

WGHW

Lockwood Folly Town, NC

WGHW-FM, Class C3, 88.1 MHz

Modification of Construction Permit– TV Channel 6 Exhibit

TV Channel 6 Reporting Threshold Issues

The proposed transmitter site in the application is located 65.4 kilometers from the nearest TV Channel 6 station, WECT, Wilmington, NC. This is within the threshold set forth by Table A in Title 47, Section 73.525(a). Thus the proposed facility is required to comply with the regulations set forth in 73.525 related to TV Channel 6 calculated contour overlap and population reporting.

TV Channel 6 Population Interference Calculation

The applicant proposes a vertical power of 10,000 watts and no horizontal power. The equivalent horizontal polarized only power is $10,000/40 = 250$ watts. The proposed f(50,10) 63.5 dBu contour is entirely within the Grade A contour of WECT. The applicant has opted for the -6 dB option within the allowed angles to account for the directional nature of TV receive antennas as permitted in 73.525.

The applicant has retained the services of Radio Data Services to calculate the population within the interfering region of the WGHW. Please see Figures 1 through 3 below demonstrating 3,267 persons of interference. The applicant agrees to supply filters for 267 views that experience TV 6 interference. Thus, this application is acceptable with regards to interference to Channel 6.

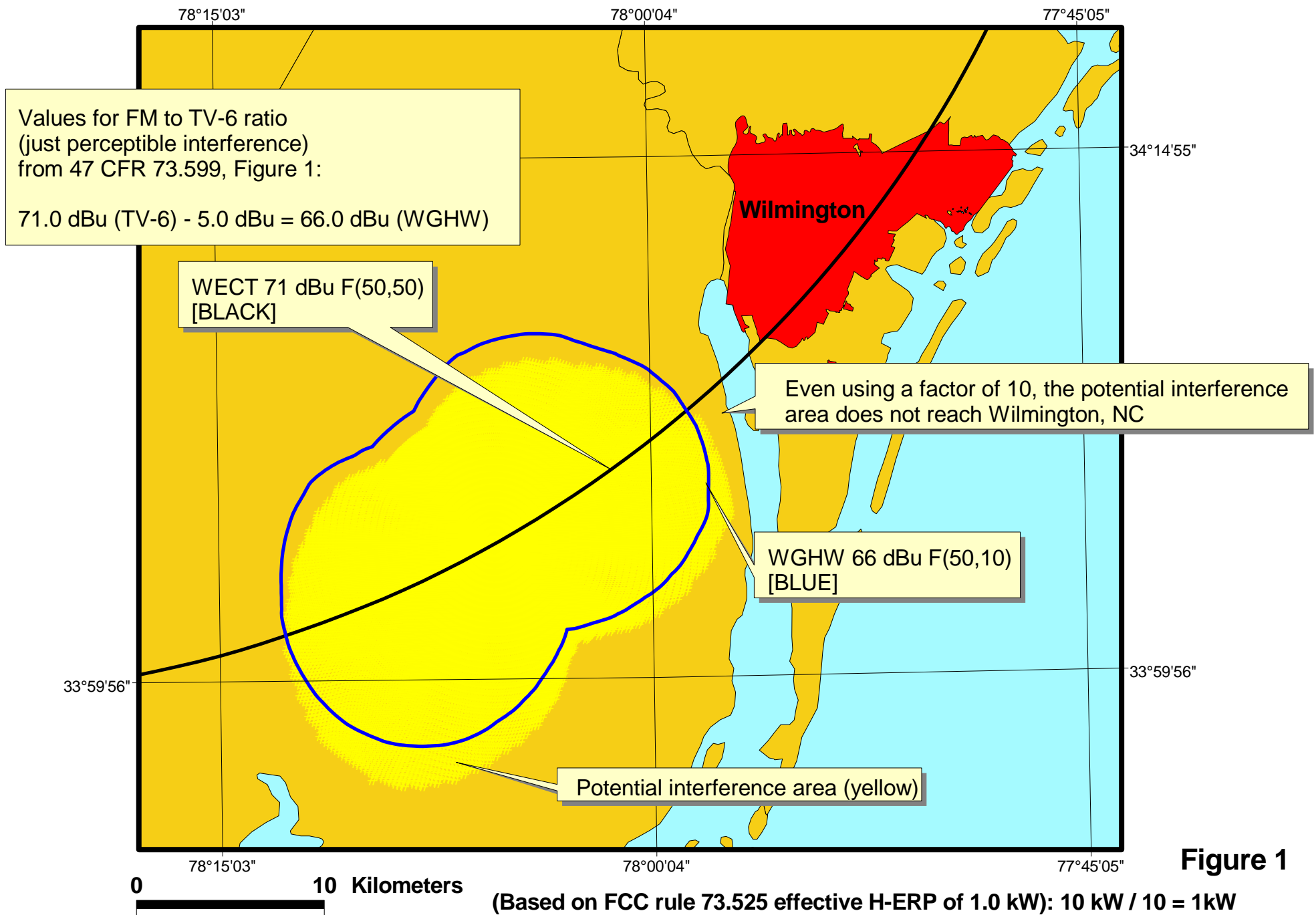


Figure 1

**WGHV Modification to 10 kW (vertical only)
Potential Interference to WECT TV-6**

www.radiodataservices.com



Values for FM to TV-6 ratio
(just perceptible interference)
from 47 CFR 73.599, Figure 1:

68.0 dBu (TV-6) - 4.6 dBu = 63.40 dBu (WGHW)
69.0 dBu (TV-6) - 4.75 dBu = 64.25 dBu (WGHW)
73.25 dBu (TV-6) - 5.25 dBu = 68.0 dBu (WGHW)

WECT 73.25 dBu F(50,50)
[BLACK]

Potential interference area (yellow)

WECT 69 dBu F(50,50)
[BLACK]

WECT 68 dBu F(50,50)
[BLACK]

POPULATION

Persons.shp

0
1 - 10
10 - 50
50 - 100
100 - 500
500 - 50000

34°4'47"

34°4'47"

33°59'48"

33°59'48"

0

5 Kilometers

78°10'10"

78°5'11"

78°00'12"

(Based on FCC rule 73.525 effective H-ERP of 1.0 kW): $10 \text{ kW} / 40 = 0.25 \text{ kW}$

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Figure 2

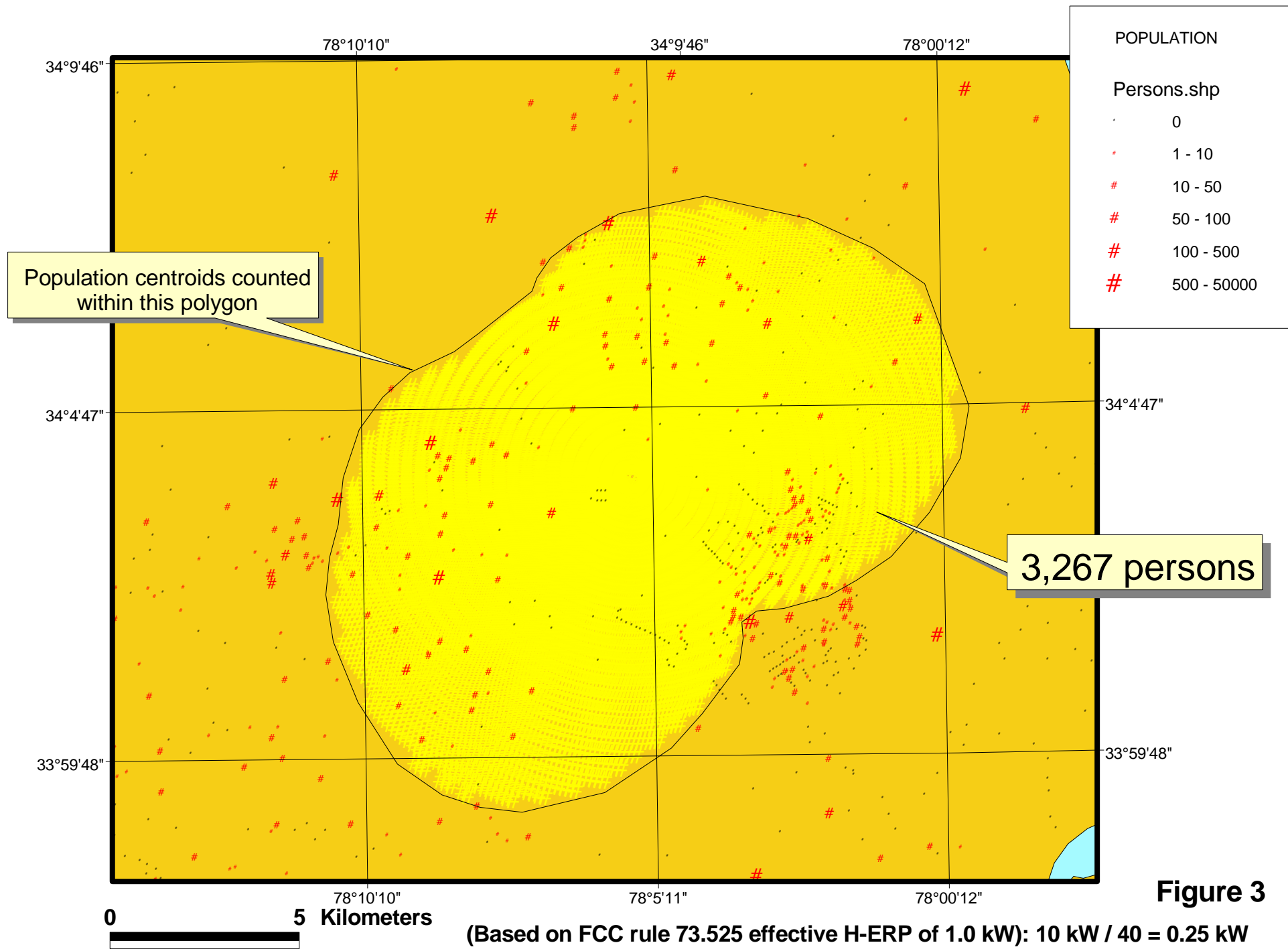


Figure 3

**WGHW Modification to 10 kW (vertical only)
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