

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Amendment of Section 73.622,)	MB Docket No. _____
Digital Television Table of Allotments)	
For KMVT(DT), Twin Falls, Idaho)	Rulemaking No. _____
(Facility 35200))	

To: Office of the Secretary, Federal Communications Commission
Attn: Chief, Media Bureau

PETITION FOR RULEMAKING

Gray Television Licensee, LLC (“Gray”), licensee of full power commercial television station KMVT(DT) (“KMVT”), Twin Falls, Idaho, hereby requests that the Commission institute a rulemaking proceeding for the purpose of amending the DTV Table of Allotments (the “DTV Table”) contained in Section 73.622(i) of the Commission’s rules.¹ Gray requests that the Commission amend the DTV Table to substitute UHF Channel 16 for VHF Channel 11 with the technical parameters as set forth in the attached Engineering Statement. As set forth herein, grant of this Petition will create a preferential arrangement of allotments by expanding the availability of free over-the-air television service in this market.

The FCC has described the goal of the DTV Table as ensuring the provision of digital television service “to the American people in an expeditious and efficient manner.”² In considering channel substitution requests, the Commission considers the

¹ See 47 C.F.R. §§ 1.401, 1.420, and 73.622(i).

² See, e.g., *Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations. (Nampa, Idaho)*, Report and Order, 19 FCC Rcd. 4491, ¶ 6 (2004); *Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations. (Albany, New York)*, 19 FCC Rcd. 4329, ¶ 7 (2004); see also *Advanced*

petitioner's public interest justification and whether the proposal would comply with the principal community coverage requirements of Section 73.625(a).³

This channel substitution serves the public interest because it will resolve significant over-the-air ("OTA") reception problems in KMVT's existing service area.⁴ With viewers increasingly reliant on OTA signals to receive the most valued video content,⁵ providing a strong broadcast signal is more important than it has been in decades. Yet, the challenges with digital reception of VHF signals are well-documented. Ten years ago, the Commission recognized the deleterious effects manmade noise has on the reception of VHF signals, finding that "the propagation characteristics of these

Television Systems & Their Impact Upon the Existing Television Broadcast Service, 12 FCC Rcd. 14588, ¶ 76 (1997).

³ See, e.g., *Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Mesa, Arizona)*, Notice of Proposed Rulemaking, 35 FCC Rcd. 11400, ¶ 7 (2020) ("*Mesa NPRM*"); *Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations. (Ontario, California)*, Notice of Proposed Rulemaking, 16 FCC Rcd. 2276, ¶ 3 (2001); *Amendment of Section 73.606(b), Table of Allotments, Television Broadcast Stations; and Section 73.622(b), Table of Allotments, Digital Broadcast Stations. (Moscow, Idaho)*, Notice of Proposed Rulemaking, 17 FCC Rcd. 19447, ¶ 3 (2002).

⁴ See *Mesa NPRM* at ¶ 6 (recognizing effect of "VHF propagation challenges"); *Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations. (Missoula, Montana)*, Notice of Proposed Rulemaking, 16 FCC Rcd. 2232, ¶¶ 2-3 (2001) (finding that proposal to substitute channels to improve signal coverage and eliminate interference "warrants consideration.").

⁵ See, e.g., Parks Associates, *TV Antenna Usage in US Broadband Households Jumped to 25% in 2019 and Is Expected to Grow More as COVID-19 Keeps Consumers at Home* (Mar. 26, 2020), available at <http://www.parksassociates.com/blog/article/pr-02762020> (finding that OTA viewing increased from 15% in 2018 to 25% in 2019); Phil Kurz, TVTechnology, *New Research Reveals Resurgence in OTA Antenna Viewing* (Apr. 29, 2019), available at <https://www.tvtechnology.com/news/new-research-reveals-resurgence-in-ota-antenna-viewing> (finding that viewers consume 19% of viewing time over the air); Nielsen Local Watch Report, *The Evolving Over-the-Air Home* (Jan. 14, 2019), available at <https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/q2-2018-local-watch-report.pdf> (finding that more than 14% of TV households lack cable or satellite service).

channels allow undesired signals and noise to be receivable at relatively farther distances, nearby electrical devices tend[] to emit noise in this band that can cause interference, and reception of VHF signals requires physically larger antennas ... relative to UHF channels.”⁶ The Commission also observed the “large variability in the performance (especially intrinsic gain) of indoor antennas available to consumers, with most antennas receiving fairly well at UHF and the substantial majority not so well to very poor at high-VHF.”⁷

Attached is an Engineering Statement of Chesapeake RF Consultants, LLC (“Chesapeake”),⁸ which sets forth in detail the proposed KMVT Channel 16 DTV Table specifications. This proposal is in compliance with all relevant technical requirements for amendment of the post-transition DTV Table, including the interference protection requirements of 47 C.F.R. § 73.616 and the 0.5% *de minimis* interference standard with respect to all allotments and assignments, existing and proposed. The proposed Channel 16 facilities will provide full principal community coverage to Twin Falls, Idaho.

As demonstrated by the attached Engineering Statement, when compared to KMVT’s existing Channel 11 DTV allotment and accounting for terrain-limited coverage, the proposed Channel 16 facilities will create only a *de minimis* loss area. The proposed Channel 16 facilities will result in a theoretical reduction in KMVT’s predicated coverage and population served representing 8.01% of the total population

⁶ See *Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rulemaking, 25 FCC Rcd. 16498, ¶ 42 (2010) (recognizing that “VHF channels have certain characteristics that have posed challenges for their use in providing digital television service.”)

⁷ *Id.* at ¶ 44.

⁸ See Exhibit 1.

within the licensed KMVT Channel 11 NLSC. However, as explained in detail in the attached Engineering Statement, once terrain-limited coverage predications are applied to this loss area, only 84 individuals, representing .05% of the population within the licensed KMVT Channel 11 NLSC are predicted to lose coverage. This figure falls well below the *de minimis* loss area threshold that the Commission has previously established.⁹

For the foregoing reasons, Gray respectfully requests that the Commission grant this Petition and immediately commence a rulemaking proceeding to change the digital allotment for KMVT from Channel 11 to Channel 16 as proposed herein.

Respectfully submitted,

GRAY TELEVISION LICENSEE, LLC

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Dated: September 1, 2021

⁹ See *Application of WSET, INCORPORATED (WSET-TV), Lynchburg, Virginia For Construction Permit*, 80 F.C.C.2d 233, 246 (1980) (finding loss area of population of 500 *de minimis*).

Exhibit 1

Engineering Statement
prepared for
Gray Television Licensee, LLC
KMVT(DT) Twin Falls, ID
Facility ID 35200
Ch. 16 110 kW 331 m

This engineering statement has been prepared on behalf of *Gray Television Licensee, LLC* (“Gray”), licensee of KMVT (Facility ID 35200, Twin Falls ID) in support of a *Petition for Rulemaking* to amend §73.622(i)¹ by changing KMVT’s digital television channel assignment. KMVT is licensed to operate on Channel 11 (BLCDT-20090403ABW). As described herein, *Gray* requests substitution of Channel 16 in lieu of Channel 11 for KMVT.

The KMVT Channel 11 facility is in the VHF spectrum and has proven to be ineffective for satisfactory viewer reception as discussed herein and elsewhere in the petition. The use of Channel 16 would place KMVT in the UHF spectrum which is known to provide robust signal levels for home reception.

Gray has determined that many viewers experience significant difficulty in receiving KMVT’s signal. Problems with digital VHF reception by stations in many markets were widely publicized since the 2009 digital transition date. It has been established that indoor reception is difficult for digital VHF stations such as KMVT due to the longer wavelength signal’s inability to readily pass through buildings (the windows are smaller than the wavelength size), the ineffectiveness of many indoor antennas many of which were designed to emphasize the shorter wavelengths for UHF reception, and high levels of manmade and environmental noise.

¹The post-incentive auction transition period ended on July 13, 2020, pursuant to the *Incentive Auction Closing and Channel Reassignment Public Notice* (DA 17-317, released April 13, 2017). The FCC’s rules have not yet been amended to reflect all new full power channel assignments in a revised Table of Allotments. Because the Table has not yet been amended, it is understood that FCC’s Media Bureau will continue to refer to the Post-Transition Table of DTV Allotments, 47 CFR § 73.622(i) (2018), for the purpose of post-auction channel change rulemaking proceedings.

No change in transmitting location is proposed. The KMVT tower structure corresponds to FCC Antenna Structure Registration (“ASR”) number 1040035. *Gray* proposes to implement the Channel 16 substitution with a top-mounted transmitting antenna on the existing tower structure which would replace the existing top-mounted Channel 11 antenna.

The licensed Channel 11 facility operates with 40 kW effective radiated power (“ERP”) nondirectional at 323 meters antenna height above average terrain (“HAAT”). *Gray* proposes herein to utilize 110 kW ERP nondirectional on Channel 16 at 331 meters antenna HAAT.

A summary of the licensed Channel 11 and proposed Channel 16 technical parameters is provided in the following.

Licensed Channel 11 Parameters (file# BLCDT-20090403ABW)

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
35200	KMVT	11	TWIN FALLS	ID	424347	1142455	1495	323	40	ND

Proposed Channel 16 Parameters

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
35200	KMVT	16	TWIN FALLS	ID	424347	1142455	1502.7	330.7	110	ND

A map is supplied as Figure 1, which depicts the standard predicted coverage contours. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire community of Twin Falls will be encompassed by the 48 dB μ contour.

Interference study per FCC OET Bulletin 69² shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby full service and Class A television stations and reassignments as required by §73.616. The interference study output report is provided as Table 1.

²FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). This analysis employed the FCC’s current “TVStudy” software with the default application processing template settings, 2 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC’s implementation of TVStudy show excellent correlation.

A coverage contour comparison map is provided in Figure 2, showing that the proposed Channel 16 noise limited service contour (“NLSC”) will fall short of matching that of the licensed Channel 11 facility. The gap between the proposed Channel 16 NLSC and the licensed Channel 11 NLSC is approximately 19 kilometers. The licensed Channel 11 facility provides terrain-limited service to 176,351 persons within its NLSC. *Gray* has determined that constructing a Channel 16 facility having an ERP of 110 kW would be complementary to KMVT’s market size and fairly low population served.

The proposed KMVT Channel 16 NLSC loss areas are depicted in Figure 2 along with the NLSC of overlapping same-network (CBS) alternative authorized television services and the relevant contour of KMVT’s translator (K30QH-D, Burley ID). The full-service television stations that provide overlapping NLSC service into the loss area are KBOI-TV Boise, ID and KIFI-TV Idaho Falls, ID. The areas on Figure 2 that are tinted yellow represent loss area locations that are not encompassed by any other CBS network station’s NLSC or the K30QH-D contour. A population summary of the NLSC loss is provided on the map and in the following table.

Loss Area Analysis – Standard FCC Contours	
KMVT Population Within NLSC	(2010 census)
Licensed Ch. 11 Total:	184,571
Proposed Ch. 16 Total:	168,334
Gain Area Population:	0
Loss Area Population:	16,237
CBS Network NLSC Loss (percentage)	14,786 8.01%

The licensed Channel 11 facility’s NLSC encompasses 184,571 persons and the proposed Channel 16 facility’s NLSC would encompass 168,334 persons. The resulting NLSC loss population is 16,237 persons, of which 14,786 persons would not have an alternative CBS service representing 8.01 percent of the total population within the licensed KMVT Channel 11 NLSC.

The results of additional loss area analysis are provided in Figure 3, now to consider terrain-limited coverage predictions of the licensed Channel 11 facility and the proposed Channel 16 operation. Here, the FCC’s TVStudy computer program was used to determine terrain-limited coverage predictions at locations beyond the proposed Channel 16 NLSC. The study area was set

using the “fixed geography” option to match the KMVT licensed Channel 11 NLSC. Default cell size and profile step settings were employed. The analysis included examination of each cell that is located beyond the Channel 16 NLSC and beyond the NLSC of any other CBS network station (the same, yellow-tinted area as Figure 2) as bounded by the existing Channel 11 facility’s NLSC. Cells in this region were counted as losing CBS service if they are predicted to have terrain-limited service from the licensed Channel 11 facility and not from the proposed Channel 16. The results are provided on Figure 3 and in the following table.

Loss Area Analysis – Terrain-Limited

KMVT Terrain-Limited Population TVStudy at Fixed Geography Area	(2010 census)
Licensed Ch. 11 Total	176,351
CBS Network Loss beyond NLSC (percentage)	84 0.05%

This analysis shows that nearly all of the terrain-limited service population achieved by the licensed KMVT within the CBS network NLSC loss area will receive terrain-limited service from the proposed Channel 16. The determination of terrain-limited CBS network loss considers each cell that is located within the existing Channel 11 facility’s NLSC, beyond the Channel 16 NLSC, and beyond the NLSC of any other CBS network station (the yellow tinted area on Figure 3). This analysis shows that the terrain-limited CBS network loss population is only 84 persons, representing 0.05 percent of the total terrain-limited population within the licensed KMVT Channel 11 NLSC. The FCC has previously found that population loss of less than 500 persons is *de minimis*,³ and the predicted CBS network loss population loss in this case is only 84 persons.

Conclusion

The proposed channel substitution complies with the FCC’s principal community coverage requirements of §73.625 and the interference protection requirements of §73.616. The area of service loss can be considered as *de minimis*.

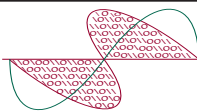
³See *WSET, Inc.*, 80 FCC 2d 233, 246 (1980).

List of Attachments

Figure 1	Proposed Coverage Contours
Figure 2	Coverage Contour Comparison; Loss Area Analysis – Standard FCC Contours
Figure 3	Loss Area Analysis – Terrain-Limited Method
Table 1	TVStudy Analysis of Proposal

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	August 6, 2021	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600



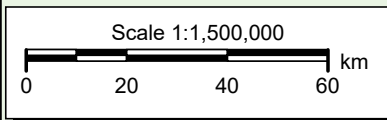
Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 1
Proposed Coverage Contours
KMVT(DT) Twin Falls, ID
Facility ID 35200
Ch. 16 110 kW 331 m

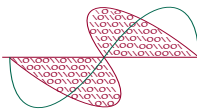
prepared for
Gray Television Licensee, LLC

August, 2021

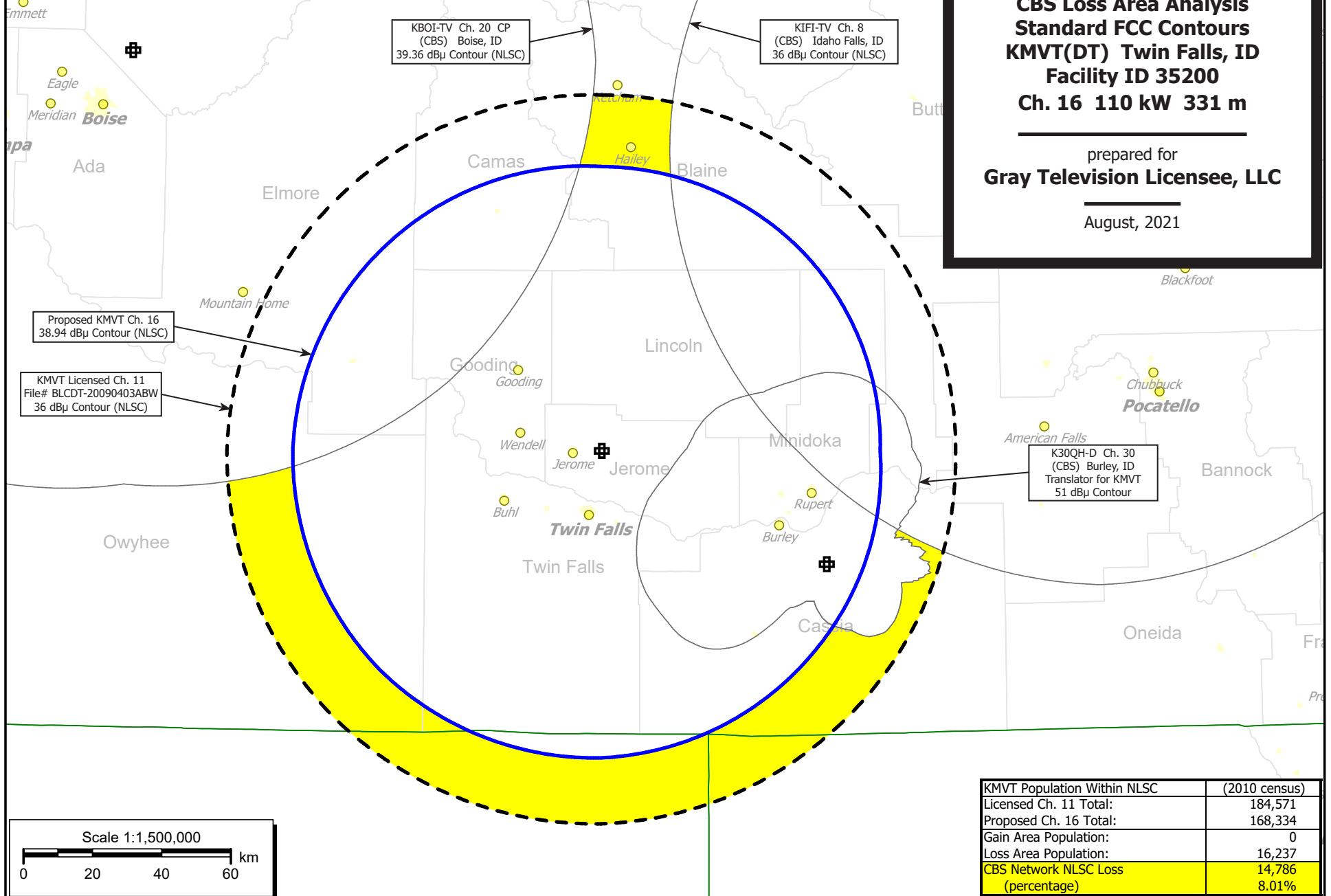
Proposed KMVT
48 dBu
(Principal Community)
38.94 dBu
(Noise Limited Service Contour)

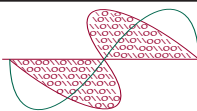


Proposed Digital Coverage	Area (sq. km)	Population (2010 Census)
Within Noise Limited Service Contour	22,925.0	168,334
OET Bulletin 69: TVStudy		
Within noise limited contour	22,884.5	168,332
Not affected by terrain losses	21,214.1	165,349
Lost to all interference	0.0	0
Net Interference-Free Service	21,214.1	165,349



Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio



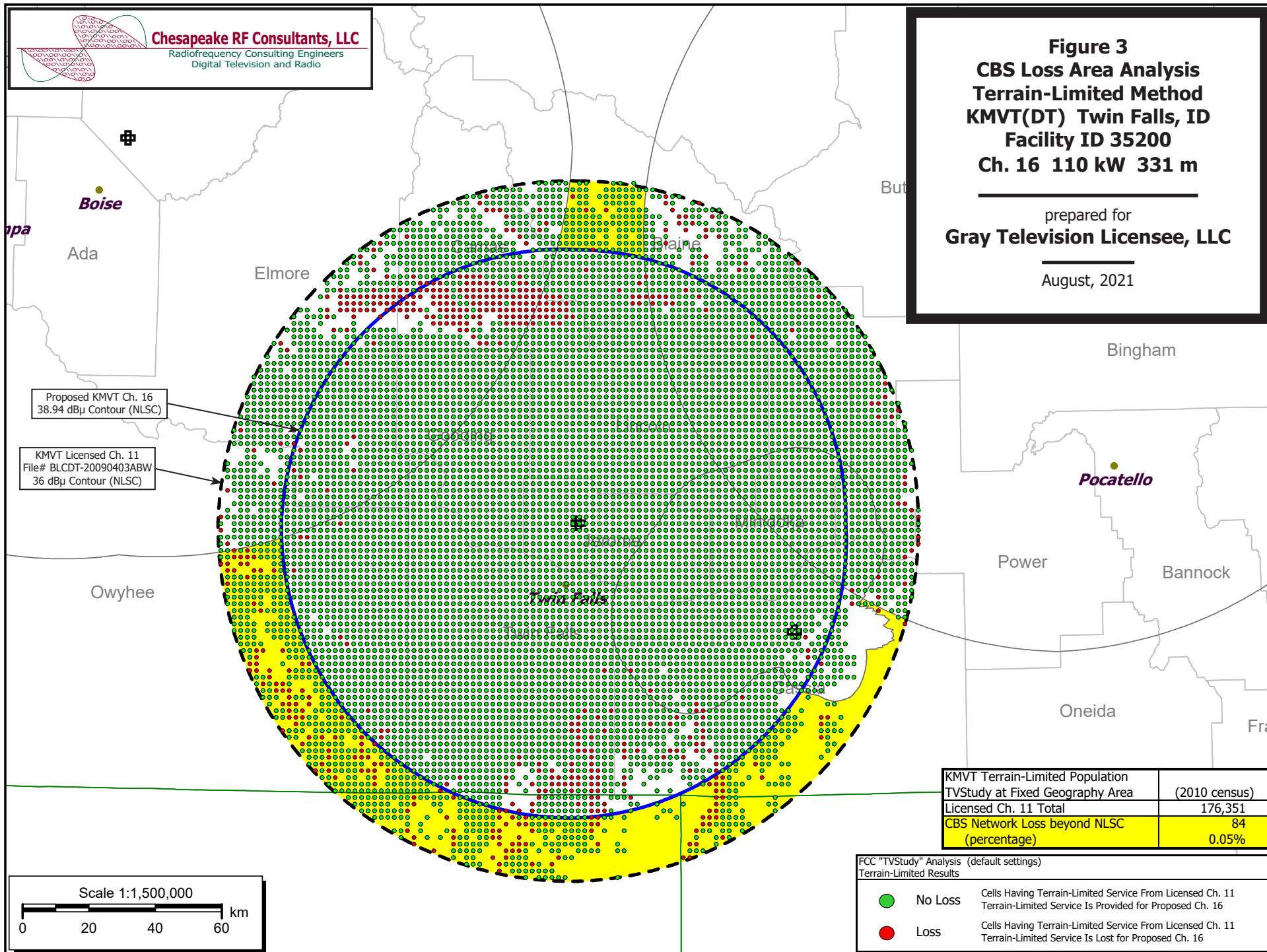


Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 3
CBS Loss Area Analysis
Terrain-Limited Method
KMVT(DT) Twin Falls, ID
Facility ID 35200
Ch. 16 110 kW 331 m

prepared for
Gray Television Licensee, LLC

August, 2021



Proposed KMVT Ch. 16
38.94 dBµ Contour (NLSC)

KMVT Licensed Ch. 11
File# BLCDT-20090403ABW
36 dBµ Contour (NLSC)

KMVT Terrain-Limited Population	(2010 census)
TVStudy at Fixed Geography Area	
Licensed Ch. 11 Total	176,351
CBS Network Loss beyond NLSC	84
(percentage)	0.05%

FCC "TVStudy" Analysis (default settings)
Terrain-Limited Results

- No Loss Cells Having Terrain-Limited Service From Licensed Ch. 11
Terrain-Limited Service Is Provided for Proposed Ch. 16
- Loss Cells Having Terrain-Limited Service From Licensed Ch. 11
Terrain-Limited Service Is Lost for Proposed Ch. 16

Table 1 KMTV TVStudy Analysis of Proposal
(page 1 of 2)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: KMTV 16 110kW, Model: Longley-Rice
Start: 2021.08.06 13:10:28

Study created: 2021.08.06 13:10:27

Study build station data: LMS TV 2021-08-05

Proposal: KMTV D16 DT APP TWIN FALLS, ID
File number: KMTV 16 110kW
Facility ID: 35200
Station data: User record
Record ID: 3793
Country: U.S.
Zone: II

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KKJB	D15	DT	LIC	BOISE, ID	BLANK0000063943	179.1 km
Yes	KPIF	D15	DT	LIC	POCATELLO, ID	BLANK0000112831	155.3
No	KUNP	D16	DT	LIC	LA GRANDE, OR	BLANK0000001679	390.4
Yes	KISU-TV	D17	DD	LIC	POCATELLO, ID	BLANK0000017402	166.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D16
Latitude: 42 43 47.00 N (NAD83)
Longitude: 114 24 55.00 W
Height AMSL: 1502.7 m
HAAT: 330.7 m
Peak ERP: 110 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.00

38.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	110 kW	299.9 m	82.0 km
45.0	110	295.9	81.6
90.0	110	284.8	80.4
135.0	110	320.1	84.3
180.0	110	360.7	88.6
225.0	110	380.1	90.1
270.0	110	369.3	89.3
315.0	110	334.2	85.9

Distance to Canadian border: 697.1 km

Distance to Mexican border: 1113.0 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 230.7 degrees Distance: 834.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 107.5 degrees Distance: 814.8 km

No land mobile station failures found

Study cell size: 2.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%

Table 1 KMTV TVStudy Analysis of Proposal
(page 2 of 2)



Maximum new IX to LPTV: 2.00%

Interference to BLANK0000112831 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KPIF	D15	DT	LIC	POCATELLO, ID	BLANK0000112831	
Undesireds:	KMTV	D16	DT	APP	TWIN FALLS, ID	KMTV 16 110kW	155.3 km
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	25284.2	265,080	20629.4	258,174	20629.4	258,174	20613.3 258,077 0.08 0.04
Undesired				Total IX	Unique IX, before	Unique IX, after	
KMTV D16 DT APP			16.0	97		16.0 97	

Interference to BLANK0000017402 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KISU-TV	D17	DD	LIC	POCATELLO, ID	BLANK0000017402	
Undesireds:	KMTV	D16	DT	APP	TWIN FALLS, ID	KMTV 16 110kW	166.1 km
	K17ED-D	D17	DC	LIC	PAYETTE, ID	BLDTA20141002AAE	346.3
	KBYU-TV	D17	DT	LIC	PROVO, UT	BLANK0000064428	318.2
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	30873.6	311,827	27483.6	307,651	27395.8	307,594	27383.9 307,577 0.04 0.01
Undesired				Total IX	Unique IX, before	Unique IX, after	
KMTV D16 DT APP			11.9	17		11.9 17	
KBYU-TV D17 DT LIC			87.8	57	87.8 57	87.8 57	

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KMTV	D16	DT	APP	TWIN FALLS, ID	KMTV 16 110kW	
	Service area		Terrain-limited		IX-free	Percent IX	
	22884.5	168,332	21214.1	165,349	21214.1	165,349	0.00 0.00