

KQSL DTS Application Amendment  
73.626(f) Showing  
September 18, 2018

The applicant, One Ministries, Inc. (OMI) licensee of KQSL was requested of FCC staff to further demonstrate compliance of 73.626(f)(2) regarding the proposed power and contour expansion of the additional DTS transmitter to fill in coverage of Cloverdale, CA.

The DTS rules for 73.626(f) state in section (2) that expansion beyond the coverage area must be minimal to cover all of the service area (73.626(f)(1)). Reducing power for the proposed site 2 in Hopland, CA, will reduce the amount of expansion, but at the same time it will violate the Commission's requirement of 73.626(f)(1) to use the necessary power to cover all of the service area, including the unserved community of Cloverdale, CA, which is within KQSL's current service contour.

The applicant has chosen the minimal power for Site 2 to be able to cover  $\geq$  80% of the people in Cloverdale, CA, with at least a Longley-Rice signal strength of 36 dBu. Reducing power below the proposed 1,000 watts will mean that Cloverdale is no longer served, and this is the entire reason to add in the second transmitter site.

The applicant has studied to find out what percentage of Cloverdale will be covered if a lower power level is chosen. The below table shows the approximate percentage of Cloverdale covered at each power level from the new DTS site in Hopland, CA:

Percent Coverage of Cloverdale, CA vs Power Level for Site 2

	Population	Percent Coverage
All of Cloverdale area	9108	100.0
1000 watts ERP	7420	81.5
500 watts ERP	7166	78.7
300 watts ERP	6551	71.9
200 watts ERP	6071	66.7
100 watts ERP	4952	54.4
50 watts ERP	2810	30.9
30 watts ERP	1599	17.6
10 watts ERP	271	3.0

Note that at a 200-watt power level approximately two-thirds of Cloverdale will receive sufficient service grade service receive level according to Longley-Rice predication methods, and that at 100 watts of power one half of Cloverdale will receive sufficient service. The applicant believes that covering 80% of the population at a power level of 1,000 watts is a reasonable comprise for having minimal expansion while at the same time sufficiently covering the community of Cloverdale.

