

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 50 KW 113 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for a construction permit for FM station WFLM at White City, Florida. Station WFLM is currently licensed (BLH-20160210AAC, Facility ID 42065) to operate on channel 283C2 (104.5 MHz) at White City, Florida with an effective radiated power (ERP) of 50 kilowatts (kW) and an antenna height above average terrain (HAAT) of 113 meters.

The purpose of this instant application is to specify a change in the city of license of WFLM and a change in channel and class from 283C2 to 284C2 (104.7 MHz) as permitted by the rules adopted by the FCC allowing community of license changes by application.<sup>1</sup> Specifically, it is proposed to operate on channel 284C2 at Palm Beach Shores, Florida from an existing tower (ASR 1031315) with a nondirectional antenna maximum ERP of 50 kW and an HAAT of 113 meters. The instant WFLM application is considered a “minor” change in facilities in accordance with Sections 73.3573(a)(1)(i) and 73.3573(g).

WFLM Allotment Coordinates

Figure 1 is a separation study from the proposed WFLM allotment coordinates.<sup>2</sup> As shown, the proposed WFLM allotment coordinates comply with the minimum distance separation requirements of Section 73.207 for Class C2 operation on channel 284 towards all existing, authorized and proposed stations and allotments except with respect to (1) the current WFLM operation which establishes mutual exclusivity pursuant to Section 73.3573(g) and (2) the licensed operation of WSGL on channel 284C2 at Naples, Florida. However, as indicated on Figure 1, the proposed WFLM allotment coordinates are fully-spaced to proposed allotment coordinates for WSGL which are also fully-spaced and comply with FCC’s city coverage requirements (see below).<sup>3</sup>

Figure 2 is a map which demonstrates that the proposed WFLM allotment coordinates comply with the FCC’s city coverage requirements (73.315) based on maximum Class C2 facilities (ERP 50 kW/HAAT 150 m). The Palm Beach Shores town limits shown on Figure 2 were obtained from a map contained in the 2020 U.S. Census of Population. Figure 2 also

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<sup>1</sup> *Report and Order in the Matter of Revision of Procedures Governing Amendments to the FM Table of Allotments and Changes of Community of License in the Radio Broadcast Services*, MB Docket No. 05-210, RM-10960, FCC 06-163, released November 29, 2006 (“Report and Order”).

<sup>2</sup> The WFLM allotment coordinates are the location of an existing tower, ASRN 1052079.

<sup>3</sup> The proposed WSGL allotment coordinates will only be used for creation of the FCC rule compliant allotment coordinates for WFLM. The proposal would not involve any physical change to WSGL’s operation, only the temporary use of FCC rule compliant allotment coordinates.

demonstrates that the proposed WFLM operation complies with the provisions of Section 73.315 and provides the entire community of Palm Beach Shores, Florida with a 70-dBu signal.

#### WSGL Allotment Coordinates

Figure 3 is a separation study from the proposed WSGL allotment coordinates.<sup>4</sup> As demonstrated, the proposed WSGL allotment coordinates comply with the minimum distance separation requirements of Section 73.207 for Class C2 operation on channel 284 towards all existing, authorized and proposed stations and allotments, including the proposed WFLM channel 284C2 allotment coordinates.

Figure 4 is a map which demonstrates that the proposed WSGL allotment coordinates comply with the FCC's city coverage requirements (73.315) based on maximum Class C2 facilities (ERP 50 kW/HAAT 150 m). The Naples, Florida city limits shown on Figure 4 were obtained from a map contained in the 2020 U.S. Census of Population.

#### Section 73.207 & Section 73.215 Compliance

Figure 5 is a separation study for the channel 284C2 operation from the proposed site (ASRN 1031315). As shown, the proposed site complies with the minimum distance separation requirements of Section 73.207 for Class C2 operation on channel 284 towards all existing, authorized and proposed stations with the exception of the licensed operation of WSGL on channel 284C2 at Naples, Florida. It is proposed to utilize the contour protection provisions of Section 73.215 with respect to the WSGL short-spacing. Figure 6 demonstrates that the proposed operation on channel 284C2 at Palm Beach Shores complies with the contour protection provisions of Section 73.215 with respect to WSGL.<sup>5</sup> All contour locations were based on the use of the USGS NED 1-second terrain database.

#### RFR Hazard Statement

The proposed WFLM facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with the OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields.

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<sup>4</sup> The WSGL channel 284C2 allotment coordinates were previously the allotment coordinates for WSGL's initial channel 284C2 upgrade from 1998 which have been archived by the FCC as a "USE" record.

<sup>5</sup> The distance between the proposed transmitter site and the WSGL transmitter site complies with the minimum distance separation requirements of Section 73.215(e).

It is proposed to utilize a Dielectric model DCR-C10, 10-bay, 0.5 wavelength spaced nondirectional antenna mounted at the 111 meter level on the existing tower. The ERP will be 50 kW (H&V). Figure 13 depicts the output of the FCC's FM Model program. As indicated, a maximum power density of 1.27 uW/cm<sup>2</sup> will occur at a point located 189 meters from the supporting structure base. This is only 0.64% of the FCC's recommended limit of 200 uW/cm<sup>2</sup> for the FM band for an uncontrolled/general population environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, procedures will be in effect in the event that workers or other authorized personnel enter the restricted area to ensure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

#### Community of License Change – Section 307(b)

##### *1. Proposal*

It is proposed to specify a change in the city of license of WFLM from White City, Florida to Palm Beach Shores, Florida as permitted by the rules adopted by the FCC allowing community of license changes by application.

##### *2. City Populations and Local Service*

White City is a census designated place (CDP) and has a 2020 U.S. Census population of 3,779 persons. Station WFLM is the only aural (AM/FM) service licensed to White City. However, WFLM is presumptively treated as a station that serves the Port St. Lucie Urbanized Area (UA), which receives multiple local aural services, rather than providing the only local service at White City as White City is located within the Port St. Lucie UA.<sup>6</sup>

Palm Beach Shores is a town and has a 2020 U.S. Census population of 1,330 persons and has no other FM or AM service. Therefore, the instant proposal will result in a

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<sup>6</sup>See FCC letter dated August 26, 2011 to Cumulus Licensing LLC concerning applications to change communities of license file by KRRF(FM), Goleta, CA , Facility ID No. 10329, File No. BPH-20110218ABV, and KRUZ(FM), Santa Barbara, CA, Facility ID 3159, File No. BPH-20110218ABW, DA 11-1460, Reference 1800B3-AJR, released August 26, 2011 ("*Cumulus Letter*").

first local aural transmission service to the community of Palm Beach Shores. Palm Beach Shores is located in the Miami UA.

*3. 60 dBu Gain and Loss Areas and Available Aural Services – WFLM C2 Proposal*

Figure 7A is a map showing the FM 60 dBu (1 mV/m) primary service contours for WFLM’S licensed operation on channel 283C2 at White City and the proposed channel 284C2 operation at Palm Beach Shores. In accordance with the criteria set forth in the Second Order on Reconsideration in MB Docket No. 09-52 (RM-11528, adopted October 11, 2012, released October 12, 2012, FCC 12-127) (“Second Order”), the WFLM licensed and proposed 60 dBu contours were calculated based on licensed and proposed ERP and HAAT using actual terrain, in this case the USGS NED 1-second terrain database, and the FCC’s standard prediction method. The 60 dBu “gain” and “loss” areas are also indicated.

The following tabulates the land areas and 2020 Census populations within the 60 dBu FM contours for the WFLM licensed operation on channel 283C2 at White City and the proposed operation on channel 284C2 at Palm Beach Shores. Also tabulated are the gain, loss and “net” gain areas. As indicated, the proposal will result in a net gain in 60 dBu service to 796,212 persons, which is considered to be substantial.<sup>7</sup>

<i>Facilities</i>	<i>Within 60 dBu Contour</i>	
	<i>2020 Census Population</i>	<i>Land Area (km<sup>2</sup>)</i>
Licensed Ch. 283C2 White City, FL	646,561	4,079
Proposed Ch. 284C2 Palm Beach Shores, FL	1,451,093	3,490
Gain	1,375,689	3,104
Loss	579,477	3,677
“Net” Gain	796,212	[573]

Figure 7A also shows the other full-time aural services available to the gain and loss areas within the 60 dBu contours. The determination of available full-time reception services was also based the criteria set forth in the Second Order. Specifically, for FM service (commercial and noncommercial educational) the Class service contour was used based on the authorized (licensed or permitted) facilities using actual terrain, the USGS NED 1-second terrain database and the FCC’s standard prediction method. For AM fulltime service, the common area within the daytime 2 mV/m contour and nighttime interference-free (NIF) contour was used.

<sup>7</sup> See *Cumulus Letter* at 4 (a net gain in 60 dBu service to 225,855 persons is considered “substantial”).

The numerals within the gain and loss areas depicted on Figure 7A indicate the number of available aural services. As indicated on Figure 7A, there is one underserved area located within the loss area receiving 4 aural services. Figure 7B is an expanded scale version of Figure 7A depicting this underserved loss area along with population centroids obtained from the 2020 Census. As indicated on Figure 7B, the area receiving 4 services encompasses 4 population centroids having a total population of 53 persons, which is only 0.008% of the total population within the WFLM protected 60 dBu contour.<sup>8</sup> Thus, the entire populated portion of the loss area is considered well served with 5 or more aural services, with the exception of 53 persons receiving 4 services. Furthermore, there are 5 or more services available to populated portions of the gain area. Figure 8 tabulates the AM and FM stations whose contours are shown on Figures 7A and 7B.

An analysis of the total number of aural services available to the populated areas that will gain and lose 60 dBu service has also been conducted. For the 60 dBu loss area, 9,356 persons will continue to receive between 5 and 10 services and 570,121 persons will continue to receive between 11 and 18 services. In addition, 16 percent (94,489 persons) of the current population within the 60 dBu loss area would lose an eighteenth (18) reception service, 10 percent (59,844 persons) would lose a seventeenth (17) reception service, 8 percent (47,590 persons) would lose a sixteenth (16) reception service and 32 percent (187,312 persons) would lose a fifteenth (15) reception service. For the 60 dBu gain area, 763,139 persons will receive between 13 and 25 services and 612,550 persons will receive between 26 and 37 services. In addition, 8 percent (115,665 persons) of the current population within the 60 dBu gain area would receive a twenty-third (23) reception service, 13 percent (171,748 persons) would receive a twenty-second (22) reception service, 21 percent (289,982 persons) would receive a twenty-first (21) reception service and 5 percent (71,032 persons) would receive a twentieth (20) reception service.

#### *4. 70 dBu and 60 dBu Coverage*

The following tabulates the land area and 2020 Census population within the 70 dBu and 60 dBu contours for the proposed WFLM operation on channel 284C2 at Palm Beach Shores which are depicted on Figure 9.

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<sup>8</sup> The FCC indicated that it will strongly disfavor any proposal that would result in net loss of third, fourth or fifth reception service to more than 15 percent of the population within a station's current protected contour. *See Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*, Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rule Making, (2011) ("*Rural Radio*") at paragraph 39.

Contour	Population (2010 Census)	Land Area (sq. km)
70 dBu	1,061,179	1,421
60 dBu	1,451,093	3,490

Contour locations calculated in accordance with the provisions of Section 73.313. Population calculated using a computer program that utilizes the 2020 U.S. Census database of "population centroids". Area calculated using a root mean square algorithm.

*5. Urbanized Area Considerations*

Figure 10 is a map which depicts the White City and Palm Beach Shores city limits and the Port St. Lucie and Miami UA's. As indicated, the city limits of White City are located in the Port St. Lucie UA and the city limits for Palm Beach Shore are located in the Miami UA. Thus, the proposal is an "inter-urbanized area move". Also shown are the 70 dBu contours for the licensed and proposed WFLM operations. The licensed 70 dBu contour encompasses 78% of the Port St. Lucie UA and the proposed 70 dBu contour will encompass 26% of the Miami UA.

*6. Protected FM and AM Services Available to White City and Palm Beach Shores.*

An analysis was conducted of other protected AM and FM aural services available to White City and Palm Beach Shores. The attached map at Figure 11 illustrates the other aural services contours employed in the analysis. As shown on Figure 11, White City has 19 protected AM and FM services available and Palm Beach Shores has 36 protected AM and FM services available.<sup>9</sup> Figure 12 is a tabulation of all of the AM and FM stations considered in the analysis of other aural protected services.

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<sup>9</sup> For FM stations, the pertinent primary service contour (60 dBu) has been used. For AM stations, the daytime 2 mV/m contour has been used.

If there are any questions, or additional information is required, please contact the office of the undersigned.



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May 26, 2022

# FM Study LMS

du Treil, Lundin, &amp; Rackley, Inc., Sarasota, Florida



**Station Channel:** 284      **Station Coordinates:** 026-56-21 080-07-01 (NAD 83)  
**Class:** C2      **Buffer Distance:** 20 km  
**Comment:** Proposed WFLM Ch 284C2 Allotment Coordinates

Callsign	Status	Channel	Service	Freq.	City	State	Co.	Rec Type	Latitude	Dist. (km)	Sep. (km)	Spacing (km)	
Facility ID	ARN			Class	DA	Ant ID	ERP (kW)	HAAT (m)	73.215 Longitude	Bear. (deg)	73.215 (km)	Comment	
<b>WFLM</b>	L2C	283	FM	104.5	WHITE CITY	FL	US	C	027-25-17.1	58.48	130	-71.52	
42065	BLH-20160210AAC			C2	NDIR		50	113.2	080-21-24.2	336.19	117	<b>SHORT</b> /1	
<b>PWFLM-RP</b>	<b>F</b>	<b>GJ</b>	284	FM	104.7	PALM BEACH SHORES	FL	US	C	026-56-21	0	190	-190
206	4805 - WFLM			C2	N		50	150	080-07-01	55.85	177	<b>SHORT</b> /2	
<b>PWFLM</b>	PROPSD	284	FM	104.7	PALM BEACH SHORES	FL	US	C	026-45-43.2	20.01	190	-169.99	
208	4805 - WFLM			C2	N		50	113	080-04-41.2	168.93	177	<b>SHORT</b> /3	
<b>WSGL</b>	L2C	284	FM	104.7	NAPLES	FL	US	C	026-07-36.3	183.48	190	-6.52	
63357	BLH-20000105AAP			C2	NDIR		20	132	081-43-16.3	240.85	177	<b>SHORT</b> /4	
<b>WSGL-RP</b>	<b>RSV</b>	284	FM	104.7	NAPLES	FL	US	C	025-59-04.3	191.99	190	1.99	
207	4805 - WFLM			C2	N		50	150	081-43-25.3	236.79	177	<b>CLOSE</b> /5	
<b>WHQT</b>	L2C	286	FM	105.1	CORAL GABLES	FL	US	C	025-58-03.3	108.03	89	19.03	
72982	BLH-20050224ABK			C0	DRL 64727		100	307	080-12-33.2	184.88	83	<b>CLEAR</b>	

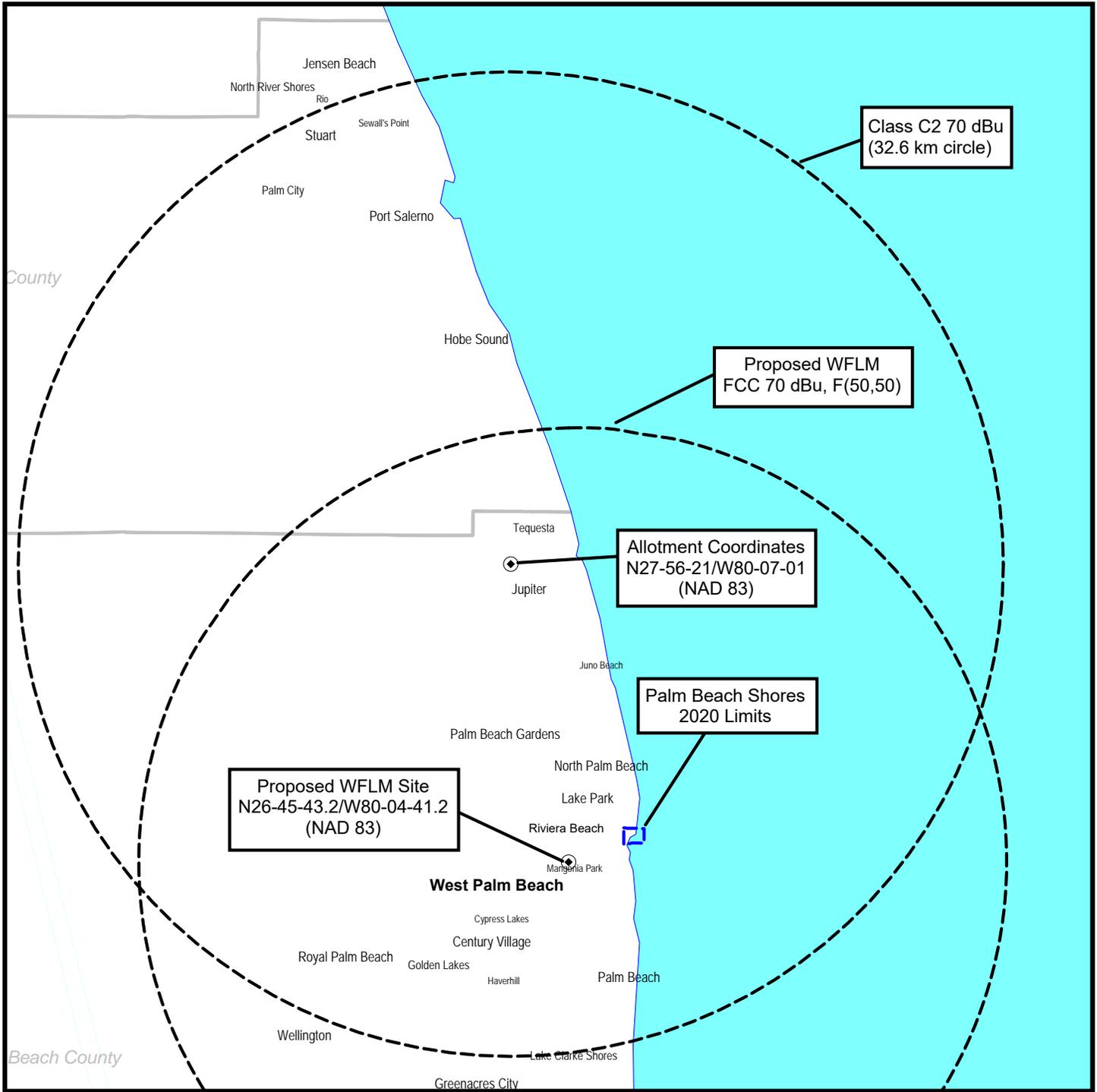
/1 Licensed WFLM operation.

/2 Proposed WFLM fully-spaced allotment coordinates (RSV).

/3 Proposed WFLM operation (application) at Palm Beach Shores.

/4 The short-spacing with the licensed WSGL site is not a concern as the proposed WFLM allotment coordinates are fully-spaced to the proposed fully-spaced allotment coordinates for WSGL. See footnote 5 below and Figure 3.

/5 Proposed WSGL fully-spaced allotment coordinates (RSV) which are fully-spaced to the proposed WFLM allotment coordinates. It is noted that there will be no change in the licensed WSGL operation (BLH-20000105AAP).



## COMPLIANCE WITH SECTION 73.315

FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 (104.7 MHZ) 50 KW 113 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

# FM Study LMS

du Treil, Lundin, &amp; Rackley, Inc., Sarasota, Florida



**Station Channel:** 284      **Station Coordinates:** 025-59-04.3 081-43-25.3 (NAD) HD  
**Class:** C2      **Buffer Distance:** 20 km  
**Comment:** Proposed WSGL Ch 284C2 Allotment Coordinates

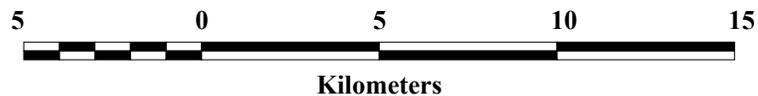
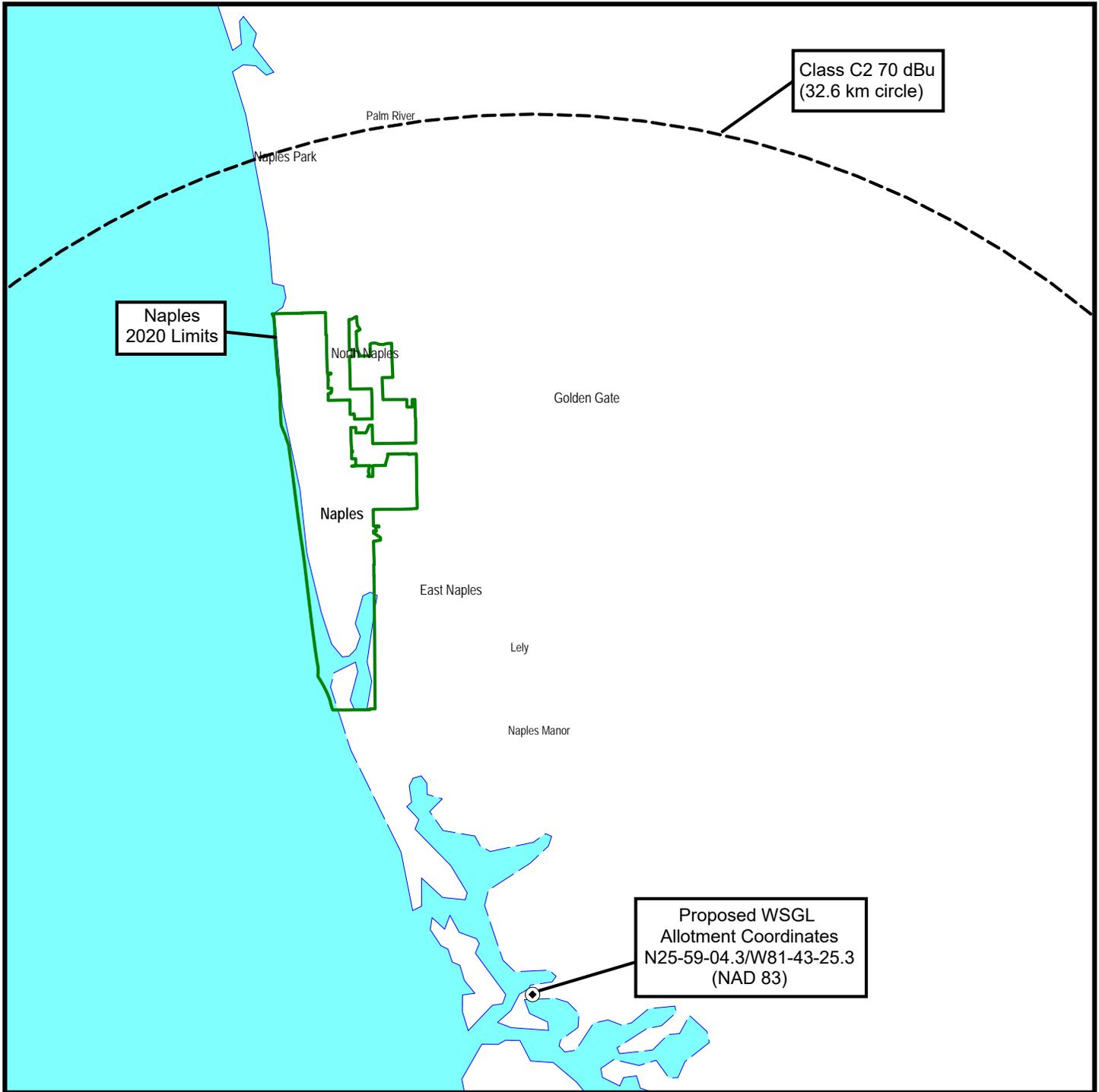
Callsign	Status	Channel	Service	Freq.	City	State	Co.	Rec Type	Latitude	Dist. (km)	Sep. (km)	Spacing (km)		
Facility ID	ARN			Class	DA	Ant ID	ERP (kW)	HAAT (m)	73.215 Longitude	Bear. (deg)	73.215 (km)	Comment		
<b>WSGL-RP</b>	<b>RSV</b>	284	FM	104.7	NAPLES			FL	US	C	025-59-04.3	0	190	-190
207	4805 - WFLM			C2	N		50	150			081-43-25.3	88.49	177	<b>SHORT /1</b>
<b>WSGL</b>	L2C	284	FM	104.7	NAPLES			FL	US	C	026-07-36.3	15.76	190	-174.24
63357	BLH-20000105AAP			C2	NDIR		20	132		Y	081-43-16.3	0.9	177	<b>SHORT /2</b>
<b>PWFLM</b>	PROPSD	284	FM	104.7	PALM BEACH SHORES			FL	US	C	026-45-43.2	185.45	190	-4.55
208	4805 - WFLM			C2	N		50	113			080-04-41.2	61.83	177	<b>SHORT /3</b>
<b>PWFLM-RP</b>	<b>RSV</b>	284	FM	104.7	PALM BEACH SHORES			FL	US	C	026-56-21	191.99	190	1.99
206	4805 - WFLM			C2	N		50	150			080-07-01	56.07	177	<b>CLOSE /4</b>
<b>WRBQ-FM</b>	L2C	284	FM	104.7	TAMPA			FL	US	C	027-55-54.9	226.01	224	2.01
11943	BLH-20100122AAR			C1	NDIR		100	174		Y	082-24-03.9	342.93	211	<b>CLOSE</b>
<b>WCVU</b>	L2C	285	FM	104.9	SOLANA			FL	US	C	026-53-38.7	105.91	106	-0.09
71594	BLH-20120525AAE			A	NDIR		6	97		Y	082-03-02	342.24	89	<b>CLOSE</b>

/1 Proposed WSGL fully-spaced allotment coordinates (RSV).

/2 Licensed WSGL operation. It is noted that there will be no change in the licensed WSGL operation.

/3 Proposed WFLM operation (application). This short-spacing is not an allocation concern as the proposed WSGL allotment coordinates are fully-spaced to the proposed WFLM allotment coordinates. See footnote 4 below and Figure 1.

/4 Proposed WFLM fully-spaced coordinates (RSV) which are fully-spaced to the proposed WSGL allotment coordinates.



**COMPLIANCE WITH SECTION 73.315**

FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 (104.7 MHZ) 50 KW 113 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

# FM Study LMS

du Treil, Lundin, &amp; Rackley, Inc., Sarasota, Florida



**Station Channel:** 284      **Station Coordinates:** 026-45-43.2 080-04-41.2 (NAD83)  
**Class:** C2      **Buffer Distance:** 20 km  
**Comment:** Proposed WFLM Ch 284C2

Callsign	Status	Channel	Service	Freq.	City	State	Co.	Rec Type	Latitude	Dist. (km)	Sep. (km)	Spacing (km)	
Facility ID	ARN		Class	DA	Ant ID	ERP (kW)	HAAT (m)	73.215	Longitude	Bear. (deg)	73.215 (km)	Comment	
<b>WSFS</b>	L2C	282	FM	104.3	MIRAMAR		FL	US	C	025-59-10.3	86.72	79	7.72
29567	BLH-20130819AFA		C1	NDIR		100	283		N	080-11-36.2	187.61	73	<b>CLOSE</b>
<b>WFLM</b>	L2C	283	FM	104.5	WHITE CITY		FL	US	C	027-25-17.1	78.11	130	-51.89
42065	BLH-20160210AAC		C2	NDIR		50	113.2		N	080-21-24.2	339.45	117	<b>SHORT /1</b>
<b>PWFLM</b>	PROPSD	284	FM	104.7	PALM BEACH SHORES		FL	US	C	026-45-43.2	0	190	-190
208	4805 - WFLM		C2	N		50	113			080-04-41.2	104.73	177	<b>SHORT /2</b>
<b>PWFLM-RP RSV</b>		284	FM	104.7	PALM BEACH SHORES		FL	US	C	026-56-21	20.01	190	-169.99
206	4805 - WFLM		C2	N		50	150			080-07-01	348.94	177	<b>SHORT /3</b>
<b>WSGL</b>	L2C	284	FM	104.7	NAPLES		FL	US	C	026-07-36.3	178.35	190	-11.65
63357	BLH-20000105AAP		C2	NDIR		20	132		Y	081-43-16.3	247.01	177	<b>SHORT /4</b>
<b>WSGL-RP RSV</b>		284	FM	104.7	NAPLES		FL	US	C	025-59-04.3	185.45	190	-4.55
207	4805 - WFLM		C2	N		50	150			081-43-25.3	242.56	177	<b>SHORT /5</b>
<b>WHQT</b>	L2C	286	FM	105.1	CORAL GABLES		FL	US	C	025-58-03.3	88.98	89	-0.02
72982	BLH-20050224ABK		C0	DRL	64727	100	307		N	080-12-33.2	188.44	83	<b>CLOSE</b>

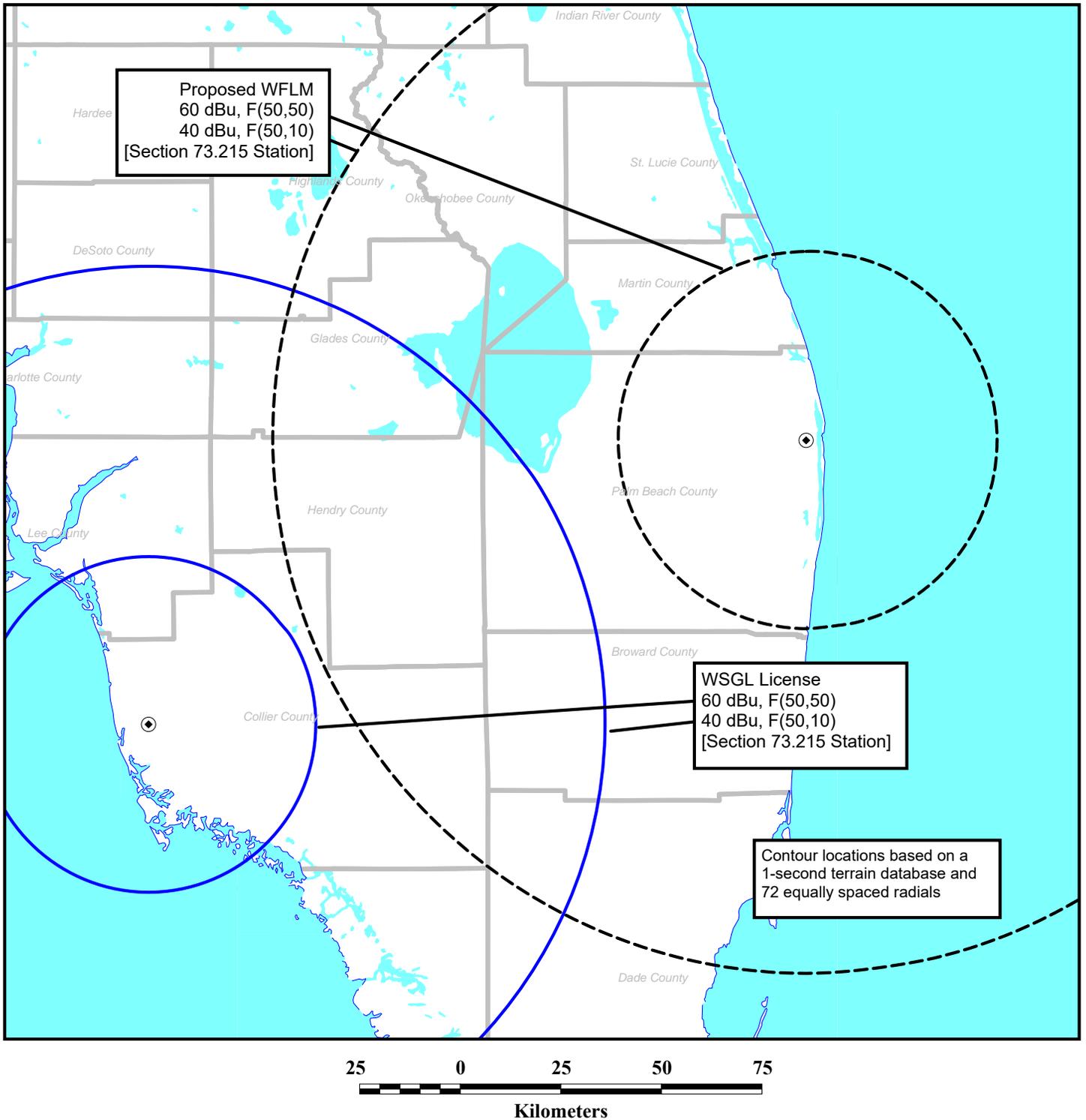
/1 Currently Licensed WFLM operation.

/2 Proposed WFLM (application) operation.

/3 Proposed WFLM fully-spaced allotment coordinates (RSV).

/4 It is proposed to utilize the contour protection provisions of Section 73.215 with respect to this short-spacing. See Figure 6. The proposal complies with the minimum distance separation requirements of Section 73.215(e).

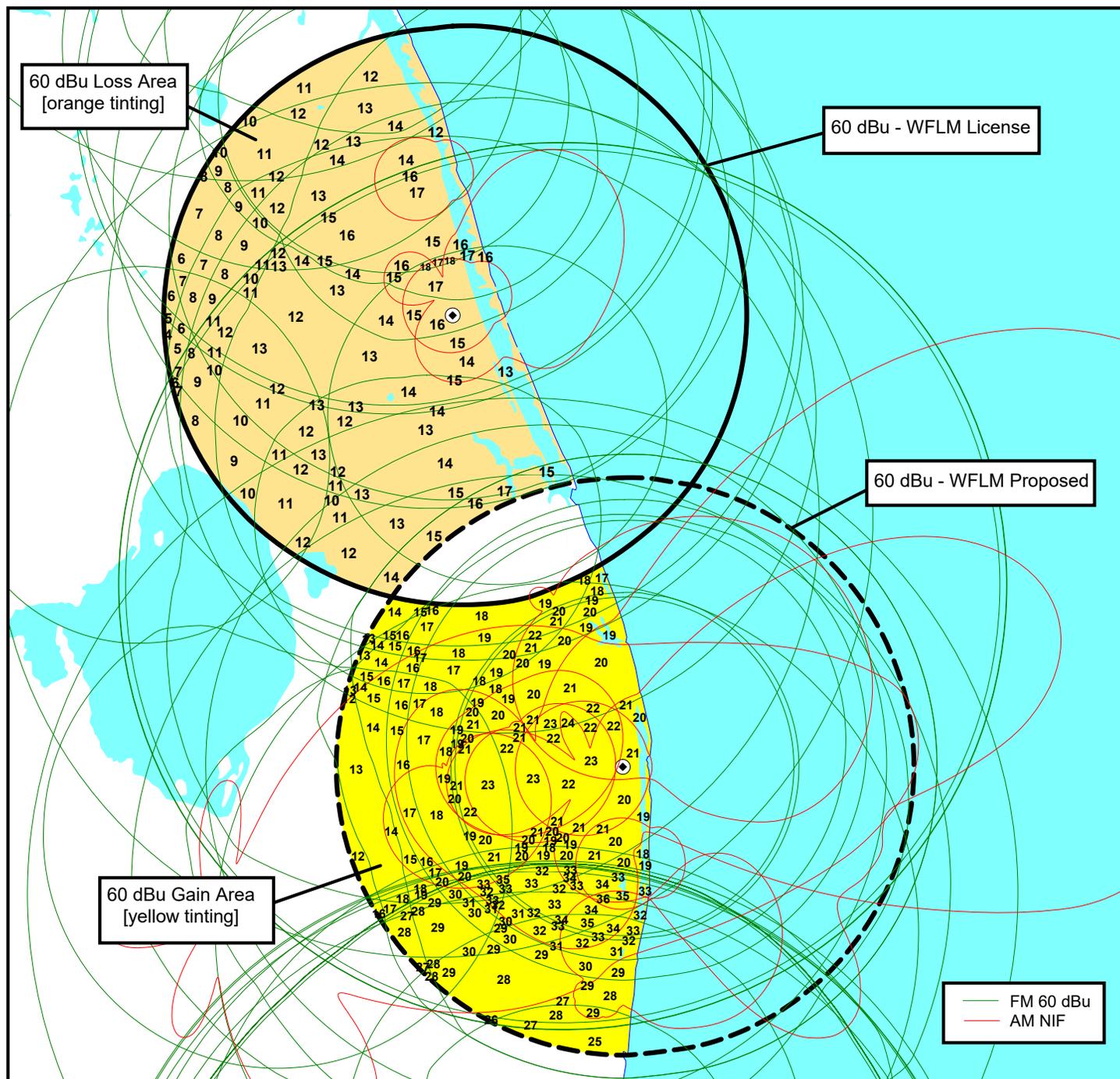
/5 Proposed WGL fully-spaced allotment coordinates (RSV) which are not an allocation concern.



## COMPLIANCE WITH SECTION 73.315

FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 (104.7 MHZ) 50 KW 113 M

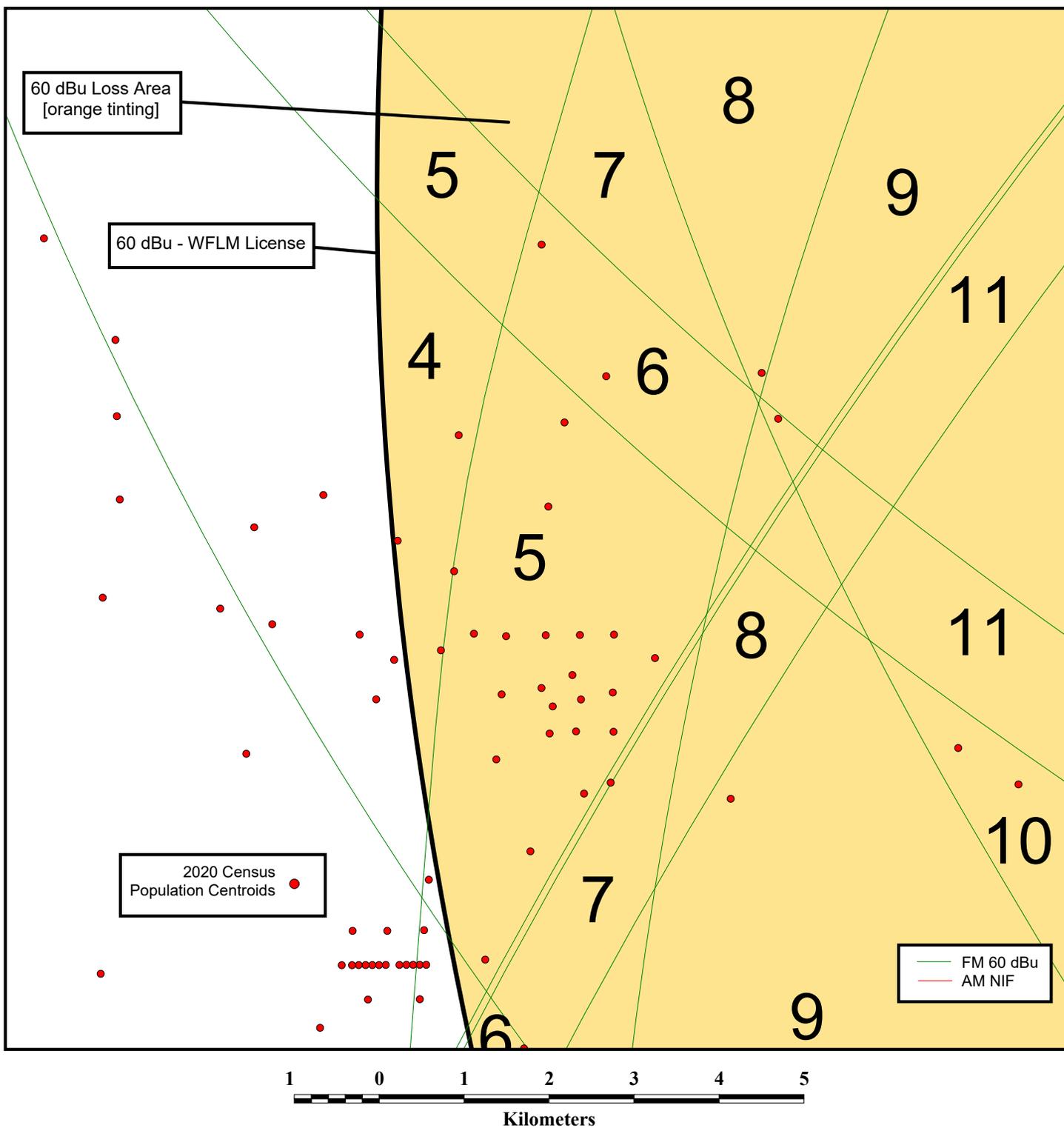
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



### 60 DBU GAIN/LOSS/FULL-TIME SERVICES MAP

FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 (104.7 MHZ) 50 KW 113 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



## 60 DBU GAIN/LOSS/FULL-TIME SERVICES MAP [EXPANDED SCALE]

FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 (104.7 MHZ) 50 KW 113 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TECHNICAL EXHIBIT  
STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 50 KW 113 M

Tabulation of Other AM/FM Full-Time Services  
Available to 60 dBu Gain-Loss Areas

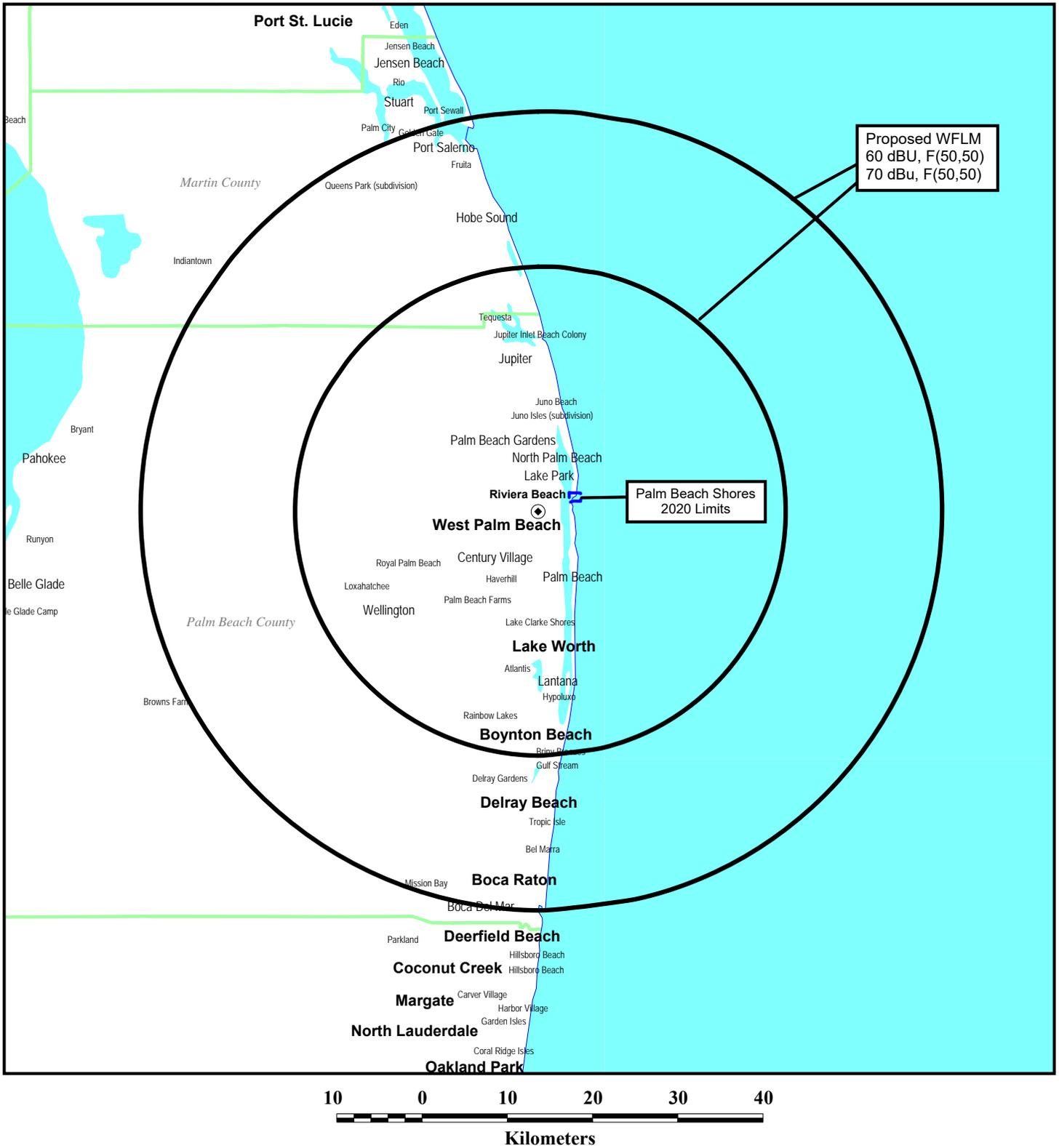
**FM CONTOURS**

<u>Call Sign</u>	<u>Status</u>	<u>Community of License</u>	<u>State</u>	<u>Freq./Channel</u>
WBGF	AMD	BELLE GLADE	FL	228 C3
WKIS	L2C	BOCA RATON	FL	260 C0
WRMB	L2C	BOYNTON BEACH	FL	207 C1
WHQT	L2C	CORAL GABLES	FL	286 C0
WBGG-FM	L2C	FORT LAUDERDALE	FL	290 C0
WHYI-FM	L2C	FORT LAUDERDALE	FL	264 C0
WMIB	L2C	FORT LAUDERDALE	FL	278 C
WYBP	L2C	FORT LAUDERDALE	FL	212 C3
WXDJ	MOD	FORT LAUDERDALE	FL	294 C1
WQCP	L2C	FORT PIERCE	FL	216 C1
WQCS	L2C	FORT PIERCE	FL	205 C1
WPHR-FM	L2C	GIFFORD	FL	234 C2
WOLL	AMD	HOBE SOUND	FL	288 C2
WOSN	L2C	INDIAN RIVER SHORES	FL	246 C3
WIRK	MOD	INDIANTOWN	FL	276 C1
WMBX	AMD	JENSEN BEACH	FL	272 C1
WLDI	L2C	JUNO BEACH	FL	238 C1
WUUB	L2C	JUPITER	FL	292 C3
WLML-FM	L2C	LAKE PARK	FL	262 A
WAOA-FM	MOD	MELBOURNE	FL	296 C1
WAMR-FM	L2C	MIAMI	FL	298 C1
WEDR	L2C	MIAMI	FL	256 C1
WFEZ	L2C	MIAMI	FL	226 C0
WFLC	L2C	MIAMI	FL	247 C
WLYF	L2C	MIAMI	FL	268 C1
WPOW	L2C	MIAMI	FL	243 C
WLRN-FM	AMD	MIAMI	FL	217 C1
WMIA-FM	L2C	MIAMI BEACH	FL	230 C0
WZTU	L2C	MIAMI BEACH	FL	235 C0
WSFS	L2C	MIRAMAR	FL	282 C1
WLMX	L2C	OKEECHOBEE	FL	291 C3
WEJF	L2C	PALM BAY	FL	212 C2
WRMF	L2C	PALM BEACH	FL	250 C
WLLY-FM	L2C	PALM BEACH GARDENS	FL	258 A
WCNO	L2C	PALM CITY	FL	210 C1

<u>Call Sign</u>	<u>Status</u>	<u>Community of License</u>	<u>State</u>	<u>Freq./Channel</u>
WMXJ	L2C	POMPANO BEACH	FL	274 C0
WHLG	MOD	PORT ST. LUCIE	FL	267 A
WRLX	L2C	RIVIERA BEACH	FL	232 C2
WROK-FM	L2C	SEBASTIAN	FL	240 C3
WAVW	MOD	STUART	FL	224 C2
WWFR	MOD	STUART	FL	219 A
WCZR	L2C	VERO BEACH	FL	269 A
WGYL	L2C	VERO BEACH	FL	229 C2
WJKD	MOD	VERO BEACH	FL	259 C2
WQOL	MOD	VERO BEACH	FL	279 C2
WSCF-FM	MOD	VERO BEACH	FL	220 C3
WKGR	L2C	WELLINGTON	FL	254 C1
WAYF	L2C	WEST PALM BEACH	FL	201 C1
WZZR	L2C	WEST PALM BEACH	FL	221 C3
WEAT	MOD	WEST PALM BEACH	FL	300 C1
WFLV	AMD	WEST PALM BEACH	FL	214 C1

**AM CONTOURS**

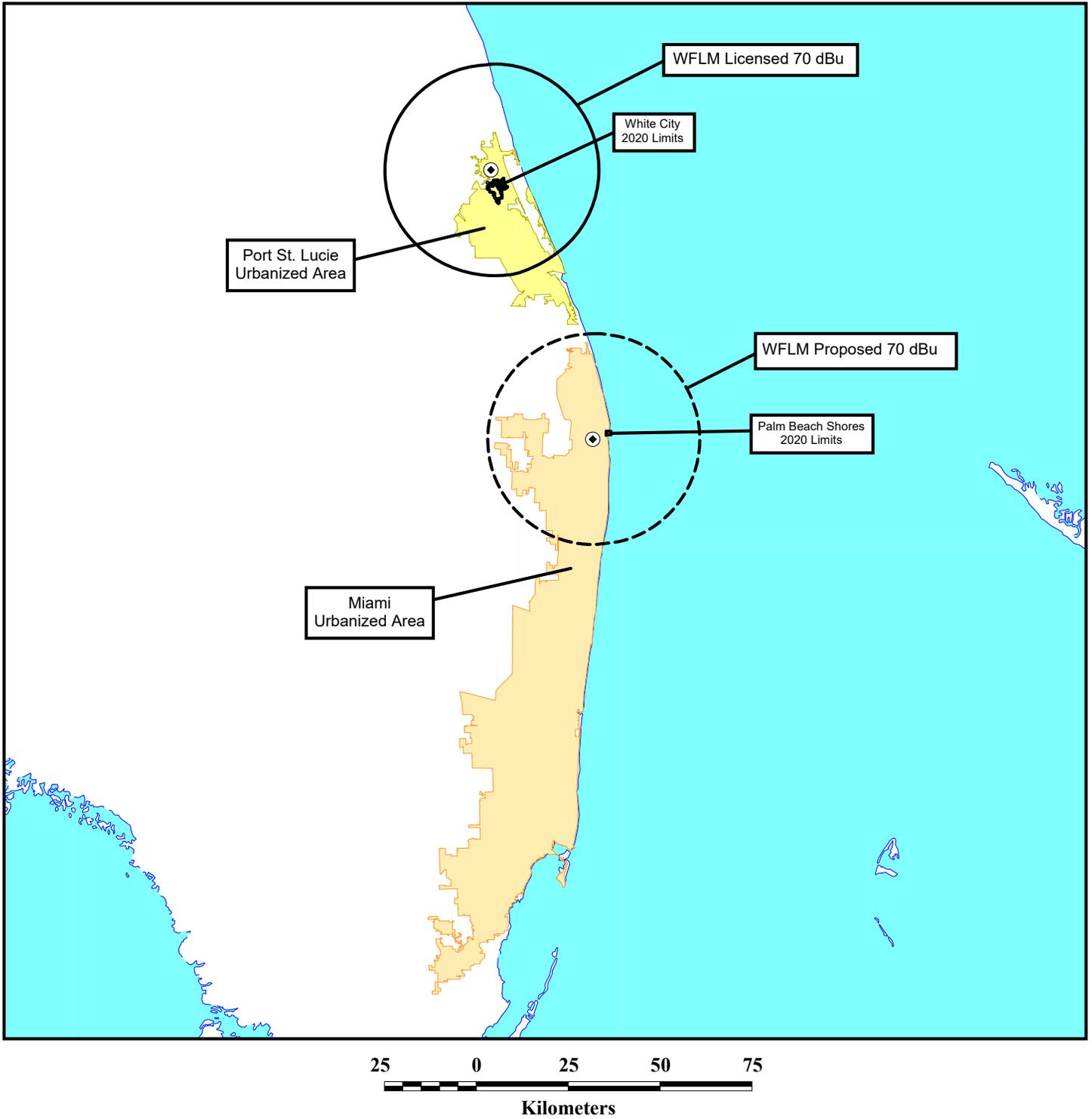
<u>Call Sign</u>	<u>Status</u>	<u>Community of License</u>	<u>State</u>	<u>Freq./Channel</u>
WSBR	Lic	BOCA RATON	FL	740
WLVJ	Lic	BOYNTON BEACH	FL	1020
WAFC	Lic	CLEWISTON	FL	590
WDJA	Lic	DELRAY BEACH	FL	1420
WJNX	Lic	FORT PIERCE	FL	1330
WIRA	Lic	FORT PIERCE	FL	1400
WPBR	Lic	LANTANA	FL	1340
WMMB	Lic	MELBOURNE	FL	1240
WDMC	Lic	MELBOURNE	FL	920
WSVU	Lic	NORTH PALM BEACH	FL	960
WPOM	Lic	RIVIERA BEACH	FL	1600
WPSP	Lic	ROYAL PALM BEACH	FL	1190
WMEN	Lic	ROYAL PALM BEACH	FL	640
WSTU	Lic	STUART	FL	1450
WEFL	Lic	TEQUESTA	FL	760
WTTB	Lic	VERO BEACH	FL	1490
WBZT	Lic	WEST PALM BEACH	FL	1230
WJNO	Lic	WEST PALM BEACH	FL	1290
WFTL	Lic	WEST PALM BEACH	FL	850



**FCC PREDICTED COVERAGE CONTOURS**

FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 (104.7 MHZ) 50 KW 113 M

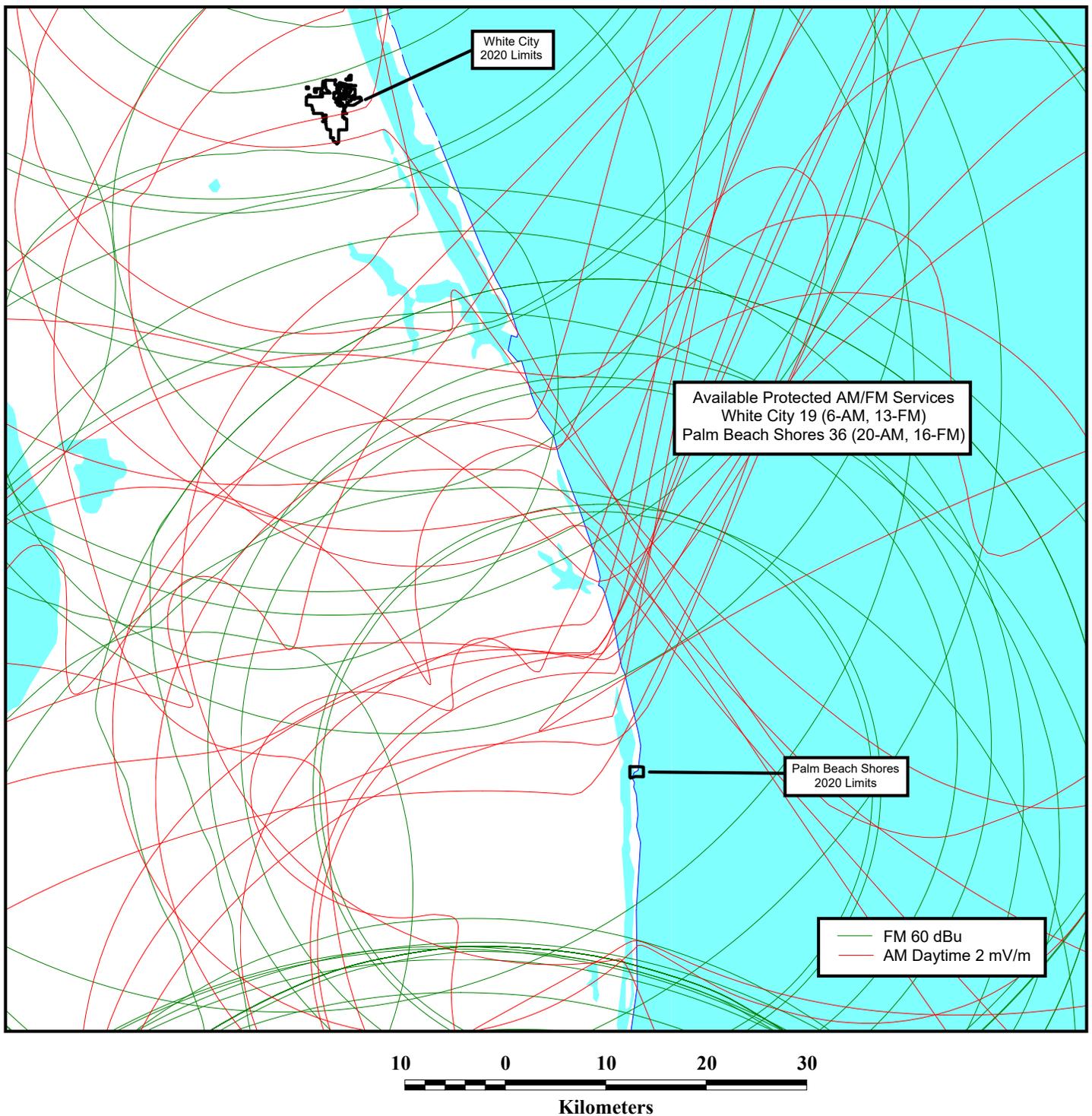
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



**URBANIZED AREA COVERAGE**

FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 (104.7 MHZ) 50 KW 113 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



**OTHER FM AND AM PROTECTED SERVICES  
AVAILABLE TO WHITE CITY AND PALM BEACH SHORES**

FM STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 (104.7 MHZ) 50 KW 113 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TECHNICAL EXHIBIT  
STATION WFLM  
PALM BEACH SHORES, FLORIDA  
CH 284C2 50 KW 113 M

Tabulation of Other AM/FM Protected Contours  
Available to White City and Palm Beach Shores

**FM CONTOURS**

<u>Call Sign</u>	<u>Status</u>	<u>Community of License</u>	<u>State</u>	<u>Freq./Channel</u>
WRMB	L2C	BOYNTON BEACH	FL	207 C1
WQCP	L2C	FORT PIERCE	FL	216 C1
WQCS	L2C	FORT PIERCE	FL	205 C1
WPHR-FM	L2C	GIFFORD	FL	234 C2
WOLL	AMD	HOBE SOUND	FL	288 C2
WIRK	MOD	INDIANTOWN	FL	276 C1
WMBX	AMD	JENSEN BEACH	FL	272 C1
WLDI	L2C	JUNO BEACH	FL	238 C1
WUUB	L2C	JUPITER	FL	292 C3
WLML-FM	L2C	LAKE PARK	FL	262 A
WRMF	L2C	PALM BEACH	FL	250 C
WLLY-FM	L2C	PALM BEACH GARDENS	FL	258 A
WCNO	L2C	PALM CITY	FL	210 C1
WHLG	MOD	PORT ST. LUCIE	FL	267 A
WRLX	L2C	RIVIERA BEACH	FL	232 C2
WAVW	MOD	STUART	FL	224 C2
WGYL	L2C	VERO BEACH	FL	229 C2
WJKD	MOD	VERO BEACH	FL	259 C2
WQOL	MOD	VERO BEACH	FL	279 C2
WKGR	L2C	WELLINGTON	FL	254 C1
WAYF	L2C	WEST PALM BEACH	FL	201 C1
WZZR	L2C	WEST PALM BEACH	FL	221 C3
WEAT	MOD	WEST PALM BEACH	FL	300 C1
WFLV	AMD	WEST PALM BEACH	FL	214 C1

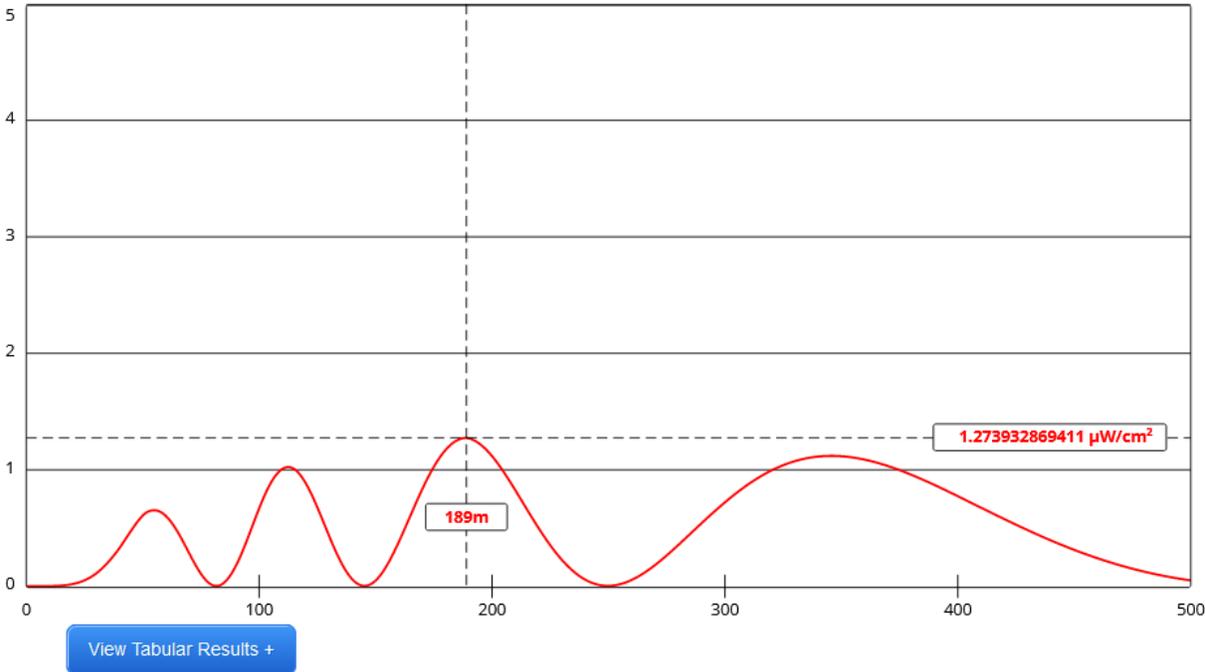
**AM CONTOURS**

<u>Call Sign</u>	<u>Status</u>	<u>Community of License</u>	<u>State</u>	<u>Freq./Channel</u>
WLVI	Lic	BOYNTON BEACH	FL	1020
WDJA	Lic	DELRAY BEACH	FL	1420
WJNX	Lic	FORT PIERCE	FL	1330
WIRA	Lic	FORT PIERCE	FL	1400
WJBW	Lic	JUPITER	FL	1000
WWRF	Lic	LAKE WORTH	FL	1380
WPBR	Lic	LANTANA	FL	1340
WWFE	Lic	MIAMI	FL	670
WAQI	Lic	MIAMI	FL	710

<u>Call Sign</u>	<u>Status</u>	<u>Community of License</u>	<u>State</u>	<u>Freq./Channel</u>
WIOD	Lic	MIAMI	FL	610
WINZ	Lic	MIAMI	FL	940
WQAM	Lic	MIAMI	FL	560
WSVU	Lic	NORTH PALM BEACH	FL	960
WWNN	Lic	POMPANO BEACH	FL	1470
WTPA	Lic	POMPANO BEACH	FL	980
WPSL	Lic	PORT ST. LUCIE	FL	1590
WPOM	Lic	RIVIERA BEACH	FL	1600
WPSP	Lic	ROYAL PALM BEACH	FL	1190
WMEN	Lic	ROYAL PALM BEACH	FL	640
WSTU	Lic	STUART	FL	1450
WEFL	Lic	TEQUESTA	FL	760
WZTA	Lic	VERO BEACH	FL	1370
WBZT	Lic	WEST PALM BEACH	FL	1230
WJNO	Lic	WEST PALM BEACH	FL	1290
WFTL	Lic	WEST PALM BEACH	FL	850

Figure 13

Output of FCC's FM Model Program:



Channel Selection	Channel 284 (104.7 MHz) v		
Antenna Type +	EPA Type 4: Two-Piece Spiral v		
Height (m)	111	Distance (m)	500
ERP-H (W)	50000	ERP-V (W)	50000
Num of Elements	10	Element Spacing (?)	0.5
Num of Points	500	Apply	