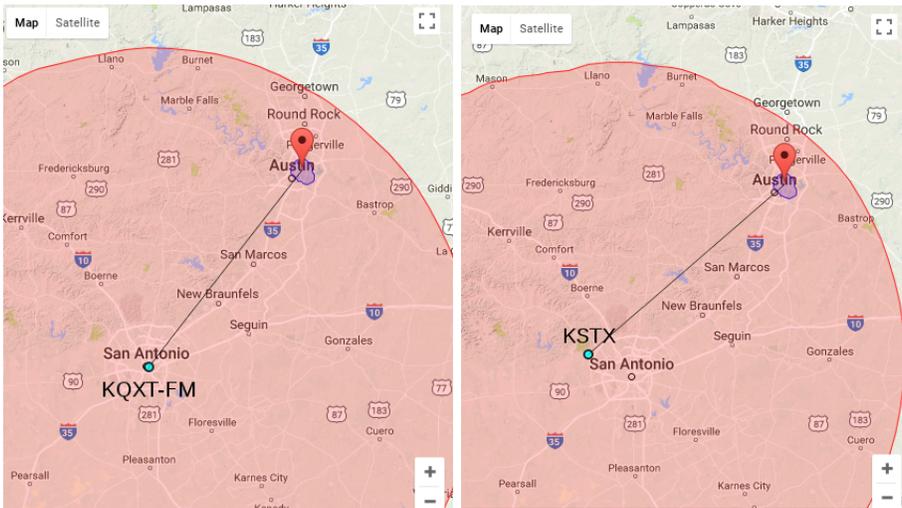


# Reduced-interference showing per 73.870(a)(1)

KJZX-LP seeks approval for a non-adjacent channel change from 270 to 206 in order to reduce interference.

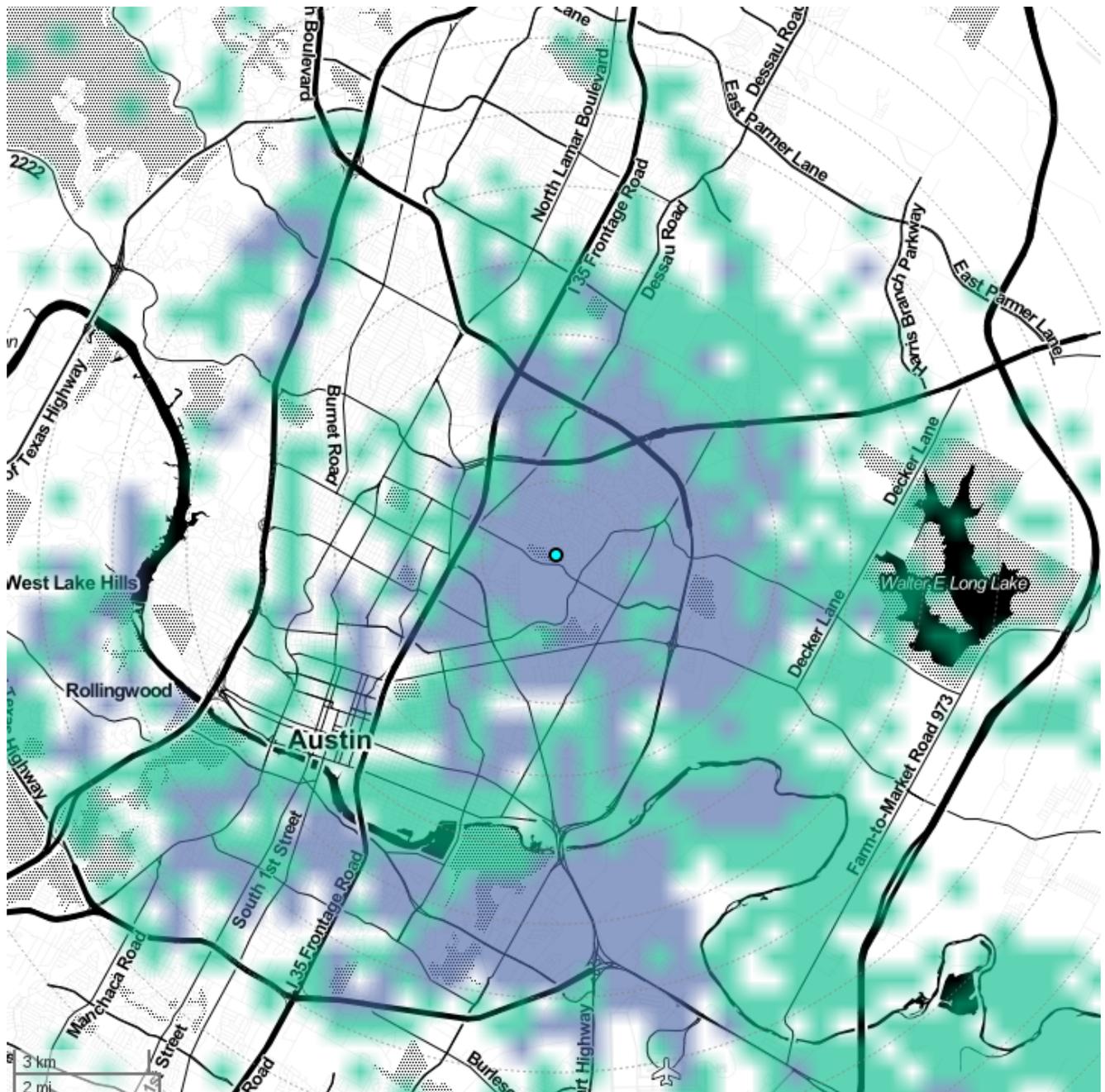
On channel 270, the worst<sup>1</sup> predicted interfering f(50,10) signal strength at KJZX-LP's location is 46.41 dBu from co-channel KQXT-FM, placing KJZX-LP well within KQXT-FM's interference contour.

On channel 206, KJZX-LP has contour overlap with three stations, placing f(50,10) predicted co-channel signal strengths at KJZX-LP of 44.83 dBu from KSTX, 38.95 dBu from KTIM, and 97.93 dBu from second-adjacent KMFA. The worst interference is from KSTX at 44.83 dBu, which is less than the worst on channel 270 of 46.41 dBu from KQXT-FM, thus interference is shown to be less. These worst-case contours are shown below, showing graphically that KJZX-LP is deeper inside the co-channel interference contour on channel 270 than 206.



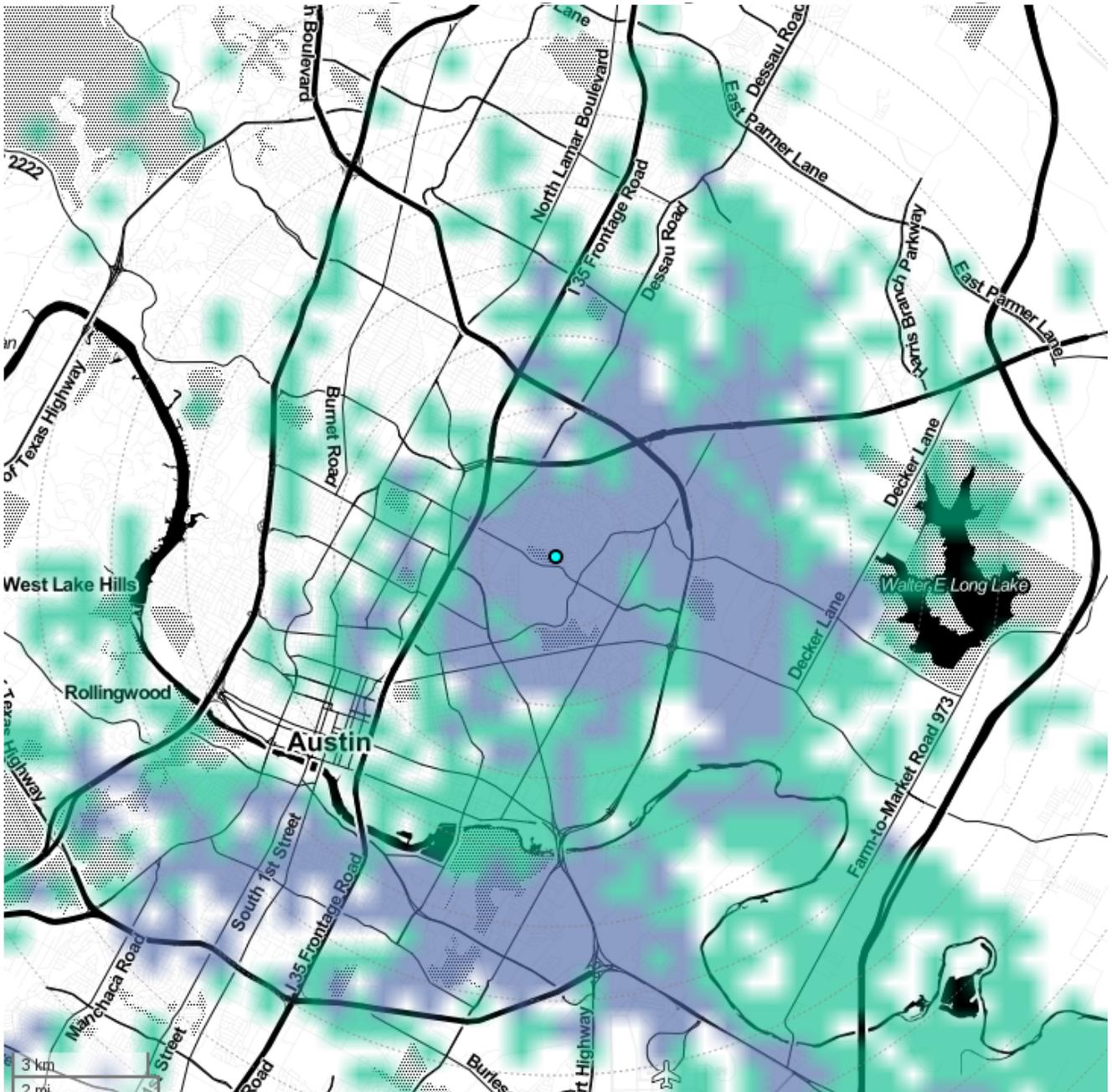
Reduced interference is confirmed by Longley-Rice analysis. Population receiving a signal predicted at 60 dBu or higher, with FCC standard protection ratios or better, is shown in blue. On channel 270 this population is 119,855.

<sup>1</sup> Higher interference is experienced on the ground from translator K270CO than from KQXT-FM, despite predictions to the contrary. Applicant has no explanation for the phenomena at this time.



Longley-Rice signal coverage prediction for **KJZX-LP** 101.9 MHz (270), 100W@16.1m (15.5m AGL) 30 18 11.48 N, 97 41 30.66 W (NAD83) considering potential interference from: **KFGG-LP** 101.9 MHz (270), 100W@8m dist 64km; **K270CO** 101.9 MHz (270), 250W@177.5m dist 33km; **KROX-FM** 101.5 MHz (268), 86kW@320m dist 34km; **KNTE** 101.7 MHz (269), 35kW@450m dist 225km; **KROX-FM** 101.5 MHz (268), 12.5kW@258.1m dist 11km; **KZJM** 101.7 MHz (269), 8200W@172m dist 154km; **KQXT-FM** 101.9 MHz (270), 100kW@202m dist 124km; **KPEZ** 102.3 MHz (272), 26kW@209m dist 16km; **KLTD** 101.7 MHz (269), 16.5kW@125m dist 111km; **KACQ** 101.9 MHz (270), 6000W@100m dist 120km; **KMJQ** 102.1 MHz (271), 100kW@524m dist 227km. FCC radio station data as of 2018-05-09 04:00:00. Circles at 1-mile intervals. **Longley-Rice Parameters:** Point-to-point, radial point spacing 30m (FCC 84-341 interpolation), climate 5, conductivity 0.005, permittivity 15, refractivity 301, clutter attenuation forest -3dB, residential -5dB, urban/buildings/commercial/industrial -6dB

Channel 206 predicts coverage to 122,047 people due to reduced interference:



Longley-Rice signal coverage prediction for **KJZX-LP** 89.1 MHz (206), 100W@18.3m (17.75m AGL) 30 18 11.48 N, 97 41 30.66 W (NAD83) considering potential interference from: **KTIM** 89.1 MHz (206), 19.5kW@84m dist 91km;**KAZI** 88.7 MHz (204), 1700W@107m dist 13km;**KSTX** 89.1 MHz (206), 72kW@240m dist 132km;**KWAA** 88.9 MHz (205), 100kW@190m dist 126km;**KYFP** 89.1 MHz (206), 100kW@148m dist 266km;**KBRZ-FM** 89.3 MHz (207), 9500W@115m dist 184km;**KMFA** 89.5 MHz (208), 40kW@398m dist 11km;**KAZI** 88.7 MHz (204), 1600W@107m dist 13km. FCC radio station data as of 2018-05-09 04:00:00. Circles at 1-mile intervals.

Based upon these showings of reduced interference, KJZX-LP respectfully requests that this non-adjacent channel change be processed as a minor modification.