July 2017
LPFM Station KNVC-LP
Carson City, Nevada Channel 236L1
Allocation Study

LPFM station KNVC-LP has a pending application BPL-20170308AAA for a change in its transmitting facility. The instant application is being filed as an amendment to BPL-20170308AAA, in order to provide additional detail for the second-adjacent channel waiver request.

KNEV 238C Reno

The proposed LPFM transmitter site is located within the 60 dBu protected contour of second-adjacent channel station KNEV 238C Reno. A second-adjacent channel waiver is requested. The following calculation, performed using the *Living Way* methodology, addresses interference protection to that station.

Protected **Station**	**Distance & Bearing to Proposal**	**Station ERP and HAAT on that azimuth**	**Station Field Strength at Proposal**	**Corresponding LPFM Interfering Contour**	**Distance to LPFM Interfering Contour**
KNEV 238C	8.84 km 237 deg True	71 kW 484 meters	103.3 dBu F(50,50)	143.3 dBu	4.8 meters Free Space

The 143.3 dBu interfering contour from the proposed facility would extend only 4.8 meters[1] from the antenna and would not reach ground level (which is 27 meters below the antenna). There is no population within this contour. Therefore, the proposed facility is believed to satisfy the requirements of §73.807(e)(1) with respect to KNEV.

It should further be noted that the proposed KNVC-LP facility will be located at the same site, on the same tower, as the licensed KNVC-LP facility. This application proposes only an increase in antenna height above ground, from 11 meters to 27 meters AGL.

[1] This study assumes a maximum ERP of 100 watts at -107 meters HAAT.

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **39° 12' 59"** North
Longitude **119° 47' 26"** West (NAD 27)

These coordinates convert to NAD 83 coordinates of
39° 12' 58.68", North, 119° 47' 29.66" West (NAD 83).

Height of antenna radiation center above mean sea level: **1714** meters AMSL

Number of Evenly Spaced Radials = **8** 0° is referenced to True North

Results

Calculated HAAT = **-107 meters**

Antenna Height Above Average Terrain calculated
using FCC 30 second terrain database (continental USA only)

Individual "Radial HAAT" Values, in meters

0°	168.2 m
45°	-239.2 m
90°	204.3 m
135°	178.9 m
180°	143.3 m
225°	-561.8 m
270°	-328.9 m
315°	-420.3 m

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SEARCH PARAMETERS FM Database Date: 170710

Channel: 236L1 95.1 MHz

Latitude: 39 12 59

Longitude: 119 47 26

Safety Zone: 32 km

Job Title: KNVC-LP APP

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)		Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K235BJ	HOMEWOOD		235D	0.020		39-03-57	239.7	33.09	15
LIC	CA	BLFT-30805ABA	94.9	1904.0		120-07-15		18.09	CLEAR
K273BI	TRUCKEE		235D	0.250	DA	39-35-02	359.2	40.80	28
CP	CA	BPFT-60729ANQ	94.9	338.0		119-47-51		12.80	CLEAR
KNVC-LP	CARSON CITY		236L1	0.100		39-12-59	0.0	0.00	24
LIC	NV	BLL-70221ACK	95.1	-7.4		119-47-26		-24.00	SHORT
KNVC-LP	CARSON CITY		236L1	0.100		39-12-59	0.0	0.00	24
APP	NV	BPL-70308AAA	95.1	8.6		119-47-26		-24.00	SHORT
K236AP	FALLON		236D	0.100		39-29-22	70.9	94.47	32
LIC	NV	BLFT-70716ADN	95.1	92.0		118-45-09		62.47	CLEAR
K236CN	RENO		236D	0.099	DA	39-28-56	352.7	29.75	26
LIC	NV	BLFT-70612ABA	95.1	136.0		119-50-04		3.75	CLEAR
KNEV	RENO		238C	71.000		39-15-34	57.1	8.84	93
LIC	NV	BMLH-70217AAW	95.5	695.0		119-42-16		-84.16	SHORT

==== END OF FM SPACING STUDY FOR CHANNEL 236 ====