

**NEW FM IVINS, UTAH, FCC FACILITY ID 203590**  
**COMPREHENSIVE ENGINEERING SHOWING**

**BACKGROUND**

SSR Communications, Inc. (“Applicant”), was the winning bidder in the Commission's Auction 109 for Construction Permit MM-FM1226-A (“Permit”) at Caliente, Nevada, for a new FM Class A station on FM Channel 264 / 100.7 MHz. Applicant was also the initial petitioner in the allotment proceeding, RM-11827, MB 19-57, that resulted in the new allocation at Caliente. Additionally, as part of the original allotment proceeding, Applicant has paid the Commission's requisite new FM station application fee as part of its CDBS filing, BNPH-20181129AAC, FCC Facility ID Number 203590. What follows herein is Applicant's “long form” application for Construction Permit MM-FM1226-A.

**SUMMARY**

In its application filing herein, Applicant proposes to change the Community of License of the Permit from Caliente, Nevada, to Ivins, Utah. This change will represent a preferential arrangement of the FM Table of Allotments, as the larger community of Ivins will receive its *first radio service*, while no licensed commercial service will be removed from Caliente. Applicant respectfully asserts that the proposed change herein represents a “minor change” application, as the Caliente and Ivins facilities would be mutually-exclusive to each other.

**SECTION 73.307(B) NARRATIVE**

The community of Ivins is deserving of its first commercial FM service. As an initial matter, Ivins is an incorporated community, which is generally sufficient for allotment purposes. According to the 2010 United States Census, Ivins has 6,753 persons, a value which has risen to 9,192 persons, according to 2019 U.S. Census estimates. Caliente, by contrast, has 1,130 residents in 2010, a value which has fallen to 1,076 persons as of 2019, per the same sources. Ivins is a *bona-fide community for*

*allotment purposes*, possessing many indicators of community status, including its own United States Post Office and Zip Code (84738), as well as a city hall and municipal government, fire department, elementary school, charter school, city cemetery, churches, animal shelter, civic organizations, et cetera, that identify as being a part of Ivins. First settled between 1922 and 1924 by twelve families, the town was named after Anthony Ivins, who dedicated the first church in Ivins in 1926. The town was first chartered in 1935 and became a city in 1998. Ivins has a long and rich history, clearly independent of any neighboring communities. As such, Applicant respectfully believes that Ivins is deserving of its own commercial FM radio service.

The community of Caliente will not be deprived of radio service as a result of the changes contemplated herein. The Facility ID associated with this Permit (203590) has never been licensed to Caliente, nor have there ever been other FM facilities with the same frequency licensed to Caliente in the past. Applicant has not engaged with any Caliente residents, businesses, or government entities to assure or even intimate that FM service will be activated in Caliente. The community of Caliente will not lose radio service if a new FM facility were allocated to Ivins, and no new “white” or “gray” allocation area would be created by this proposal.

Applicant believes that an allocation at Ivins is clearly a preferential arrangement of the FM Table of Allotments. Apart from the fact that Ivins would receive its *first radio service*, far more people would be served by an allocation at Ivins. As detailed above, the population of Ivins itself is more than six times as large as Caliente (6,753 versus 1,130). The current Caliente proposal would serve 2,516 persons within the F(50,50) 60 dBu primary service contour, per 2010 United States Census block centroid data points. The facility at Ivins contemplated herein, by contrast, would serve 128,036 persons, nearly *51 times as many persons*, a figure which is quite likely to increase once 2020 Census values are available.

- Note: In the exhibits that follow, elevation data used in the computation of average terrain was determined by linear interpolation of the NGDC 3-arcsecond topographic database.

## SECTION 73.315 SHOWING – PROPOSED FACILITY

The facility proposed herein, which is spaced under Section 73.215 of the Commission's Rules, would serve all of the Ivins, Utah community within a F(50,50) 70 dBu contour, with the exception of a very small and unpopulated area of the city limits (see Figure 2 on next page).

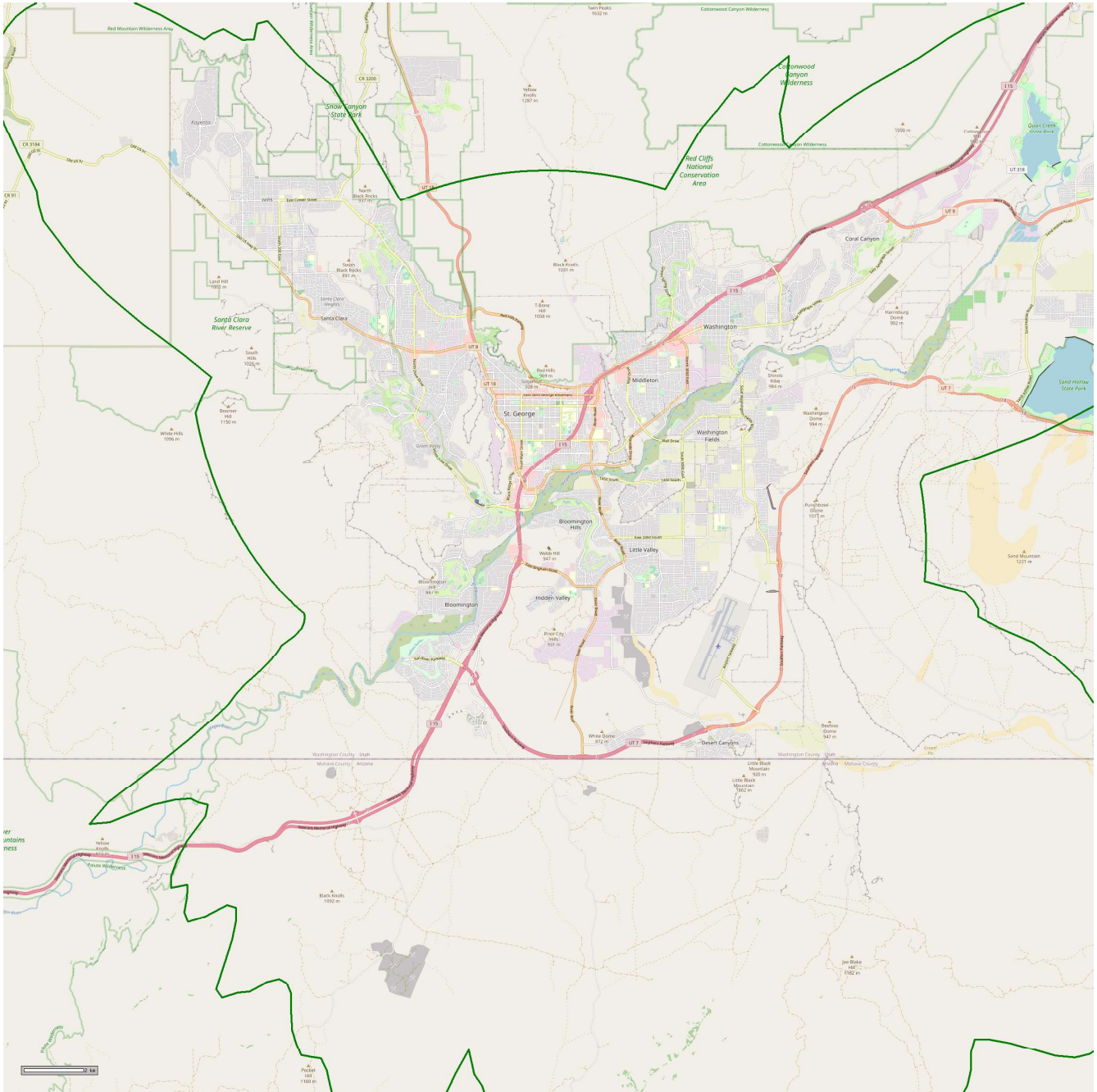
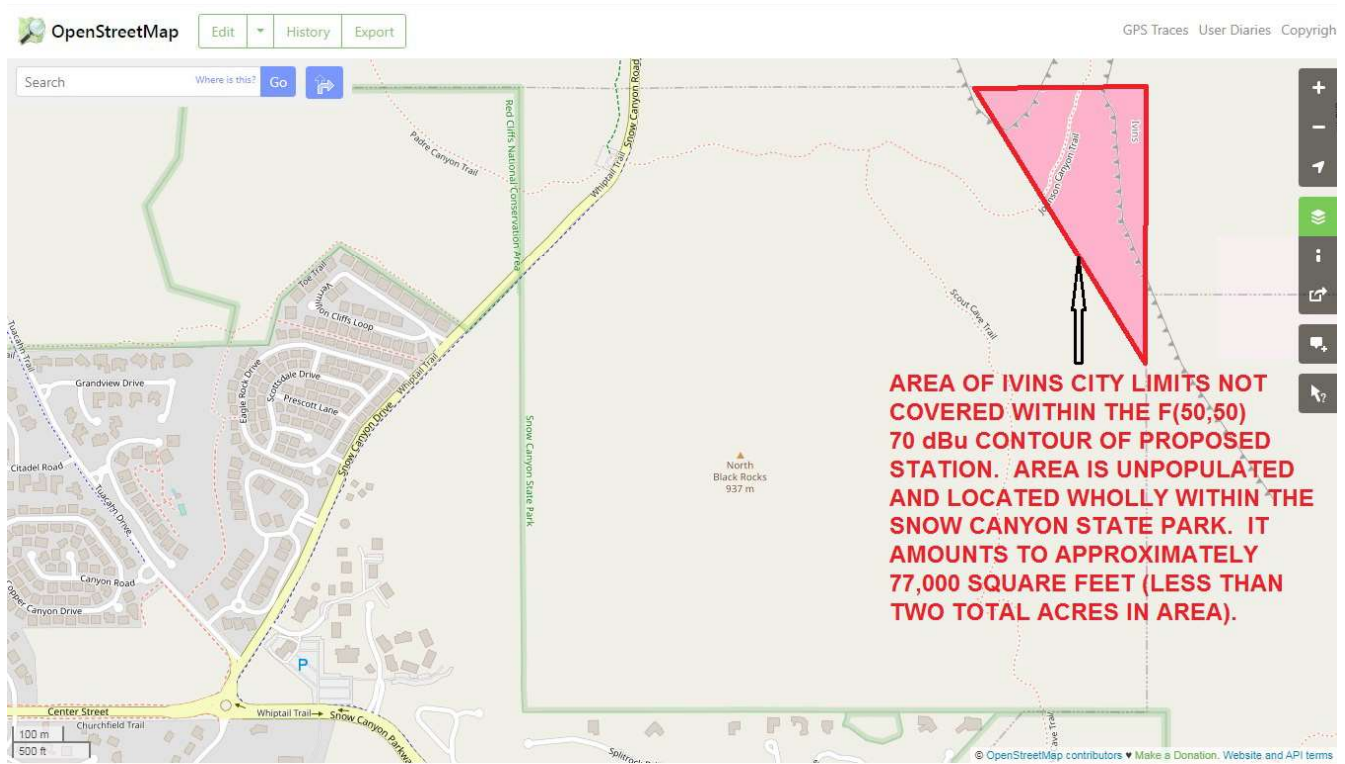


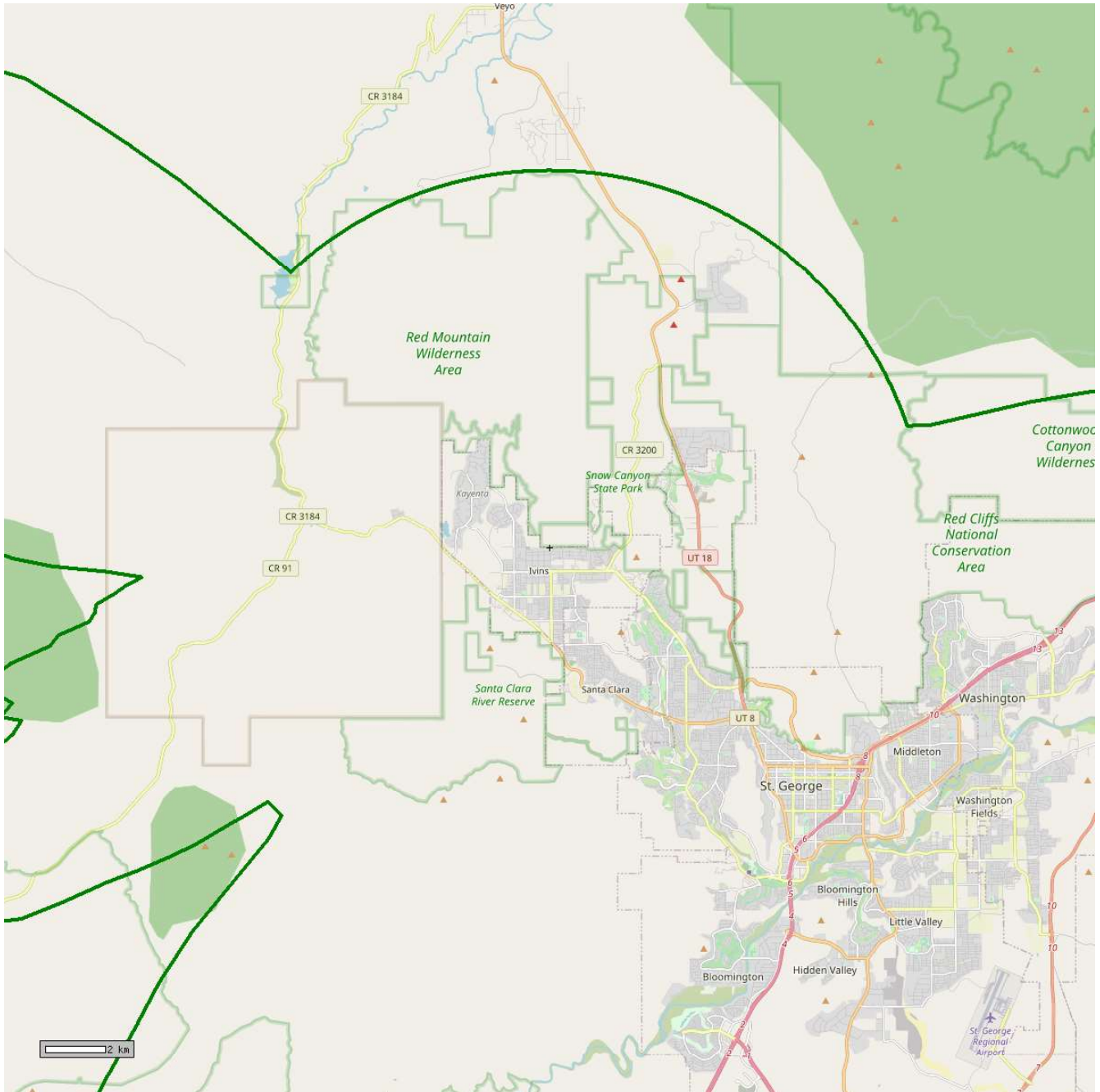
FIGURE 1: The map above depicts the F(50,50) 70 dBu contour of the facility of the Permit contemplated in the application herein. As shown above, the facility would provide 70 dBu city grade service to 99.97%+ of the community of Ivins, Utah.



**FIGURE 2:** The map above depicts a small region of the incorporated city limits of Ivins that would not receive F(50,50) 70 dBu service from the facility proposed herein. The region consists of only ~77,000 square feet and is wholly contained within the Snow Canyon State Park. There is no population within the zone, and it is unlikely that the area will ever be developed, due to its park status. The 77,000 square feet represents just 00.0293% of the total 9.43 square mile area of the incorporated city limits of Ivins. Thus, the proposed facility provides coverage of 99.97%+ of the city's area and 100.00% of the city's population.

## SECTION 73.315 SHOWING – PROPOSED ALLOCATION COORDINATES

The allotment location proposed herein, which is fully spaced under Section 73.207 of the Commission's Rules, would serve all of the Ivins, Utah community within a F(50,50) 70 dBu contour.



**FIGURE 3:** The map above depicts the F(50,50) 70 dBu contour of the proposed allocation site of the Permit contemplated in the application herein. As shown above, the proposed allocation coordinates would provide 70 dBu city grade service to all of the community of Ivins, Utah.

## MUTUALLY EXCLUSIVE SHOWING

As shown below, the facility described herein is mutually-exclusive to Applicant's initially-proposed facilities in CDBS Application Number BNPH-20181129AAC. Therefore, it is concluded that Applicant's filing qualifies as a “minor change” FM application.

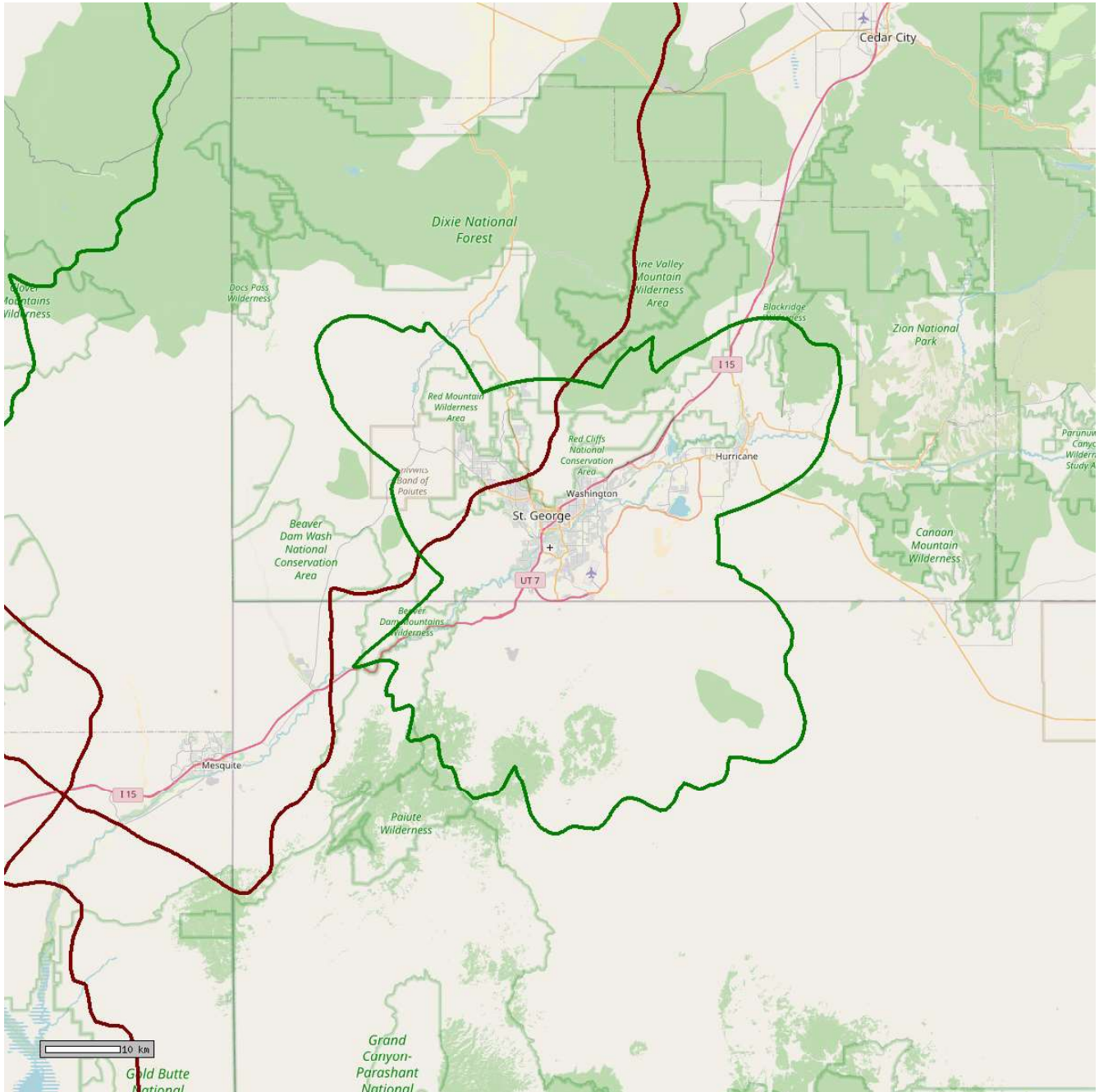


FIGURE 4: The map above depicts the F(50,50) 60 dBu (green) and F(50,10) 40 dBu (dark red) contours of the Caliente allocation (top left) and proposed Ivins facility (center). As shown, there is significant contour overlap between the two mutually-exclusive proposed facilities.

### 73.207 SHOWING – PROPOSED ALLOCATION

Applicant has proposed an allocation site that is fully compliant with Section 73.207 of the

Commission's Rules, as shown below in Figure 5:

FIGURE 5: PROPOSED ALLOTMENT LOCATION

FCC Facility ID: 203590  
 Channel: 264C3 / 100.7 FM  
 Community: Ivins, Utah  
 ASRN: N/A  
 NAD 27 COORDINATES: 37-10-31 N, 113-40-32 W  
 NAD 83 COORDINATES: N/A

<b>Fac ID</b>	<b>Application</b>	<b>Callsign</b>	<b>Type</b>	<b>Chan.</b>	<b>Community</b>	<b>State</b>	<b>Dist</b>	<b>Minimum</b>	<b>Margin</b>
203590	44711bc335c5409c98d9c1b60NEW		APP	264A	SANTA_CLARA	UT	15.32	142.00	-126.68 *
203590	18513-2019-09-19	NEW	VAC AL	264A	CALIENTE	NV	87.66	142.00	-54.34 *
739247	18546-2019-09-19	NEW	VAC AL	264A	CALIENTE	NV	99.13	142.00	-42.87 *
12560	0f6006faea1b44a2a04ac1b606KXQQ-FM		LIC	263C	HENDERSON	NV	175.93	176.00	-0.07
164258	76f95d3de2ea4d2eb2e2c1b60fKMXD		LIC	263C	MONROE	UT	178.96	176.00	2.96
191518	17313-2019-09-19	NEW	VAC AL	266C1	FREDONIA	AZ	110.18	76.00	34.18
191061	25076f9170b219050170c5d84(KWLP		LIC	265C3	PEACH_SPRINGS	AZ	181.68	99.00	82.68
87384	25076ff36fee7d82016feeacf2b2KPKK		APP	266C	AMARGOSA_VALLEY	NV	210.21	96.00	114.21
38314	72224fd61b3648bd98bcc1b60fKRRK		LIC	264C3	DESERT_HILLS	AZ	294.85	153.00	141.85
48680	422cd48dcd554930a6a6c1b60KGMN		LIC	261C2	KINGMAN	AZ	229.89	56.00	173.89
165946	131609819c7241ab8096c1b60KHWG-FM		LIC	261C3	CRYSTAL	NV	226.98	43.00	183.98
183358	c683802ddf7345f0b81fc1b6063KXMK		LIC	267C2	OATMAN	AZ	245.74	56.00	189.74
87384	39d974d28bc14d53861cc1b60KPKK		LIC	266C2	AMARGOSA_VALLEY	NV	249.85	56.00	193.85
21693	91e69dc794c94f848665c1b60fKVNA-FM		LIC	261C2	FLAGSTAFF	AZ	313.18	56.00	257.18
189485	22bdcfa3f2214bad9c6fc1b6063KACG		LIC	262A	GOLDFIELD	NV	320.51	42.00	278.51
34557	7906-2019-09-19	DKHWZ	VAC AL	261B1	LUDLOW	CA	341.21	50.00	291.21

\* - Not applicable, as this is the same facility contemplated in this application.

## 73.215 SHOWING – PROPOSED FACILITY

Applicant has proposed facilities that are fully compliant with Section 73.215 of the

Commission's Rules, as shown below in Figure 6:

FIGURE 6: PROPOSED STATION

FCC Facility ID: 203590  
 Channel: 264C3 / 100.7 FM  
 Community: Ivins, Utah  
 ASRN: 1210537  
 NAD 27 COORDINATES: 37-03-49 N, 113-34-24 W  
 NAD 83 COORDINATES: 37-03-49 N, 113-34-27 W

<u>Fac ID</u>	<u>Application</u>	<u>Callsign</u>	<u>Type</u>	<u>Chan.</u>	<u>Community</u>	<u>State</u>	<u>Dist</u>	<u>Minimum</u>	<u>Margin</u>
203590	44711bc335c5NEW		APP	264A	SANTA_CLARA	UT	0.07	142.00	-141.93 *
203590	18513-2019-09NEW		VAC AL	264A	CALIENTE	NV	102.16	142.00	-39.84 *
739247	18546-2019-09NEW		VAC AL	264A	CALIENTE	NV	113.24	142.00	-28.76 *
12560	0f6006faea1b4KXQQ-FM		LIC	263C	HENDERSON	NV	173.73	176.00	-2.27 **
164258	76f95d3de2ea4KMXD		LIC	263C	MONROE	UT	182.97	176.00	6.97
191518	17313-2019-09NEW		VAC AL	266C1	FREDONIA	AZ	99.66	76.00	23.66
191061	25076f9170b21KWLP		LIC	265C3	PEACH_SPRINGS	AZ	168.30	99.00	69.30
87384	25076ff36fee7cKPKK		APP	266C	AMARGOSA_VALLEY	NV	216.05	96.00	120.05
38314	72224fd61b364KRRK		LIC	264C3	DESERT_HILLS	AZ	284.30	153.00	131.30
48680	422cd48dcd55KGMN		LIC	261C2	KINGMAN	AZ	218.52	56.00	162.52
183358	c683802ddf734KXMK		LIC	267C2	OATMAN	AZ	236.40	56.00	180.40
165946	131609819c72KHWG-FM		LIC	261C3	CRYSTAL	NV	231.84	43.00	188.84
87384	39d974d28bc1KPKK		LIC	266C2	AMARGOSA_VALLEY	NV	256.33	56.00	200.33
55425	4c71c8fb2b9a4KZCE		LIC	266C	CORDES_LAKES	AZ	333.32	96.00	237.32
21693	91e69dc794c9KVNA-FM		LIC	261C2	FLAGSTAFF	AZ	297.83	56.00	241.83
34557	7906-2019-09-DKHWZ		VAC AL	261B1	LUDLOW	CA	337.86	50.00	287.86
189485	22bdcfa3f2214KACG		LIC	262A	GOLDFIELD	NV	332.08	42.00	290.08

\* - Not applicable, as this is the same facility contemplated in this application.

\*\* - Section 73.215 Processing is requested towards this station.



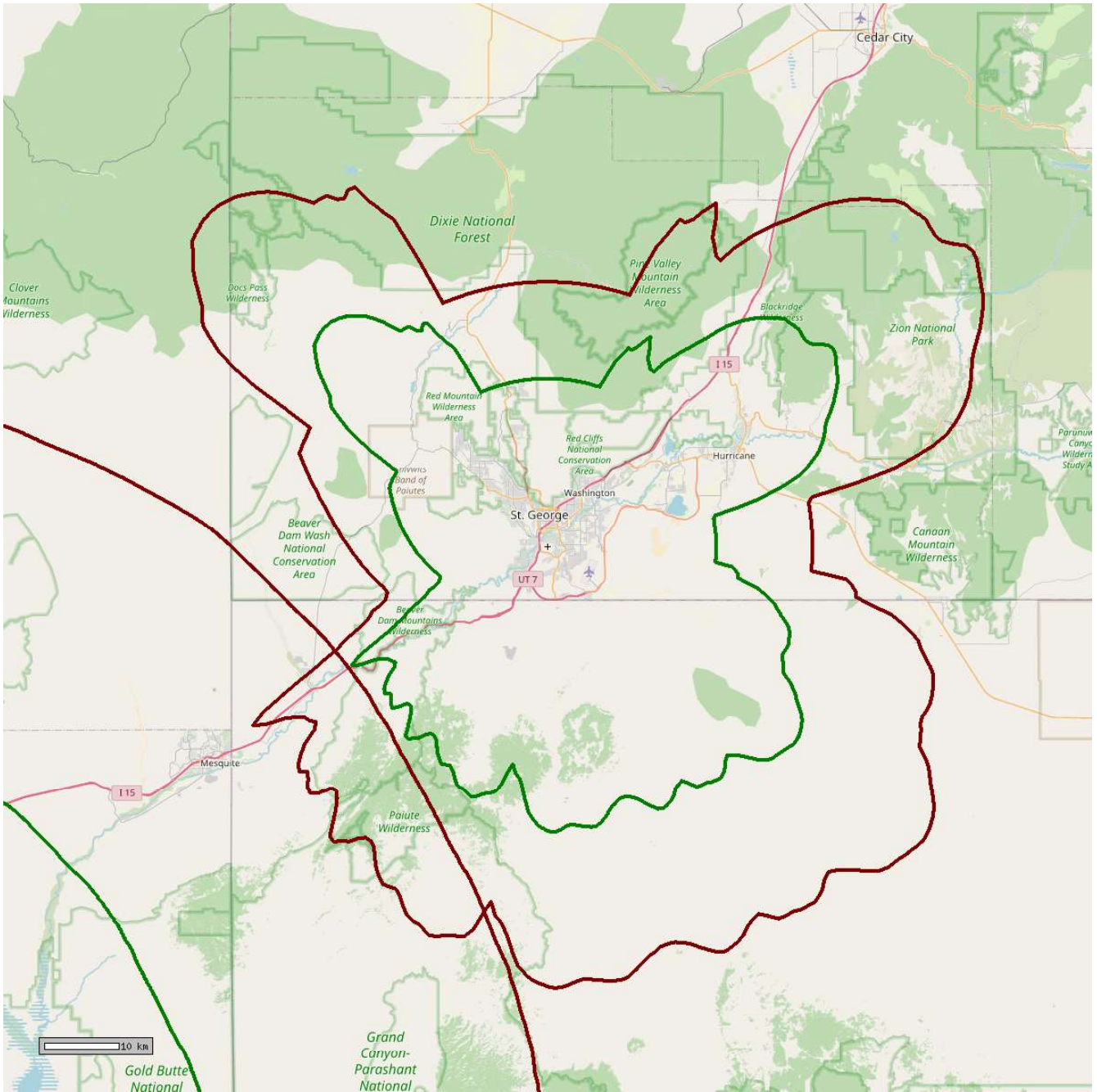
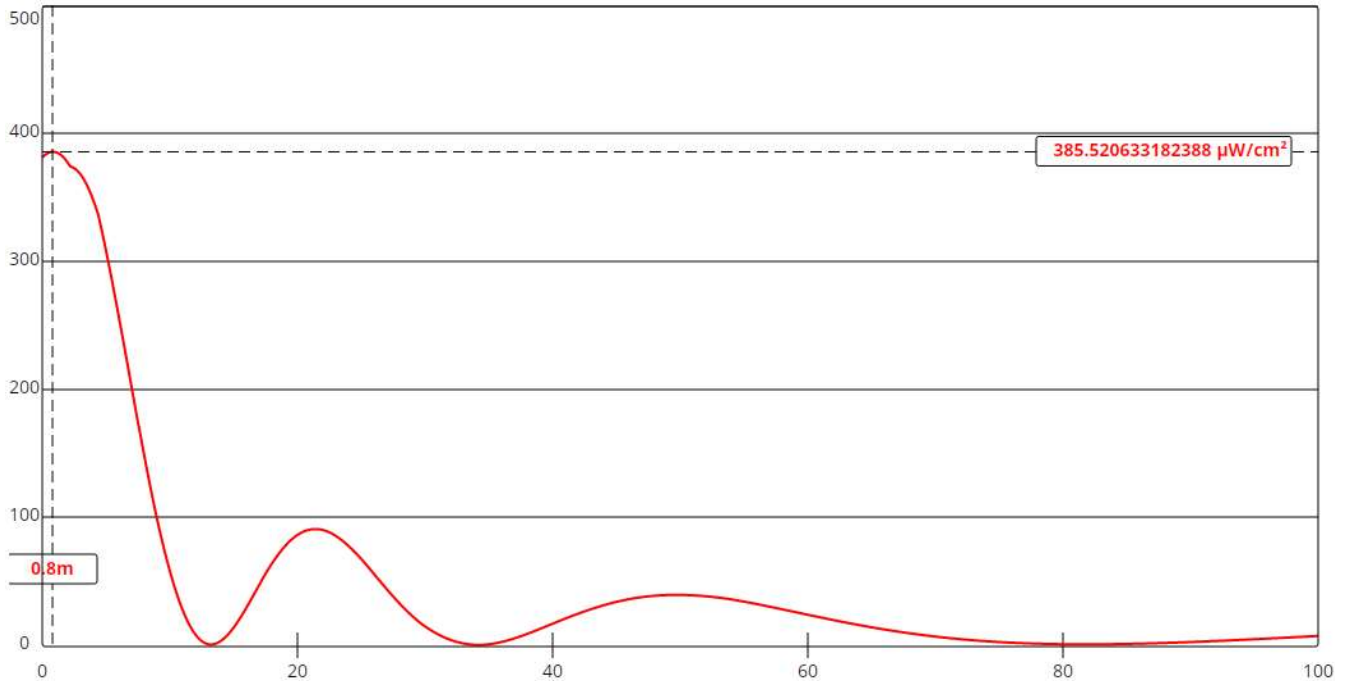


FIGURE 7: The map above depicts the F(50,50) 60 dBu (green) and F(50,10) 54 dBu (dark red) contours of the proposed Ivins facility on FM Channel 264C3 (center), as well as the licensed facility of KXQQ 100.5 FM at Henderson, Nevada (FCC Facility ID 12560, BMLH-20140122ABE, bottom left). As shown above, there is no prohibited overlap predicted between the two facilities.

## RF EXPOSURE SHOWING

In determining RF Exposure at the proposed antenna site, Applicant utilized the Commission's FM Model software, as shown below in Figure 4. Applicant specified a 4-element circularly polarized ring-and-stub FM antenna, centered on 100.7 MHz with element wavelength spacing of 0.85.



**FIGURE 8:** The above chart represents RF exposure in microwatts per square centimeter (vertical axis) against the distance from the radiating elements (horizontal axis). Radiation under the acceptable level of 20.0 microwatts per square centimeter is found at a distance of 11.3, 29.3, and 61.9 meters from the antenna. The transmitter site is located on a hilltop with extremely limited access only to authorized personnel. Signage alerting persons to the potential RF hazards at the site will be placed around the base of the tower's fence enclosure. Additionally, Applicant will limit power or cease transmitting in the event that personnel must be located closer to the transmitter site.