

**Exhibit 19 Page 1**  
**CSSI Non-Profit Educational**  
**Broadcasting Corporation**  
**NCE FM Interference Area to TV 6**  
**Springtown, Texas**

The purpose of this exhibit is to show compliance with §73.525 of the Commission's Rules. The Rules require that an applicant proposing operation on FM Channel 206, whose antenna location is less than 211 kilometers from a television Channel 6 facility, furnish a map and an engineering statement, with calculations, demonstrating compliance with the Rules with regard to interference to the reception of television channel 6. There are four affected TV 6 station.

1. KBFW-LP - 43 km distant
2. KBFW-LP(Digital Flash cut) - 43 km distant
3. KZFW-LP - 82 km distant
4. KZFW-LD - 108 km distant

Therefore, each station must receive consideration.

First, the relative HAAT figures were generated for each station using the NGDC 30 Second Database and the data from the FCC TV Database. The distance to the stations contours were predicted according to the procedures specified in §73.684 of the Commission's Rules, "Prediction of Coverage," using the F(50,50) curves in Figure 9 of §73.699.

For each television channel 6 field strength contour, the associated F(50,10) FM interference contour was obtained from Figure 1 of §73.599. The distance to the applicable NCE-FM interference contour was predicted according to the procedures specified in "Prediction of Coverage," using the F(50,10) curves in Figure 1 of §73.333 of the Rules. Radials were then computed every 5 degrees from the proposed NCE-FM site to the point at which interference stops occurring.

A table of the proposed new NCE-FM F(50,10) interfering contour to the Television Channel 6 F(50,50) protected contour may be seen as Table 1 of this exhibit.



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These calculations are based on the appropriate  $F(50,50)$ ,  $F(50,10)$  and FM/TV 6 protection ratio curves for an NCE-FM station operating with facilities of 15 kilowatts ERP at 56 meters HAAT. Free space calculations were used when computing the field strength for distances less than 1 mile.

The applicant chooses to use mixed polarity, and adjustments for television receiving antenna directivity have been utilized. As required in §73.525(e)(4)(ii) the permissible ERP is given by the following formula:

$[H + (V/A)]$  is no greater than  $P$

Where:      $H$      is the horizontally polarized ERP in kilowatts for mixed polarity;

$V$      is the vertically polarized ERP in kilowatts for mixed polarity;

$A$      is 40 dB if the predicted interference area lies entirely outside the limits of a city of 50,000 persons or more, or 10 if it does not; and

$P$      is the maximum permitted horizontally polarized-only power in kilowatts.

The predicted interference area lies entirely outside the limits of a city of 50,000 or more persons, thus the value of 40 was used for "A".

$$\begin{aligned}\text{ERP} &= [\text{ERPH} + (\text{ERP}_V/40)] \\ &= 0.001 + (15/40) \\ &= 0.376 \text{ kW}\end{aligned}$$

The total area receiving interference is 66.9 square kilometers within the KBFW-LP protected contour. The total population (2000 Census) receiving interference is 3,869 persons.



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The population receiving interference is more than 3,000 persons. Pursuant to §73.525(c)(2) the applicant proposes to subtract 869 persons from the population within the predicted interference area. For each person subtracted, the applicant commits to effectively install one filter within 90 days after commencing program tests and, no later than 45 days thereafter, to provide the affected TV Channel 6 station with a certification containing sufficient information to permit verification of such installation. The required number of filters will be installed on television receivers located within the predicted interference area.

Because the population receiving interference is less than 3,000 persons and there is no contour overlap with KBFW-LP(Digital Flash cut), KZFW-LP, and KZFW-LD, the application complies with §73.525 of the Commission's Rules as pertains to interference to the reception of TV Channel 6 by NCE-FM stations.

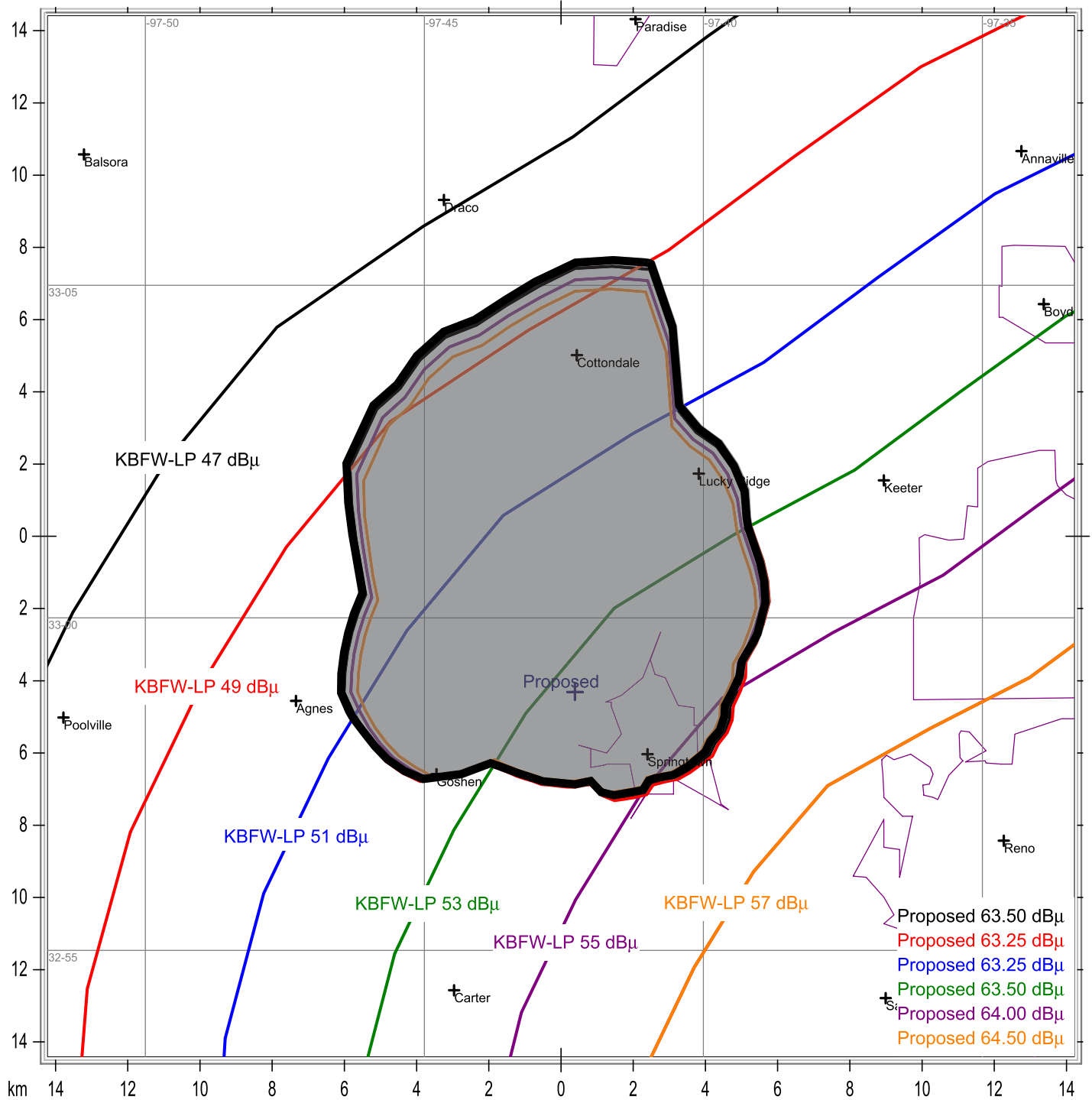


**Exhibit 19 Table 1**  
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<b>TV Contour dB</b>	<b>U/D Ratio dB</b>	<b>FM Contour dB</b>
<b>47.00</b>	<b>16.50</b>	<b>63.50</b>
<b>49.00</b>	<b>14.25</b>	<b>63.25</b>
<b>51.00</b>	<b>12.25</b>	<b>63.25</b>
<b>53.00</b>	<b>10.50</b>	<b>63.50</b>
<b>55.00</b>	<b>09.00</b>	<b>64.00</b>
<b>57.00</b>	<b>07.50</b>	<b>64.50</b>



Overlap with KBFW-LP



**Exhibit 19 Figure 1**  
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**Interference to KBFW-LP**  
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State Borders City Borders Lat/Lon Grid



