

## **ENGINEERING STATEMENT – SECOND ADJACENT CHANNEL PROTECTION**

KKHH (239C) and KMHX (243C) are co-located Houston, TX stations that have identical facilities and that are second adjacent-channel to the proposed channel 241 LPFM facility. The KKHH/KMHX transmitter site is located only 46.4 kilometers (at 209 degrees True bearing) from the proposed LPFM transmitter site. The 60 dBu F50,50 service contour of each extends well beyond the LPFM transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to KKHH or KMHX.

Note that a rule waiver of Section 73.807 for this second adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to this station.

The F50,50 signal strength from both KKHH and KMHX at the proposed LPFM transmitter site is 79 dBu (the “desired” signal). The second/third adjacent-channel protection is an undesired-to-desired (“U/D”) dB signal strength ratio of 40:1. Therefore, predicted interference to KKHH and KMHX from the proposed LPFM facility is a signal of greater than or equal to 119 dBu.

The 119 dBu signal based on a free space field determination is predicted to extend out to 40 meters from the proposed LPFM transmit antenna. The interfering signal level will not reach any point at ground level or at 2 meters above ground level. Therefore, both KKHH and KMHX are adequately protected by the proposed facility.