

## **TECHNICAL NARRATIVE**

This Technical Statement and attached exhibits were prepared on behalf of Mad River Radio, Inc., ("Mad River"), licensee of station KJNY, Channel 256C1, Facility ID Number 39505, licensed to Ferndale, California. FCC construction permit BNPH-20070406ABY for KMMI, Channel 254C1, Loleta, California included an Order to Show Cause to modify KJNY to Channel 249C1.

Mad River herein proposes a minor change application to the facilities of KJNY to change to Channel 249C1 and operate with 6.0 kW at 523 meters height above average terrain. Mad River is proposing to implement this change at its existing transmit location. The existing tower is 54.9 meters in overall height and is not registered with an FCC Antenna Structure Registration "ASR" number.

The Application Site Channel Study coordinates for KJNY on Channel 249C1 are 40 degrees 30 minutes 02.4 seconds North Latitude, 124 degrees 17 minutes 12.1 seconds West Longitude, is fully spaced to all full power FM stations under Section 73.207. The KJNY Application Site F(50,50) 70 dBu City Contour easily covers 100% of the Ferndale, California corporate boundaries. No change of area or population served will occur.

A study has been undertaken and exhibits are provided to show the proposed facility is in compliance with the Commission's radio frequency emission limits and Section 106.

# KJNY Channel 249C1 Appl. Site Channel Study

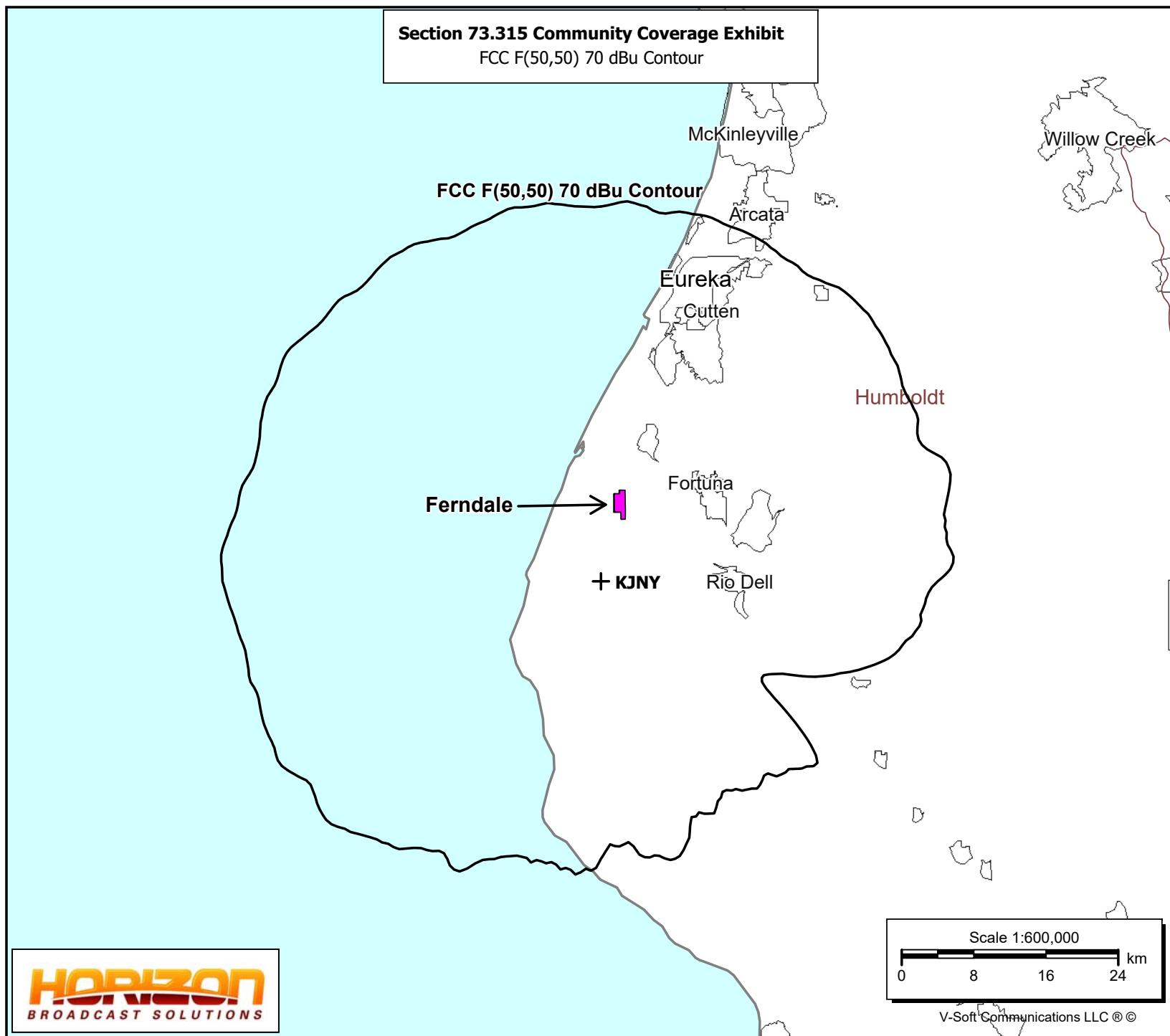
REFERENCE				CLASS = C1 Int = C1			DISPLAY DATES		
40 30 02.4 N.				Current Spacings to 3rd Adj.			DATA	09-08-23	
124 17 12.1 W.				Channel 249 - 97.7 MHz			SEARCH	09-08-23	
Call	Channel	Location			Azi	Dist	FCC	Margin	
	Lat.	Lng.	Ant	Power		HAAT			
AL6818	RSV	249C1	Ferndale	CA	67.7	0.0	244.5	-244.5	
40 30 02.5	124 17 12.2			0.000 kW		299 M			
From CDBS				RMinv-11					
KKDS-LP	LIC	249L1	Eureka	CA	19.0	36.1	110.5	-74.4	
40 48 28.4	124 08 49.2	CN		0.100 kW		-28 M			
Dell' Arte, Inc.				BLL20061114ABG					
K252BI	LIC-D	252D	Fortuna	CA	115.7	14.0	73.5	-59.5	
40 26 45.4	124 08 16.1	DVN		0.250 kW		320 M			
Bicoastal Media Licenses I				BLFT20060510ABE					
KMKE-LP	LIC	251L1	Eureka	CA	16.1	33.8	72.5	-38.7	
40 47 33.4	124 10 32.2	CN		0.100 kW		-9 M			
California, State Of				BLL20060713ACQ					
KCHP-LP	LIC	246L1	Arcata	CA	21.6	44.8	72.5	-27.7	
40 52 31.4	124 05 25.2	CN		0.093 kW		-41 M			
Telios Christian Fellowshi				BMLL20070403ACL					
K249EW	LIC	249D	Shasta	CA	84.8	139.1	132.5	6.6	
40 36 09.5	122 39 02.1	CN		0.010 kW	0 M				
CSN International				BLFT20190725AAP					
KPOD-FM	LIC	250A	Crescent City	CA	3.2	140.0	132.5	7.5	
41 45 34.4	124 11 32.3	CN		6.000 kW		-39 M			
Bicoastal Media Licenses I				BMLH20010702AAP					
KVRV	LIC	249B1	Monte Rio	CA	152.0	245.7	232.5	13.2	
38 32 24.6	122 57 43.9	CN		2.050 kW		342 M			
Amaturo Sonoma Media Group				BLH19920226KB					
KNCQ	LIC	247C	Weaverville	CA	84.8	139.1	104.5	34.6	
40 36 09.5	122 39 02.1	CN		28.000 kW		1088 M			
Results Radio Of Redding L				BLH20190823AAQ					
KHHZ	LIC	249B1	Gridley	CA	112.6	277.1	232.5	44.6	
39 30 17.5	121 18 38.8	CN		1.500 kW		389 M			
Bustos Media Holdings, LLC				BLH20080821ACX					
KLLG-LP	LIC	250L1	Willits	CA	146.5	144.9	99.5	45.4	
39 24 35.2	123 21 20.8	CN		0.100 kW		-28 M			
Little Lake Grange #670				BLL20160824ABB					
KVIP-FM	LIC	251C	Redding	CA	82.9	150.3	104.5	45.8	
40 39 17.5	122 31 25.0	CN		30.000 kW		521 M			

**KJNY**

Ferndale, CA  
BLH19961202KB  
Latitude: 40-30-02.40 N  
Longitude: 124-17-12.10 W  
ERP: 6.00 kW  
HAAT: 523.0  
Channel: 249  
Frequency: 97.7 MHz  
AMSL Height: 744.0 m  
Elevation: 695.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No

**Section 73.315 Community Coverage Exhibit**

FCC F(50,50) 70 dBu Contour



**Human Exposure to Radiofrequency Electromagnetic Field  
&  
Section 106 Compliance  
(Environmental)**

Mad River Radio, Inc., ("Mad River"), seeks to modify KJNY, Channel 256C1, Facility ID No. 39505, Ferndale, CA to specify operation on Channel 249C1. There is no change the transmitter location coordinates, radiation center above ground level or effective radiated power. The new application site is an existing tower, 54.9 meters in overall height and is not registered with an Antenna Structure Registration ("ASR") number. Access to the transmitter site, which is located on an isolated hilltop in rugged terrain, is restricted by a locked gate located more than 175.0 meters from the tower on the only access road. This is considered a controlled access site. The application site coordinates are 40° 30' 02.4" North Latitude and 124° 17' 12.1" West Longitude (NAD27). KJNY will operate with a 3 bay full wave side mounted Jampro Model JMPC-3 circularly polarized antenna operating with 6.0 kilowatts ERP at 523 meters HAAT and a center of radiation of 49 meters above ground level. No modifications to the tower are being proposed. Therefore, it is believed that this proposed facility is exempt from a Section 106 review by the SHPO/THPO.

The proposed KJNY Channel 249C1 operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The Jampro JMPC antenna is included the OET's updated FM Model Program in Appendix B under Type 2 "Opposed "V" dipole. Using the FM Model for Windows the predicted power density near the tower at two meters above ground level attributable to the proposed facility is 28.238 @ 21.8 meters, which is 14.119 percent of the general population/uncontrolled maximum permitted exposure limit and 5.648 percent of the limit for "controlled" environments.

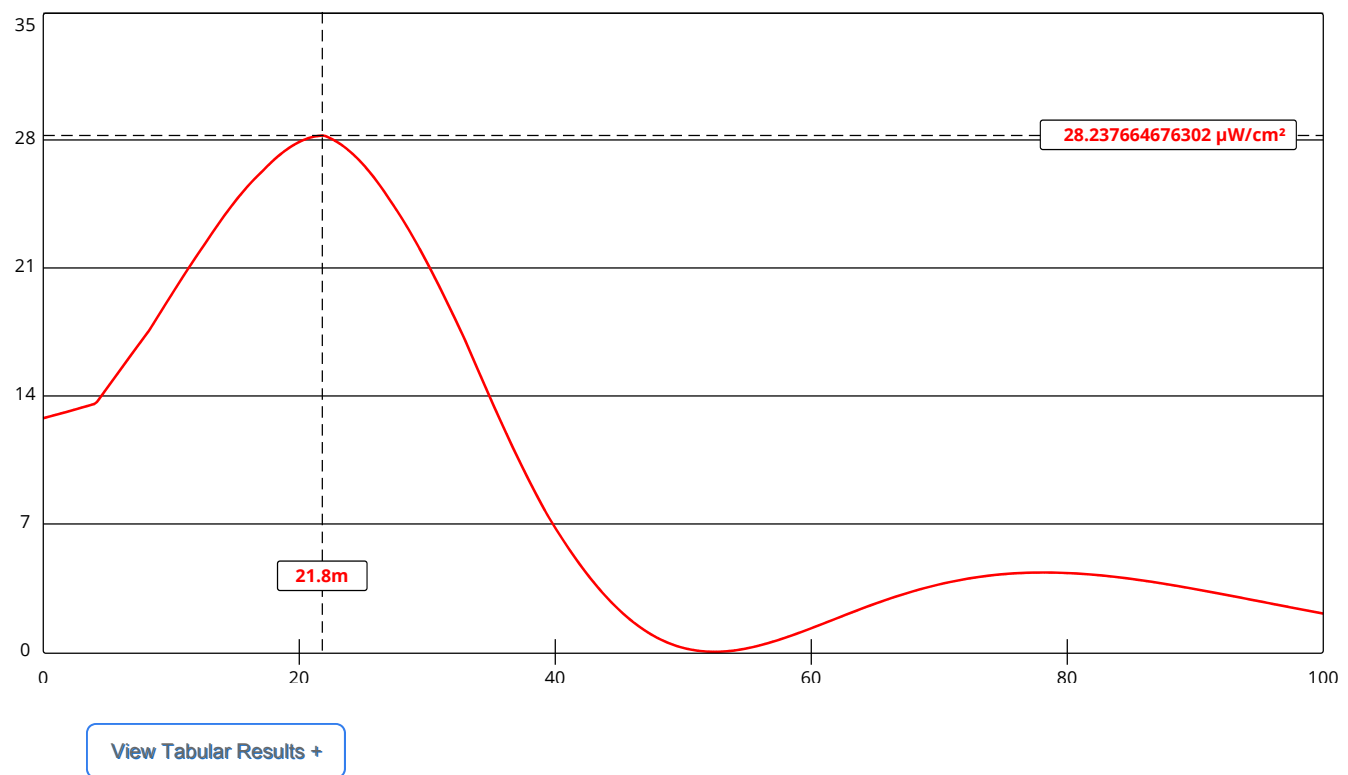
The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission during times of maintenance or inspection.



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# FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data [published in 1985 by the EPA](http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Tx\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL) (<http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Tx\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>). [▼ Show More.....](#)



Channel Selection	Channel 249 (97.7 MHz) ▼		
<a href="#">Antenna Type +</a>	EPA Type 2: Opposed V Dipole ▼		
Height (m)	<input type="text" value="49"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="6000"/>	ERP-V (W)	<input type="text" value="6000"/>
Num of Elements	<input type="text" value="3"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	