

**73.525 Compliance**

There are several considerations outlined in 47 C.F.R. 73.525 for TV Channel 6 protection. Outlined below are the various factors as they apply to the proposed operation and KSVI-TV.

**1) Distance between proposed operation and KSVI-TV**

47 C.F.R. 73.525(a)(1) requires a minimum separation of 196 km for a channel 209 operation. The distance between the proposed station and KSVI-TV is 37.65 km.

**2) Population Limitation**

When a proposed non-commercial station is not co-located with the channel 6 station question, the applicant is required to show that the interference area (as predicted by the procedures outlined in 47 C.F.R. 73.525(e)(1)) contains no more than 3,000 persons.

Per 47 C.F.R. 73.525(e)(4), if an applicant chooses to use mixed polarity, the permissible ERP is determined by the formula:  $[H + (V/A)]$  is not greater than P

Where: H = the horizontally polarized ERP in kilowatts for mixed polarity

V = the vertically polarized ERP in kilowatts for mixed polarity

A = 40 (if the predicted interference area lies entirely outside the limits of a city of 50,000 persons or more), or 10 (if it does not)

P = the maximum permitted horizontally polarized-only power in kilowatts.

Since the predicted interference area lies entirely outside the limits of a city of 50,000 persons or more, the value of 40 was used for A, giving the result:

$$[0.625 + (0.625/40)] = 0.640625 \text{ kilowatts}$$

All population limits were calculated using the maximum permitted horizontally polarized-only power of 0.640625 kilowatts. The actual population figures are contained in Exhibit 18-B, and maps of the interference area are shown in Exhibits 18-C and 18-D.

For the reasons outlined above, the proposed operation fully complies with the provisions of 47 C.F.R. 73.525.

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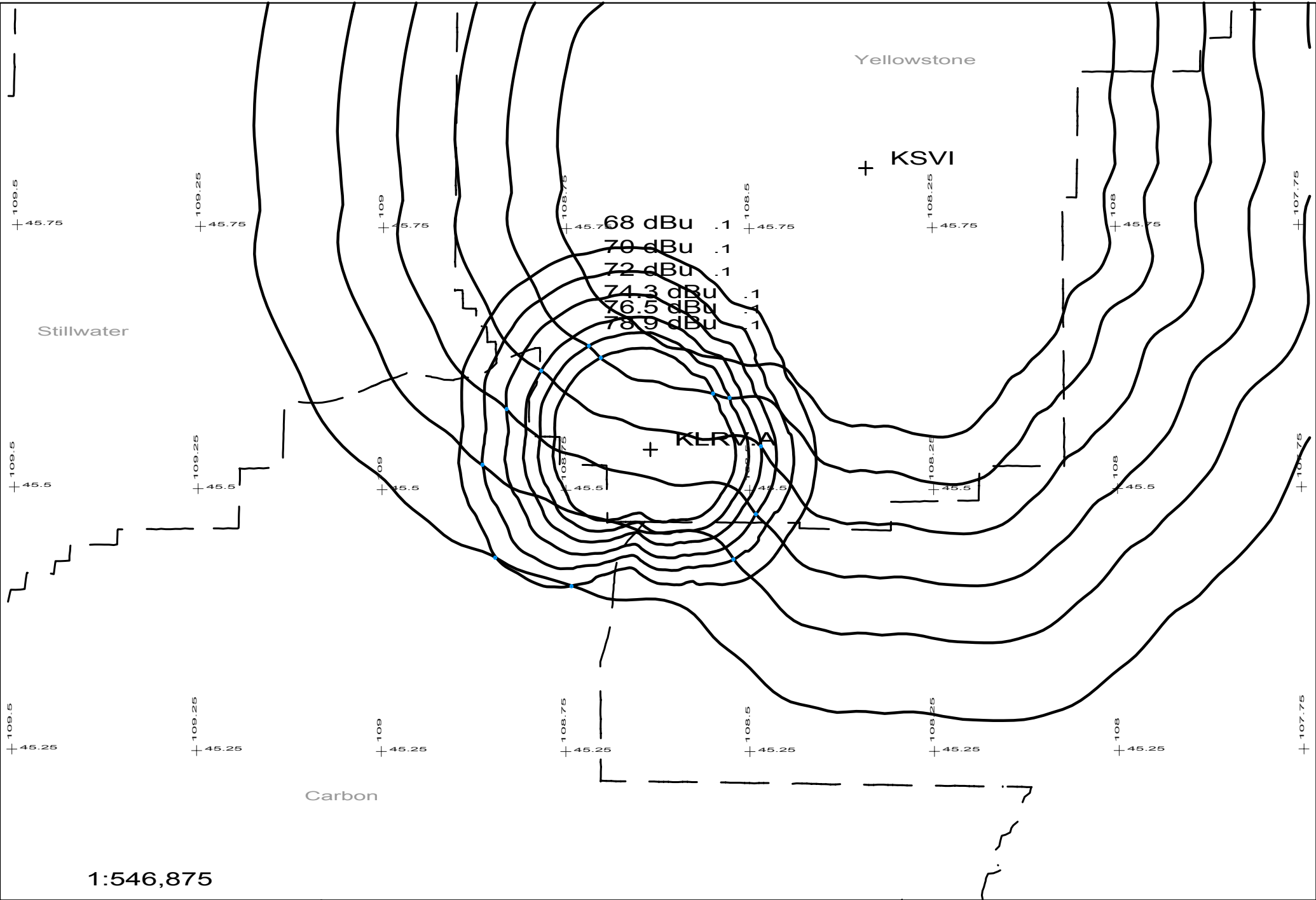
Population in the predicted interference area was determined using the centroid method and the 2000 census. The predicted interference contour (of the theoretical horizontal component of 0.640625 kilowatts) is contained within the KSVI channel 6 grade B (47 dBu F(50,50)) contour (see Exhibit 18-C).

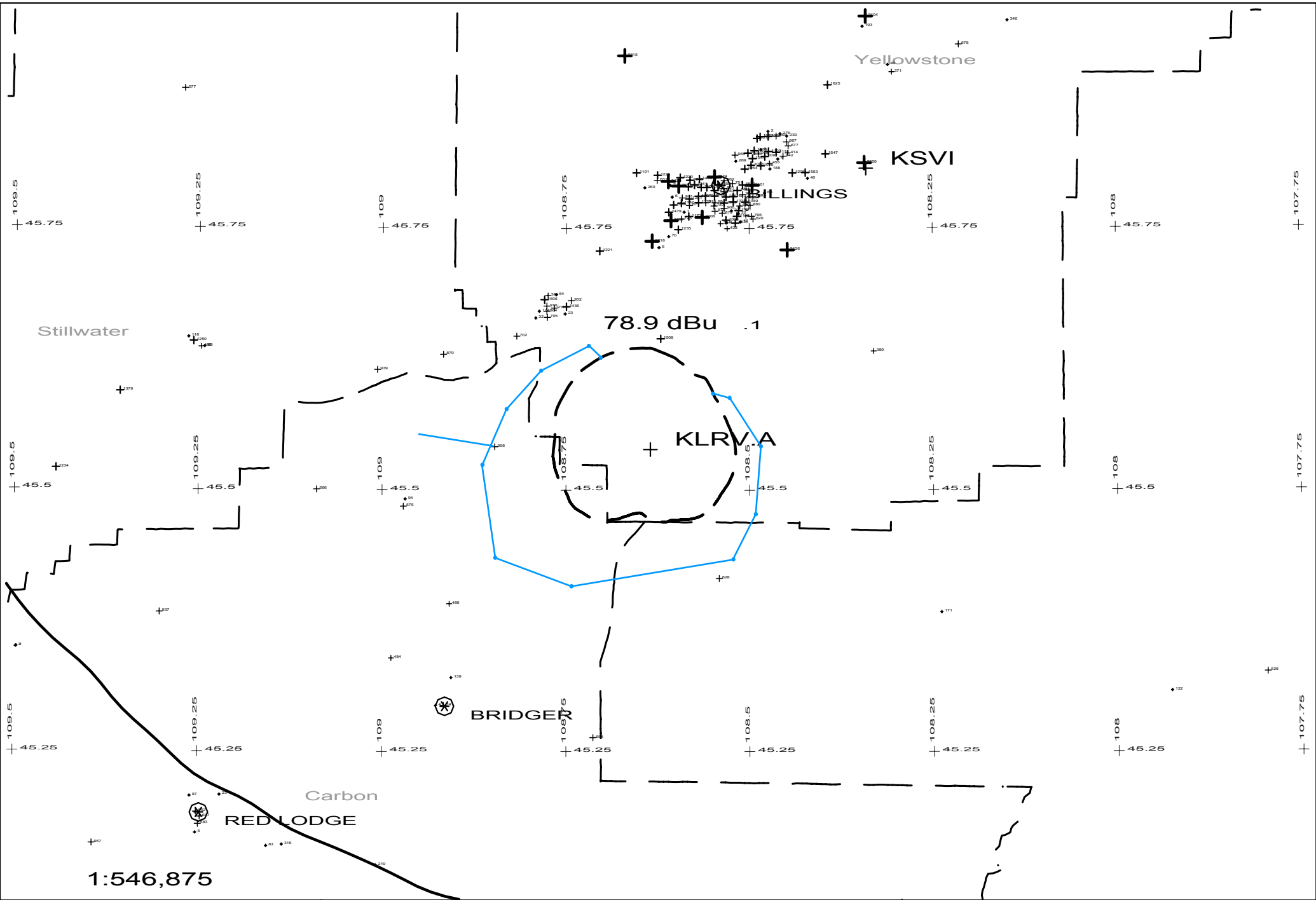
The predicted interference contour is determined from 47 C.F.R. 73.599 for channel 209 to range from 68.0 dBu to 78.9 dBu. (See Exhibit 18-E for a tabulation of the KSVI protected contour values and the corresponding channel 209 interfering contours)

Exhibit 18-C shows the 63 dBu, 67 dBu, 70 dBu, 73 dBu, 76 dBu and the 79 dBu F(50,50) contours for KSVI. Also shown are the corresponding F(50,10) interfering contours for the proposed channel 209 facility. This map denotes, by a series of dots, the interpolated values of the interfering contours of the proposed operation as they relate to the protected contours of KSVI.

Exhibit 18-D shows only the KSVI Grade B contour, the proposed channel 209 78.9dBu F(50,10) contour, and the proposed operation's interpolated interfering contour, determined by joining the indicating marks on Exhibit 18-C. Additionally shown is a population scattergraph of the area of proposed operation. The centroid that is within the predicted interference area is indicated. The total population in this centroid is 995 persons.

Therefore, the proposed operation is within the limitations of 47 CFR 73.525(c).





KLRV.A 209A .640625kW 1539M AMSL  
 N. Lat. 45 32 20 W. Lng. 108 38 07

Exhibit 18-D  
 EMF - 01/04

## Channel 6 vs Channel 209

Channel 6 Contour	Value from 73.599	Channel 209 Contour	Adjusted 6 dB
47 (grade B)	20.3	67.3	73.3
48	18.6	66.6	72.6
49	17.4	66.4	72.4
50	16.2	66.2	72.2
51	15.0	66.0	72.0
52	13.9	65.9	71.9
53	13.0	66.0	72.0
54	12.0	66.0	72.0
55	11.2	66.2	72.2
56	10.3	66.3	72.3
57	9.4	66.4	72.4
58	8.5	66.5	72.5
59	7.7	66.7	72.7
60	6.9	66.9	72.9
61	6.3	67.3	73.3
62	5.5	67.5	73.5
<b>63</b>	<b>5.0</b>	<b>68.0</b>	<b>74.0</b>
<b>64</b>	<b>4.4</b>	<b>68.4</b>	<b>74.4</b>
<b>65</b>	<b>3.8</b>	<b>68.8</b>	<b>74.8</b>
<b>66</b>	<b>3.4</b>	<b>69.4</b>	<b>75.4</b>
<b>67</b>	<b>3.0</b>	<b>70.0</b>	<b>76.0</b>

Channel 6 Contour	Value from 73.599	Channel 209 Contour	Adjusted 6 dB
<b>68 (grade A)</b>	<b>2.5</b>	<b>70.5</b>	<b>76.5</b>
<b>69</b>	<b>2.3</b>	<b>71.3</b>	<b>77.3</b>
<b>70</b>	<b>2.0</b>	<b>72.0</b>	<b>78.0</b>
<b>71</b>	<b>1.7</b>	<b>72.7</b>	<b>78.7</b>
<b>72</b>	<b>1.4</b>	<b>73.4</b>	<b>79.4</b>
<b>73</b>	<b>1.3</b>	<b>74.3</b>	<b>80.3</b>
<b>74</b>	<b>0.9</b>	<b>74.9</b>	<b>80.9</b>
<b>75</b>	<b>0.7</b>	<b>75.7</b>	<b>81.7</b>
<b>76</b>	<b>0.5</b>	<b>76.5</b>	<b>82.5</b>
<b>77</b>	<b>0.4</b>	<b>77.4</b>	<b>83.4</b>
<b>78</b>	<b>0.1</b>	<b>78.1</b>	<b>84.1</b>
<b>79</b>	<b>-0.1</b>	<b>78.9</b>	<b>84.9</b>
80	-0.2	79.8	85.8
81	-0.4	80.6	86.6
82	-0.6	81.4	87.4
83	-0.7	82.3	88.3
84	-0.9	83.1	89.1
85	-1.1	83.9	89.9
86	-1.2	84.8	90.8
87	-1.4	85.6	91.6
88	-1.6	86.4	92.4
89	-1.7	87.3	93.3
90	-1.8	88.2	94.2