

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of NORTHERN CALIFORNIA EDUCATIONAL TELEVISION ASSOCIATION, INC., licensee of KIXE-DT, Channel 9 in Redding, California and applicant for a digital television replacement translator on Channel 18 in Chico, California, in support of this amendment to the pending application BNPDTT-20090825BTC, to specify a reduction in effective radiated power and a change in the antenna radiation pattern in order to extricate the application from a mutual exclusivity with a co-channel application in Redding, California (BNPDTL-20090825BPG) and a recent proposal for KHSL-DT to operate a fill-in translator on Channel 18 in Redding, California (LMS File Number 0000053735). No change in site location or antenna height from that specified in BNPDTT-20090825BTC is proposed herein. It is important to note that KIXE-DT has been operating this translator under Special Temporary Authority for the past few years.

It is proposed to modify the pattern of the existing broadband directional antenna, which is mounted at the 101-meter level of an existing 152.4-meter communications tower. The proposed effective radiated power for the facility is 2.3 kW in horizontal plane. Exhibit B-1 is a map upon which the predicted 51 dBu service contour is plotted. As shown in Exhibit B-2, the newly proposed service contour is completely contained within that originally proposed in BNPDTT-20090825BTC, which indicates that the new proposal meets the terms of the current Commission freeze on the filing of LPTV/translator applications that extend in any direction the station's coverage footprint.

Exhibit C is a summary report from a TVStudy interference analysis for the proposed facility. Our study employed both a cell size and increment spacing of 1.0 kilometer. Further

EXHIBIT A

the applicant proposes use of a stringent mask filter. The results indicate that the proposed Channel 18 translator facility meets the Commission's interference requirements to all full-power and low-power co-channel and adjacent-channel television facilities.

It is also important to note that the proposed facility receives predicted interference from the above-referenced digital LPTV proposal in Redding, California (BNPDTL-20090825BPG), in excess of the 2.0% FCC limits. However, the owners of KIXE-DT (and applicant of this proposal) agree to accept the interference caused by the Redding application. As a result, it is believed that the instant amended application can be granted by the Commission.

A detailed power density calculation is provided in Exhibit D.

Since no change in the overall height or location of the existing tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, the FCC issued Antenna Structure Registration Number 1258123 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read 'K. T. Fisher', with a stylized flourish at the end.

KEVIN T. FISHER

May 11, 2018

**CONTOUR POPULATION
2015 U.S. CENSUS DATA
191,996 (82,773 HH)**

Smith and Fisher, LLC

**PROPOSED CH. 18
51 DBU CONTOUR**

Proposed Site

Red Bluff

Tehama

Los Molinos

Corning

Orland

Hamilton City

Chico

Durham

Magalia

Paradise

Butte

Glenn

Willows

Oroville

Palermo

Biggs

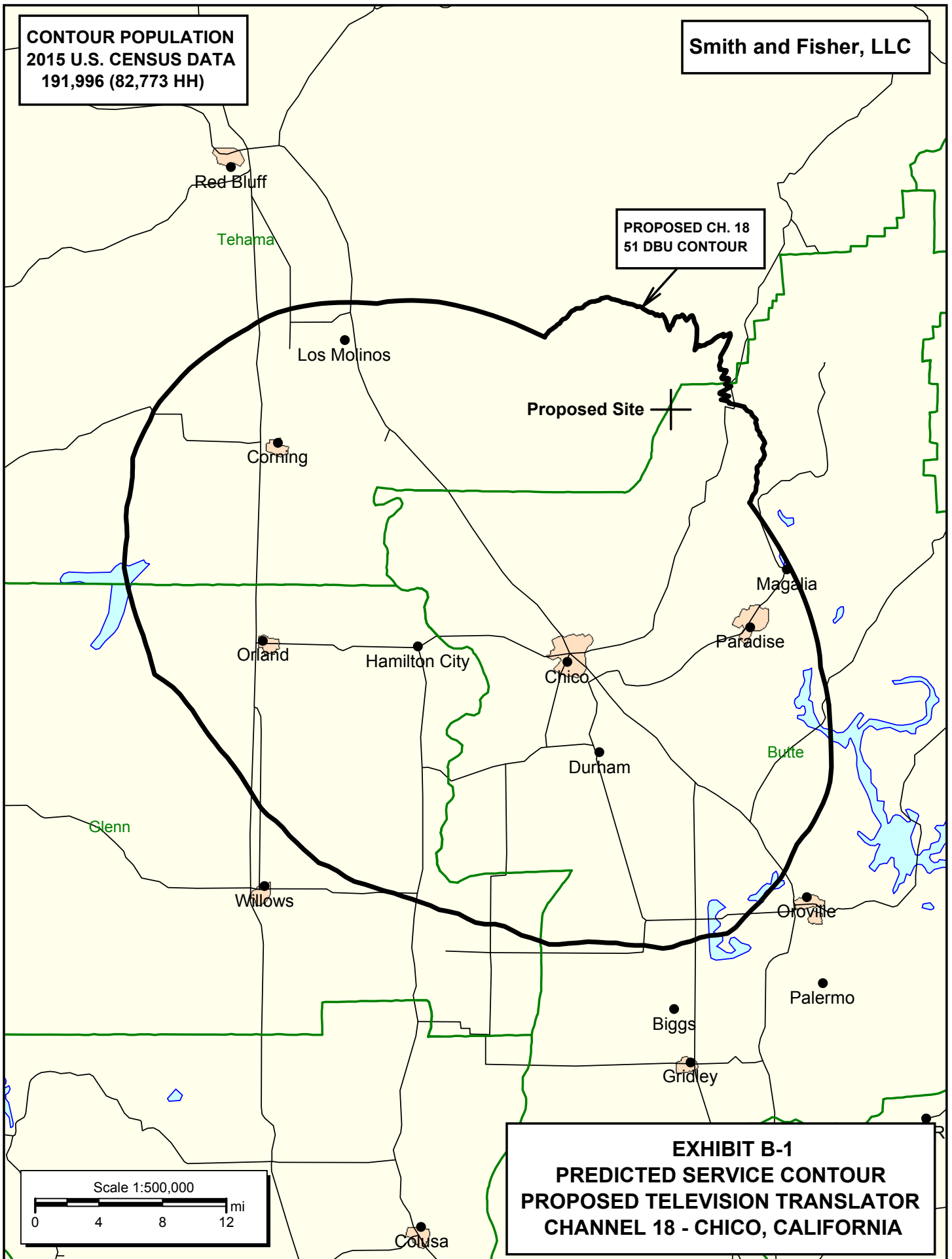
Gridley

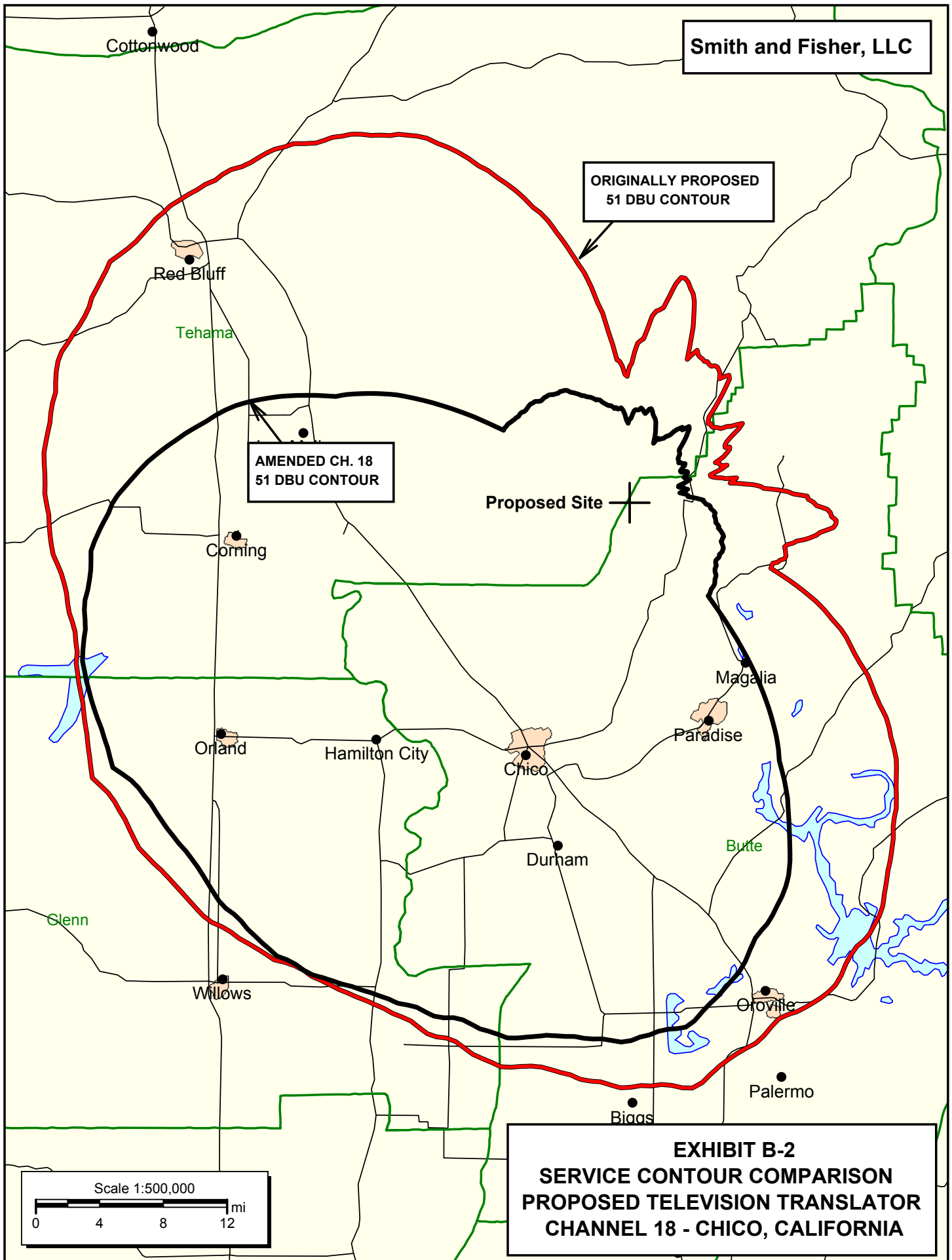
Colusa

Scale 1:500,000

0 4 8 12 mi

**EXHIBIT B-1
PREDICTED SERVICE CONTOUR
PROPOSED TELEVISION TRANSLATOR
CHANNEL 18 - CHICO, CALIFORNIA**





TVSTUDY INTERFERENCE ANALYSIS RESULTS
 PROPOSED TELEVISION TRANSLATOR
 CHANNEL 18 – CHICO, CALIFORNIA
 [AMENDMENT TO BNPDTT-20090825BTC]

Study created: 2018.05.11 11:09:45

Study build station data: LMS TV 2018-04-07

Proposal: NEW-D D18 LD APP CHICO AND PARADISE, CA
 File number: BNPDTT20090825BTC
 Facility ID: 182703
 Station data: User record
 Record ID: 237
 Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K15CX	N15z	TX	LIC	OROVILLE, CA	BLTTL20020613AAH	56.2 km
Yes	KXVU-LP	D17	LD	CP	CHICO, CA	BDFCDTL20110404AFB	0.5
Yes	KXVU-LP	N17-	TX	LIC	CHICO, CA	BLTTL20060303AAJ	0.5
No	KJRW	D17	DT	LIC	EUREKA, CA	BLCDT20030806ACS	209.5
Yes	KCVU	D17	DT	CP	PARADISE, CA	BLANK0000034879	0.5
No	K17HE-D	D17	LD	LIC	SUSANVILLE, ETC, CA	BLDTL20101207AFM	127.3
No	K17CG-D	D17	LD	LIC	UKIAH, CA	BLDTL20120509AFR	150.7
No	K18LJ-D	D18	LD	LIC	DUNSMUR, ETC, CA	BLANK0000011185	149.3
Yes	KUVS-DT	D18	DT	LIC	MODESTO, CA	BLCDT20020906ABH	221.6
Yes	NEW	D18	LD	APP	REDDING, CA	BNPDTL20090825BPG	103.2
No	KFAZ-CA	D18	DC	LIC	VISALIA, CA	BLANK0000001548	415.1
No	NEW	D18	LD	APP	CARSON CITY, NV	BNPDTL20090825AOK	188.7
No	K18KX-D	D18	LD	CP	FERNLEY, NV	BNPDTL20100512AGZ	213.4
No	K18DP-D	D18	LD	LIC	LOVELOCK, NV	BLDTT20100719AEP	254.8
No	K18GG-D	D18	LD	LIC	MINA / LUNING, NV	BLDTT20110311ABV	360.3
No	KRNS-CD	D18	DC	CP	RENO, NV	BLANK0000034464	172.3
No	NEW	D18	LD	APP	RENO, NV	BNPDTL20090825BTZ	172.4
No	NEW	D18	LD	APP	RENO, NV	BNPDTL20090825BOT	175.8
No	KOHD	D18	DT	LIC	BEND, OR	BLANK0000002204	459.0
No	K48GO-D	D18	LD	APP	CAVE JUNCTION, OR	BLANK0000035598	303.3

No	K41KL-D	D18	LD APP	GLENDAL, ETC., OR	BLANK0000032043	324.4
No	KDOV-LD	D18	LD CP	MEDFORD, OR	BLANK0000033864	274.1
No	KDOV-LD	D18	LD LIC	MEDFORD, OR	BLDTL20141016ABV	274.1
No	KTV	D18	DT APP	ROSEBURG, OR	BLANK0000036020	386.3
No	KTV	D18	DT LIC	ROSEBURG, OR	BLCDT20060721AAR	388.0
Yes	K19FY	N19+	TX LIC	CHICO, CA	BLTT20060109ABD	0.5
Yes	K19FY	D19	LD CP	CHICO, CA	BDFCDTL20111215ADN	0.5
No	K19IV-D	D19	LD CP	REDDING, CA	BNPDTL20090825ASG	92.0
No	KMUM-CD	D19	DC CP	SACRAMENTO, CA	BLANK0000026704	140.5
No	KOFY-TV	D19	DT LIC	SAN FRANCISCO, CA	BLCDT20091102AAU	253.0
No	KSTS	D19	DT CP	SAN JOSE, CA	BLANK0000034597	273.6
No	K19GA-D	D19	LD LIC	SUSANVILLE, ETC, CA	BLDTT20110822AAE	127.3
No	KEVO-LD	D19	LD CP	SUN VALLEY, NV	BDISDTL20120514AAZ	168.8
No	KRRI-LP	N25-	TX LIC	RENO, NV	BLTTL19981028JG	168.9

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D18
Mask: Stringent
Latitude: 39 57 28.60 N (NAD83)
Longitude: 121 42 52.90 W
Height AMSL: 1166.0 m
HAAT: 0.0 m
Peak ERP: 2.30 kW
Antenna: SCA-K723147 Special 0.0 deg
Elev Pattn: Generic

49.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.002 kW	164.8 m	9.4 km
45.0	0.002	117.5	7.9
90.0	0.002	134.5	8.5
135.0	0.002	361.8	13.5
180.0	1.82	623.3	57.1
225.0	2.21	741.7	60.7
270.0	1.10	694.9	55.2
315.0	0.002	498.9	16.2

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 417 m

Distance to Canadian border: 930.3 km

Distance to Mexican border: 902.9 km

Conditions at FCC monitoring station: Livermore CA

Bearing: 180.8 degrees Distance: 248.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 83.8 degrees Distance: 1398.6 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

Study cell size: 1.00 km

Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

---- Below is IX received by proposal BNPDTT20090825BTC ----

**MX with BNPDTL20090825BPG APP scenario 1, 33.95% interference received

**MX with BNPDTL20090825BPG APP scenario 2, 33.95% interference received

**MX with BNPDTL20090825BPG APP scenario 3, 33.66% interference received

**MX with BNPDTL20090825BPG APP scenario 4, 33.66% interference received

POWER DENSITY CALCULATION
PROPOSED TELEVISION TRANSLATOR
CHANNEL 18 – CHICO, CALIFORNIA
[AMENDMENT TO BNPDTT-20090825BTC]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Chico facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 2.3 kW, an antenna radiation center 101 meters above ground, and assuming a vertical relative field value of 10 percent at the steeper elevation angles for the existing panel antenna, maximum power density two meters above ground of 0.000078 mW/cm^2 is calculated to occur near the base of the tower. Since this is less than 0.1 percent of the 0.33 mW/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 18 (494-500 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.