

# **Engineering Statement KWSU-LD Displacement Washington State University**

KWSU-LD, licensed to Washington State University ("WSU"), is a Digital Replacement Translator serving the areas of Cheney and Spokane, WA. Currently operating on Channel 17, the translator will be displaced by the reassignment of KCDT (Coeur d'Alene, ID) to Channel 18 as an outcome of the Incentive Auction<sup>1</sup>. Once KCDT relocates to Channel 18, KWSU-LD can no longer operate on Channel 17 since it would cause prohibited interference to KCDT.

In addition, WSU is unable to continue operation at its present site due to imminent termination of its present lease. WSU had been granted a Construction Permit (BPEDT-20140819ABA) to relocate to a new site but allowed the permit to lapse due to the Incentive Auction.

WSU requests authorization to operate KWSU-LD on Channel 33. This channel meets protection requirements as documented in the TVStudy listing below.

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<sup>1</sup> FCC DA 14-50, GN Docket No. 12-268, released June 2, 2014  
KWSU-LD Displacement      Engineering Statement

# TVStudy Run for WSU-LD on Channel 33 Using Proposed Antenna

Study created: 2018.04.10 16:03:48

Study build station data: LMS TV 2018-04-09

Proposal: KWSU-TV D33 LD CP PULLMAN, WA

File number: BLANK0000008354

Facility ID: 71024

Station data: User record

Record ID: 5

Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K32HA-D	D32	LD	LIC	BONNERS FERRY, ID	BLDTL20090722ABS	138.2 km
No	KLEW-TV	D32	DT	LIC	LEWISTON, ID	BLCDT20100111ADM	125.6
Yes	KDYS-LD	D32	LD	LIC	SPOKANE, WA	BLDTL20130506ACL	13.1
Yes	K33LF-D	D33	LD	CP	LEWISTON, ID	BNPDTL20100119AEH	126.0
Yes	K33LW-D	D33	LD	LIC	SANDPOINT, ID	BLDTT20111019AAH	94.9
No	K33FS-D	D33	LD	LIC	LA GRANDE, OR	BLDTT20120625ABM	254.5
No	KRCW-TV	D33	DT	LIC	SALEM, OR	BMLCDT20070123ABS	474.5
Yes	KWPX-TV	D33	DT	LIC	BELLEVUE, WA	BLCDT20111025AIR	350.6
Yes	K11DM	D33	LD	CP	OMAK, ETC., WA	BLANK0000008123	178.4
Yes	K33EJ-D	D33	DC	LIC	WALLA WALLA, WA	BLDTA20140917AAZ	189.3
Yes	KIMA-TV	D33	DT	LIC	YAKIMA, WA	BLCDT20090811ABV	269.6
No	K34LW-D	D34	LD	CP	MULLAN, ID	BNPDTL20100505AFE	117.9
No	K39DL-D	D34	LD	APP	MOSES LAKE, WA	BLANK0000028994	190.4
Yes	KGPX-TV	D34	DT	LIC	SPOKANE, WA	BLANK0000008553	2.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D33

Mask: Full Service

Latitude: 47 34 44.70 N (NAD83)

Longitude: 117 17 51.30 W

Height AMSL: 1158.0 m

HAAT: 0.0 m

Peak ERP: 1.20 kW

Antenna: MCX-LP-1900-E4CP 223.0 deg

Elev Pattn: Generic

Elec Tilt: 1.50

50.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.108 kW	475.9 m	34.1 km
45.0	0.204	531.2	39.7
90.0	0.139	254.2	28.7
135.0	0.650	384.1	42.4
180.0	0.961	417.9	45.7
225.0	1.20	464.1	48.3
270.0	0.940	474.0	47.2
315.0	0.622	488.4	45.2

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 436 m

Proposal 25.60 dBu contour does not cross Canadian border  
Distance to Canadian border: 157.9 km

Distance to Mexican border: 1664.6 km

Conditions at FCC monitoring station: Ferndale WA  
Bearing: 293.4 degrees Distance: 417.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 126.2 degrees Distance: 1267.4 km

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

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

----- Below is IX received by proposal BLANK0000008354 -----

Proposal receives 28.71% interference from scenario 1  
No IX check failures found.