.3034	1.30	0.65
68	1.1014	1.10	0.55
69	0.9140	0.91	0.46
70	0.7427	0.74	0.37
71	0.5889	0.59	0.29
72	0.4534	0.45	0.23
73	0.3363	0.34	0.17
74	0.2379	0.24	0.12
75	0.1576	0.16	0.08
76	0.0948	0.09	0.05
77	0.0488	0.05	0.02
78	0.0186	0.02	0.01
79	0.0029	0.00	0.00
80	0.0007	0.00	0.00
81	0.0105	0.01	0.01
82	0.0310	0.03	0.02
83	0.0609	0.06	0.03
84	0.0988	0.10	0.05
85	0.1434	0.14	0.07
86	0.1935	0.19	0.10
87	0.2479	0.25	0.12
88	0.3055	0.31	0.15
89	0.3653	0.37	0.18
90	0.4263	0.43	0.21
91	0.4878	0.49	0.24
92	0.5489	0.55	0.27
93	0.6089	0.61	0.30
94	0.6673	0.67	0.33
95	0.7236	0.72	0.36
96	0.7772	0.78	0.39
97	0.8279	0.83	0.41
98	0.8754	0.88	0.44
99	0.9187	0.92	0.46
100	0.9571	0.96	0.48