

**October 2012
KPLK(FM) Channel 205A
Sedro-Woolley, WA
Allocation Study**

The instant application is being filed to make an upward adjustment in the KPLK antenna height, and a corresponding downward adjustment in ERP, in order to facilitate installation of the antenna on the tower. No change in transmitter site or antenna pattern is proposed.

The attached spacing study shows the co-channel and adjacent channel spacing between stations and demonstrates that the proposed operation meets the adjacent channel spacing requirements to existing stations on IF channels as prescribed in §73.207 of the Commission's Rules. The attached allocation study map demonstrates requisite contour protection for the following domestic stations:

Second-adjacent:	KPLU-FM	203C	Tacoma
	KUGS	207A	Bellingham (License)
	KUGS	207A	Bellingham (CP)
Third-adjacent:	KNHC	208C1	Seattle

Channel 203B1 Abbotsford, British Columbia

The proposed operation is short-spaced to a Canadian allotment on Channel 203B1 at Abbotsford, British Columbia. Under the terms of the *Working Arrangement for the Allotment and Assignment of FM Broadcasting Channels Under the Agreement Between the Government of Canada and the Government of the United States of America Relating to the FM Broadcasting Service*, as amended in 1997 ("*Working Arrangement*"), the required second-adjacent channel Class A to Class B1 spacing is 64 kilometers, whereas the distance between the proposed KPLK 205A site and the Abbotsford 203B1 site is 59 kilometers. The 94 dBu F(50,10) interfering contour from the proposed KPLK facility, however, is small in area and does not come close to crossing the border into Canada, thus ensuring protection of Abbotsford 203B1 at all points within Canada.

CBUX-FM-1 Channel 205C1 Victoria, British Columbia

The proposed operation is short-spaced to Canadian station CBUX-FM-1 which operates on Channel 205C1 at Victoria, British Columbia. Under the terms of the *Working Arrangement*, the

required cochannel Class A to Class C1 spacing is 243 kilometers, whereas the distance between the proposed KPLK 205A site and the CBUX-FM-1 site is 92 kilometers.

Because the proposed KPLK 205A 34 dBu F(50,10) contour will overlap the CBUX-FM-1 54 dBu F(50,50) contour over Canadian land areas, a detailed study of the interference zone has been conducted following the instructions in Annex III of the *Working Arrangement*. This analysis included consideration of CBUX-FM1 as if it were operating with maximum omnidirectional Class C1 facilities of 100 kW ERP at 465 meters AMSL, which parameters were provided to this firm in an email from Audio Division staff.¹ This study utilizes a 20 dB D/U ratio, and depicts the 86 km radius protected service area of the Victoria 205C1 allotment.

The results of that study are depicted on the attached map exhibit, and demonstrate that no interference will be caused to CBUX-FM-1 over Canadian land areas. (It should be noted that interference is predicted to islands on the United States side of the water border with Canada, but not on the Canadian side.)

Furthermore, the proposed facility has been deliberately designed to ensure that the proposed 34 dBu F(50,10) contour will not extend beyond the authorized 34 dBu F(50,10) at any point over Canadian land area. Therefore, it is believed to not be necessary to refer the instant application to Canadian authorities for coordination prior to grant.

Waiver Requested re Overlap Received From CBUX-FM-1

The proposed KPLK Channel 205A facility will receive overlap from the CBUX-FM-1 40 dBu F(50,10) contour, amounting to 100% of the proposed KPLK 205A 60 dBu F(50,50) contour land area.

Because the received overlap in this case is not from a domestic station or allotment, the received overlap prohibitions of §73.509 are not strictly applicable to the overlap received by KPLK 205A from CBUX-FM-1. Application of §73.509 is limited to “overlap of signal strength contours with any other station *licensed by the Commission* and operating in the reserved band...” (emphasis

¹ According to the Canadian broadcast facilities database, CBUX-FM-1 actually operates directionally with 6.7 kW ERP at 615 meters AMSL.

added). Therefore, waiver of the received overlap prohibitions of §73.509 is not believed to be an absolute requirement. However, if the staff determines that a waiver of the applicable portions of §73.509 is required, it is explicitly requested for the contour overlap which would be received by the proposed KPLK 205A facility.

The predicted interference received from CBUX-FM-1 would limit the new non-commercial service which the applicant proposes, but not eliminate it. Much of the KPLK 205A coverage area would be preserved despite the predicted interference (much of which would in any case occur over water areas of the Strait of Juan de Fuca). Furthermore, the attached map exhibit demonstrates that 80% of the city of Sedro-Woolley is calculated per the Annex III methodology to receive interference-free service, despite the predicted interference from CBUX-FM-1.

Precisely this situation was previously approved for KPLK in BNPED-20071018ARZ. The instant application merely proposes an increase in height and a corresponding decrease in power, at the authorized tower site, in order to facilitate mounting of the antenna.

In *Northern Sound Public Radio*, 4 FCC Rcd 5495 (1989), the Commission permitted the creation of a new non-commercial educational FM station, receiving interference from an operating Canadian station, despite 100% overlap from a Canadian station's interfering contour. The 100% overlap sought herein is substantially identical to the 100% waiver granted in *Northern Sound Public Radio*.

Similar waivers (either explicit or implicit) in the Puget Sound area have been subsequently granted to KBCS 217C3 Bellevue for co-channel interference (see BPED-19880712MW, BPED-19960520MA, BPED-20000721ABJ, BMPED-20010119AFC, and BPED-20020816AAM), to KSER 214A for first-adjacent-channel interference (see BPED-19970515MB), and to KEXP 212C3 for first-adjacent-channel interference (see BPED-20011016AAR and BPED-20050331BCK).

Based on the foregoing, grant of the waiver requested in this application would be consistent with precedent established in the *Northern Sound Public Radio*, KBCS, KSER, and KEXP cases, and should be granted for precisely the same reasons that the previous waivers were granted. Therefore, the applicant respectfully requests waiver, if required, of the received interference

provisions of §73.509 of the Commission's Rules with respect to CBUX-FM-1 Channel 205C1 Victoria.

TV Channel 6

Section 73.525 of the Commission's Rules specifies a threshold distance of 225 kilometers for FM stations operating on Channel 205. There are no domestic TV Channel 6 stations located within this threshold distance.

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SEARCH PARAMETERS

FM Database Date: 121023

Channel: 205A 88.9 MHz
 Latitude: 48 32 30
 Longitude: 122 17 43
 Safety Zone: 50 km
 Job Title: KPLK 205A

Page 1

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K202DV LIC	BELLINGHAM WA	BLFT-81029ADG	202D 88.3	0.007 478.0	DA 48-46-57 122-22-05	348.7	27.31 0.00	0 TRANS
K202ED LIC	MOUNT VERNON WA	BLFT-00907ABA	202D 88.3	0.005 505.0	DA 48-22-03 122-16-55	177.1	19.39 0.00	0 TRANS
	ABBOTSFORD BC	-00608CAN	203B1 88.5	6.000 121.2	DA 49-04-03 122-24-15	352.3	59.02 -4.98	64 SHORT
	ABBOTSFORD BC	-01123CA1	203B1 88.5	7.400 104.3	DA 49-04-20 122-24-12	352.4	59.53 -4.47	64 SHORT
CIVL-FM	ABBOTSFORD BC	-	203A 88.5	0.300 337.0	DA 49-03-48 122-12-55	5.7 SS	58.31 7.31	51 CLOSE
	CHILLIWACK BC	RM-	203A 88.5	0.000 0.0	49-06-36 121-50-47	27.3	71.28 20.28	51 CLEAR
	CHILLIWACK BC	-	203A 88.5	0.000 0.0	49-06-36 121-50-47	27.3	71.28 20.28	51 CLEAR
	HARRISON HOT SPRING BC	-	203A 88.5	0.000 0.0	49-17-38 121-46-35	24.2	91.89 40.89	51 CLEAR
KPLUaux LIC	TACOMA WA	BXLED-10126AAO	203C 88.5	50.000 388.0	DA 47-32-35 122-06-25	172.7	111.92 0.00	0 AUX
KPLUaux LIC	TACOMA WA	BMLED-900402KD	203C 88.5	30.000 189.0	47-28-50 122-31-58	188.6	119.31 0.00	0 AUX
KPLU-FM LIC	TACOMA WA	BLED-80715ADJ	203C 88.5	68.000 707.0	DA 47-30-14 121-58-29	168.2	117.84 22.84	95 CLEAR
NEW	ABBOTSFORD BC	-	204D 88.7	0.004 13.0	49-04-16 122-18-54	358.6	58.90 0.00	0 CLS=D
CHNW-FM	NEW WESTMINSTER BC	-	204D 88.7	0.004 18.0	49-12-43 122-55-32	328.5	87.71 0.00	0 CLS=D
CHNW-FM	NEW WESTMINSTER BC	-10929CA1	204D 88.7	0.005 114.8	49-12-45 122-55-11	328.8	87.54 0.00	0 CLS=D

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SEARCH PARAMETERS FM Database Date: 121023
Page 2Channel: 205A 88.9 MHz
Latitude: 48 32 30
Longitude: 122 17 43
Safety Zone: 50 km
Job Title: KPLK 205A

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K204BI LIC	BELLINGHAM WA	BLFT-00219AAT	204D 88.7	0.030 194.0	48-48-04 122-27-40	337.2	31.33 0.00	0 TRANS
VF2594	HARRISON BC	HOT SPRING -10929CA2	205D 88.9	0.050 -107.0	49-16-22 121-47-06	24.5	89.50 0.00	0 CLS=D
CBTKFM	KELOWNA BC	-	205C 88.9	4.700 511.0	49-58-00 119-31-40	50.7	256.34 9.34	247 CLOSE
NEW	SURREY BC	-	205D 88.9	0.034 73.0	49-02-24 122-45-28	328.7	65.01 0.00	0 CLS=D
	VICTORIA BC	-	205C1 88.9	0.000 0.0	48-35-41 123-32-37	274.1	92.32 -150.68	243 SHORT
NEW	VICTORIA BC	-	205D 88.9	0.050 41.0	48-25-21 123-21-46	260.8	80.02 0.00	0 CLS=D
NEW	VICTORIA BC	-	205C1 88.9	5.900 454.0	48-35-41 123-32-37	274.1	92.32 -150.68	243 SHORT
K205DF LIC	ENUMCLAW WA	BMLFT-00903ABX	205D 88.9	0.002 950.0	47-13-09 121-50-31	166.9	150.90 0.00	0 TRANS
K258BJ CP	EVERETT WA	BPFT-20130ANC	205D 88.9	0.038 225.0	47-55-47 122-14-52	177.0	68.14 0.00	0 TRANS
KMIH APP	MERCER ISLAND WA	BMPED-71228ABS	205A 88.9	0.030 69.0	47-34-21 122-13-05	176.9	107.92 -7.08	115 SHORT
KMIH LIC	MERCER ISLAND WA	BLED-81014AFI	205D 88.9	0.030 69.0	47-34-21 122-13-05	176.9	107.92 0.00	0 CLS=D
KPLK CP	SEDRO-WOOLLEY WA	BNPED-71018ARZ	205A 88.9	2.500 29.0	48-32-30 122-17-43	0.0	0.00 -115.00	115 SHORT
K206DM LIC	BREMERTON WA	BLFT-70621ASA	206D 89.1	0.011 477.0	47-32-58 122-46-56	198.3	116.15 0.00	0 TRANS
K206DO LIC	CAPE GEORGE WA	BLFT-60727AAU	206D 89.1	0.002 687.0	48-00-58 122-55-32	218.8	74.86 0.00	0 TRANS

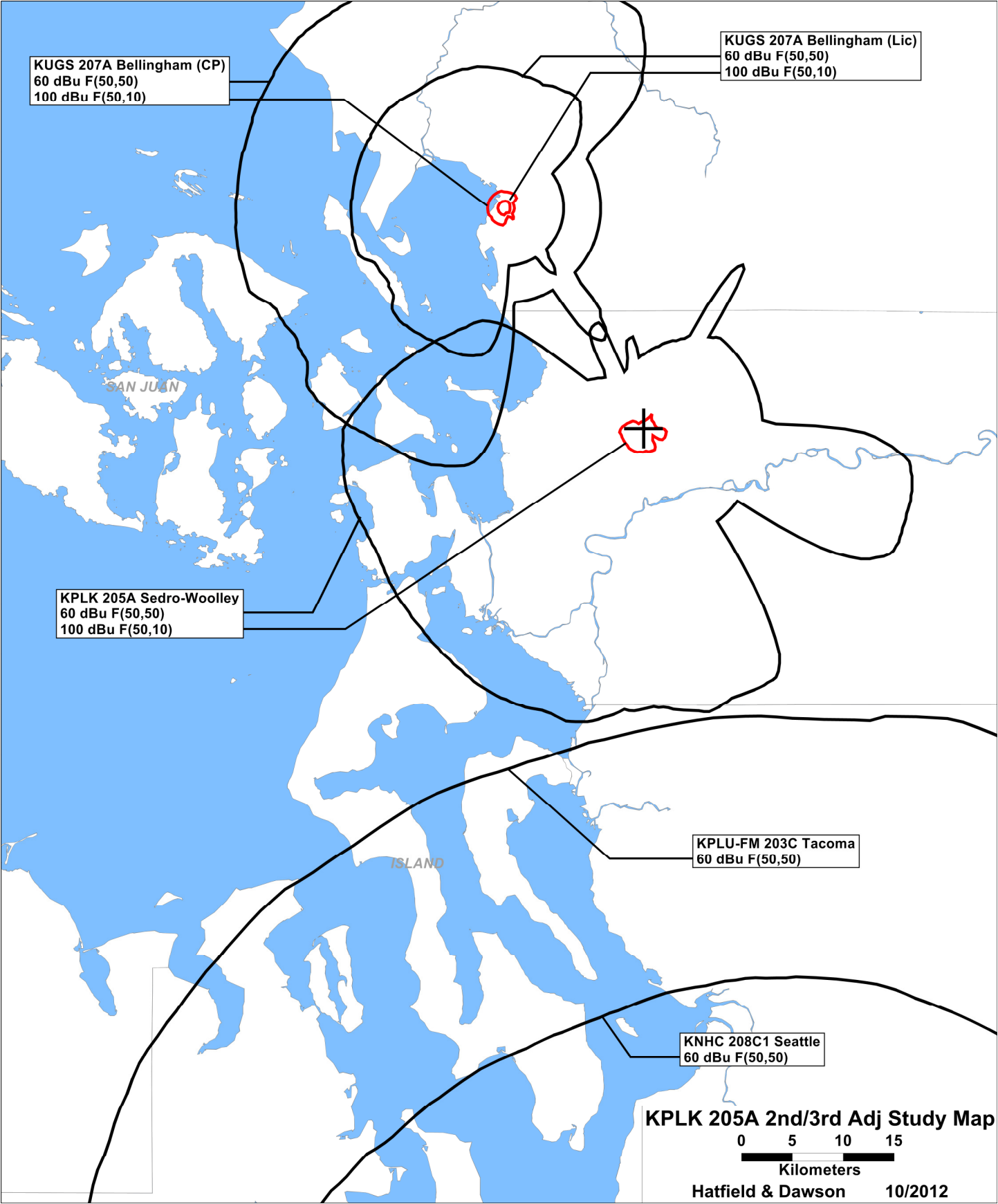
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SEARCH PARAMETERS                               FM Database Date: 121023
Channel: 205A      88.9 MHz                      Page 3
Latitude: 48 32 30
Longitude: 122 17 43
Safety Zone: 50 km
Job Title: KPLK 205A

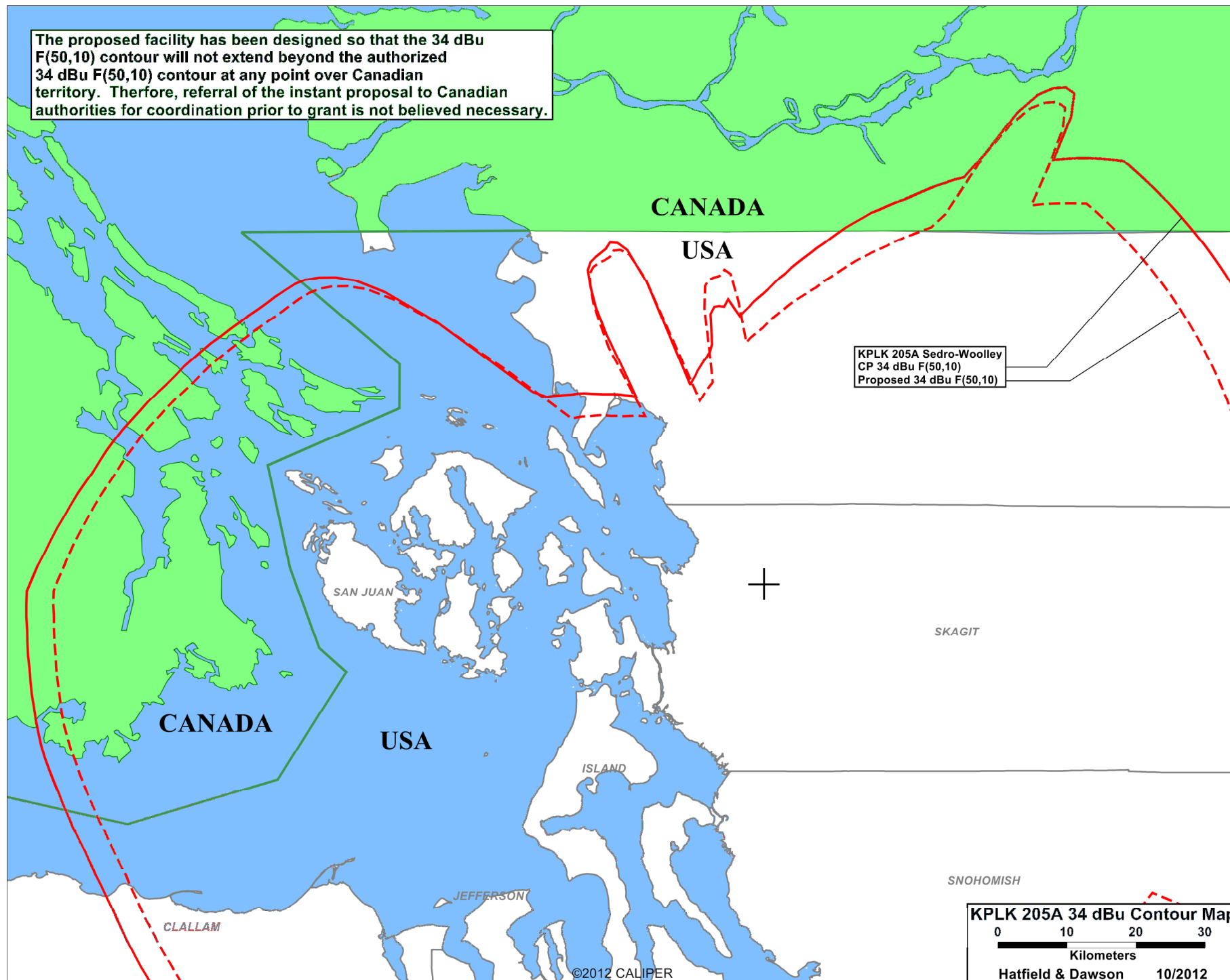
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Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K206DL CP	GRANITE FALLS/EVERET WA BPFT-10830ABJ	206D	0.005 DA 89.1 639.0	48-03-06 121-51-37	149.3	63.33 0.00	0 TRANS	
K206DL LIC	GRANITE FALLS/EVERET WA BLFT-50314AAS	206D	0.005 DA 89.1 639.0	48-03-06 121-51-37	149.3	63.33 0.00	0 TRANS	
K206CJ LIC	ISSAQUAH WA BLFT-30320ACJ	206D	0.003 89.1 772.0	47-30-32 121-59-09	168.6	117.13 0.00	0 TRANS	
K206CU LIC	MOUNT VERNON WA BLFT-00907ABB	206D	0.008 DA 89.1 505.0	48-22-03 122-16-55	177.1	19.39 0.00	0 TRANS	
KUGS CP	BELLINGHAM WA BPED-91229AGK	207A	0.725 89.3 129.5	48-44-11 122-28-47	328.0	25.57 -5.43	31 SHORT	
KUGS LIC	BELLINGHAM WA BLED-880613KA	207A	0.100 89.3 117.0	48-44-11 122-28-47	328.0	25.57 -5.43	31 SHORT	
NEW	CHILLIWACK BC -80123CAN	208A	1.600 DA 89.5 188.7	49-06-36 121-50-47	27.3	71.28 29.28	42 CLEAR	
NEW	DELTA BC -	208D	0.050 89.5 14.0	49-08-36 122-54-39	326.3	80.74 0.00	0 CLS=D	
KNHCaux LIC	SEATTLE WA BXMLED-40714AAV	208C2	15.000 89.5 92.0	47-41-26 122-17-45	180.0	94.64 0.00	0 AUX	
KNHC LIC	SEATTLE WA BLED-20402AAC	208C1	8.500 DA 89.5 372.0	47-32-35 122-06-25	172.7	111.92 36.92	75 CLEAR	
K258BJ LIC	EVERETT WA BLFT-70910AAU	258D	0.005 99.5 35.0	48-02-03 122-14-03	175.4	56.61 0.00	0 TRANS	

===== END OF FM SPACING STUDY FOR CHANNEL 205 =====



The proposed facility has been designed so that the 34 dBu F(50,10) contour will not extend beyond the authorized 34 dBu F(50,10) contour at any point over Canadian territory. Therefore, referral of the instant proposal to Canadian authorities for coordination prior to grant is not believed necessary.



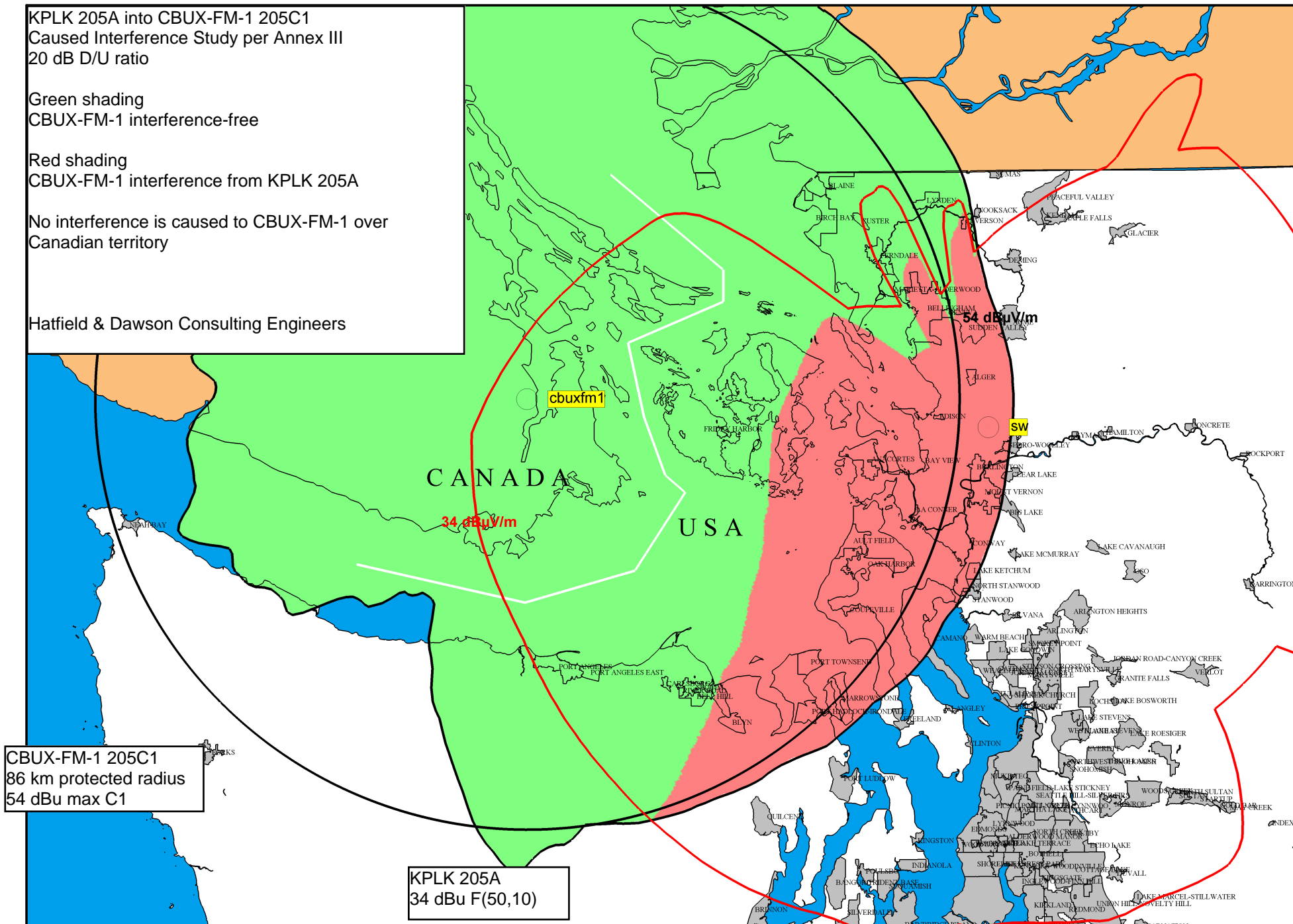
KPLK 205A into CBUX-FM-1 205C1
Caused Interference Study per Annex III
20 dB D/U ratio

Green shading
CBUX-FM-1 interference-free

Red shading
CBUX-FM-1 interference from KPLK 205A

No interference is caused to CBUX-FM-1 over Canadian territory

Hatfield & Dawson Consulting Engineers



Sedro-Woolley 205A
Received Interference Study per Annex III Method
20 dB D/U ratio

Green shading
KPLK interference-free

Red shading
KPLK interference from CBUX-FM-1 205C1 Victoria

Hatfield & Dawson Consulting Engineers

