

KLQS-LP AGUA DULCE, CA
FAC ID NO 195731
MINOR CHANGE OF FACILITIES

CHANNEL SPACING

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                                Lancaster Educational Broadcast Service
REFERENCE                      CLASS = L1                      DISPLAY DATES
34 29 34.2 N.                  DATA    05-14-19
118 18 41.4 W.                 Current  Spacings to 2nd Adj.      SEARCH 06-18-19
----- Channel 248 - 97.5 MHz -----

Call        Channel  Location      Azi      Dist    FCC    Margin
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KAMP-FM     LIC-D   246B    Los Angeles    CA      142.6    37.14   66.5   -29.4
KLAX-FM     LIC-Z   250B    East Los Angeles CA      163.8    38.04   66.5   -28.5
KLYY        LIC-D   248B    Riverside      CA      104.6    111.51  111.5    0.01
KTPI-FM     LIC      249A    Mojave         CA       13.7    55.54   55.5    0.04
KHUG-LP     LIC      248L1   Castaic        CA      271.1    29.96   23.5     6.5
KRJK        LIC      247A    Lamont         CA      334.6    86.20   55.5    30.7
K287AL      CP       247D    Mojave         CA       13.7    55.54   20.5    35.0
KLSB        LIC      248B    Goleta         CA      271.8    151.22  111.5    39.7
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Reference station has protected zone issue: Mexico
All separation margins include rounding

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SECOND ADJACENT PROTECTION: Proposed is outside of the KLAX-FM 60 dBu contour (see Figure 1). Proposed is outside of the KAMP-FM 54 dBu protected contour (see Figure 2).

PROPOSED CHANNEL CHANGE: Per Section 73.870(a)(1) LPFM facilities may change channels “upon a technical showing of reduced interference, to any frequency.”

On current channel: Incoming interference from KLJR-FM: 42.7 dBu (Figure 3)

On proposed channel: Incoming interference from KHUG-LP: 41 dBu (Figure 4)

Other co-channel stations on proposed channel: According to Longley-Rice study, KLYY and KLSB are terrain-blocked (see Figures 5 and 6)

Hence, Channel 248 has less interference.

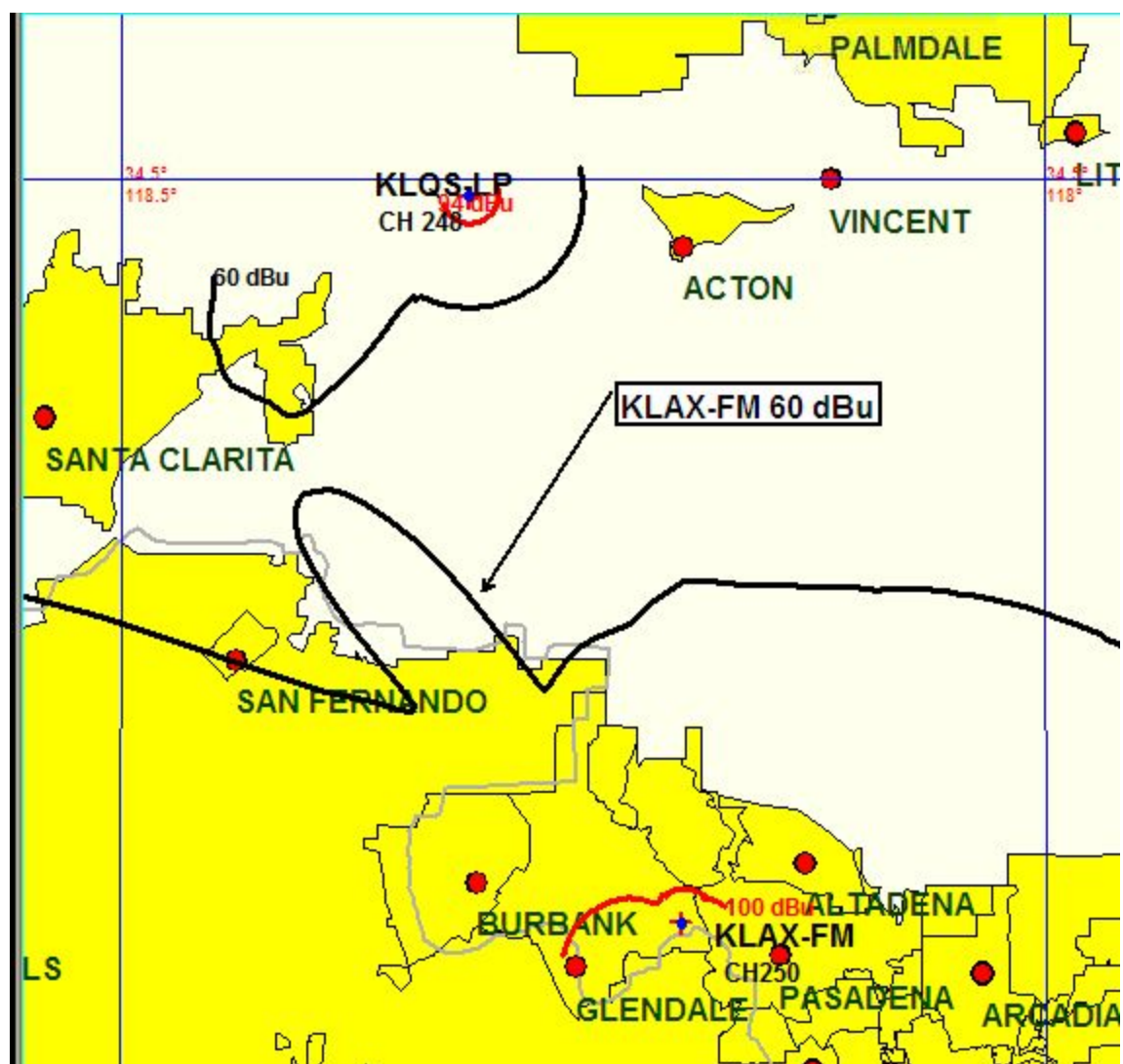


Figure 1: Proposed outside of KLAX-LP 60 dBu.

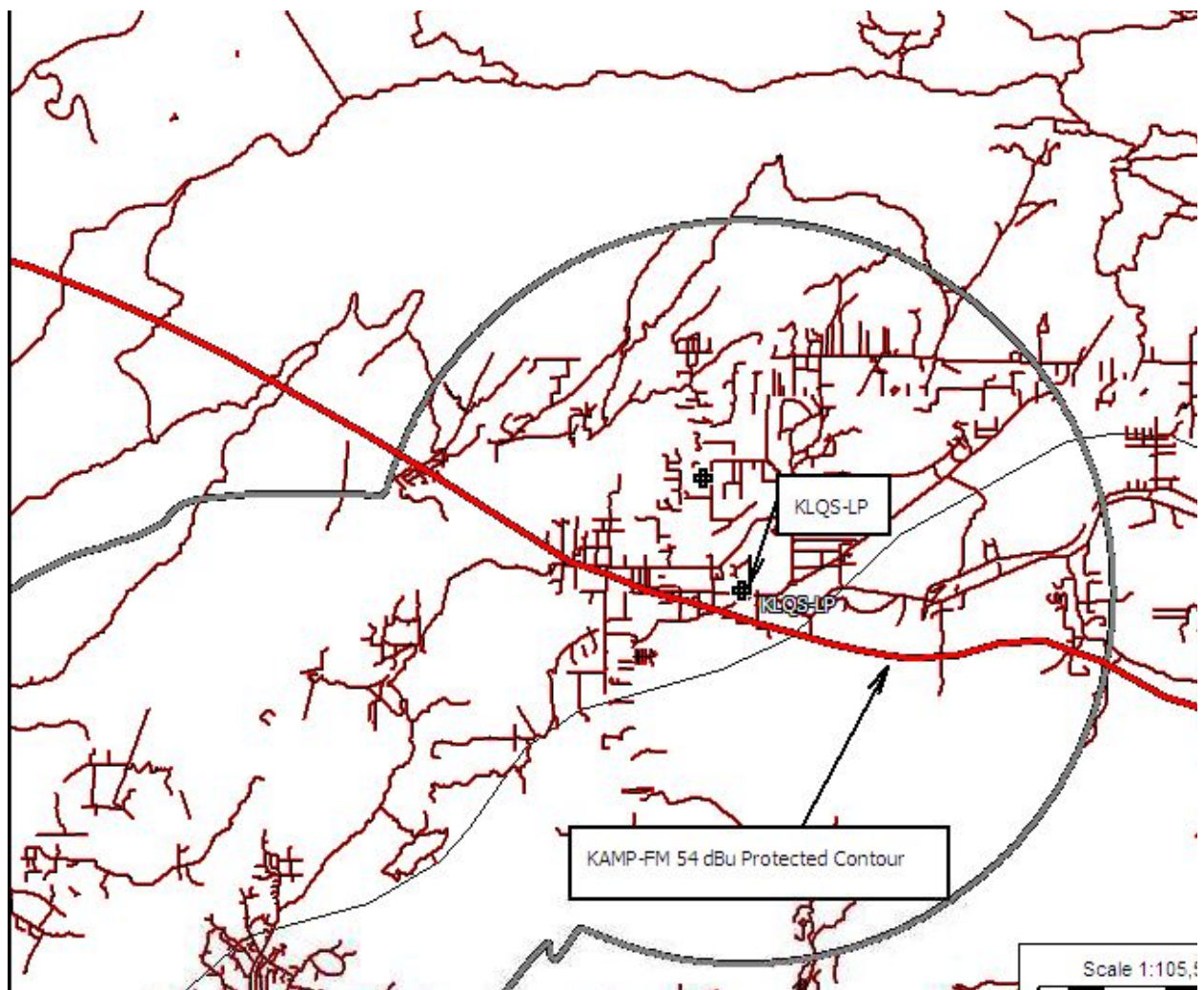


Figure 2: Proposed is outside KAMP-FM 54 dBu

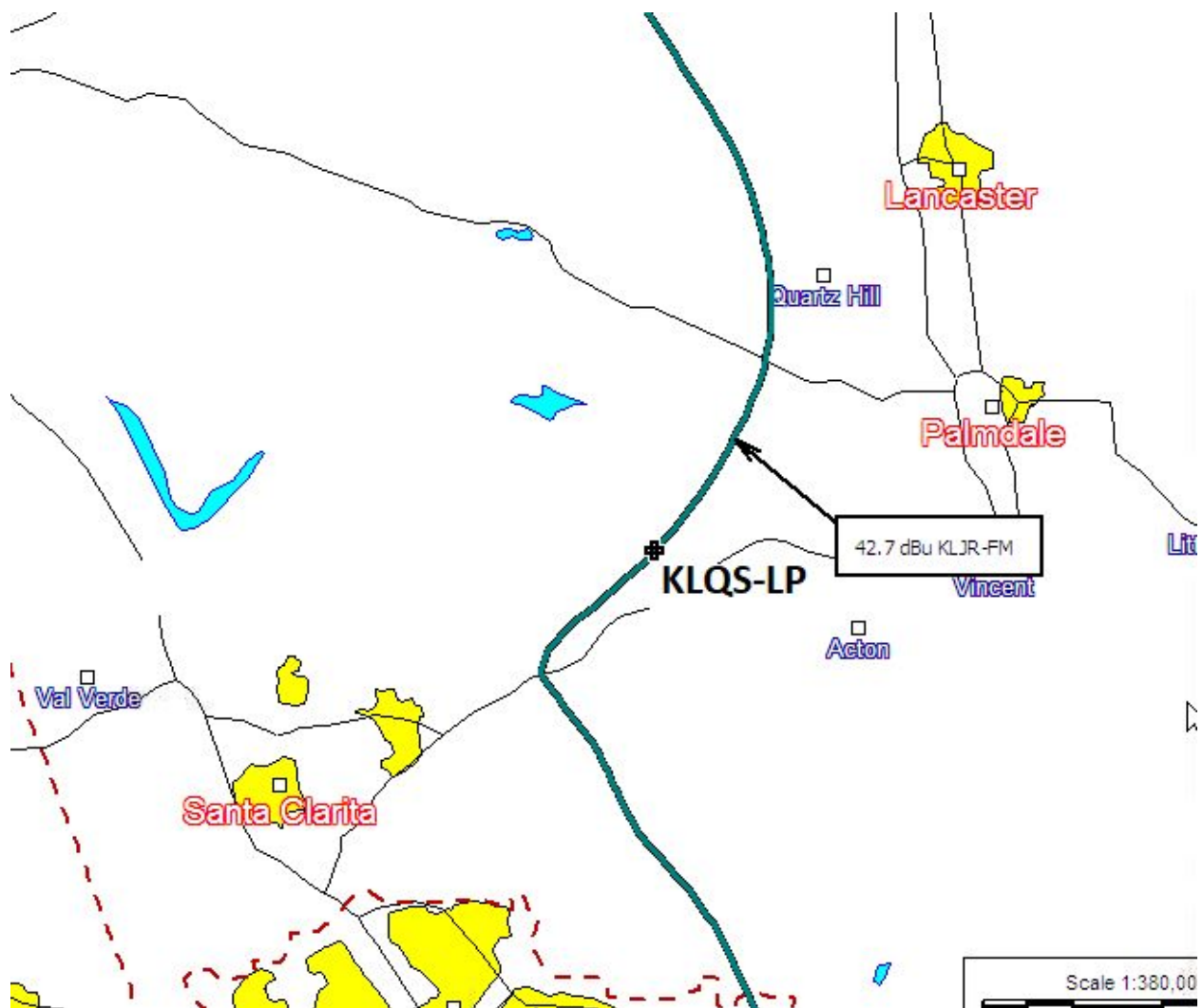


Figure 3: KLJR-FM 42.7 dBu interference contour at KLQS-LP site

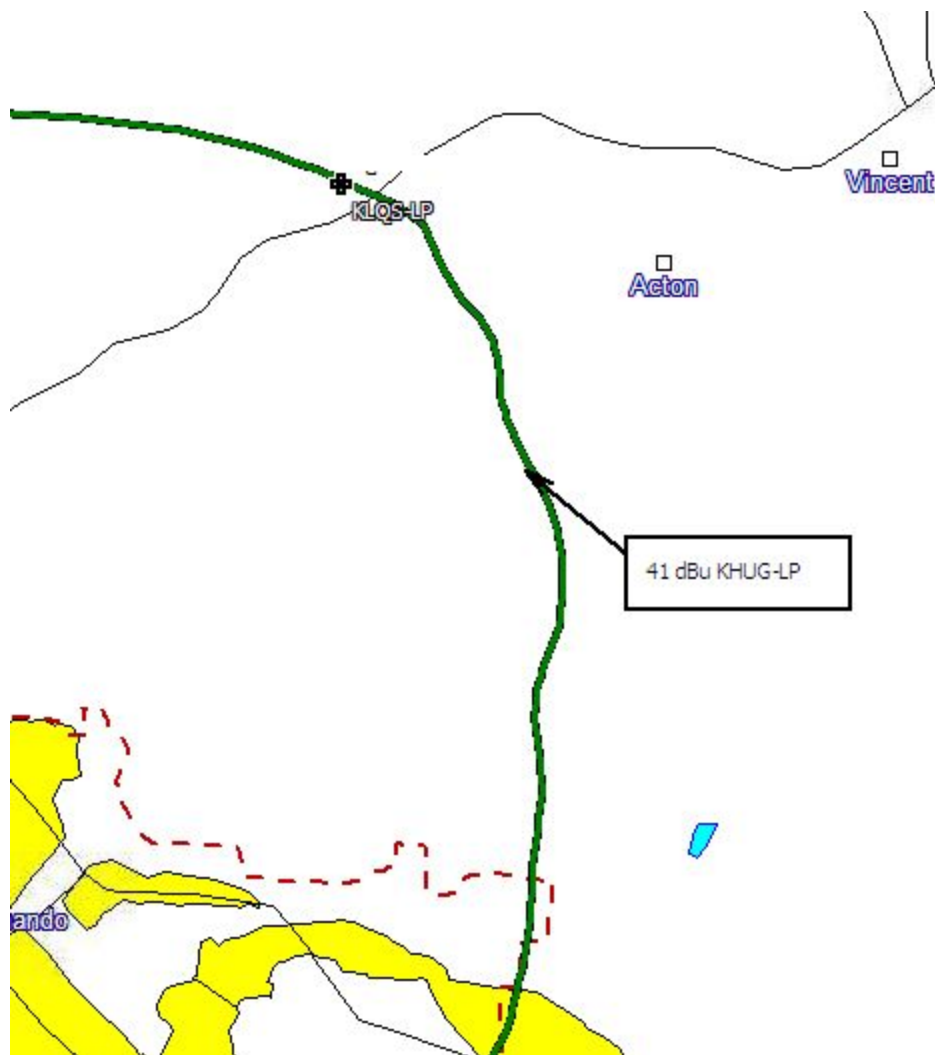


Figure 4: KHUG 41 dBu interference contour at proposed KLQS-LP site

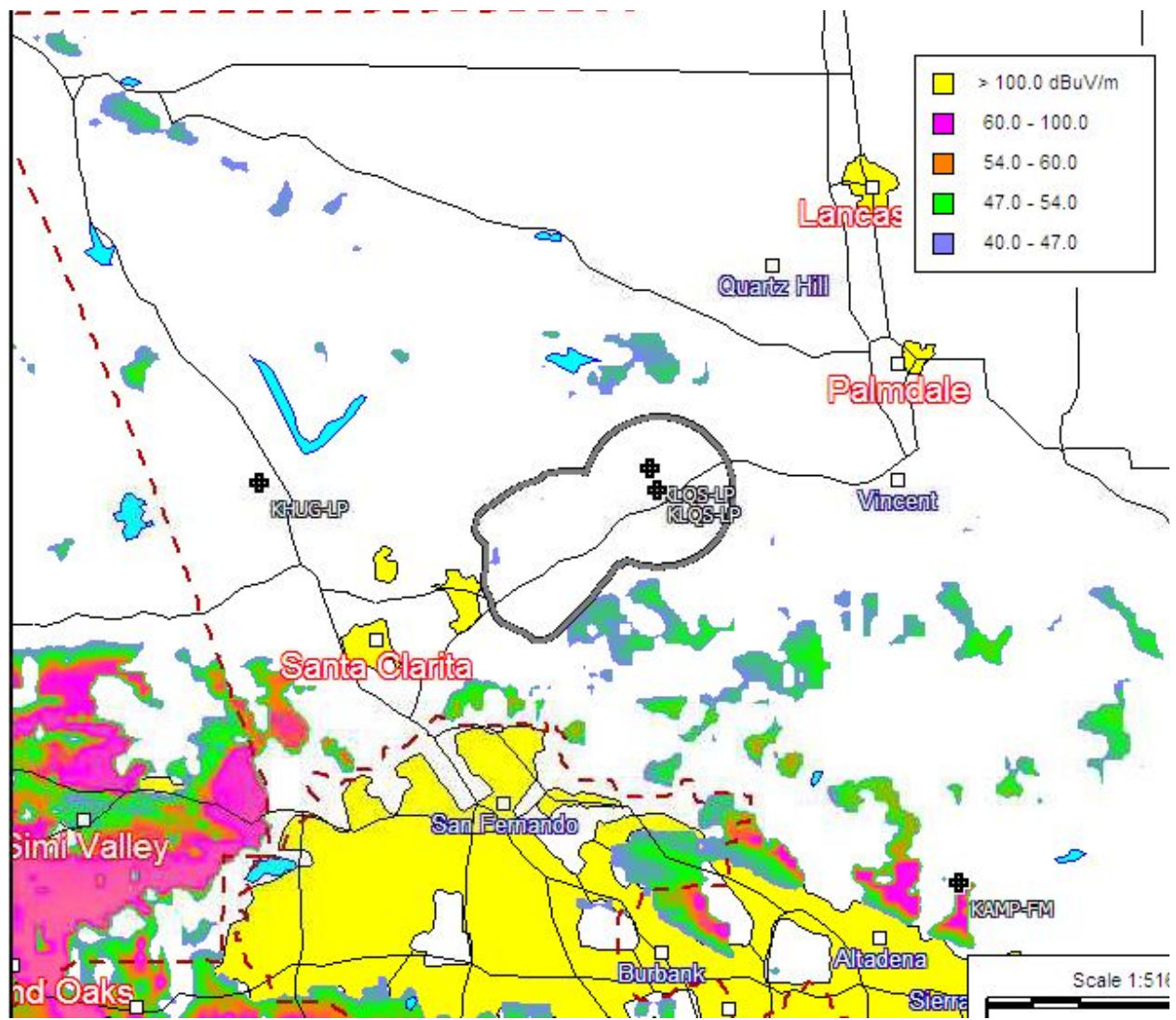


Figure 5: Propagation from co-channel KLSB-FM at the proposed site (TERRAIN-BLOCKED)

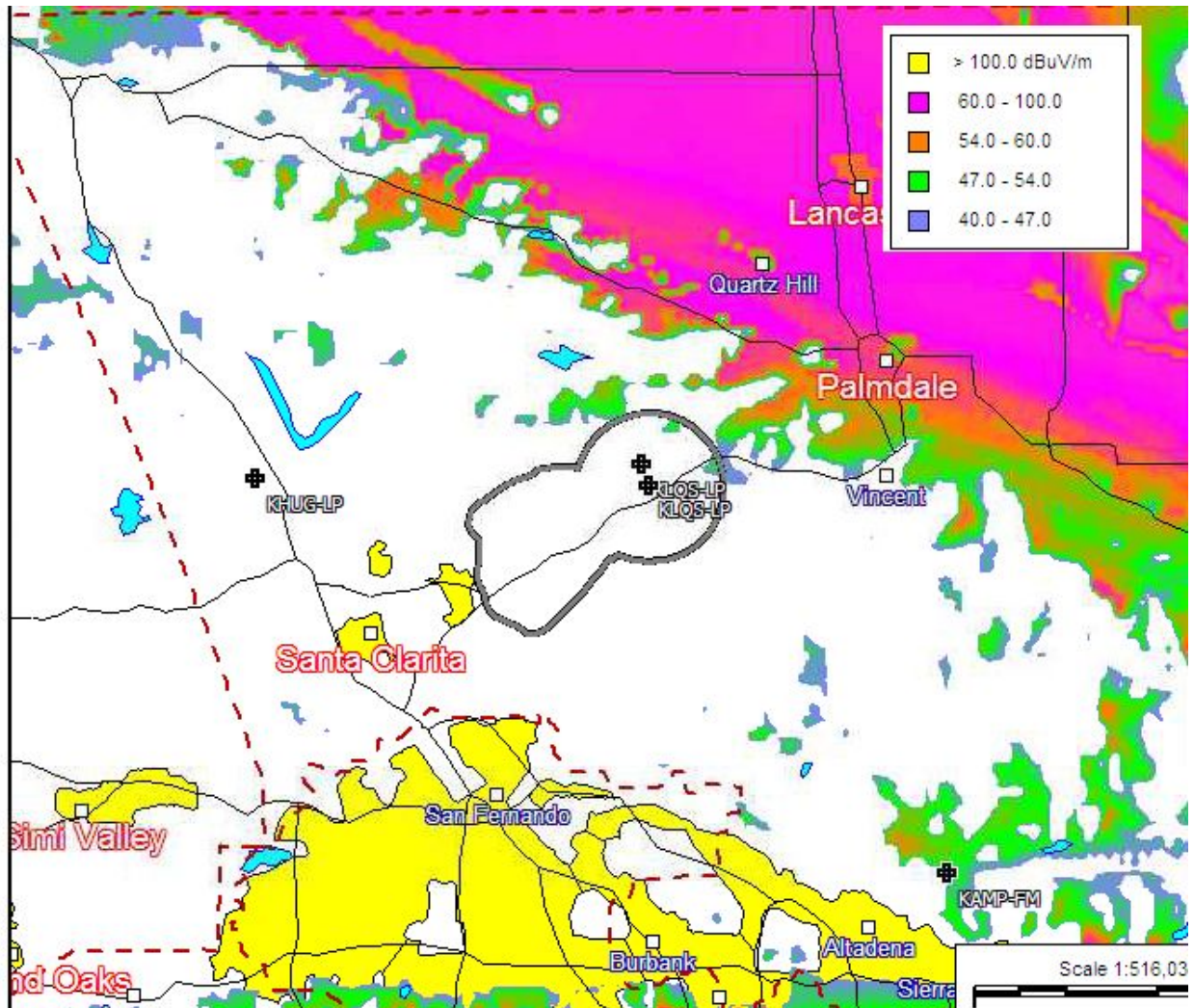


Figure 6: Propagation from co-channel KLYY at the proposed site (TERRAIN-BLOCKED)

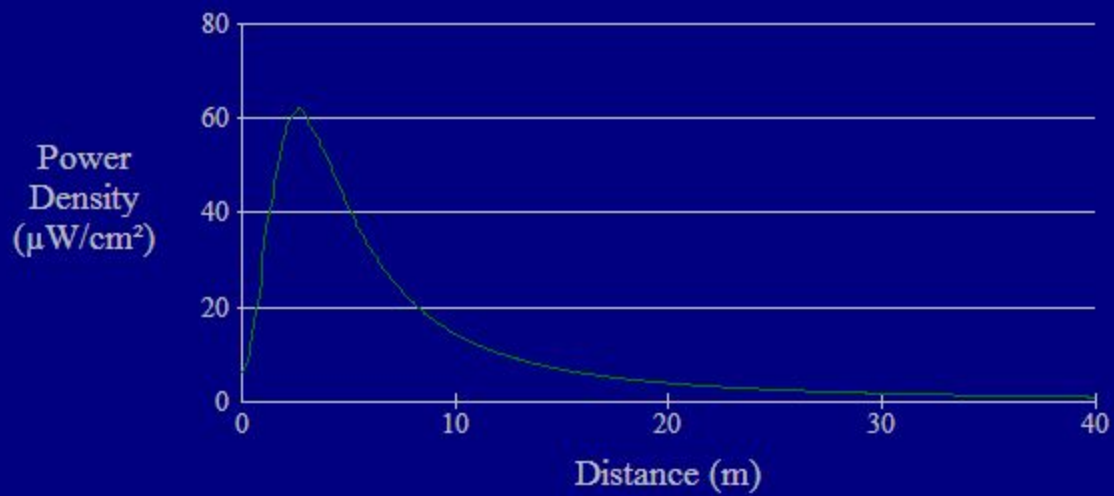
TOWAIR: PASS

DETERMINATION Results	
Antenna Structures whose total height (AGL) is <= 6.1 meters (20 feet) do not require registration	
Your Specifications	
NAD83 Coordinates	
Latitude	34-29-34.2 north
Longitude	118-18-44.7 west
Measurements (Meters)	
Overall Structure Height (AGL)	6.1
Support Structure Height (AGL)	0
Site Elevation (AMSL)	793
Structure Type	
MAST - Mast	

ENVIRONMENTAL PROTECTION ACT NIER ANALYSIS

The applicant proposes mounting a new antenna on a mast, at 6.1 m AGL, with 50 watts ERP. A one-bay dipole antenna is proposed. Since the precise antenna is not modeled in FM Model (online version), the “Shively Model 6513/6510 Vertical Dipole” is the closest setting for downward radiation. The antenna is therefore 4.3m above a six foot human. FM Model predicted a maximum RF exposure of 62.1 $\mu\text{W}/\text{cm}^2$,at 2.72 meters from the tower base (see next page). This represents 31% of the Maximum Permissible Exposure (MPE) of 200 $\mu\text{W}/\text{cm}^2$ for uncontrolled environments. There are no other transmitting RF facilities in the area. Site is on private property. The applicant will ensure that a warning sign is posted.

Power Density vs Distance



Office of Engineering and Technology

Distance (m): Antenna Type:

Horizontal ERP (W):

Number of Elements:

Vertical ERP (W):

Antenna Height (m):

Element Spacing:

[Update Graph](#)