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Strategic Technical Planning for Broadcasters

BNPL-20131113AHH

# Comprehensive Technical Statement In Support of Sumarrase, Inc.

## Modification of Construction Permit WSGD-LP, FCC Facility ID # 194387 95.7 MHz, Channel 239L1

Lehigh Acres, FL

### Second adjacent interference waiver requested

#### Introduction

Sumarrase, Inc. holds Construction Permit BNPL-20131113AAH for a new LPFM station to serve Lehigh Acres, Florida, on 95.7 MHz, channel 239L1.

This application proposes to increase the antenna height, and change the antenna model and number of bays.

The following table lists all stations, construction permits and applications whose distances do not exceed the required distance by at least 25 km:

facid	adj	chan	status	call	st	city	kW	da	haat	brg	km	req	Δ
73976	2	241C	LIC	WRXK-FM	FL	BONITA SPRINGS	100.000	Ν	341	149	26.4	93	-66.6
13898	2	237C1	СР	WOLZ	FL	FORT MYERS	79.000	Ν	145	212	15.8	73	-57.2
13898	2	237C1	LIC	WOLZ	FL	FORT MYERS	79.000	Ν	145	212	15.9	73	-57.1
194387	0	239L1	СР	WSGD-LP	FL	LEHIGH ACRES	0.035	Ν	50	0	0.0	24	-24.0
139116	0	239D	LIC	W239CL	FL	GOLDEN GATE	0.230	Ν	0	182	45.6	24	21.6

The proposed site meets all spacing requirements with respect to all operating facilities, construction permits, allocations, and applications, with the exceptions of WRXK-FM, FCC Facility ID # 73976, and WOLZ, FCC Facility ID #13898. Both stations are second adjacent to the proposal. A second adjacent interference waiver is requested. Full details supporting the waiver request are included.

#### **Data Sources**

Distances were calculated using the FCC method defined in 73.208 of the Commission's Rules.

The facility data used in preparing this application were current as of October 30, 2017.

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Washington: 202-370-6357

#### Second adjacent channel interference waiver request

The proposed site is short spaced to two second adjacent stations, WRXK-FM, FCC Facility ID # 73976, and WOLZ, FCC Facility ID #13898.

The WRXK signal at the site is 84.1 dBu. The WOLZ LIC signal is 84.7 dBu. The WOLZ CP signal is 84.7 dBu Since the WRKX signal is lower, it is the more critical of the two, and the permissible interfering signal level is 124.1 dBu.

The antenna height will be 60 m above ground, 67 m above mean sea level, and 63 m above average terrain. The calculated effective radiated power is 22 Watts.

At 22 Watts, the free-space distance to 124.1 dBu is 20.5 m. It is clear that the interfering signal will not reach the ground.



In addition, this Google Earth image of the tower site includes a circle with a radius of 50 meters. There are no occupied structures or major highways within the circle.

The proposal therefore meets the requirements of 74.1204(d), and a second adjacent interference waiver is requested.

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#### **Translator/ Booster Input Interference**

There are no FM translators within 10 km of the proposed site. There are no FM boosters within 50 km of the proposed site.

#### Form 318 Tech Box Data

Class LP100

Channel 239

Coordinates (NAD-27) 26 37 34 N Lat

81 46 07 W Lon

ASR 1200499

Site Elevation AMSL 7 m

Overall Tower Height AGL 79 m

Radiation Center AGL 60 m

Power/height certification YES

Environmental YES - Exhibit 11 (This document)

#### **Additional Information**

Coordinates (NAD-83) 26 37 35.5 N Lat

81 46 06.4 W Lon

Height above average terrain 63 m (FCC Online HAAT Calculator)

Estimated ERP 22 W-H + 22 W-V

Antenna type Omnidirectional, circularly polarized

Manufacturer / Model SHI 6812B-1

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The FM Agreements with Canada and Mexico require evaluation and potential coordination of

any proposal within 320 km of the border.

The distance to the nearest point along the US/Canada border is 1,673 km. Coordination with

Canada is not required.

The distance to the nearest point along the US/Mexico border is 1,533 km. Coordination with

Mexico is not required.

**Quiet Zones** 

The proposed site is outside the National Radio Quiet Zone (National Radio Astronomy

Observatory Notification Area) in West Virginia.

The proposed site is outside the Arecibo Observatory notification area in Puerto Rico.

The proposed site is not within a 100 km extension of the Table Mountain Radio Receiving Zone

in Colorado.

**Protected Monitoring Stations** 

The nearest Protected Monitoring Station is 156 km distant, in Vero Beach, FL. This is well

beyond the 80 dBu contour.

**Environmental** 

The antenna will be mounted 60 m above ground on an existing 79 m tower. No major

construction or excavation will be performed.

As shown on the following page, RF exposure will be less than 1% of the limit for casual /

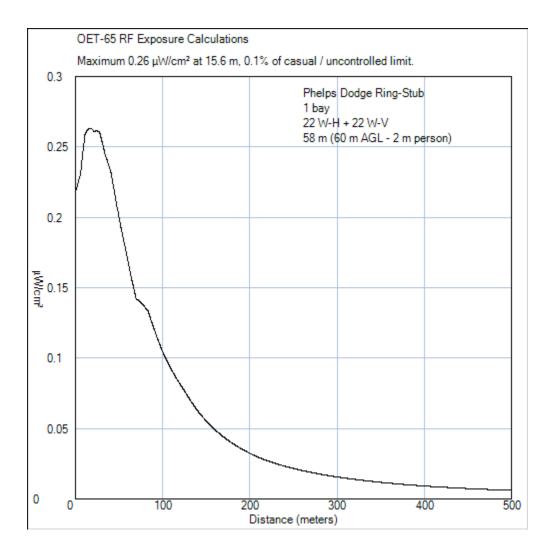
uncontrolled exposure.

Therefore, the proposal is not for a major environmental action.

#### **RF Exposure**

The antenna will be mounted 60 m above ground.

Based on the estimated 22 W ERP, the distance to the 200  $\mu$ W/cm<sup>2</sup> limit for casual / uncontrolled exposure in the horizontal lobe of the antenna will be 2.7 m.



Assuming one bay of the worst case (OET Type 1) antenna, the maximum RF exposure using the formula in OET-65 is  $0.26~\mu W/cm^2$ . This is less than 1% of the limit for casual / uncontrolled exposure.

Appropriate access control and signage is provided. The applicant commits to reducing power or temporarily suspending operations in order to protect workers on the tower.

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