

ENGINEERING STATEMENT

This engineering data contained herein have been prepared on behalf of MCDOWELL COUNTY COMMISSION ON AGING, INC., in support of this Application for Construction Permit for a new Lower Power FM Station on Channel 234L1 in Welch, West Virginia.

It is proposed to mount an omnidirectional antenna near the top of a proposed 30.5-meter structure which will be located at 750 Stewart Street, Welch, WV 24801, just 41.5 meters northeast of the organization's headquarters located at 725 Stewart Street, Welch, WV 24801. The antenna radiation center will be 30.5 meters above ground and the expected effective radiated power of the station will be 100 watts. The predicted 60 dBu (1.0 mV/m) service contour of the proposed facility is plotted in Exhibit B.

It is important to note that the site proposed herein meets the Commission's separation requirements to all full-power, low power and translator facilities operating on the same channel as the proposed station, as well as on all adjacent channels, as shown in the tabulation in Exhibit C.

A power density calculation is provided in Exhibit D. Exhibit E is a map showing the distance between the organization's headquarters and the proposed transmitting location.

Due to the diminutive height of the proposed antenna supporting structure and its proximity to the nearest airport runway, the Federal Aviation Administration has not been notified of this application. In addition, and for the same reasons, registration of the antenna

EXHIBIT A

structure with the Federal Communications Commission is not required. This conclusion is supported by the Commission's TOWAIR software.

I declare, under penalty of perjury, that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read "K. T. Fisher". The signature is stylized with a large "K" and "F" and a smaller "T" in the middle.

KEVIN T. FISHER

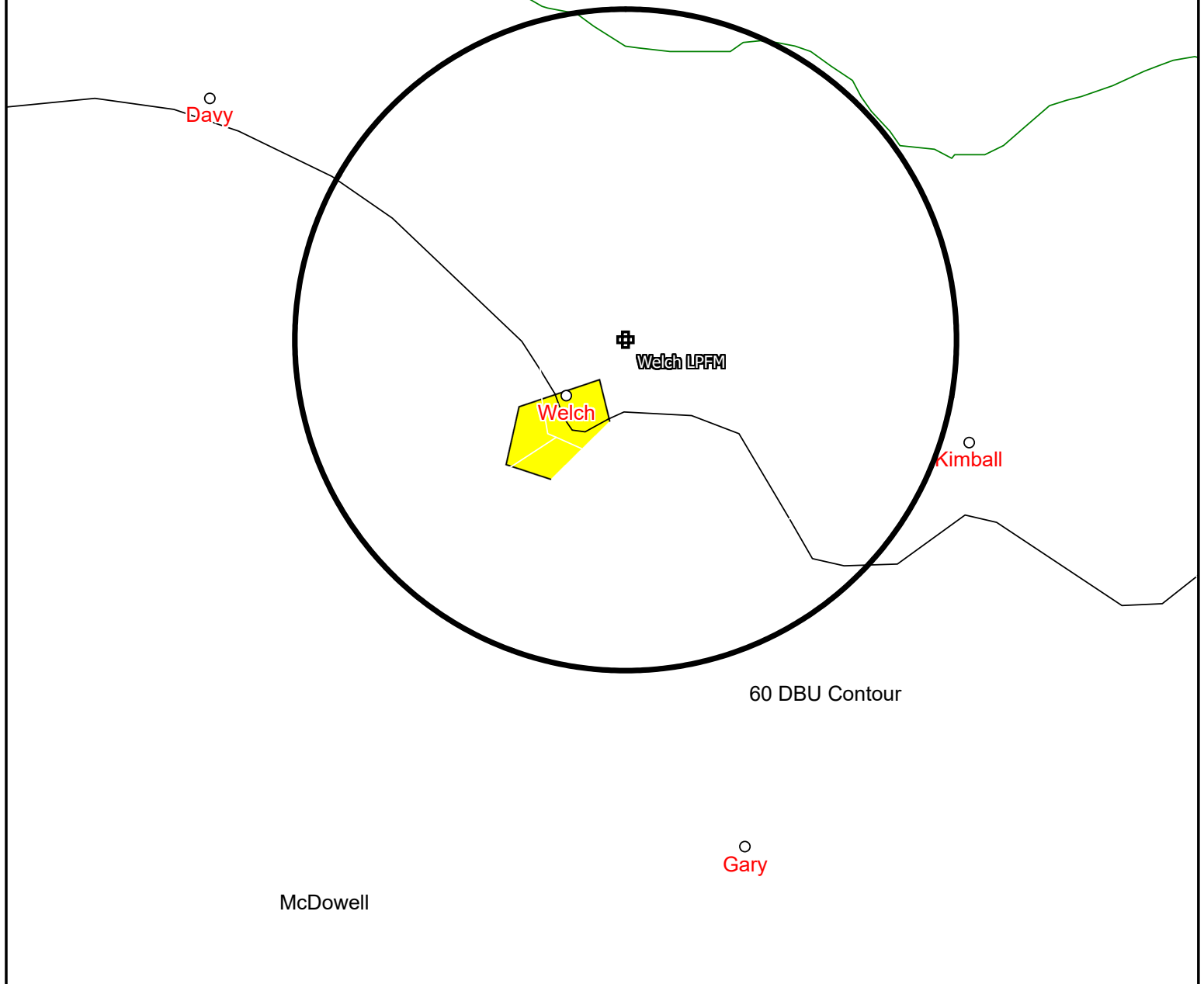
November 13, 2023

Welch LPFM

Latitude: 37-26-28.80 N
Longitude: 081-34-23.80 W
ERP: 0.10 kW
Channel: 234
Frequency: 94.7 MHz
AMSL Height: 452.09 m
Height Above Average Terrain: -134.45 m
Elevation: 421.59 m
Antenna Height: 30.5 m
Horiz. Pattern: Omni
Vert. Pattern: No

**Population Database: 2020
US Census**

Total Population: 4,711
Housing Units: 1,654
Total Area: 99.9 sq. km



60 DBU Contour

McDowell

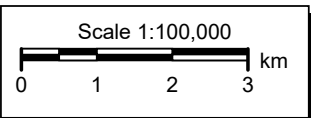
Gary

Kimball

Davy

Welch

Welch LPFM



**EXHIBIT B
PREDICTED SERVICE CONTOUR
PROPOSED LPFM
CH. 234L1 - WELCH, WV**

EXHIBIT C

REFERENCE		DISPLAY DATES
37 26 28.8 N.	CLASS = L1 Int = B1	DATA 11-12-23
81 34 23.8 W.	Current Spacings to 2nd Adj.	SEARCH 11-13-23
----- Channel 234 - 94.7 MHz -----		

Call	Channel	Location	Azi	Dist	FCC	Margin
WSLC-FM	ALO 235C	Roanoke	VA 101.8	128.78	119.5	9.3
WSLC-FM	LIC 235C	Roanoke	VA 101.8	128.78	119.5	9.3
W233CL	LIC 233D	Bluefield	WV 119.9	40.58	27.5	13.1
W236DQ	LIC 236D	Cedar Bluff	VA 212.7	33.59	20.5	13.1
W234CT	LIC 234D	Marion	VA 177.4	60.00	38.5	21.5
WYNL	LIC 233B1	Dunbar	WV 353.2	109.40	73.5	35.9
WYNL	ALO 233B1	Dunbar	WV 353.2	109.40	73.5	35.9
WKLW-FM	LIC 234C3	Paintsville	KY 290.4	115.25	77.5	37.8
WKLW-FM	ALO 234C3	Paintsville	KY 291.3	115.88	77.5	38.4
WIFX-FM	LIC-Z 232C2	Jenkins	KY 252.1	97.69	52.5	45.2

 All separation margins include rounding

POWER DENSITY CALCULATION
PROPOSED LPFM STATION
CHANNEL 234L1 – WELCH, WV

Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 100 watts, an antenna radiation center 30.5 meters above ground level and assuming a relative field value of 40 percent at the steeper elevation angles for an omnidirectional antenna, maximum power density two meters above ground of 0.0014 mW/cm² is calculated to occur near the base of the antenna supporting structure. Since this RF value is only 0.7 percent of the 0.20 mW/cm² reference for uncontrolled environments (areas with public access) surrounding a facility operating in the FM band, a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing electromagnetic radiation.