



## ENGINEERING STUDY

KZAP (FM)

Requesting a Minor Modification to  
License number BLH-19950531KC

Channel 244B1 (96.7MHz)

Paradise, CA

Facility ID 56714

August, 2022

## **KZAP (FM)**

### **Requesting a Minor Modification to**

**License BLH-19950531KC**

**Facility ID 56714**

**August, 2022**

### **TECHNICAL STATEMENT**

This technical statement and attached exhibits were prepared on behalf of Deer Creek Broadcasting, LLC, licensee of radio station KZAP (FM), Channel 244B1, 96.7MHz, Paradise, CA. This application seeks to relocate to an existing tower site 2km from the currently licensed site.

#### **Facilities Proposed**

Location (NAD83)	39° 56' 46" N Latitude, 121° 43' 21" W Longitude
Channel	244B1 (96.7MHz)
Tower Overall AGL Height-	89.3m
Tower ASR	1013956
Proposed Antenna	2-bay, full wave spaced, EPA Type 2
Antenna AGL Height-	55m (180ft)
Site AMSL Height-	972.3m
COR AMSL Height	1,027.3m
HAAT	317m
ERP	2.45 kW NON-DIRECTIONAL

### **ALLOCATION**

The proposed operation will utilize a non-directional antenna and will meet all spacing requirements to other stations pursuant to 73.207. The allocation study is attached as Exhibit A

### **BORDER PROXIMITY, CANADA OR MEXICO**

The proposed KZAP facility is NOT within 320km of the common border between the US and Mexico or Canada.

## **COMMUNITY COVERAGE**

As demonstrated in Exhibit B, the proposed FCC 70dBu f50,50 contour will cover 99.6% of Paradise, CA in area and 100% population. Also as shown in Exhibit B, the proposed 70dBu contour covers significantly more of the licensed community than that which is currently licensed. Based upon the preceding, the proposed KZAP facility will be compliant with community coverage requirements.

## **ENVIRONMENTAL CONSIDERATIONS**

The proposed antenna will be attached to an existing registered tower (ASR 1013956) at 55 meters AGL.

The proposed KZAP antenna will operate at a maximum power level of 2.45kW ERP and will operate at 55m AGL using a 2-bay, full wavelength spaced, EPA Type 3 antenna. Based upon the FCC “FM Model”<sup>1</sup> Power Density vs. Distance calculator, the maximum power density at 2m AGL contributed by KZAP is expected to be 8.4  $\mu\text{W}/\text{cm}^2$  or 4.2% of the permitted 200  $\mu\text{W}/\text{cm}^2$  limit for uncontrolled exposure. There are no tall buildings within 500m of the tower.

There are three other non-excluded facilities transmitting from this tower; KMXI (8.7kW @ 84m), KPAY-FM (2kW @ 72m) and KEGE (530W @ 65m). Because the expected KZAP NIER at 2m AGL is less than 5% of the allowable public exposure limit, this antenna addition is considered independently of the other facilities on this tower.

Based upon the preceding evaluation, the proposed KZAP antenna will not cause the RF density at the tower site to exceed public exposure limits at the 5% exclusion level and is thus excluded from further Environmental Assessment under 47CFR 1.1306 and 1.1307.

---

<sup>1</sup> <https://www.fcc.gov/general/fm-model>

Radio station KZAP (FM) will maintain an occupational safety policy along with other users of the tower and agrees to reduce power or cease operation during periods of maintenance to avoid potentially harmful exposure of personnel to non-ionizing RF radiation.

Respectfully Submitted

A handwritten signature in cursive script, reading "Bert Goldman". The signature is written in dark ink and is positioned above the printed name and title.

Bert Goldman  
Technical Consultant

## **EXHIBIT A- ALLOCATION STUDY**

ComStudy 2.2 search of channel 244 (96.7 MHz Class B1) at 39-56-46.0 N, 121-43-21.0 W.

### **73.207 EVALUATION**

<b>CALL</b>	<b>CITY</b>	<b>ST CHN CL</b>	<b>DIST</b>	<b>SEP</b>	<b>BRNG</b>	<b>CLEARANCE</b>
KSEG	SACRAMENTO	CA 245 B	145.65	145.00	171.6	0.6
KNCQ	WEAVERVILLE	CA 247 C	107.45	105.00	313.1	2.4
KARC-LP	OROVILLE	CA 242 LP100	50.78	46.00	161.4	4.8
KKHP-LP	OROVILLE	CA 246 LP100	50.85	46.00	155.1	4.8
KLCA	TAHOE CITY	CA 243 C1	172.86	161.00	113.6	11.9
KKXS	SHINGLETOWN	CA 241 C3	62.07	50.00	346.0	12.1
KNOB	HEALDSBURG	CA 244 A	165.86	143.00	216.1	22.9
KYBU	COVELO	CA 245 A	131.78	96.00	263.1	35.8

LMS as of 8/25/2022

**EXHIBIT B Community Coverage**

KZAP Proposed 70dBu Community Contour, Paradise, CA

