

**NCE TECHNICAL CERTIFICATIONS  
BROADCAST FACILITIES**

IN SUPPORT OF A MINOR CHANGE APPLICATION  
TO MODIFY CONSTRUCTION PERMIT FILE NUMBER 0000189402  
**WDDE, DOVER, DELAWARE**  
JULY 2023

The attached technical exhibits have been prepared on behalf of Delaware First Media Corporation, licensee of NCE Class A FM station WDDE, Dover, DE., (Facility ID, 175387) and permittee of Construction Permit File Number 0000189402. The technical exhibits are in support of a minor change application to modify the construction permit by relocating to a new existing tower site, increasing the antenna height (HAAT), reducing the effective radiated power utilizing a new directional antenna and operate as a FM Class B1 facility. WDDE will continue operation on channel 216 (91.1 MHz).

#### SECTION 73.203 - AVAILABILITY OF CHANNELS

This application is for a minor change application of the existing Construction Permit File Number 0000189402 for licensed NCE-FM station WDDE, Dover, DE. Therefore, the provisions of this section of the FCC Rules are not considered applicable to this filing.

#### SECTION 73.207 – MINIMUM DISTANCE SEPARATION BETWEEN CHANNELS

The attached FM Allocation Study shows the distances to pertinent FM stations and NCE application on Channel 216 and +/- 3 and +53 and 54 channels from the proposed NCE (FM) WDDE antenna site location. The allocation study indicates that the “fully-spaced” WDDE transmitter site of the proposed Channel 216B1 operation complies with the minimum distance separation requirements of Section 73.207 of the

Commission's Rules to all existing and/or proposed FM stations and authorizations operating on Channels 269 and 270 (see attached FM Allocation Study).

#### SECTION 73.213 – GRANDFATHERED SHORT SPACED STATIONS

This application is for a minor modification of the authorized Construction Permit of the existing licensed NCE-FM station WDDE, Dover, DE. Therefore, the provisions of this section of the FCC Rules are not considered applicable to this filing.

#### SECTION 73.315 – FM TRANSMITTER LOCATION

The requirements of paragraph (a) of this section do not apply to noncommercial educational FM broadcast stations operating on channels 200 – 220. This application is for a minor modification of the authorized Construction Permit of the existing licensed NCE-FM station WDDE, Dover, DE, for operation on channel 216B1. Therefore, the provisions of this section of the FCC Rules are not considered applicable to this filing.

#### SECTION 73.509 – PROHIBITED OVERLAP

The proposed WDDE NCE (FM) facility for Dover, DE does not involve prohibitive contour overlap of pertinent computed FCC signal strength contours of any licensed, authorized or pending NCE-FM stations or proposals operating on Channels 213 through 219 as set forth in this section. The attached FM Allocation Study and contour maps show there is no prohibitive contour overlap associated with the WDDE NCE-FM proposal (see FM Allocation Study and Figures 1-5D attached).

### SECTION 73.515 – TRANSMITTER LOCATION

The proposed NCE (FM) facility for WDDE, Dover, DE will provide a minimum field strength of 60 dB above one  $\mu\text{V}/\text{m}$  (dBu), or 1.0 mV/m to 96% of the population and 90% of the area of the principal community of Dover, DE (see attached Figures 6 and 6A). Also shown on Figure 6 is the proposed population based on the 2010 US census reports and land area of the proposed 60 dBu contour and the existing 60 dBu contour of the present licensed operation of WDDE.

### SECTION 73.525 – TV CHANNEL 6 PROTECTION

The proposed NCE (FM) facility for WDDE, Dover, DE is within the affected area of TV channel 6 station WPVI-TV, Philadelphia, PA as specified in Section 73.525(a)(1) of the Rules. However, the WDDE proposal fully complies with Section 73.525(e) since there is no predicted channel 6 interference to the 47 dBu Grade B contour of the licensed facility of WPVI-TV or to the WPVI-TV 45 kW authorized operation as shown in the attached Figure 7. Additionally, in accordance with Section 73.525 (b)(4), WPVI-TV has been given notice of the WDDE proposal to modify the authorized CP facilities.

WDDE PROPOSED 9 kW DA CLASS B1 CHANNEL STUDY

Delaware First Media Corporation

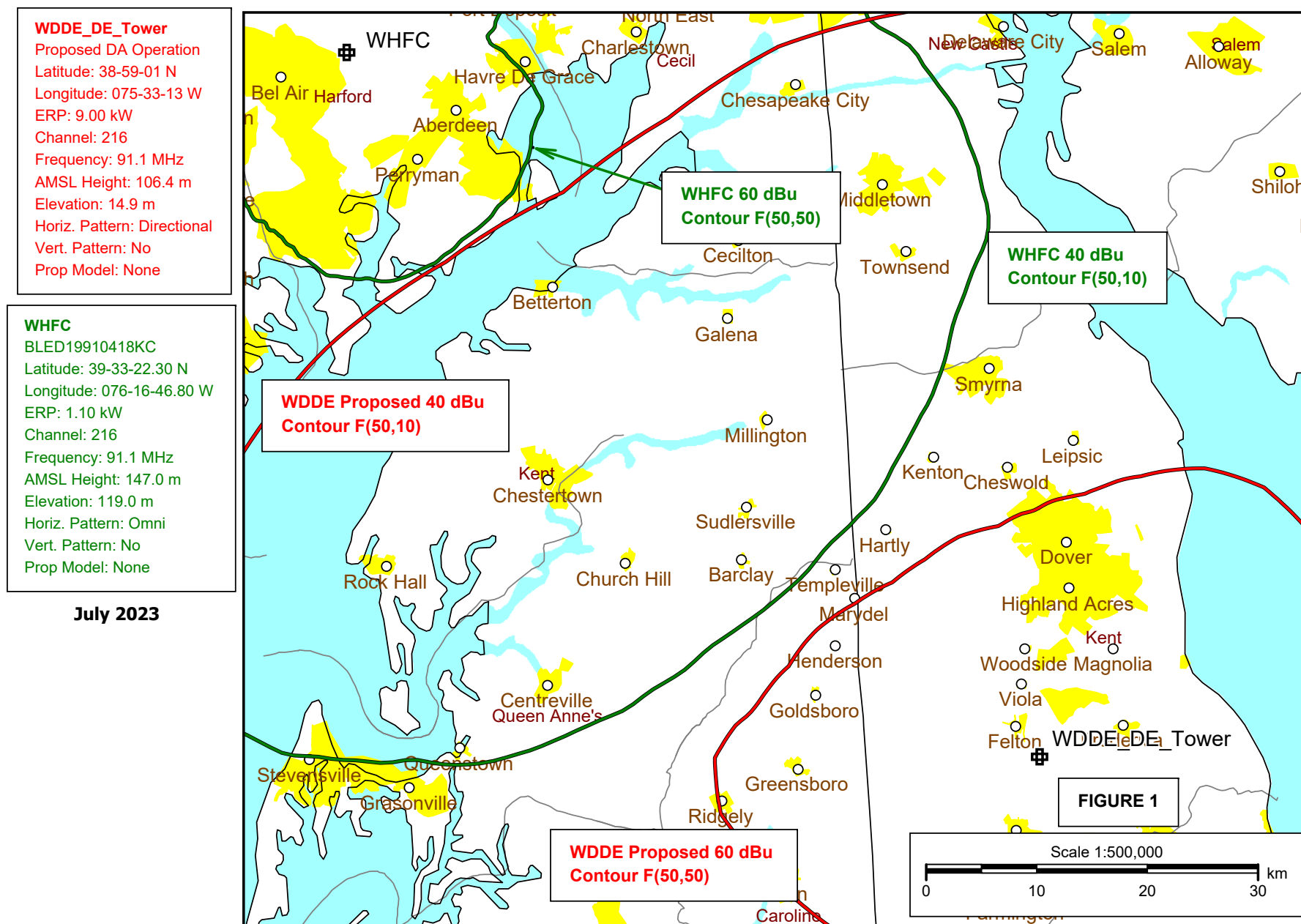
REFERENCE  
38 59 01.00 N.  
75 33 13.00 W.

CH# 216B1 - 91.1 MHz, Pwr= 9 kW DA, HAAT= 94.0 M, COR= 106.4 M  
Average Protected F(50-50)= 30.13 km  
Standard Directional

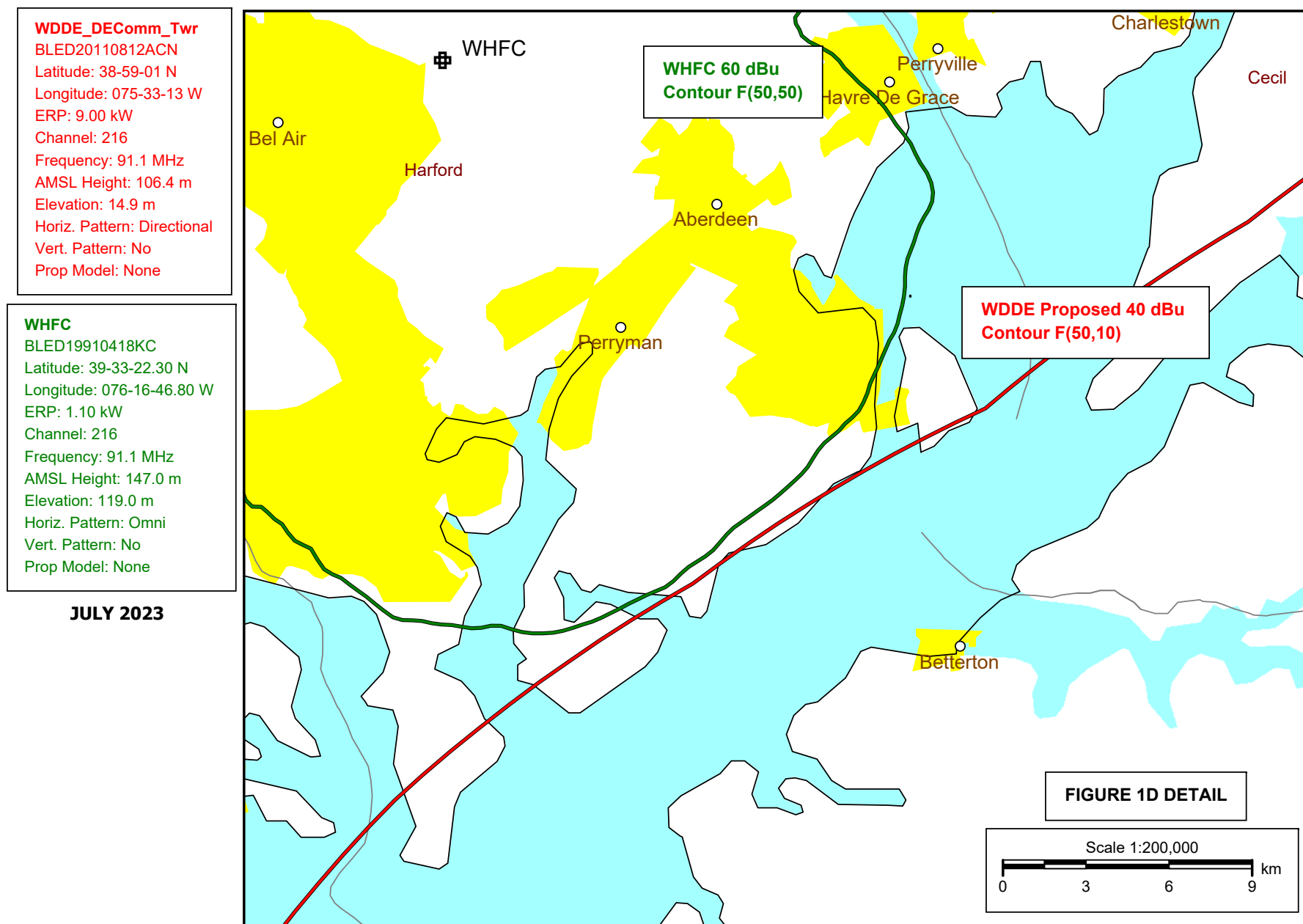
DISPLAY DATES  
DATA 07-05-23  
SEARCH 07-05-23

CH CITY	CALL	TYPE STATE	ANT AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
216B1 Dover	WDDE	CP DCN DE	49.6 229.6	5.19 0000189402	39 00 50.00 75 30 28.00	15.000 72	78	---Reference---		Delaware Public Media Corp
216A Dover	WDDE	LIC_CN DE	49.6 229.6	5.19 BLED20110812ACN	39 00 50.00 75 30 28.00	2.100 72	78	---Reference---		Delaware Public Media Corp
217B Princess Anne	WESM	LIC_CN MD	187.4 7.3	86.68 BLED19870303KC	38 12 37.40 75 40 54.70	45.000 91	66.4 97	42.2	0.3	15.1 Ea Uni versi ty Of Maryl and,
219A Dover	WRTX	LIC_VN DE	357.7 177.7	24.18 BLED19950418KB	39 12 03.40 75 33 53.70	0.580	1.6 104	15.1	0.4	6.8 C Templ e Uni versi ty Of The
216A Bel Air	WHFC	LIC_CN MD	315.8 135.3	89.20 BLED19910418KC	39 33 22.30 76 16 46.80	1.100 69	62.8 147	19.5	4.4	0.4 Harford Communi ty Col lege
217B1 Ocean City	WRTQ	LIC DEN NJ	60.7 241.2	77.16 BLED20071009AIT	39 19 14.40 74 46 16.60	13.500 120	38.9 129	23.4	7.9	2.7 C Templ e Uni versi ty Of The
215D Cape May	<del>W215CE</del>	LIC_VN NJ	82.9 263.3	60.92 BLFT20101124AAC	39 02 58.40 74 51 12.60	0.038 78	10.2 79	7.1	19.3	5.2 CSN International
06 1C Phi l adel phi a	WPVI-TV«	LI _CY PA	12.7 192.9	120.93 0000216785	40 02 39.00 75 14 25.01	45.000 342	10.5 409	99.0	109.5R	11.4M
219D Lewes	<del>W219BZ</del>	LIC_CN DE	131.7 311.9	43.11 BLFT19990517UB	38 43 30.40 75 10 56.70	0.170 34	0.9 38	6.7	11.8	33.3 Bible Broadcasting Network
215B Washing ton	WETA	LIC_CN DC	266.2 85.2	136.84 BMLD20070511AAI	38 53 30.40 77 07 53.90	75.000 186	94.2 252	63.9	13.4	27.1 Greater Washi ngton Educati
215B Phi l adel phi a	WHYY-FM	LIC_CN PA	12.8 193.0	120.69 BMLD20040817AAX	40 02 30.40 75 14 22.60	13.500 280	78.0 347	53.1	14.4	26.7 Whyy, Inc.
6 -- Phi l adel phi a	WPVI-TV-A«	CHA D_Y PA	12.7 192.9	120.73 DTVBL8616	40 02 33.40 75 14 31.66	34.000 330	10.5 395	95.2	105.7R	15.0M
214B1 Ocean City	WSDL	LIC_CN MD	147.9 328.2	63.13 BLED20020117AAJ	38 30 06.40 75 10 05.70	18.500 101	3.8 105	36.7	31.5	23.9 Salisbury Uni versi ty
217B1 Newark	WVUD	LIC DEN DE	347.6 167.4	80.51 BLED20110825AAC	39 41 26.40 75 45 21.80	6.800 37	28.0 99	19.0	30.6	30.2 Uni versi ty Of Del aware
269A Canton	WDEL-FM«	LIC_CN NJ	20.5 200.6	53.14 BMLH20150309AAB	39 25 53.60 75 20 12.00	3.300 91	0.0 103	0.0	11.5R	41.6M Fm Radi o Li censes, LLC
269A Ocean Vi ew	WZEB«	LIC ZCN DE	156.5 336.7	55.69 BLH20010907AAI	38 31 24.40 75 17 53.70	3.300 136	0.0 143	0.0	11.5R	44.2M The Voi ce Radi o, LLC

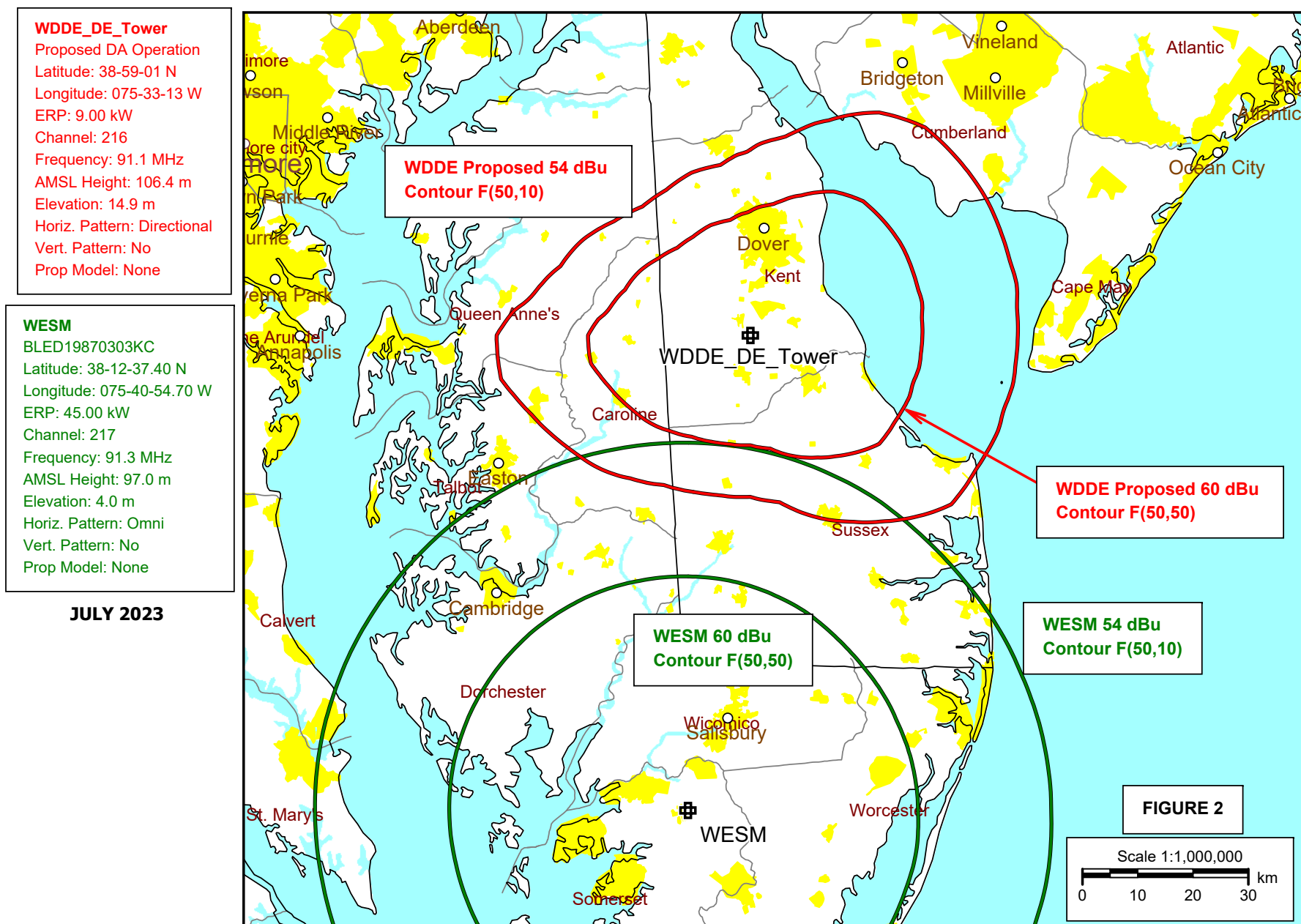
Terrain database is USGS 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference zone= - ZN1, Co to 3rd adjacent.  
All separation margins (if shown) include rounding. Call signs with strikeout need not be protected.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
\*\*\*affixed to 'IN' or 'OUT' values = site inside restricted contour.  
« = Station meets FCC minimum distance spacing for its class.



60 dBu (1 mV/m) Protected And 40 dBu (0.1 mV/m interfering) FCC Contours For WDDE, Dover, DE And WHFC, Bel Air, MD

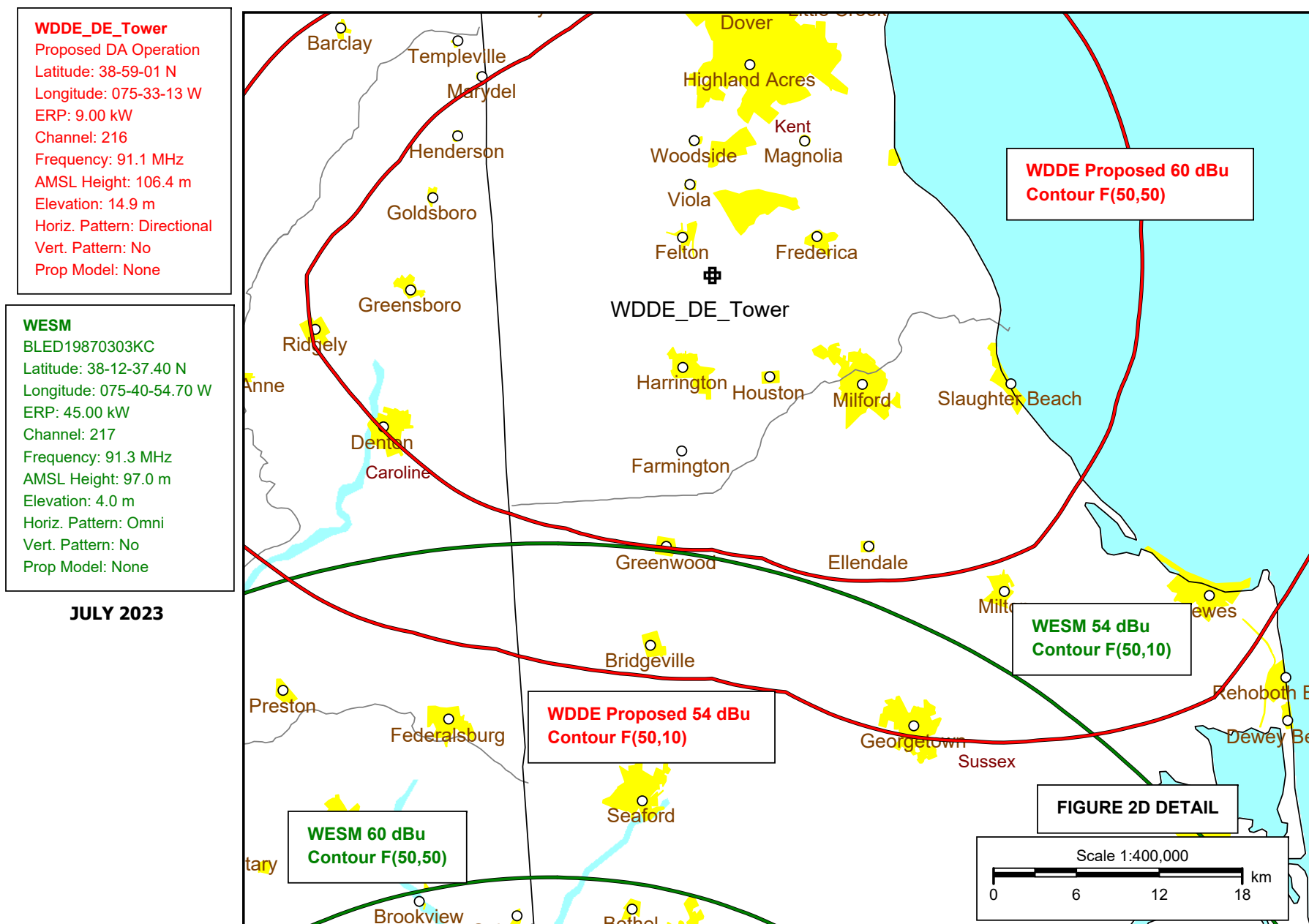


60 dBu (1 mV/m) Protected And 40 dBu (0.1 mV/m interfering) FCC Contours For WDDE, Dover, DE And WHFC, Bel Air, MD



60 dBu (1 mV/m) Protected And 54 dBu (0.5 mV/m interfering) FCC Contours For WDDE, Dover, DE And WESM, Princess Anne, MD





60 dBu (1 mV/m) Protected And 54 dBu (0.5 mV/m interfering) FCC Contours For WDDE, Dover, DE And WESM, Princess Anne, MD

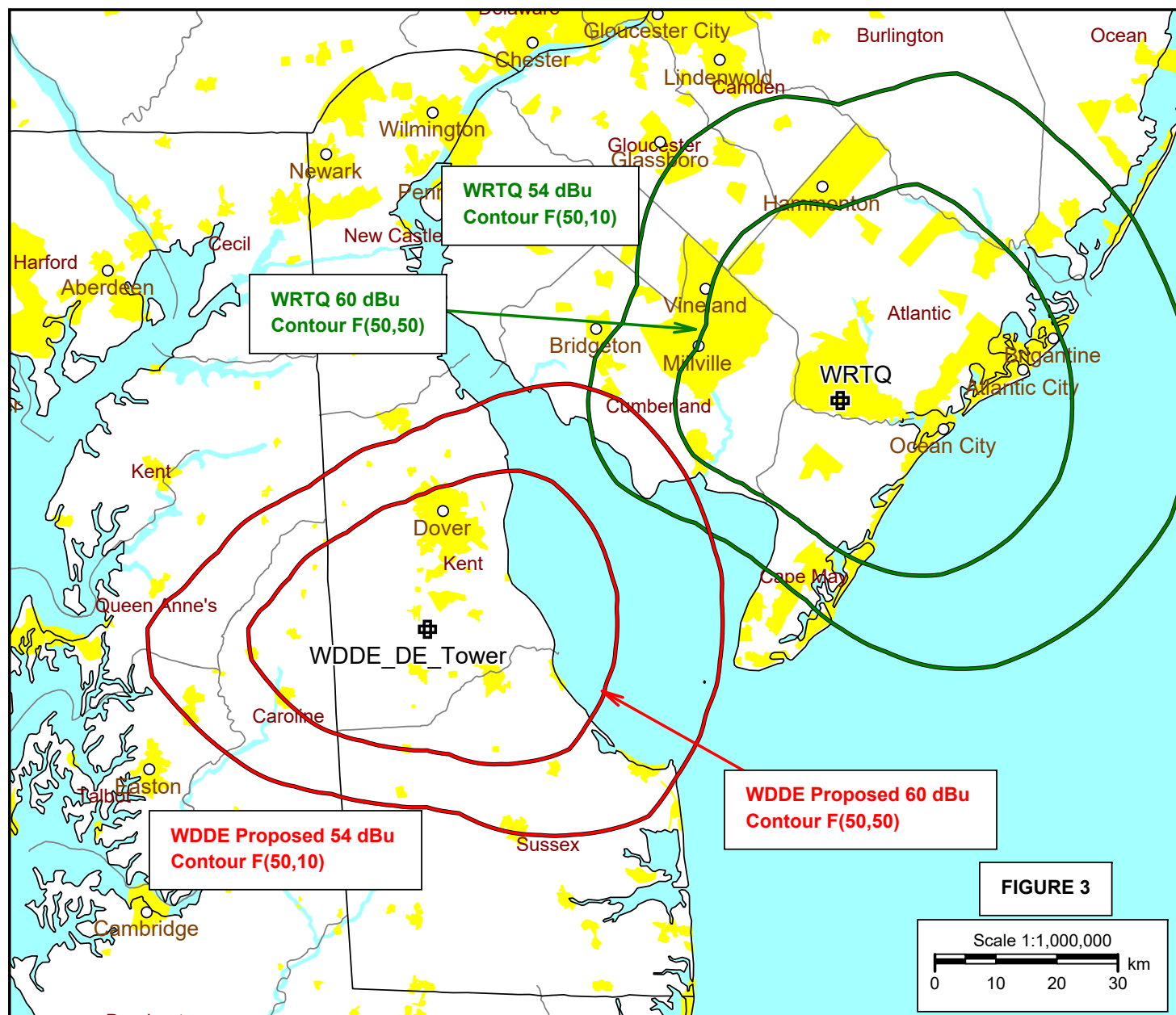
### WDDE\_DE\_Tower

Proposed DA Operation  
Latitude: 38-59-01 N  
Longitude: 075-33-13 W  
ERP: 9.00 kW  
Channel: 216  
Frequency: 91.1 MHz  
AMSL Height: 106.4 m  
Elevation: 14.9 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

### WRTQ

BLED20071009AIT  
Latitude: 39-19-14.40 N  
Longitude: 074-46-16.60 W  
ERP: 13.50 kW  
Channel: 217  
Frequency: 91.3 MHz  
AMSL Height: 129.0 m  
Elevation: 7.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**JULY 2023**



60 dBu (1 mV/m) Protected And 54 dBu (0.5 mV/m interfering) FCC Contours For WDDE, Dover, DE And WRTQ, Ocean City, NJ

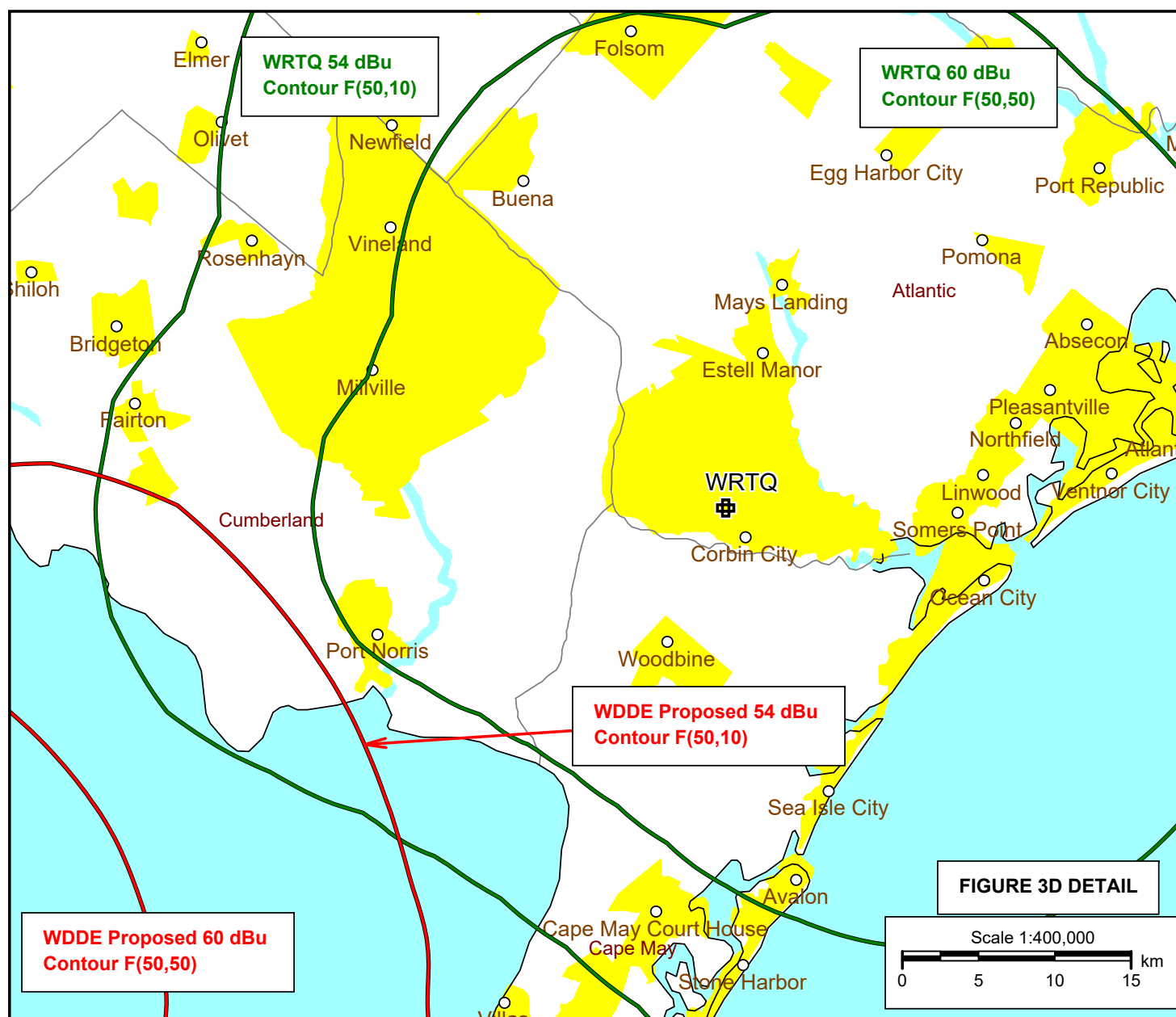
### WDDE\_DeComm

Proposed DA Operation  
Latitude: 38-59-01 N  
Longitude: 075-33-13 W  
ERP: 9.00 kW  
Channel: 216  
Frequency: 91.1 MHz  
AMSL Height: 106.4 m  
Elevation: 14.9 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

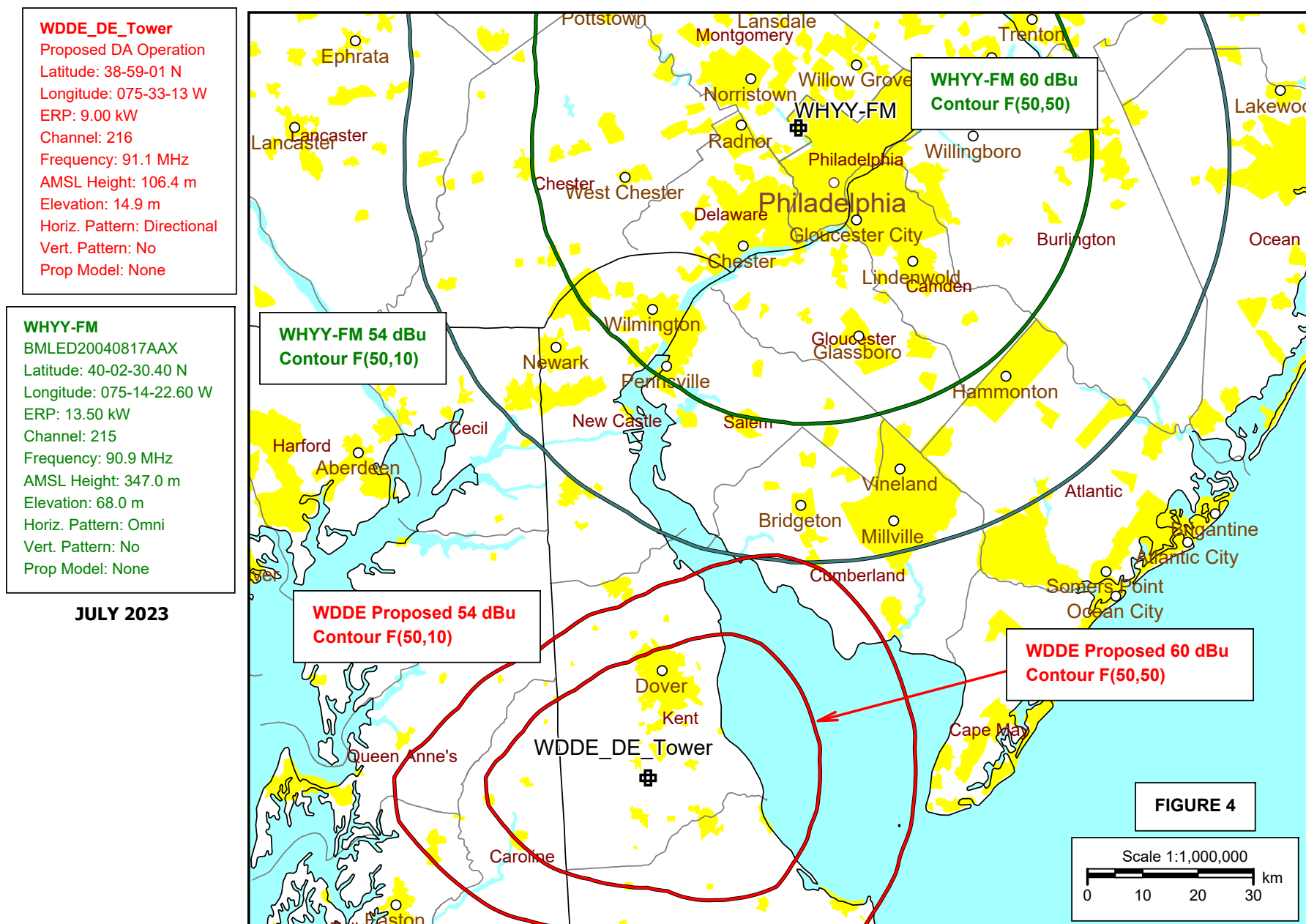
### WRTQ

BLED20071009AIT  
Latitude: 39-19-14.40 N  
Longitude: 074-46-16.60 W  
ERP: 13.50 kW  
Channel: 217  
Frequency: 91.3 MHz  
AMSL Height: 129.0 m  
Elevation: 7.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

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60 dBu (1 mV/m) Protected And 54 dBu (0.5 mV/m interfering) FCC Contours For WDDE, Dover, DE And WRTQ, Ocean City, NJ



60 dBu (1 mV/m) Protected And 54 dBu (0.5 mV/m interfering) FCC Contours For WDDE, Dover, DE And WHYY-FM, Philadelphia, PA

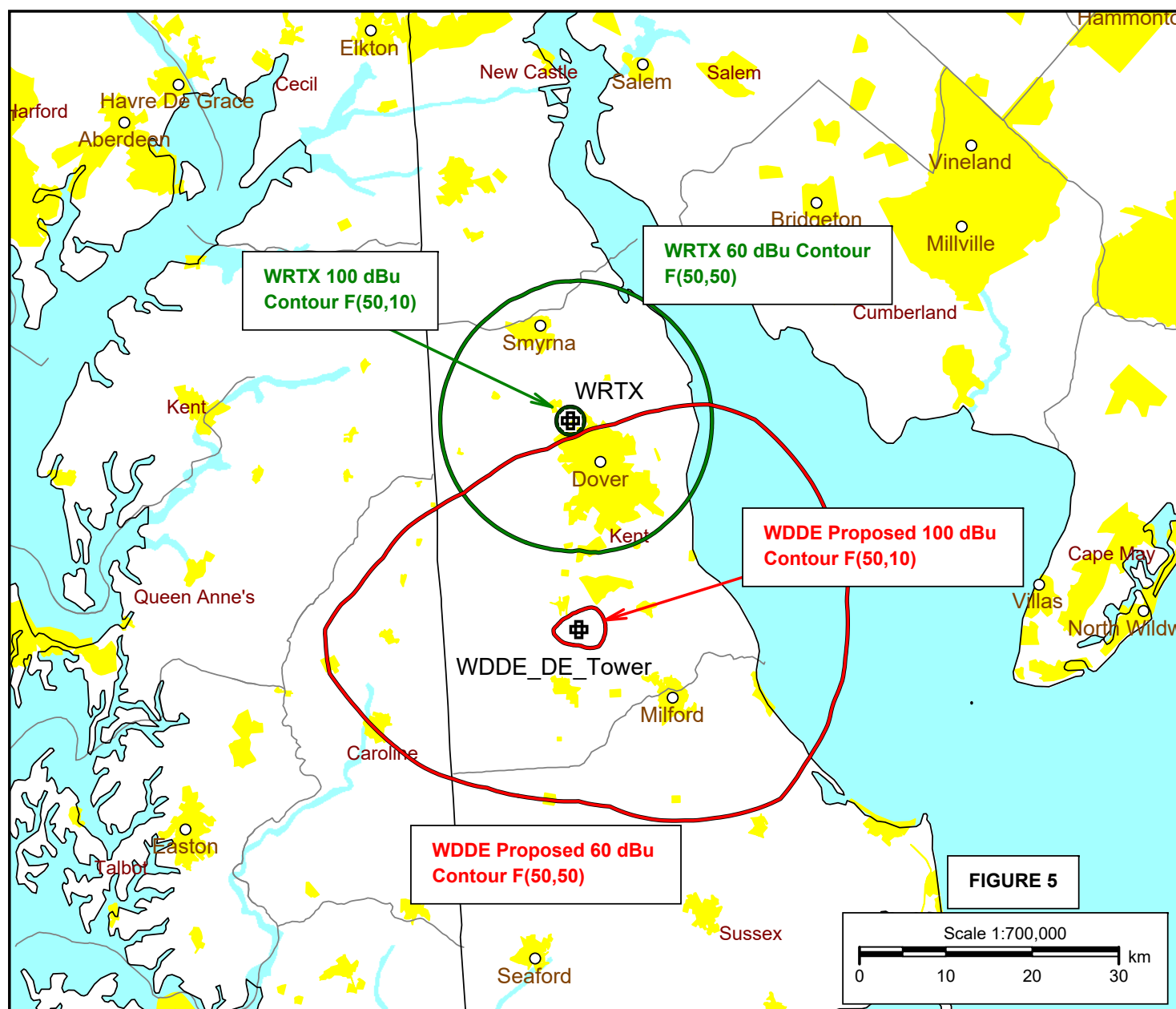
### WDDE\_DE\_Tower

Proposed DA Operation  
Latitude: 38-59-01 N  
Longitude: 075-33-13 W  
ERP: 9.00 kW  
Channel: 216  
Frequency: 91.1 MHz  
AMSL Height: 106.4 m  
Elevation: 14.9 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

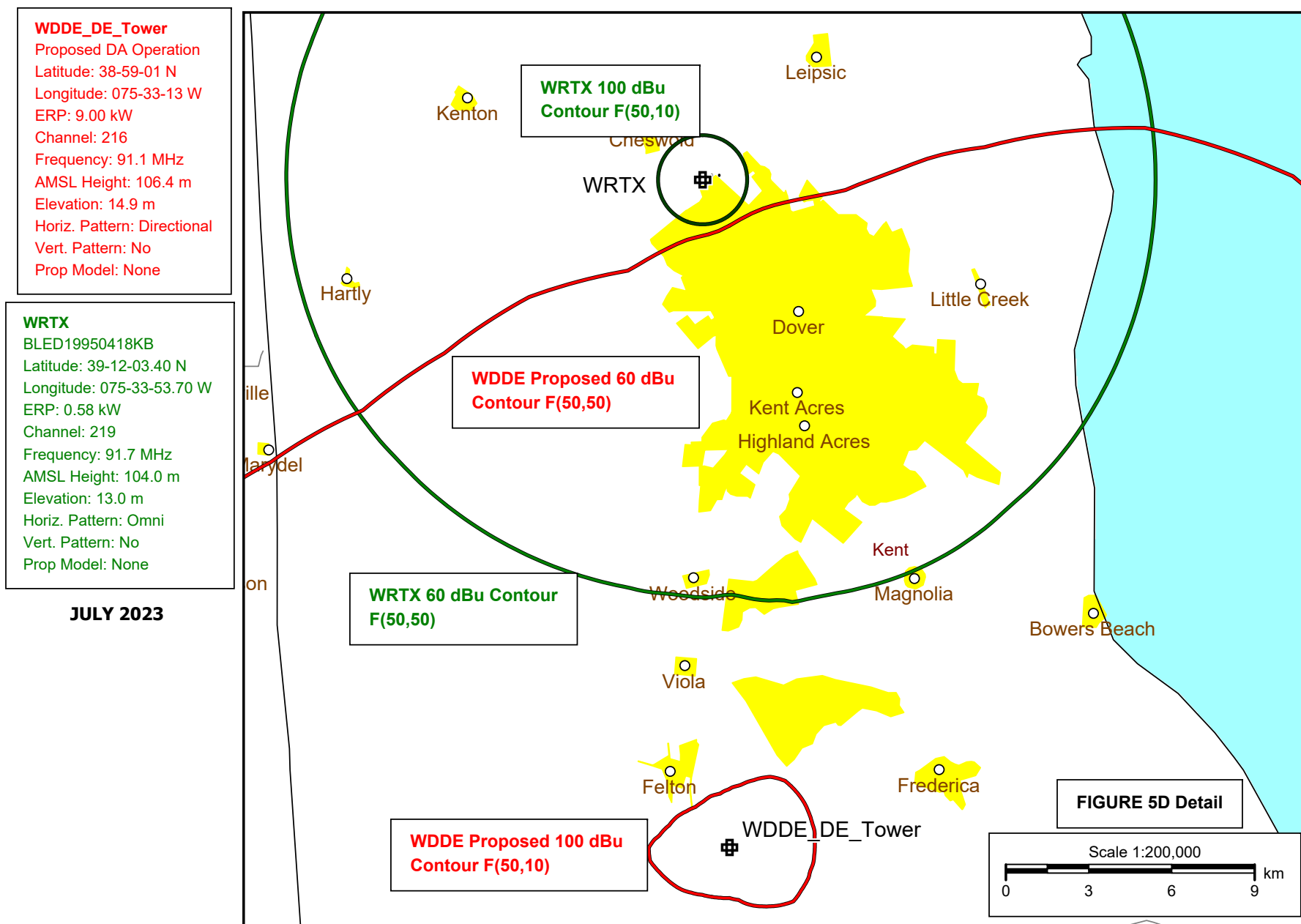
### WRTX

BLED19950418KB  
Latitude: 39-12-03.40 N  
Longitude: 075-33-53.70 W  
ERP: 0.58 kW  
Channel: 219  
Frequency: 91.7 MHz  
AMSL Height: 104.0 m  
Elevation: 13.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

July 2023



60 dBu (1 mV/m) Protected And 100 dBu (100 mV/m interfering) FCC Contours For WDDE, Dover, DE And WRTX, Dover, DE



60 dBu (1 mV/m) Protected And 100 dBu (100 mV/m interfering) FCC Contours For WDDE, Dover, DE And WRTX, Dover, DE



### WDDE\_DE\_Tower

Proposed DA Operation  
Latitude: 38-59-01 N  
Longitude: 075-33-13 W  
ERP: 9.00 kW  
Channel: 216  
Frequency: 91.1 MHz  
AMSL Height: 106.4 m  
Elevation: 14.9 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

### WDDE\_Lic.

BLED20110812ACN  
Latitude: 39-00-50 N  
Longitude: 075-30-28 W  
ERP: 2.10 kW  
Channel: 216  
Frequency: 91.1 MHz  
AMSL Height: 78.0 m  
Elevation: 12.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

60 dBu Contour Population:  
156,755 People  
1,710 Sq. kM (Land Area Only)  
2010 US Census

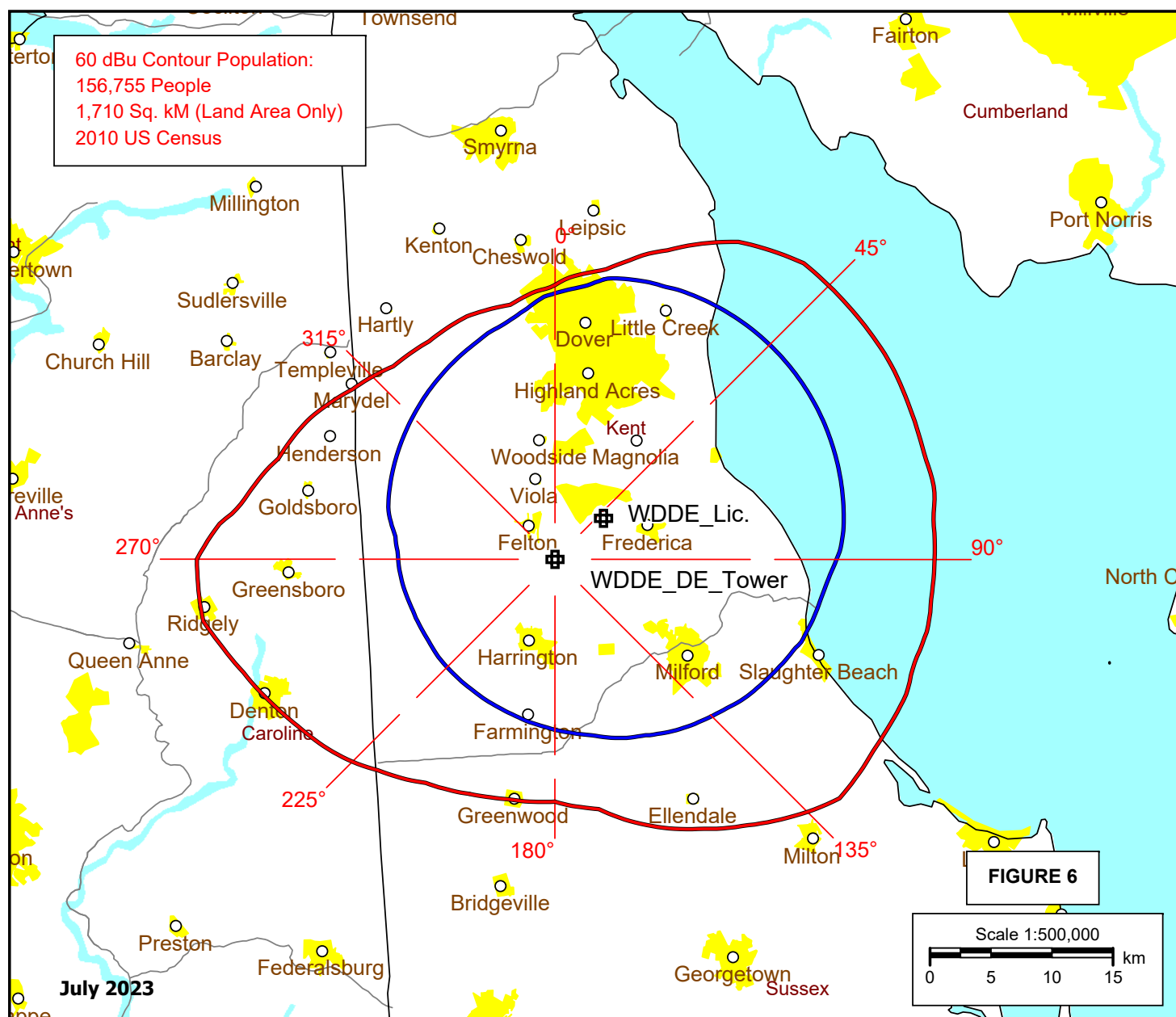


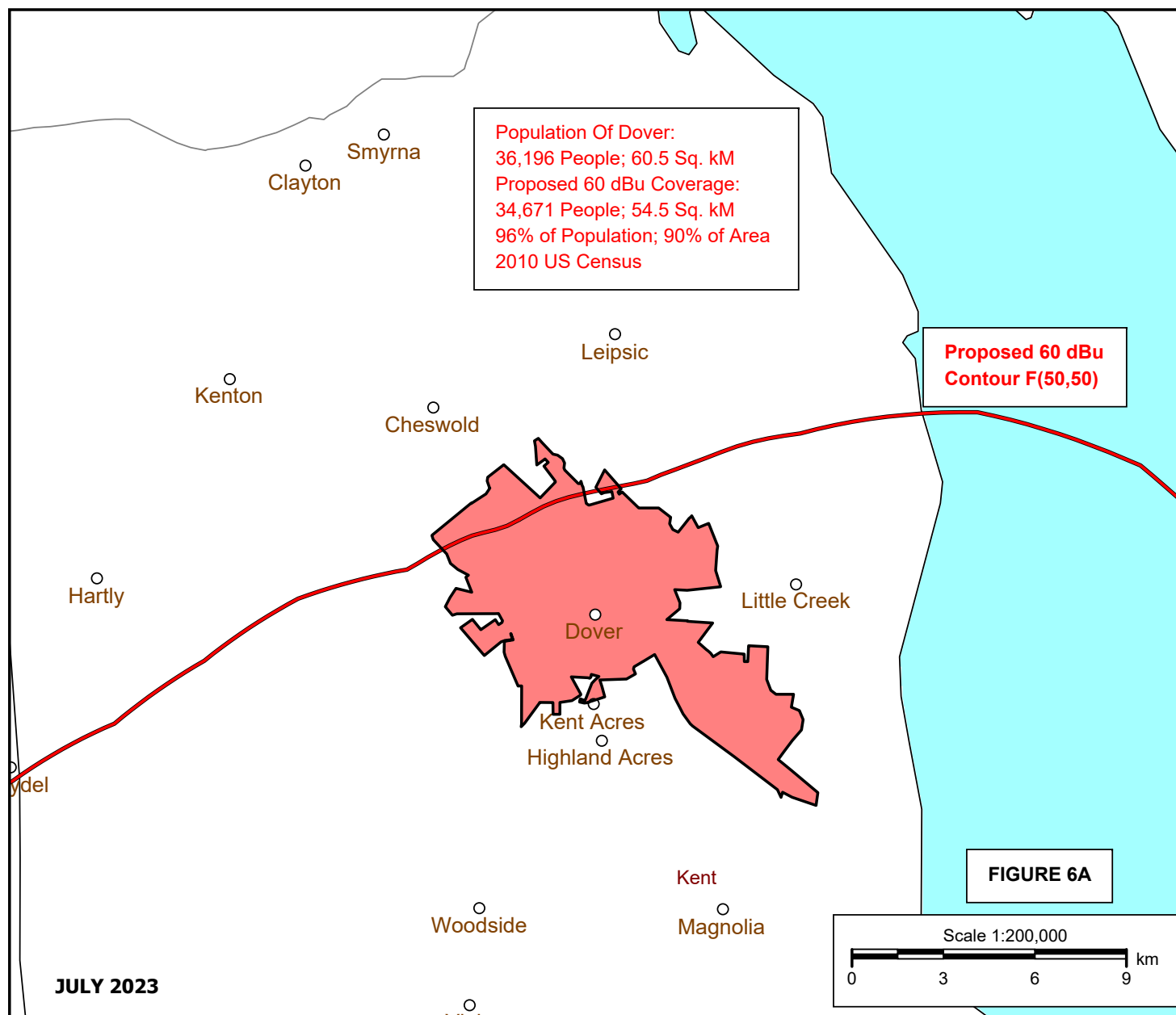
FIGURE 6

Scale 1:500,000

0 5 10 15 km

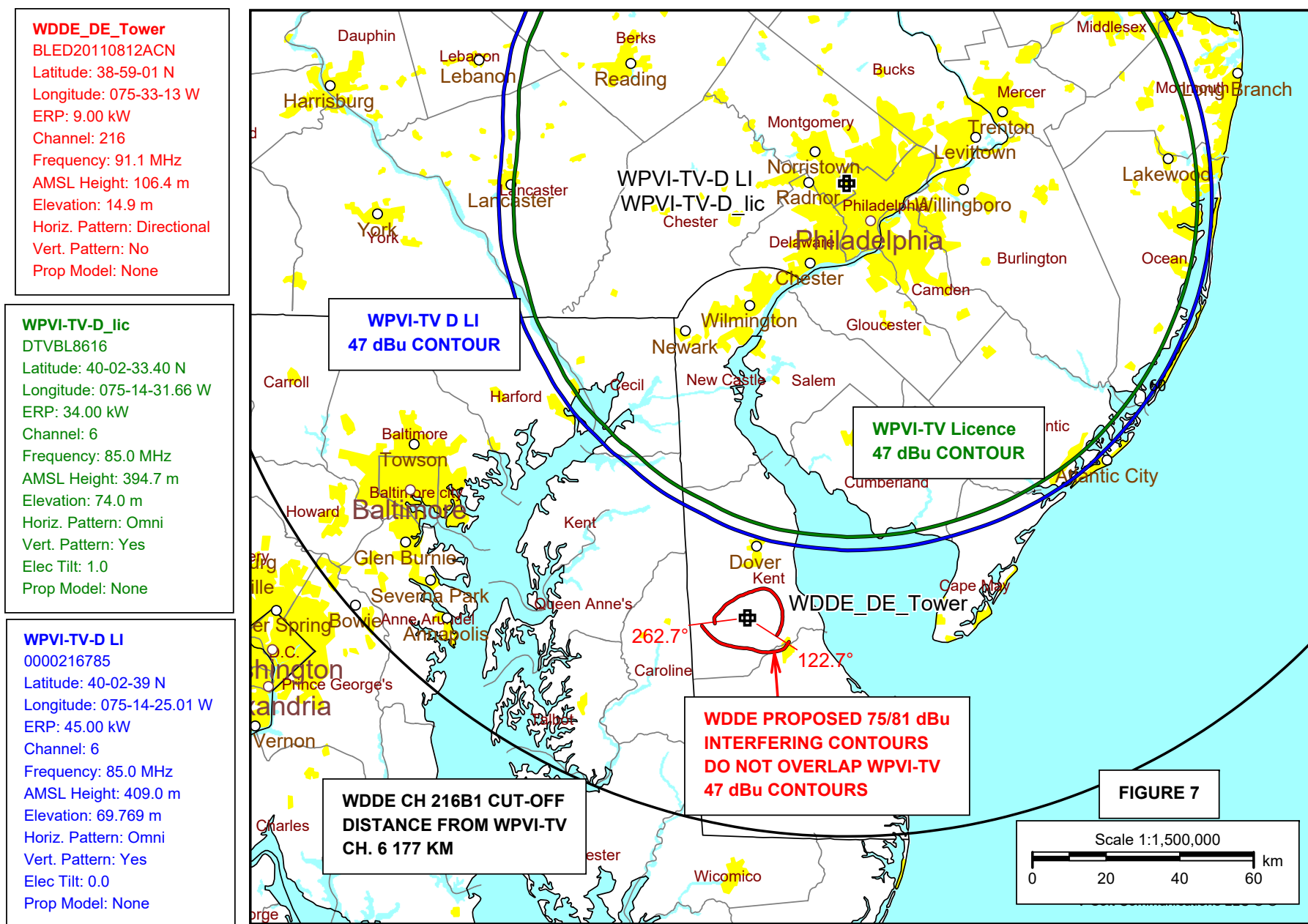
60 dBu (1 mV/m) Protected FCC Contour For The Present And Proposed Operation Of WDDE, Dover, DE

**WDDE\_DE\_Tower**  
Proposed Operation  
Latitude: 38-59-01 N  
Longitude: 075-33-13 W  
ERP: 9.00 kW  
Channel: 216  
Frequency: 91.1 MHz  
AMSL Height: 106.4 m  
Elevation: 14.9 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None



60 dBu (1 mV/m) Protected FCC Service Contour To Dover From The Proposed Operation Of WDDE, Dover, DE





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WPVI-TV CH. 6 Protected Grade B Contours And Interfering Contours Of The Proposed Operation Of WDDE, Dover, DE