Engineering Exhibit to FCC 301 Application
Capstar TX Limited Partnership
KHSL-FM FID# 22974
Paradise, CA

Capstar TX Limited Partnership (CTLP) licensee of KHSL-FM seeks a new construction permit for relocation and modification of the station antenna system. This instant application requests the use of a directional antenna, as well as a change in antenna location to ASR# 1013956, to provide better service in the station's service area.

The requested directional antenna is being proposed NOT for contour protection to any station or allocation. The proposed location is fully spaced using 73.207 as shown in *Table 1*. As depicted in map *Figure 1* the stations service area is principally a valley with mountains rising over 1,000 meters on the east and west. The proposed directional pattern is to reduce reflections from these mountains that cause poor reception in the valley. The city of license, Paradise CA, is fully served by the city grade contour as also shown in *Figure1*.

A new FAA study and modification to ASR# 1013965 is being initiated concurrent with this application because of the need to increase the height of the tower as proposed.

Radio Frequency Radiation Study and Statement

The Proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

The proposed KHSL-FM antenna system is a 2 section full-wave spaced "Double V" style antenna, EPA type 2, mounted with its center of radiation 94 meters above ground level, and will operate with an effective radiated power of 1.75 kilowatts in both the horizontal and vertical planes. At 2 meters, the height of an average person, at a distance of 50 meters from the base of the tower, this proposal will contribute worst case, 1.24 microwatts per square centimeter, or 2.5 percent of the allowable limit for controlled exposure, and 0.25 percent of the allowable limit for uncontrolled exposure. At the tower base, power density is even lower. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that warning signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is remote

and restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

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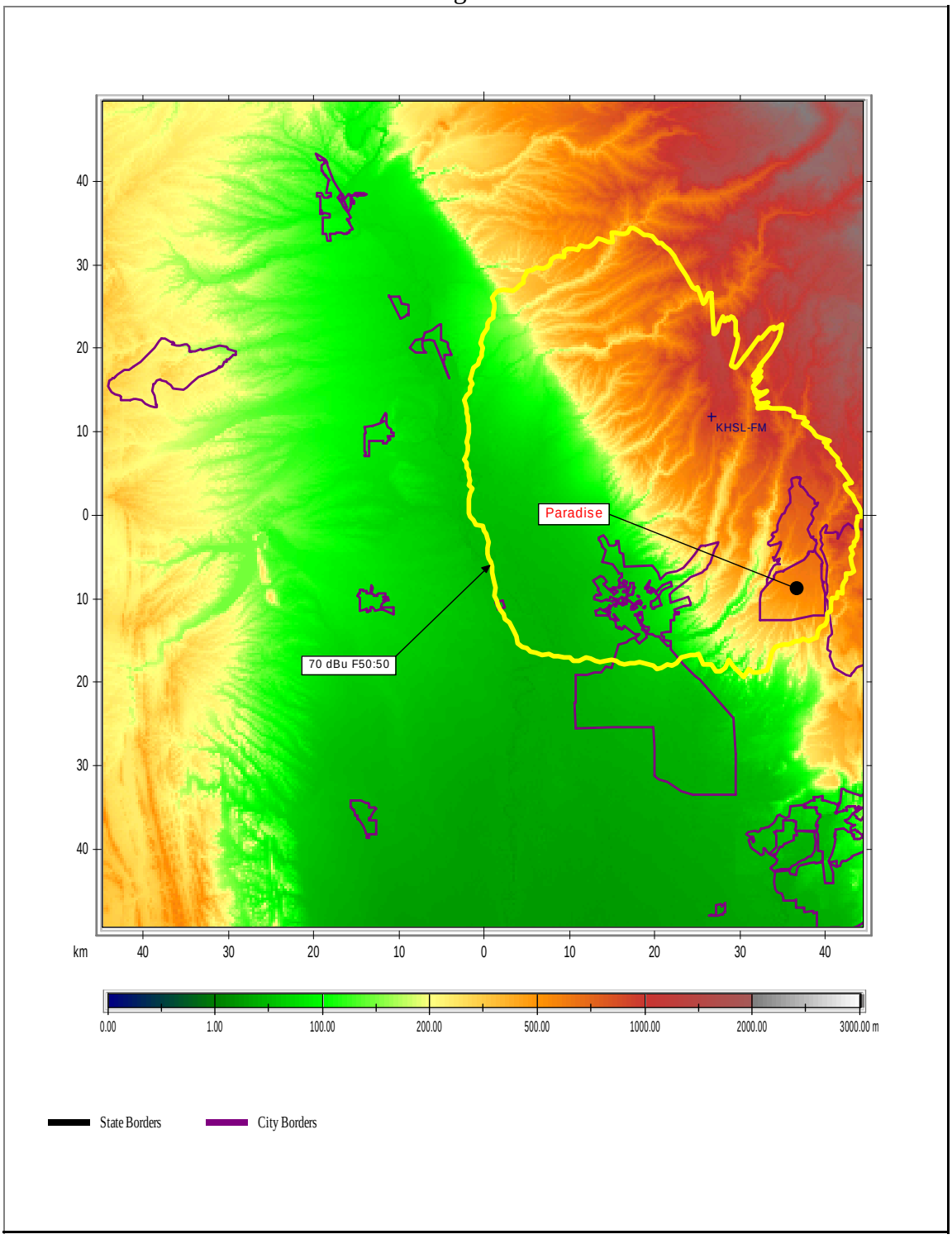
Table 1

ComStudy 2.2 search of channel 278 (103.5 MHz Class B1) at 39-56-46.0 N, 121-43-17.0 W.

Callsign	State	City	Channel	ERP_w	Class	Status	Distance_km	Sep	Clr
KUKI-FM	CA	UKIAH	277	2100	B	LIC	149.68	145	4.7
KCEE	CA	GRASS VALLEY	277	500	A	CP	101.29	96	5.3
KLRS	CA	CHICO	224	1500	A	LIC	17.46	12	5.5
KCEE	CA	GRASS VALLEY	277	530	A	APP	101.29	96	5.3
KODS	CA	CARNELIAN BAY	279	5900	C1	LIC	172.85	161	11.8
KBMB	CA	SACRAMENTO	278	6000	A	LIC	154.59	143	11.6
KXCL	CA	YUBA CITY	280	510	B1	LIC	82.65	50	32.7
KKCY	CA	COLUSA	276	135	A	LIC	82.62	48	34.6

Figure 1


KHSL-FM
Paradise
70 dBu F50:50
km
40
30
20
10
0
10
20
30
40
0.00
1.00
100.00
200.00
500.00
1000.00
2000.00
3000.00 m
State Borders
City Borders