

APPLICATION FOR CONSTRUCTION PERMIT

FM STATION KWIE FCC FACILITY ID:
CHANNEL 267A
HINKLEY, CALIFORNIA

POINT FIVE, LLC

JULY 2019

APPLICATION FOR CONSTRUCTION PERMIT

The following engineering statement and attached exhibits have been prepared for **Point Five, LLC** ("P5"), licensee of FM broadcast station KWIE at Barstow, California, and are in support of their application for construction permit.¹ This application seeks to modify the licensed facility under FCC File No. BMLH-20180604AAM by relocating the transmitter site for the facility, and changing the community of license to Hinkley, California. No change in channel or class of station is proposed under this application.

The proposed facility would operate with an effective radiated power of 6.0 kilowatts at a center of radiation of 100 meters above average terrain. The elevation at the proposed transmitter site is 857.7 meters above mean sea level. Average terrain has been determined to be 789.7 meters above mean sea level through an eight-radial sample of the NED 3-second linearly interpolated terrain database. The resulting center of radiation of 889.7 meters above mean sea level is equivalent to 32.0 meters above ground level. A non-directional antenna is proposed for use by KWIE at this location.

The proposed facility would comply with the provisions of Section 73.203 of the Commission's Rules. The previously approved change in the allocation from Barstow to Hinkley resulted in a first local service to that community. As was discussed in the 307(b) showing filed under BPH-20150507ACA, Hinkley was considered by the Staff to be a viable community for this particular allocation. This application seeks to replace that construction permit, which recently

¹ The Facility ID for KWIE is 191522.

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expired. For reference purposes, technical details pertaining to the allocation at Hinkley are restated in this application.

The reference coordinates for the Hinkley allocation are 34-57-26 North Latitude and 117-12-53 West Longitude. Exhibit E-1 is a single channel spacing study for this allocation site on channel 267A. This study demonstrates that the coordinates of the proposed allocation would comply with the spacing requirements of Section 73.207 of the Commission's Rules.

The map in exhibit E-2 illustrates the boundaries of the Hinkley, California ZCTA along with a 16.1 kilometer circle centered on the reference coordinates for the allocation. As discussed in the related and previously submitted 307(b) exhibit, Hinkley is an unincorporated, but viable community. Since the boundaries of Hinkley are diffuse and ill defined, the area within ZIP code 93247 is assumed to be the boundaries of the community. No other communities are assigned to this ZIP code, which is specifically listed as Hinkley by the United States Postal Service.

This map demonstrates that a very small portion of land contained within the Hinkley ZCTA lies outside of the 16.1 kilometer radius centered on the allocation site. This region is 2.65 square kilometers in size, with a resident population of zero persons. Exhibit E-3 provides additional detail in the vicinity of this region, and depicts the location of Census blocks nearby. As indicated on this map, there are no Census blocks within the uninhabited region. Additionally, the following satellite image illustrates the borders of the region within the ZCTA, but outside the 16.1 kilometer radius centered on the allocation site. This satellite image confirms that there are no structures within this area.

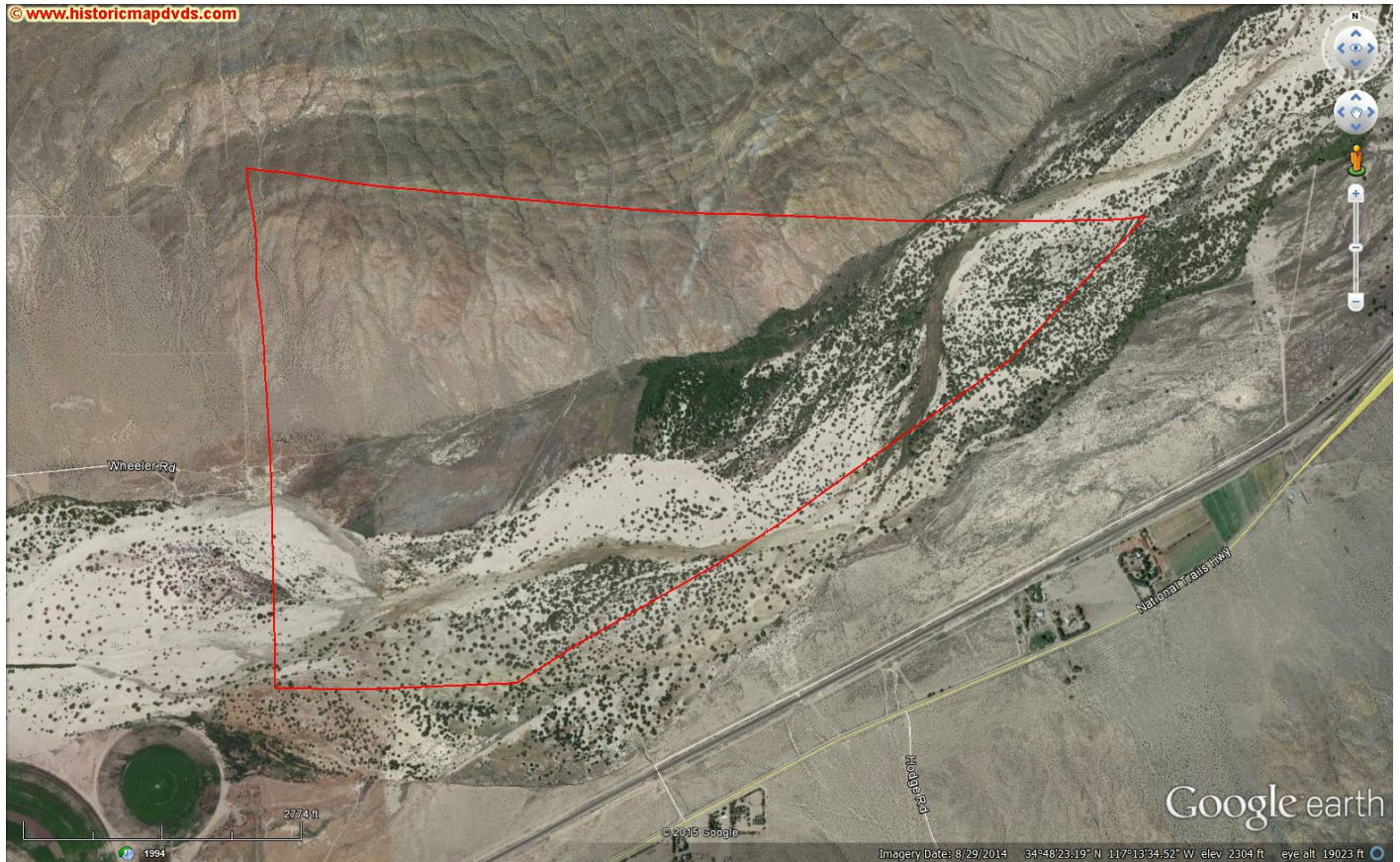
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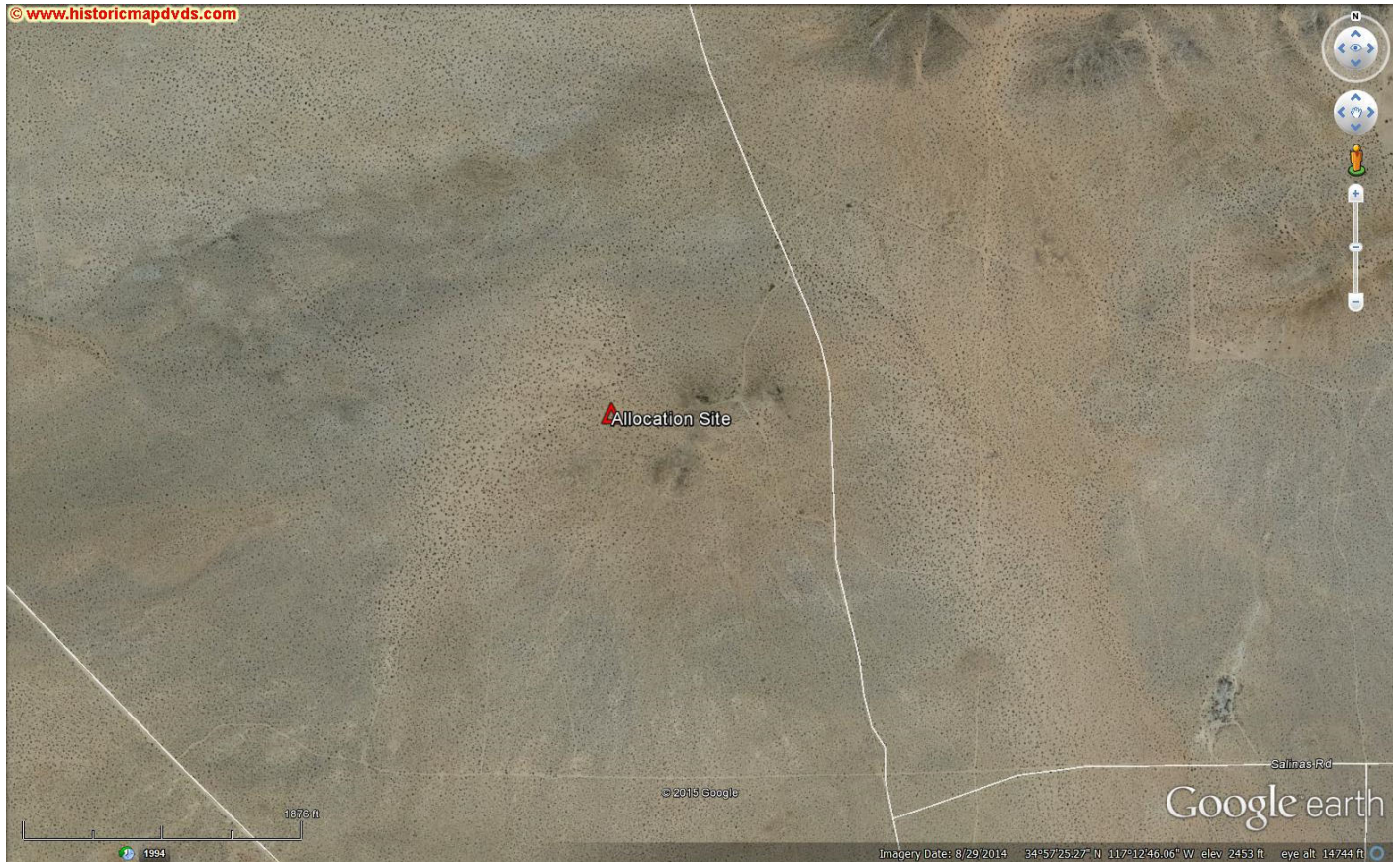
The reference site is suitable for construction. As previously stated, the geographic coordinates of this location are 34-57-26 North Latitude and 117-12-53 West Longitude. The following satellite image identifies the location of the reference coordinates.

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For these reasons, it is respectfully submitted that the proposed allocation complies with the provisions of Section 73.203 of the Commission's Rules. All residents of the community to which the allocation would be assigned reside within the uniform terrain class A radius of the reference site.

The proposed facility would also comply with the community coverage requirements of Section 73.315 of the Commission's Rules. Exhibit E-4 illustrates the predicted FCC service contours for the proposed facility. As this study demonstrates, the predicted 60 dBu service contour would fully encompass the community of license, although the 70 dBu contour does not.

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As a result of this, P5 will utilize the alternate Longley-Rice propagation model pursuant to the extent permissible under the *Skytower* decision.²

Exhibit E-5 illustrates the predicted FCC service contours along with the mean occurrence 70 dBu service contour derived from the Longley-Rice propagation model. On this map, it is demonstrated that the 70 dBu contour by Longley-Rice would fully encompass the land area within the ZCTA that is being used as the boundary of the community of license. Additionally, it can be seen via inspection that the Longley-Rice derived contour radius is at least ten percent greater than the FCC contour radius. The tabulation in Exhibit E-6 provides the contour distances for each of these contours.

The tabulation in Exhibit E-6 includes values for the center of radiation above average terrain as well as the 70 dBu contour radius by the FCC method, and the 70 dBu mean occurrence contour radius by Longley-Rice. Additionally, the final column lists the percentage difference between these two values. As is indicated in this column, at none of the azimuths over the community of license is the differential between the Longley-Rice and FCC contour radii less than ten percent.

In Exhibit E-7 the calculated field strength by Longley-Rice is depicted in cell mode. Areas shaded in light blue are those for which Longley-Rice predicts the field strength to exceed 70 dBu, while areas of other colors, including white, have a signal level of less than 70 dBu. As indicated on this map, there are seventeen specific areas within the Hinkley ZCTA where the Longley-Rice

² See 16 FCC Rcd 13204 (2010) *Skytower Communications*.

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predicted field strength would be less than 70 dBu. These areas are summarized in the following tabulation:

Loss Area	Population	Area (sq. km)
Loss Area 1	0	1.69
Loss Area 2	0	1.87
Loss Area 3	0	0.31
Loss Area 4	0	1.05
Loss Area 5	3	5.76
Loss Area 6	0	4.73
Loss Area 7	0	0.56
Loss Area 8	41	0.88
Loss Area 9	0	0.19
Loss Area 10	0	0.06
Loss Area 11	0	0.06
Loss Area 12	0	0.06
Loss Area 13	0	1.75
Loss Area 14	242	39.29
Loss Area 15	0	0.38
Loss Area 16	4	0.12
Loss Area 17	0	0.02
Totals:	290	58.78

As this table demonstrates, 290 persons residing within 58.8 square kilometers of Hinkley would receive a signal of less than 70 dBu. The total population of Hinkley is 1,692 persons, which as previously discussed is based on the ZCTA boundary for ZIP code 92347. Thus, the proposed facility would serve 1,402 persons, or 82.9 percent of the resident population. The total area of Hinkley is 380 square kilometers. The proposed facility would serve 312 square kilometers, or 84.5 percent of the total land area. The proposed facility would therefore comply with the provisions of Section 73.315 of the Commission's Rules. For the Longley-Rice calculations, the cell size and terrain profile increment values are 0.25 kilometers and 0.1 kilometers respectively.

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The main studio for KWIE will remain in compliance with the provisions of Section 73.1125 of the Commission's Rules. Toll-free telephone access within the community of license will be available.

Exhibit E-8 is a single channel spacing study for the proposed facility. This study demonstrates that the proposed facility would comply with the spacing requirements of Section 73.207 to all relevant facilities in the region with the exception of KRTN(FM) at Los Angeles, California.³ To this facility, the contour overlap provisions of Section 73.215 will be utilized, and authorization pursuant to that section of the Commission's Rules is respectfully requested.

KRTN(FM) is a class B station, which operates on channel 266, which is the lower first adjacent channel to the proposed facility. KRTN is authorized with an effective radiated power of 51 kW at a center of radiation of 955 meters above average terrain. Since KRTN is not authorized pursuant to Section 73.215, its effective radiated power and center of radiation above average terrain will be reduced to the reference height and power for class B facilities. The authorization for KRTN specifies a center of radiation of 1854 meters AMSL as equivalent to 955 meters above average terrain. Thus, for the purposes of this study, the center of radiation will be assumed to be located at 1049 meters above mean sea level.

Exhibit E-9 illustrates the contour overlap situation between the proposed facility, and KRTN(FM) at Los Angeles. As this map demonstrates, there would be no prohibited contour overlap between the two facilities. Contours on this map were derived through the use of the NED

³ The Facility ID for KRTN(FM) at Los Angeles, California is 28631.

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3-second linearly interpolated terrain database. Exhibit E-10 provides an additional interference study exhibit in tabular format, which also demonstrates a lack of prohibited contour overlap.

The proposed facility would not constitute a significant environmental impact, and is exempt from environmental processing. A new structure would be constructed to support the proposed antenna. This structure does not involve any location specified in Section 1.1307(a)(1)-(7) of the Commission's Rules. Additionally, the proposed structure would not utilize high-intensity obstruction lighting, and will be designed to create the smallest possible visual impact.

The proposed facility also would not result in a radiofrequency radiation exposure hazard to persons in the vicinity of the tower. It is proposed that a 3-bay full-wavelength spaced ERI rototiller style antenna be utilized for the proposed facility. *FM Model* predicts a maximum power density of $46.8 \mu\text{W}/\text{cm}^2$ at a distance of 15 meters from the tower base for the proposed antenna. This value complies with the limits imposed by the uncontrolled environment condition of the safety standard. P5 certifies that it will coordinate with all other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of the applicable safety standards. Such coordination will include, but is not necessarily limited to, a reduction in transmitter power or cessation of operation.

The proposed facility would comply with the multiple ownership provisions of Section 73.3555 of the Commission's Rules. Hinkley is not contained within any rated market, thus the use of a contour based study is appropriate. Exhibit E-11 provides an overview of the facilities in the region in which P5 would have an attributable interest. As this map demonstrates, there is a small

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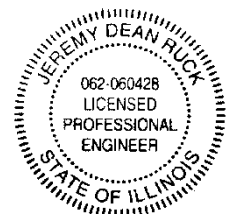
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area of overlap between the 70 dBu service contour of the proposed facility, and the 70 dBu service contour of KHDR(FM) at Lenwood, California.⁴

In Exhibit E-12, the market defined by the contour overlap between the proposed facility and KHDR is analyzed. This market is created by the common overlap between two facilities in the same service. As a result, it is necessary and sufficient to demonstrate that P5 would not have an attributable interest in greater than fifty percent of the stations serving the market. Exhibit E-12 demonstrates that there are at least three other stations in the market, thus the proposed facility complies with Section 73.3555. The facilities depicted on the map in Exhibit E-12 are summarized in the following table, and each facility listed has a transmitter site located within 92 kilometers of the perimeter of the area of the contour overlap.

Callsign	Service	Facility ID	Community of License	Contour Color
NEW	FM	191522	Hinkley, California	Blue
KHDR	FM	89344	Lenwood, California	Red
KDUC	FM	21495	Barstow, California	Cyan
KODV	FM	122214	Barstow, California	Black
KXXZ	FM	27984	Barstow, California	Magenta

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature
License Expires November 30, 2019

Jeremy D. Ruck, PE
July 1, 2019

⁴ The Facility ID for KHDR(FM) at Lenwood, California is 89344.

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Exhibit E-1 - Allocation Site Spacing Study
KWIE - Hinkley, California

REFERENCE		DISPLAY DATES
34 57 26.0 N.	CLASS = A Int = AA	DATA 07-01-19
117 12 53.0 W.	Current Spacings to 3rd Adj.	SEARCH 07-01-19
----- Channel 267 - 101.3 MHz -----		

Call	Channel	Location		Azi	Dist	FCC	Margin
-----	-----	-----	-----	-----	-----	-----	-----
KWIE	LIC 267A	Barstow	CA	126.7	18.79	114.5	-95.7
KWIE	CP -N 267A	Hinkley	CA	259.7	21.74	114.5	-92.8
KRTH	LIC 266B	Los Angeles	CA	224.1	112.54	112.5	0.04
KATJ-FM	LIC 264A	George	CA	189.9	39.04	30.5	8.5
KIXF	LIC 268B	Baker	CA	65.2	129.02	112.5	16.5
KRAJ	LIC-N 265B1	Johannesburg	CA	322.8	72.65	47.5	25.2
KATY-FM	LIC 267A	Idyllwild	CA	162.5	143.20	114.5	28.7
KGFM	LIC 268B	Bakersfield	CA	291.5	148.75	112.5	36.3
KSCA	LIC 270B	Glendale	CA	223.8	112.54	68.5	44.0
-----	-----	-----	-----	-----	-----	-----	-----

Reference station has protected zone issue: Mexico
All separation margins include rounding

KWIE.ALLOC

BMLH20180604AAM
Latitude: 34-57-26 N
Longitude: 117-12-53 W
ERP: 6.00 kW
Channel: 267
Frequency: 101.3 MHz
Horiz. Pattern: Omni

16.1 Kilometer Circle Centered
on Allocation Coordinates

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Boundary of Hinkley, CA
93427 ZIP Code

KWIE.ALLOC

Barstow

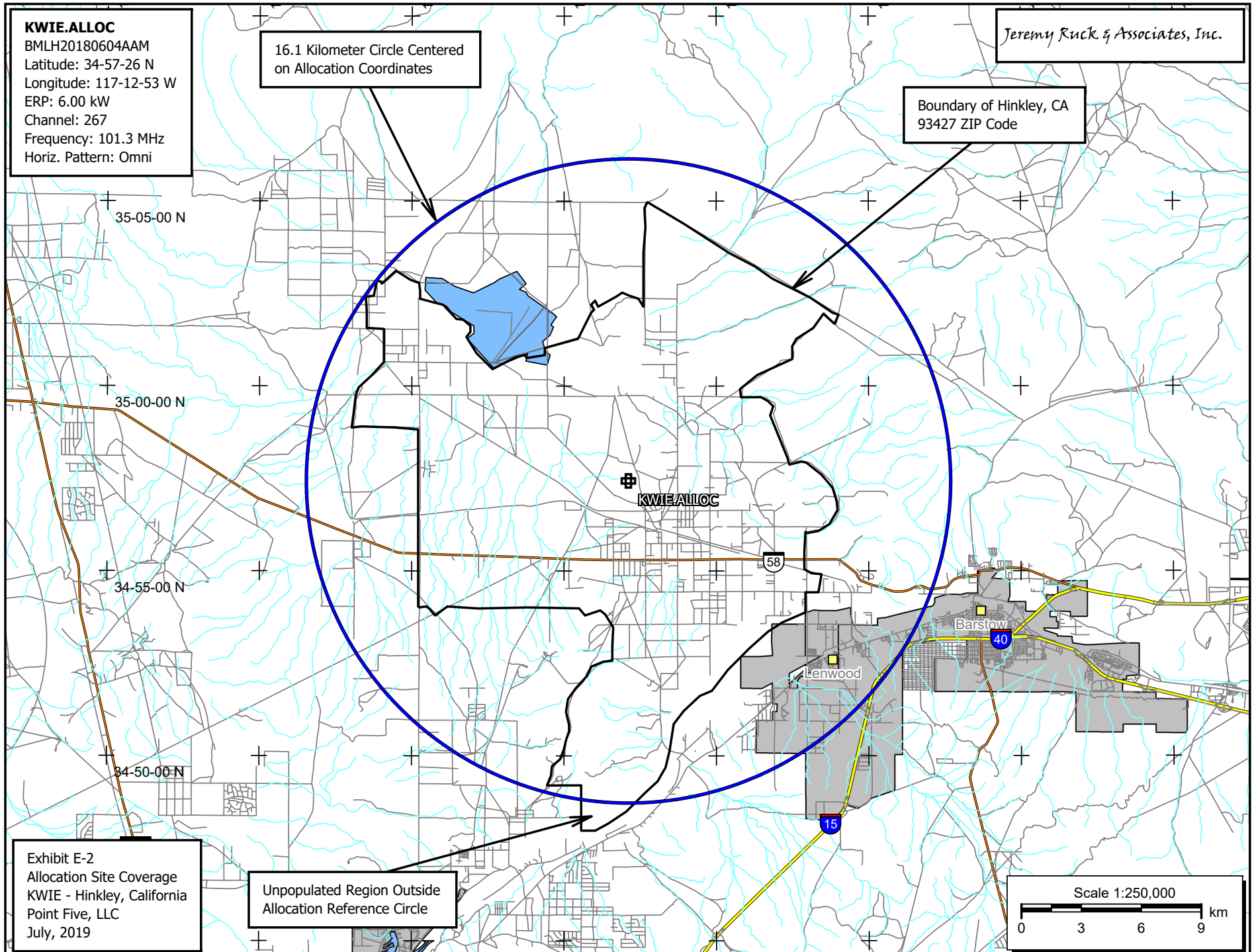
Lenwood

Exhibit E-2
Allocation Site Coverage
KWIE - Hinkley, California
Point Five, LLC
July, 2019

Unpopulated Region Outside
Allocation Reference Circle

Scale 1:250,000

0 3 6 9 km



KWIE.ALLOC

BMLH20180604AAM
Latitude: 34-57-26 N
Longitude: 117-12-53 W
ERP: 6.00 kW
Channel: 267
Frequency: 101.3 MHz
Horiz. Pattern: Omni

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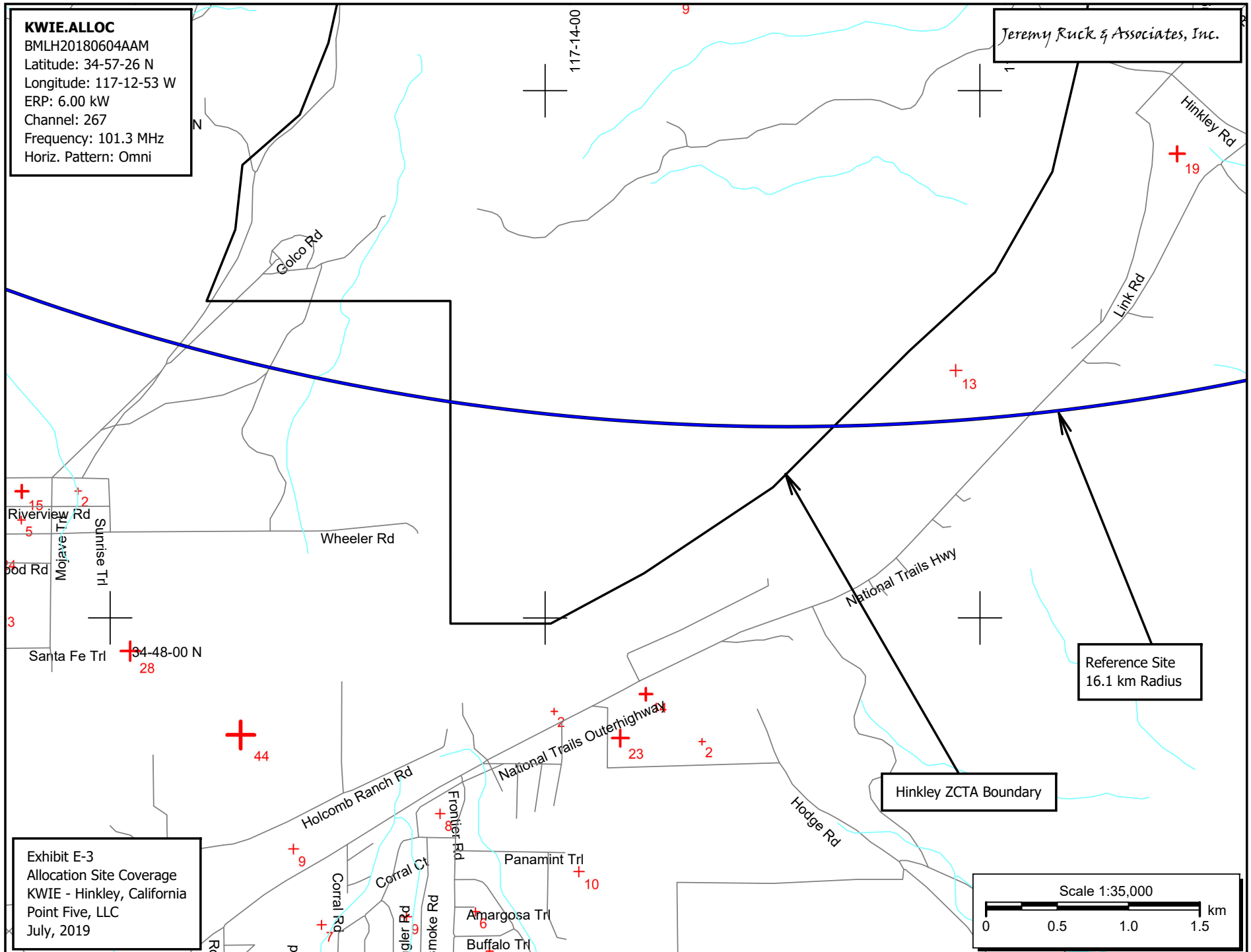


Exhibit E-3
Allocation Site Coverage
KWIE - Hinkley, California
Point Five, LLC
July, 2019

Reference Site
16.1 km Radius

Hinkley ZCTA Boundary

Scale 1:35,000

0 0.5 1.0 1.5 km

KWIE.X

BMLH20180604AAM
Latitude: 34-55-19.60 N
Longitude: 117-26-56 W
ERP: 6.00 kW
Channel: 267
Frequency: 101.3 MHz
AMSL Height: 889.7 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Contour

Predicted 70 dBu
Service Contour

Jeremy Ruck & Associates, Inc.

Predicted 60 dBu
Service Contour

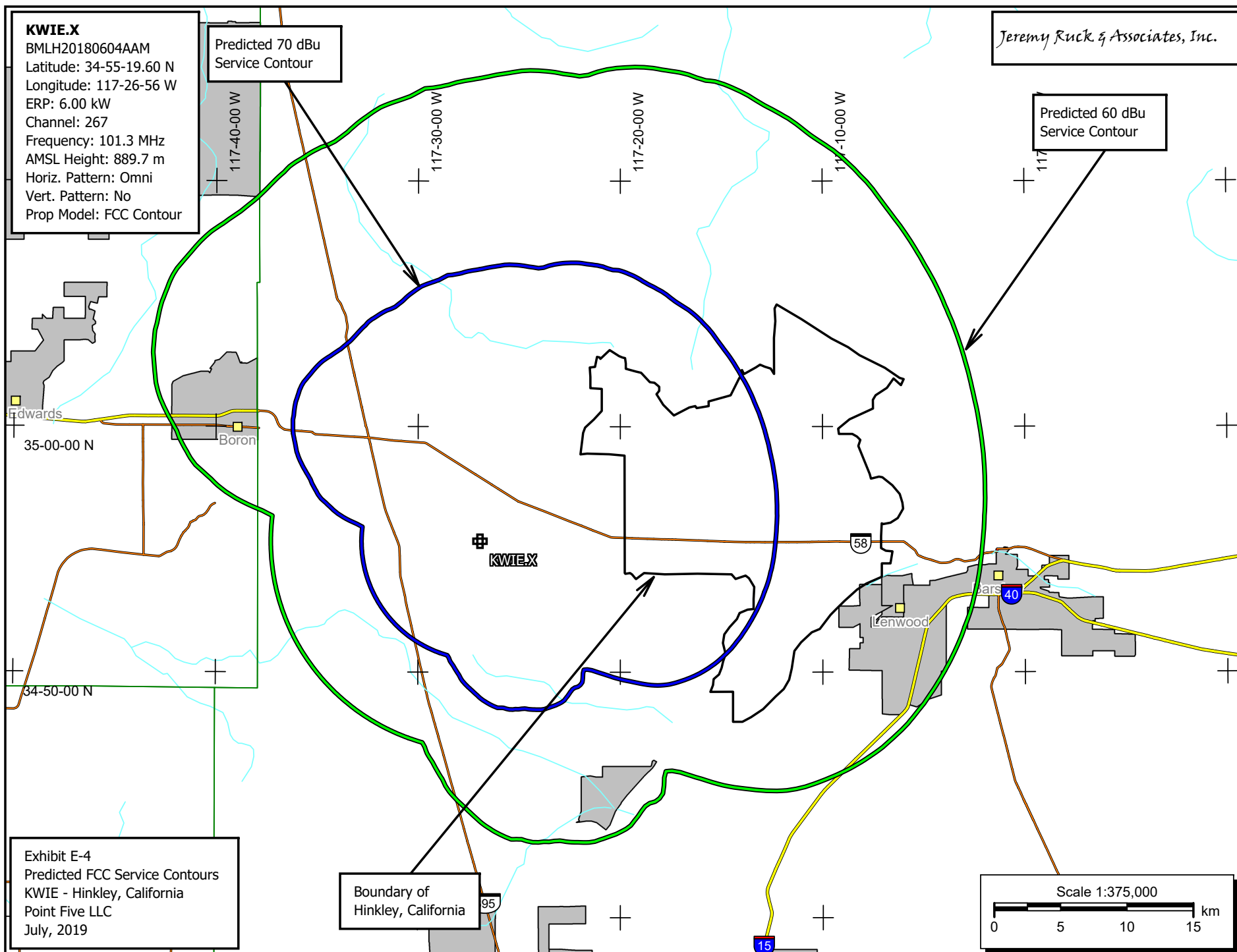


Exhibit E-4
Predicted FCC Service Contours
KWIE - Hinkley, California
Point Five LLC
July, 2019

Boundary of
Hinkley, California

Scale 1:375,000

0 5 10 15 km

KWIE.X

BMLH20180604AAM
Latitude: 34-55-19.60 N
Longitude: 117-26-56 W
ERP: 6.00 kW
Channel: 267
Frequency: 101.3 MHz
AMSL Height: 889.7 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: Longley-Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

60 dBu FCC
Service Contour

70 dBu FCC
Service Contour

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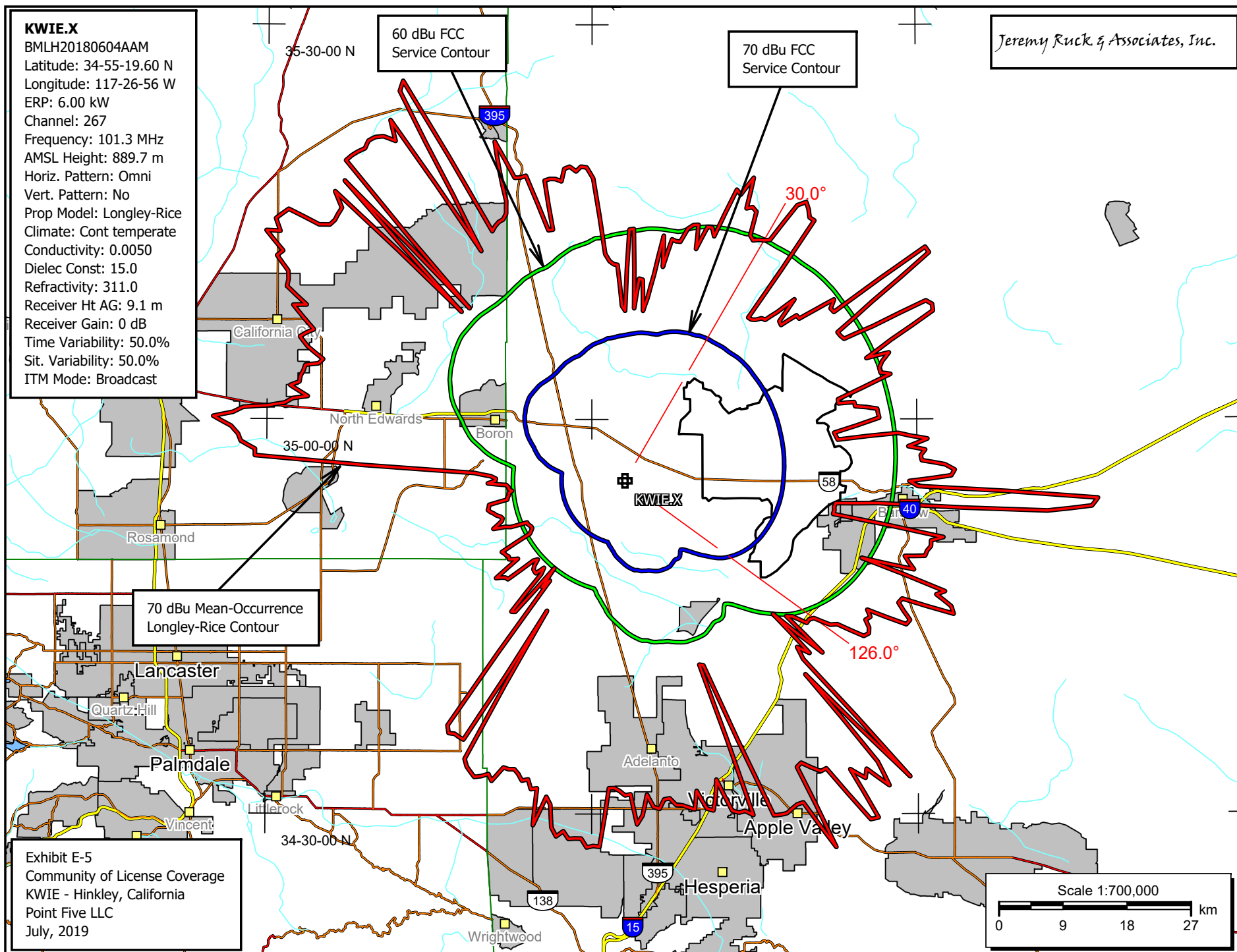


Exhibit E-5
Community of License Coverage
KWIE - Hinkley, California
Point Five LLC
July, 2019

Scale 1:700,000
0 9 18 27 km

Exhibit E-6 - FCC and Longley-Rice Contour Tabulation

Azimuth	ERP (kW)	HAAT (m)	FCC 70 dBu Contour Radius (km)	Longley-Rice 70 dBu Contour Radius (km)	Percentage Increase
30	6.0	204.0	23.09	39.05	69.1
31	6.0	204.4	23.11	39.50	70.9
32	6.0	204.3	23.10	45.70	97.8
33	6.0	204.7	23.12	46.75	102.2
34	6.0	205.6	23.17	46.10	99.0
35	6.0	206.4	23.21	45.20	94.7
36	6.0	207.4	23.26	45.25	94.5
37	6.0	207.7	23.28	28.75	23.5
38	6.0	207.6	23.27	28.80	23.8
39	6.0	207.7	23.28	29.15	25.2
40	6.0	208.6	23.32	29.85	28.0
41	6.0	209.7	23.39	30.00	28.3
42	6.0	211.0	23.45	31.95	36.2
43	6.0	211.6	23.48	34.90	48.6
44	6.0	211.8	23.50	31.20	32.8
45	6.0	212.0	23.51	31.00	31.9
46	6.0	211.8	23.49	33.50	42.6
47	6.0	211.9	23.50	33.45	42.3
48	6.0	211.5	23.48	36.00	53.3
49	6.0	210.7	23.44	38.90	66.0
50	6.0	210.1	23.40	37.70	61.1
51	6.0	209.7	23.38	37.75	61.5
52	6.0	209.4	23.37	53.50	128.9
53	6.0	209.4	23.37	53.45	128.7
54	6.0	209.1	23.35	42.80	83.3
55	6.0	208.8	23.34	36.45	56.2
56	6.0	208.4	23.32	36.50	56.5
57	6.0	208.1	23.30	36.70	57.5
58	6.0	207.6	23.27	41.10	76.6
59	6.0	207.5	23.27	49.30	111.9
60	6.0	207.1	23.25	49.80	114.2
61	6.0	206.7	23.23	49.45	112.9
62	6.0	206.1	23.20	42.35	82.5
63	6.0	205.4	23.16	38.05	64.3
64	6.0	204.9	23.13	41.25	78.3
65	6.0	204.7	23.12	39.85	72.4
66	6.0	204.0	23.09	39.10	69.3
67	6.0	203.4	23.05	39.00	69.2
68	6.0	202.7	23.02	40.20	74.6
69	6.0	202.0	22.98	32.05	39.5
70	6.0	201.3	22.94	31.90	39.1
71	6.0	200.7	22.92	34.05	48.6
72	6.0	200.0	22.87	34.00	48.7
73	6.0	199.2	22.84	35.50	55.4
74	6.0	198.7	22.81	36.85	61.6
75	6.0	198.3	22.79	36.80	61.5
76	6.0	197.6	22.75	36.80	61.8
77	6.0	197.0	22.72	30.15	32.7
78	6.0	196.5	22.69	30.30	33.5
79	6.0	195.9	22.66	30.45	34.4
80	6.0	195.3	22.63	38.95	72.1
81	6.0	194.6	22.59	40.65	79.9
82	6.0	193.8	22.55	42.90	90.2
83	6.0	193.0	22.51	40.10	78.1
84	6.0	192.2	22.47	42.40	88.7
85	6.0	191.6	22.44	41.70	85.8

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Exhibit E-6 - FCC and Longley-Rice Contour Tabulation

Azimuth	ERP (kW)	HAAT (m)	FCC 70 dBu Contour Radius (km)	Longley-Rice 70 dBu Contour Radius (km)	Percentage Increase
86	6.0	190.7	22.39	41.80	86.7
87	6.0	189.8	22.35	45.00	101.3
88	6.0	189.2	22.31	46.35	107.8
89	6.0	188.4	22.27	45.85	105.9
90	6.0	187.6	22.23	39.95	79.7
91	6.0	187.0	22.20	41.15	85.4
92	6.0	186.3	22.16	66.50	200.1
93	6.0	185.6	22.13	65.70	196.9
94	6.0	184.9	22.10	59.50	169.2
95	6.0	184.1	22.05	35.50	61.0
96	6.0	182.9	21.99	29.75	35.3
97	6.0	182.0	21.95	29.60	34.9
98	6.0	181.0	21.89	29.70	35.7
99	6.0	179.6	21.82	29.60	35.7
100	6.0	178.1	21.74	45.40	108.8
101	6.0	177.0	21.68	43.80	102.0
102	6.0	175.7	21.61	43.95	103.4
103	6.0	174.3	21.53	43.55	102.3
104	6.0	172.8	21.45	43.45	102.6
105	6.0	171.3	21.36	40.70	90.5
106	6.0	169.8	21.27	41.50	95.1
107	6.0	168.2	21.18	42.45	100.4
108	6.0	166.6	21.09	34.95	65.7
109	6.0	165.0	20.99	47.55	126.5
110	6.0	163.4	20.90	46.55	122.7
111	6.0	161.5	20.78	49.10	136.3
112	6.0	159.8	20.67	49.80	140.9
113	6.0	158.1	20.56	42.30	105.7
114	6.0	156.1	20.43	42.05	105.8
115	6.0	153.9	20.29	43.20	112.9
116	6.0	151.7	20.14	44.55	121.2
117	6.0	149.6	20.00	44.35	121.8
118	6.0	147.1	19.84	38.55	94.3
119	6.0	144.4	19.66	39.40	100.4
120	6.0	141.8	19.47	39.00	100.3
121	6.0	139.0	19.28	40.00	107.5
122	6.0	136.1	19.07	40.40	111.9
123	6.0	133.0	18.85	40.00	112.2
124	6.0	129.7	18.61	36.00	93.4
125	6.0	126.4	18.37	35.20	91.6
126	6.0	123.0	18.12	32.80	81.0

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vi-2

KWIE.X

BMLH20180604AAM
Latitude: 34-55-19.60 N
Longitude: 117-26-56 W
ERP: 6.00 kW
Channel: 267
Frequency: 101.3 MHz
AMSL Height: 889.7 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: Longley-Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

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> 70.0 dBuV/m

- Loss Area 1
- Loss Area 2
- Loss Area 3
- Loss Area 4
- Loss Area 5
- Loss Area 6
- Loss Area 7
- Loss Area 8
- Loss Area 9
- Loss Area 10
- Loss Area 12
- Loss Area 13
- Loss Area 14
- Loss Area 15
- Loss Area 16
- Loss Area 17
- Other Loss Areas

Proposed Transmitter Site

Boundary of Community
of License Hinkley, CA

Exhibit E-7
Community of License Coverage
KWIE - Hinkley, California
Point Five LLC
July, 2019

Scale 1:180,000

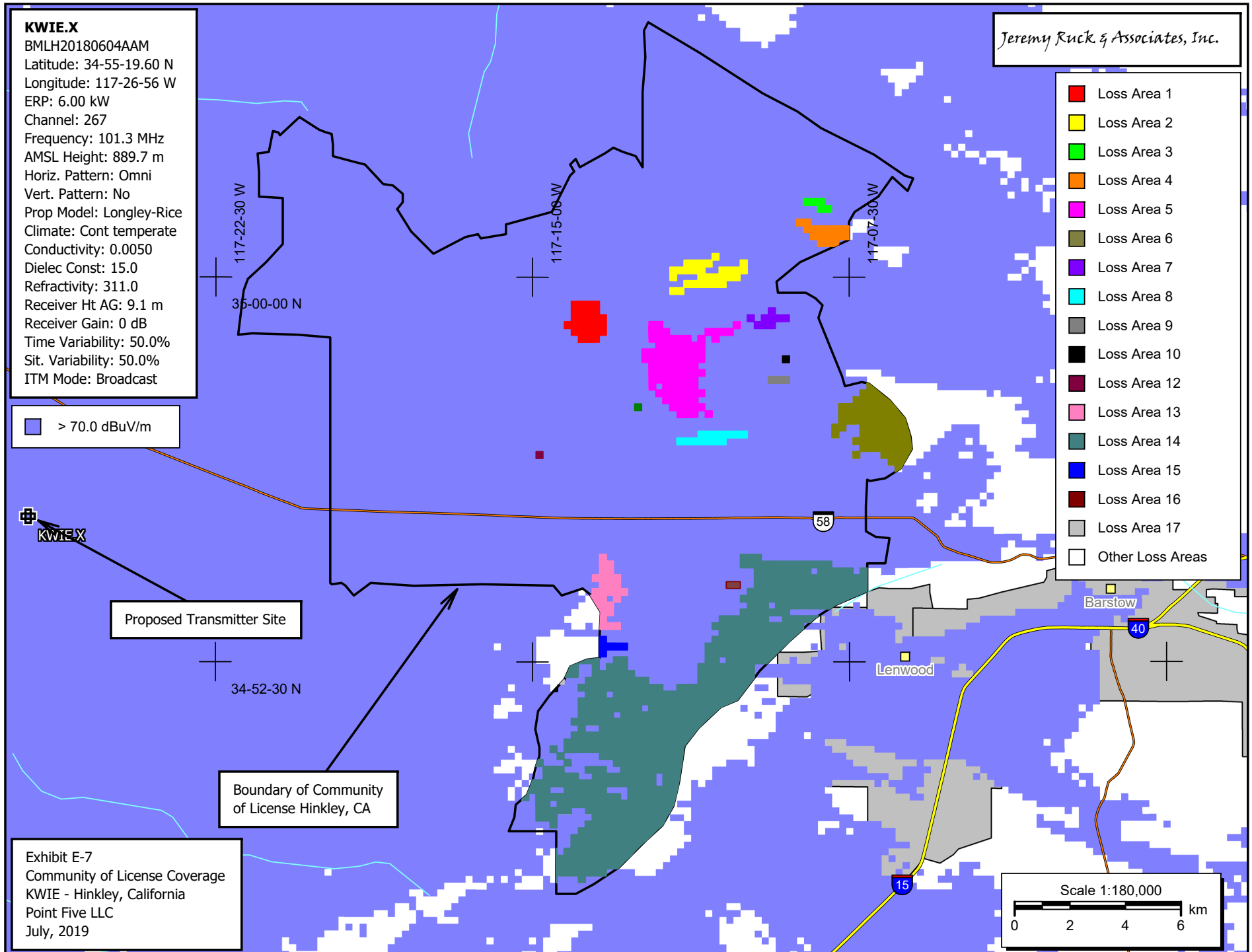
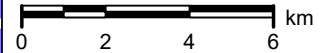


Exhibit E-8 - Single Channel Spacing Study
KWIE - Hinkley, California

REFERENCE		DISPLAY DATES
34 55 20.0 N.	CLASS = A Int = AA	DATA 07-01-19
117 26 56.0 W.	Current Spacings to 3rd Adj.	SEARCH 07-01-19
----- Channel 267 - 101.3 MHz -----		

Call	Channel	Location	Azi	Dist	FCC	Margin
KWIE	CP -N 267A	Hinkley	CA 0.0	0.00	114.5	-114.5
KWIE	LIC 267A	Barstow	CA 101.3	37.21	114.5	-77.3
KRTH	LIC 266B	Los Angeles	CA 216.4	95.69	112.5	-16.8
KATJ-FM	LIC 264A	George	CA 157.0	37.56	30.5	7.1
KRAJ	LIC-N 265B1	Johannesburg	CA 339.8	65.67	47.5	18.2
KGFM	LIC 268B	Bakersfield	CA 296.4	130.74	112.5	18.2
KSCA	LIC 270B	Glendale	CA 216.1	95.76	68.5	27.3
KATY-FM	LIC 267A	Idyllwild	CA 154.0	147.55	114.5	33.1
KIXF	LIC 268B	Baker	CA 67.2	150.18	112.5	37.7

Reference station has protected zone issue: Mexico
All separation margins include rounding

KWIE.X

BMLH20180604AAM
Latitude: 34-55-19.60 N
Longitude: 117-26-56 W
ERP: 6.00 kW
Channel: 267
Frequency: 101.3 MHz
AMSL Height: 889.7 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Contour

KRTH.X

BMLH20071015AJG
Latitude: 34-13-38 N
Longitude: 118-04-00 W
ERP: 50.00 kW
Channel: 266
Frequency: 101.1 MHz
AMSL Height: 1049.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Contour

Proposed Transmitter Site

KRTH Transmitter Site

Jeremy Ruck & Associates, Inc.

- Proposed 60 dBu F(50,50) Contour
- Proposed 48 dBu F(50,10) Contour
- KRTH 54 dBu F(50,50) Contour
- KRTH 54 dBu F(50,10) Contour

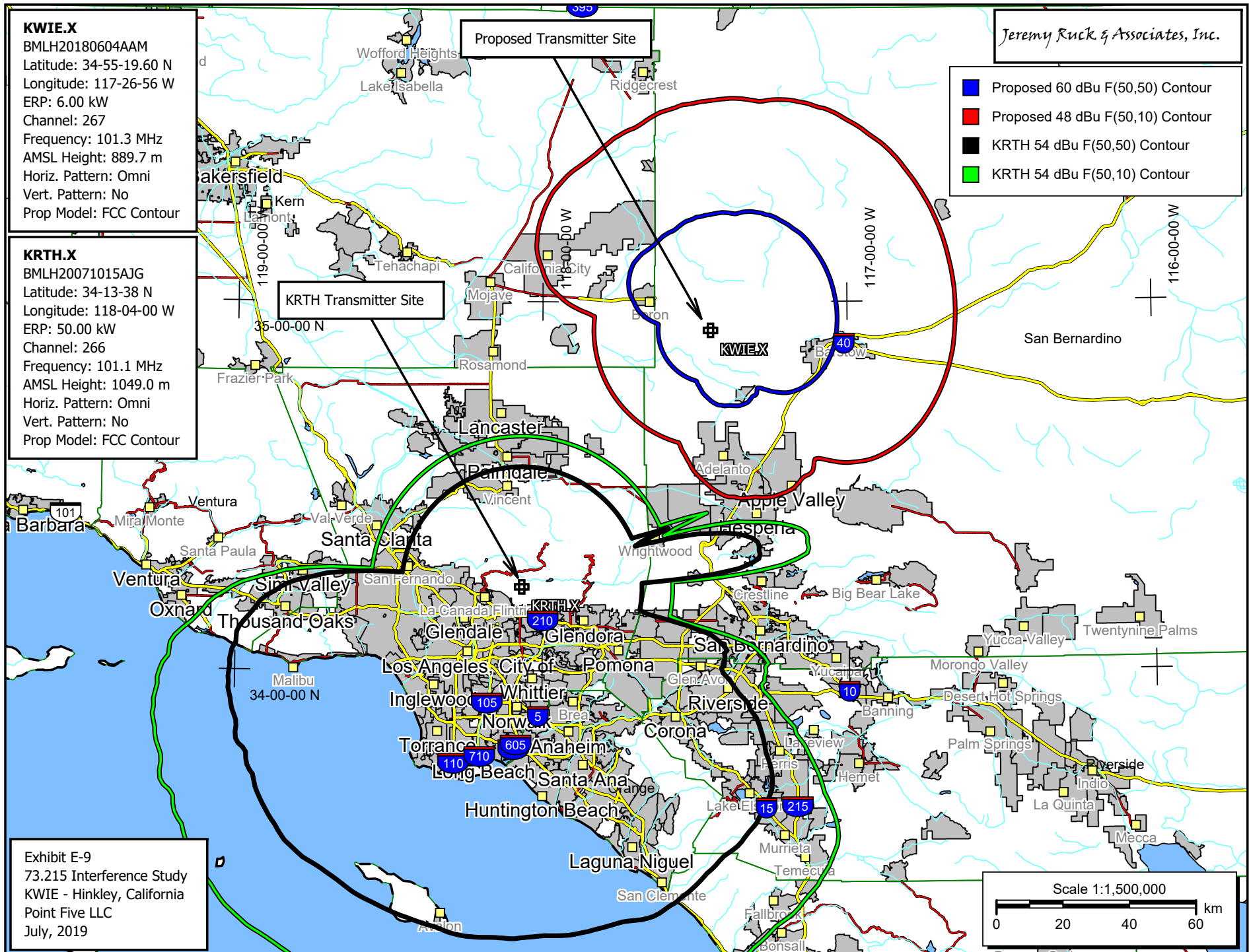


Exhibit E-9

73.215 Interference Study
KWIE - Hinkley, California
Point Five LLC
July, 2019

Exhibit E-10 - Tabular Interference Study

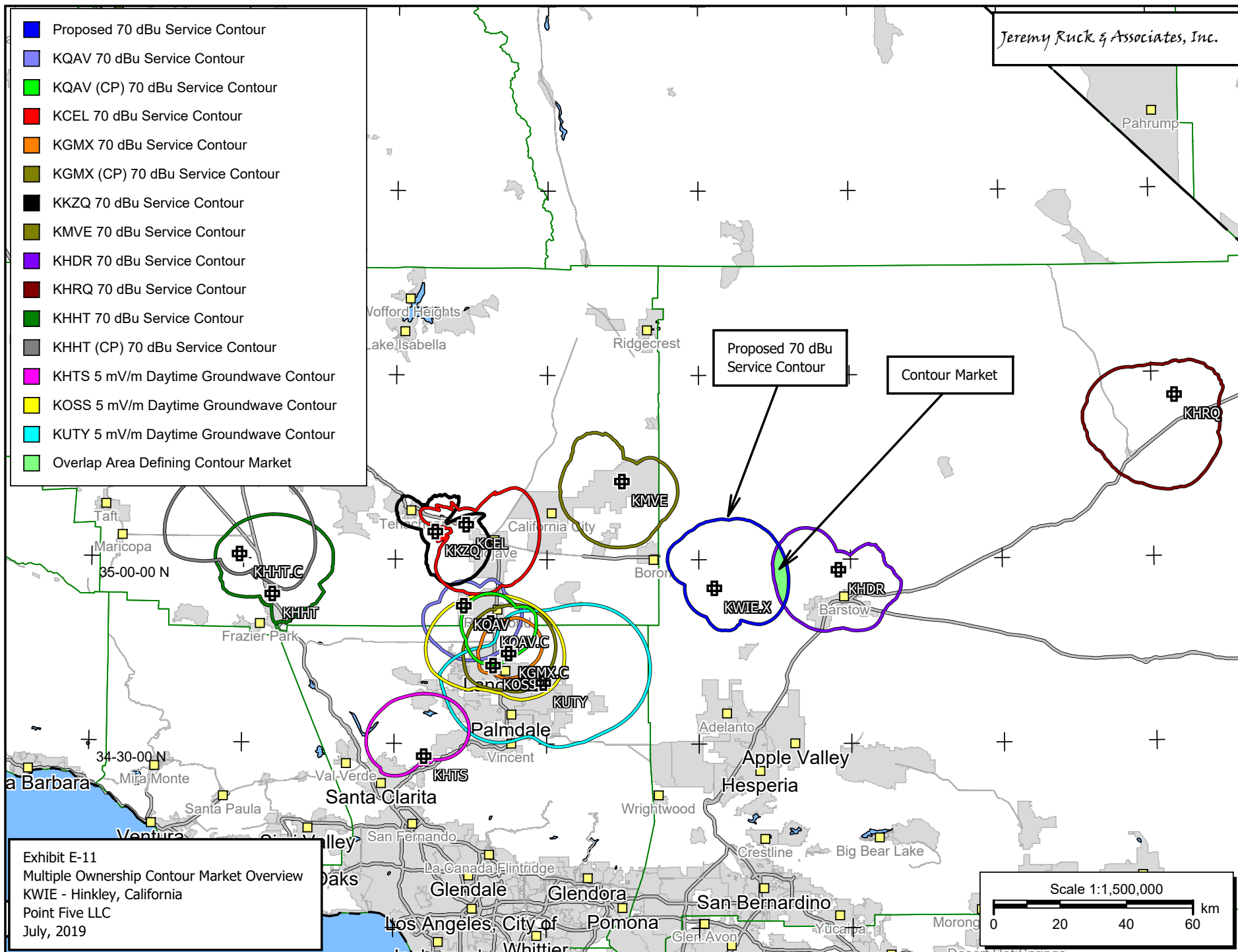
KWIE - Hinkley, California

REFERENCE CH# 267A - 101.3 MHz, Pwr= 6 kW, HAAT= 100.0 M, COR= 889.7 M
34 55 20.0 N. Average Protected F(50-50)= 28.29 km
117 26 56.0 W. 73.215 Omni-directional

DISPLAY DATES
DATA 07-01-19
SEARCH 07-01-19

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
267A Hinkley	KWIE	CP	NCX CA	0.0 0.0	0.00 BPH20150507ACA	34 55 20.0 117 26 56.0	6.000 100		---Reference---		
								890	Point Five Llc		
267A Barstow	KWIE	LIC	_CX CA	101.3 281.5	37.21 BMLH20180604AAM	34 51 22.0 117 02 59.0	2.250 165		---Reference---		
								939	Point Five Llc		
264A George	KATJ-FM«	LIC	_CN CA	157.0 337.1	37.56 BLH19921106KA	34 36 38.0 117 17 18.0	0.260 472	1.1 1384	31.3 Edb Vv License Llc	30.5R	7.1M
265B1 Johannesburg	KRAJ«	LIC	NCX CA	339.8 159.7	65.67 BLH20081128ABG	35 28 38.0 117 41 59.0	1.500 399	2.5 1364	43.2 Adelman Broadcasting, Inc.	47.5R	18.2M
268B Bakersfield	KGFM«	LIC	_CN CA	296.4 115.7	130.74 BLH19960516KC	35 26 17.0 118 44 22.0	6.700 396	46.6 1111	41.0 Agm California, Inc.	112.5R	18.2M
266B Los Angeles	KRTH^	LIC	_CX CA	216.4 36.0	95.75 BMLH20071015AJG	34 13 38.0 118 04 00.0	50.000 150	45.3 1049	36.1 Entercom License, Llc	34.7	24.6
270B Glendale	KSCA«	LIC	_CX CA	216.1 35.7	95.76 BMLH20111031ADQ	34 13 26.0 118 03 45.0	4.800 863	3.7 1763	54.8 Univision Radio Stations G	68.5R	27.3M
267A Idyllwild	KATY-FM«	LIC	_CX CA	154.0 334.4	147.55 BMLH20071002ACQ	33 43 31.0 116 44 58.0	1.550 200	83.2 1650	29.4 All Pro Broadcasting, Inc.	114.5R	33.1M
268B Baker	KIXF«	LIC	_CN CA	67.2 248.0	150.18 BLH19940505KE	35 26 10.0 115 55 25.0	4.300 403	88.1 1368	74.1 Heftel Broadcasting Compan	112.5R	37.7M

Terrain database is NED 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone= - Zone 1A, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
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.
^ = Power and antenna height 'Max classed' as per Sec 73.215 protection requirements
Reference station has protected zone issue: Mexico



KWIE.X

BMLH20180604AAM
Latitude: 34-55-19.60 N
Longitude: 117-26-56 W
ERP: 6.00 kW
Channel: 267
Frequency: 101.3 MHz
AMSL Height: 889.7 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

KHDR

BLH20040304ACM
Latitude: 34-58-15 N
Longitude: 117-02-23 W
ERP: 1.00 kW
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 1048.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

Exhibit E-12
Contour Market Analysis
KWIE - Hinkley, California
Point Five LLC
July, 2019

Jeremy Ruck & Associates, Inc.

- Proposed 70 dBu Service Contour
- KHDR 70 dBu Service Contour
- KDUC 70 dBu Service Contour
- KODV 70 dBu Service Contour
- KXXZ 70 dBu Service Contour
- Market Defining Contour Overlap

Market Defining
Contour Overlap

