

Form 301 Application for Minor Change

WSLP(FM) at Ray Brook, NY (Facility ID 166029)

Has: Channel 264A 3.1 kW ERP H&V -52 meters HAAT
Seeks: Channel 227C3 7.1 kW ERP H&V -52 meters HAAT

Technical Statement

Introduction

The applicant is proposing herein the same identical facility authorized by its previous license (File No. BLH-20190325AAL.) It seeks to substitute Channel 227C3 for Channel 264A at Ray Brook, NY and operate from its existing antenna site. The channel change is being sought in order to escape strong and pervasive incoming interference from co-channel CBFX, a Class C1 facility operating with 100,000 Watts ERP at Montreal, PQ.

The interference within the WSLP licensed 60 dBu service contour is shown in Figure 1. This was determined by driving the service area to ascertain where “real world” interference was caused by CBFX. It was found that the areas of interference include about 5,347 persons, or 29.7% of the population within the 60 dBu service contour (18,002 persons.)

Figure 2 shows interference within the 45 dBu service contour that is recognized in Section 74.1203(a)(3) as warranting interference protection, if only from FM translators. It is noted that the service area within this contour is widely used and important to the general public in this rural area. WSLP would be clearly audible in these areas absent co-channel interference. It was found that the areas of interference include about 12,951 persons, or 41% of the population within the 45 dBu service contour (31,160 persons.)

It is also noted that in Summer, when propagation at FM broadcast frequencies is often enhanced by atmospheric effects such as tropospheric skip, the interfering 100 kW co-channel signal from CBFX has been observed to be an estimated 10 dB stronger than in Winter. The incursion into the WSLP coverage area then becomes considerably greater, obliterating WSLP throughout as much as 50% within its 60 dBu service contour, as shown in Figure 3.

No Adjacent Channels Are Available.

No Class A channel within three channels of Channel 264, meets the requirements of 73.207. Plus or minus 53 and 54 channels falls in the Reserved Band or above the FM broadcast band. Please see Figures 6.

73.207 Allocation Situation

The following facilities were considered:

Call Sign	C	ST	City	FR.	ERP	Class	STAT	Distance
CBM-FM	2	QC	MONTREAL	93.5	24600.0	C1	LIC	142.33
Proposed	2	NY	RAY BROOK	93.3	7100.0	C3	APP	0.00
WCAN	0	NY	CANAJOHARIE	93.3	6000.0	A	LIC	158.65
WCIZ-FM	0	NY	WATERTOWN	93.3	6000.0	A	LIC	149.85
WEZF	0	VT	BURLINGTON	92.9	46000.0	C	LIC	100.51
WIFY	0	VT	ADDISON	93.7	21000.0	C3	LIC	49.14
WLGR	0	NY	WARRENSBURG	93.5	120.0	A	LIC	95.90
WQKE	0	NY	PLATTSBURGH	93.9	9.0	D	LIC	65.32

The allotment reference is at the proposed facility and is fully spaced under Section 73.207 to all known domestic and Canadian facilities or allotments, and applications, with the exception of CBM-FM on first adjacent Channel 228C1 at Montreal, Quebec. The proposed antenna location is short of the required 181 km by 38.7 km.

Under the US-Canada Working Agreement, short-spaced allotments are permitted in the absence of interference to a facility on its home soil. As shown in Figure 3, the proposed 48 dBu F(50,10) interfering contour will not cross the US-Canada border, and the proposed WSLP facility will not receive interference from CBM-FM. Hence, the applicant believes this proposal complies with both the Commission's Rules and the US-Canada Working Agreement. The proposed allotment was approved by Canada in an earlier proceeding. However, the applicant respectfully requests that the Commission seek further Canadian concurrence, if appropriate.

Environmental Impact and RFR Exposure

No new construction or physical changes are proposed. The proposed broadband antenna is a Nicom BKG77 6-bay EPA Type 2 Opposed V-dipole with center of radiation 51 meters AGL. As now, the proposed facility will be diplexed with co-owned WLPW on Channel 288C3 (Facility ID 54653), the proposed facility being the same exact same facility that was previously licensed in License File No. BLH-20190325AAL. Note: HAGL is corrected to 51 meters AGL from 54 meters AGL.

FM MODEL was employed in order to determine RFR levels. The maximum power density was found to be 9.33 uW/cm² or 4.7% of the limit for uncontrolled exposure, as shown in Figure 5. The maximum contribution from WLPW is 33.5 uW/cm², or 16.8% of the limit, also shown in Figures 5. Hence, the combined exposure from the proposed WSLP and WLPW is 42.8 uW/cm², or 21.4% of the maximum limit for uncontrolled/general population exposure. The applicant therefore believes its proposal will have no environmental impact.

The tower proposed for use is on inaccessible private residential property. The tower base is fitted with anti-climb panels to prohibit access. RFR warning signs are posted on the tower. The applicant will reduce power or cease operation as necessary in coordination with other users of the tower to protect persons having access to the site, tower, or antenna from RFR exposure in excess of FCC guidelines.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Dennis Jackson', written over a horizontal line.

Dennis Jackson
Technical Consultant
March 27, 2022

Figure 1 – Interference from CBFX within WSLP 60 dBu Service Area

60dBu Total Population

18,002

60dBu Population in Affected Areas

Harrietstown: 1,900
Bloomingdale (partial): 950
Wilmington: 775
Paul Smiths: 622
Paul Smiths College: 668
Gabriels: 232
Keene (partial): 200

Total: 5,347

29.5%+ Can't Listen Properly

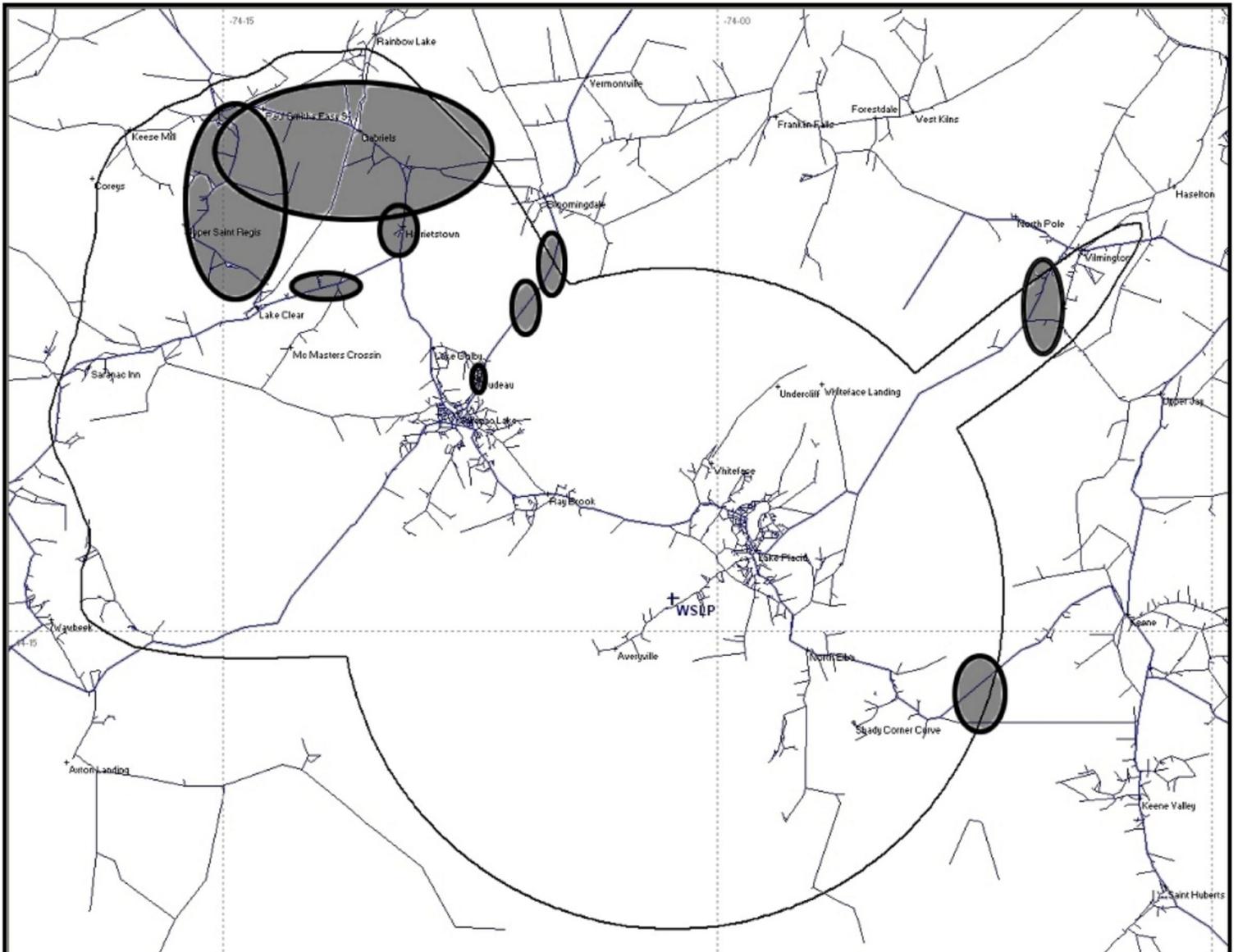


Figure 2 – Interference from CBFX within WSLP 45 dBu Service Area (red)

45dBu Total Population

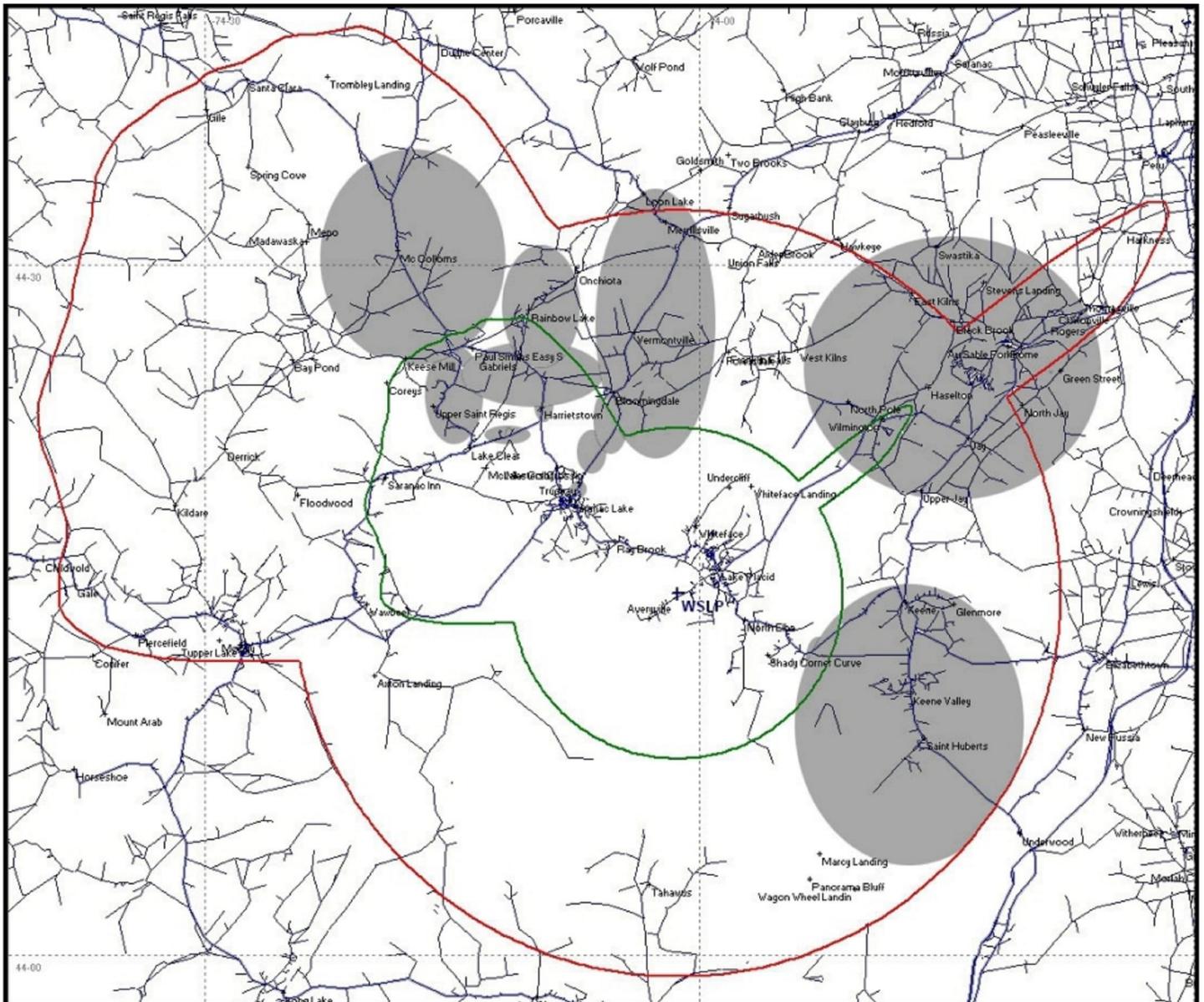
31,160+

45dBu Population in Affected Areas

Smaller Communities are Within Those Listed Below

Brighton	1,435
Vermontville	934
Bloomington	1,265
Jay	2,506
Wilmington	775
Keene Valley	1,072
Town of Franklin	1,197
Santa Clara	345
Harrietstown	1,900
Paul Smiths	622
Pauls Smiths College	668
Gabriels	232
Total:	12,951

41%+ Are Receiving Interference



When CBFX is enhanced by 10 dB due to Summer propagation such as Tropospheric skip, nearly half of the WSLP 60 dBu service area experiences interference.

Key: Licensed WSLP 60 dBu service contour is black.

In red areas, CBFX is stronger than WSLP by 3 dB or greater when 10 dB enhancement occurs.

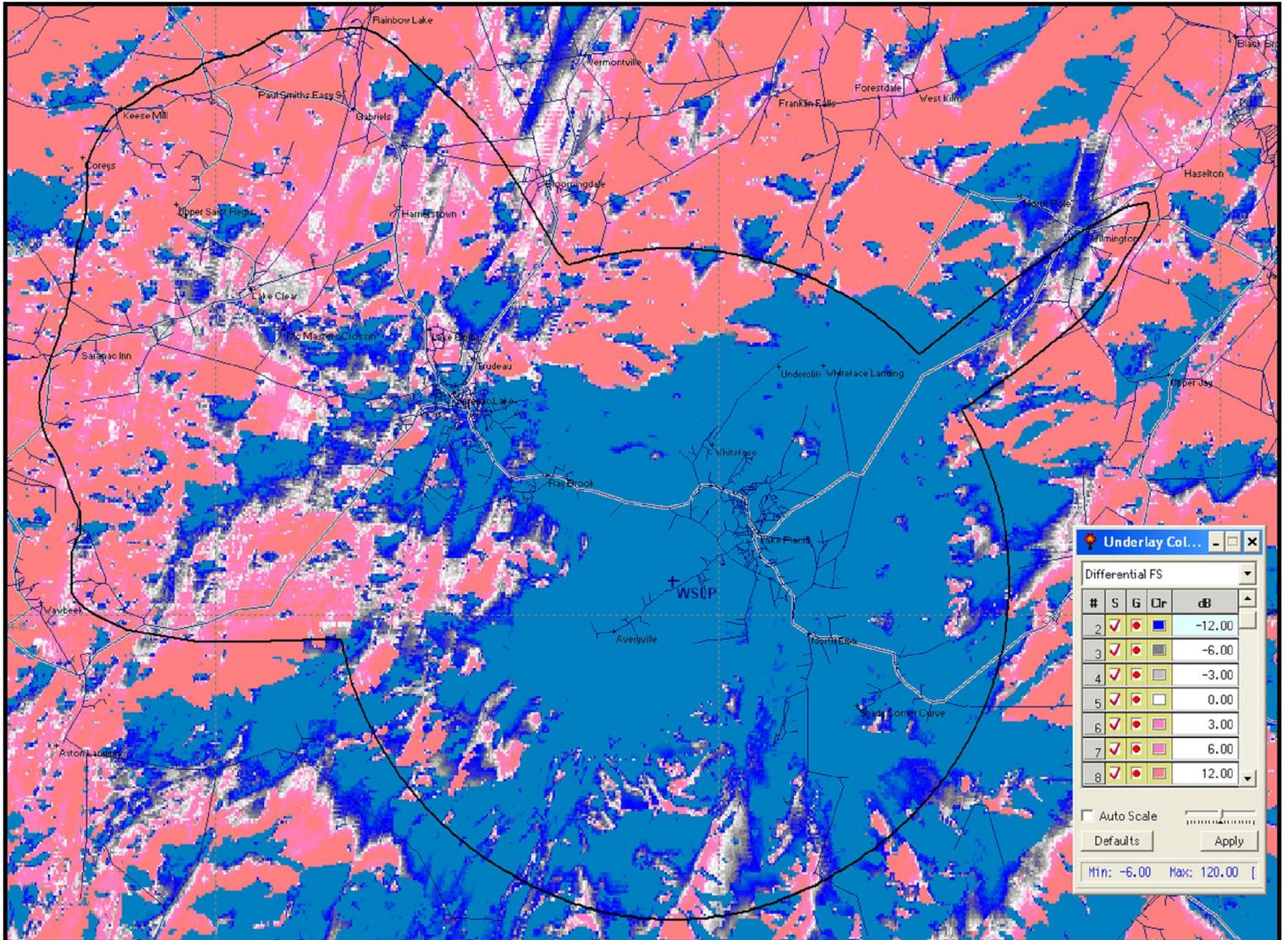


Figure 4 - Allocation Study with CBM-FM

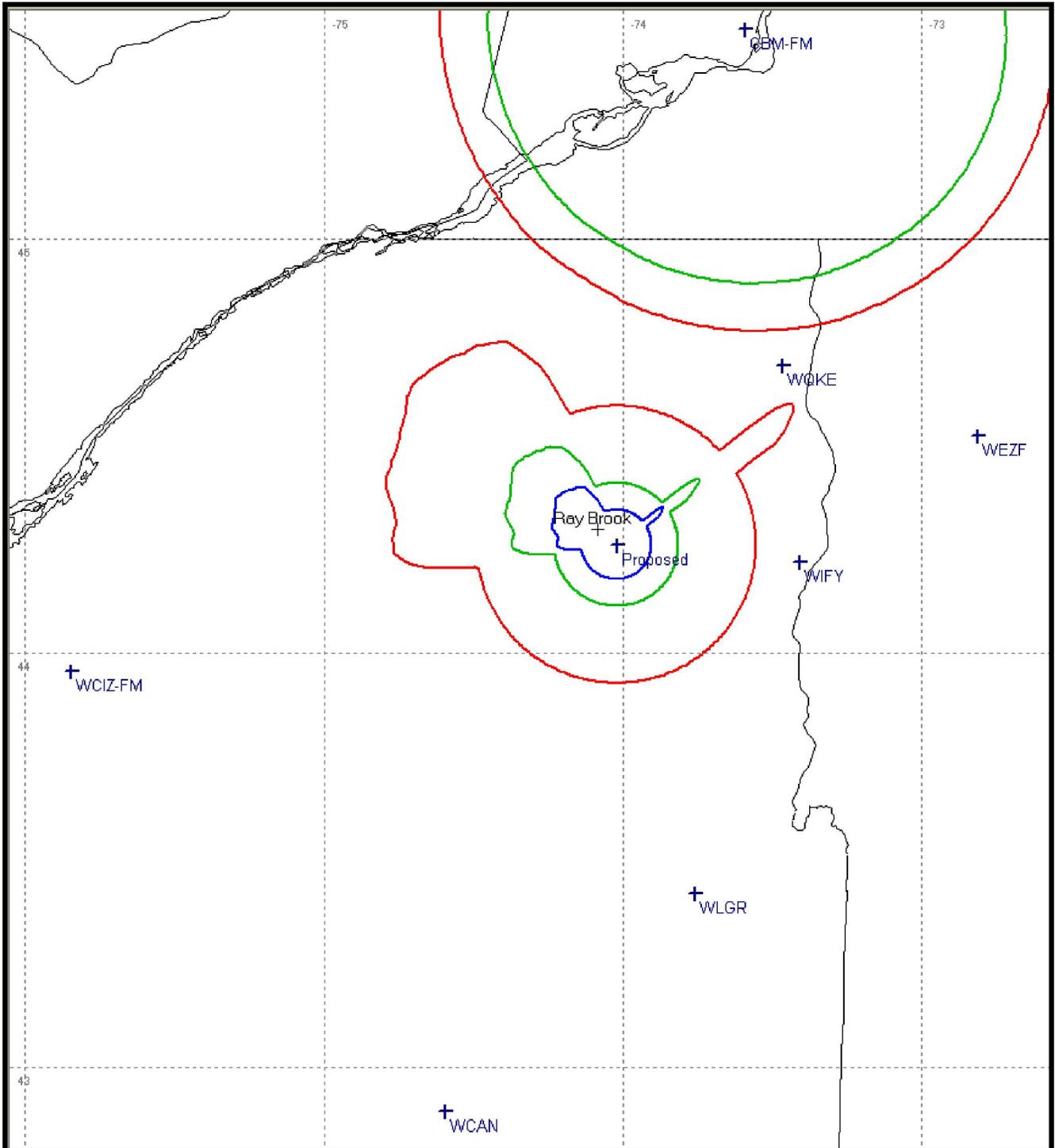
Proposed WSLP 48 dBu F(50,10) Interfering Contour does not cross into Canada.

Proposed WSLP does not receive interference from CBM-FM.

Key: CBM-FM 54 dBu and proposed WSLP 60 dBu F(50,10) Service Contours are green.

CBM-FM 54 dBu and proposed WSLP 48 dBu F(50,10) Interfering Contours are red.

Proposed WSLP 70 dBu Service Contour (blue) encompasses Ray Brook.

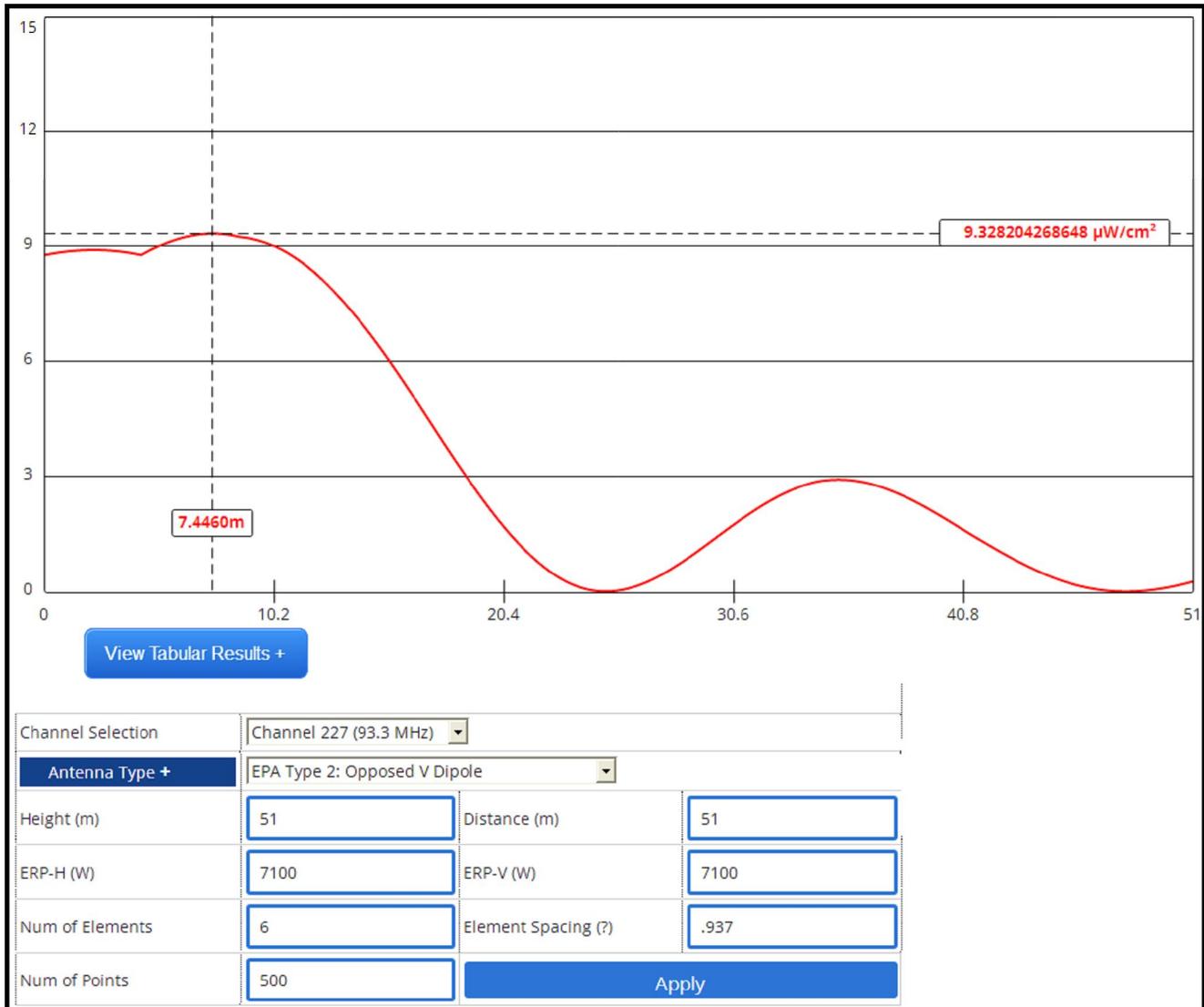


Figures 5 – RFR Exposure

The applicant will employ the same antenna as is presently employed on Channel 264A, and that was previously employed on Channel 227C3. This is a Nicom BKG77 6-bay broadband EPA Type 2 Opposed-V dipole array with center of radiation at 51 meters AGL. Interbay spacing at 93.3 MHz. is 0.937 wavelengths.

As shown below, the maximum RFR contribution at ground level is 9.33 uW/cm², or 4.7% of the maximum limit for uncontrolled/general population exposure.

Co-owned WLPW(FM) (Facility ID 54653 File No BLH-20180819AAC) is colocated and duplexed with WSLP(FM) into the same antenna Please see next page.

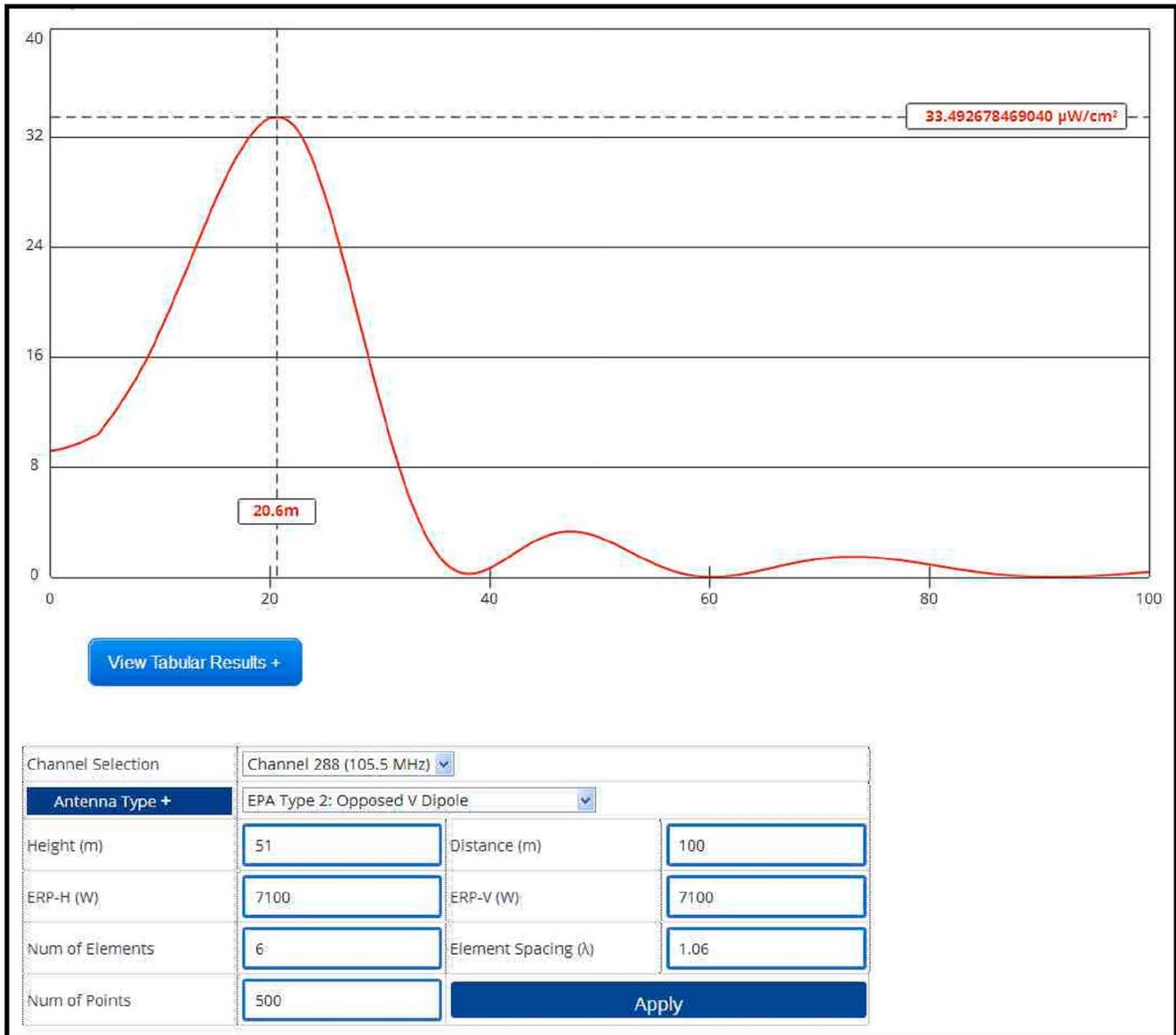


WLPW(FM) employs the same Nicom BKG77 6-bay EPA Type 2 Opposed V dipole array with center of radiation at 51 meters. Interbay spacing at 105.5 MHz. is 1.06 wavelengths.

As shown below, the maximum RFR contribution at ground level from WLPW is 33.5 uW/cm²., This represents 16.8% of the maximum limit for uncontrolled/general population exposure.

The combined exposure from the proposed WSLP and WLPW combined is thus 42.8 uW/cm², or 21.4% of the maximum limit for uncontrolled/general population exposure limit.

The applicant will reduce power or cease operation of both facilities as necessary to protect persons having access to the site, tower, or antenna from exposure to RFR in excess of the Commission's guidelines.



Figures 6 – Chanel 264A Adjacent Channel Preclusions

Channel 261

Call Sign	ST	City	Freq.	Ch#	ERPower	Class	Status	D	Sep	Cir
WBTZ	NY	PLATTSBURGH	99.9	260	0.0	C	USE	65.21	165.00	-99.8
WBTZ	NY	PLATTSBURGH	99.9	260	100000.0	C	LIC	65.22	165.00	-99.8
WBTZ	NY	PLATTSBURGH	99.9	260	9900.0	C	LIC	65.22	165.00	-99.8
WBTZ	NY	PLATTSBURGH	99.9	260	9900.0	C	LIC	65.23	165.00	-99.8
	QU	VAUDREUIL-DORION	100.1	261	0.0	A		128.18	132.00	-3.8
WFFG-FM	NY	WARRENSBURG	100.3	262	0.0	B1	USE	95.89	96.00	-0.1
WFFG-FM	NY	WARRENSBURG	100.3	262	1450.0	B1	LIC	95.89	96.00	-0.1
	QU	LASALLE	100.1	261	0.0	A		132.73	132.00	0.7

Channel 262

Call Sign	ST	City	Freq.	Ch#	ERPower	Class	Status	D	Sep	Cir
WFFG-FM	NY	WARRENSBURG	100.3	262	0.0	B1	USE	95.89	143.00	-47.1
WFFG-FM	NY	WARRENSBURG	100.3	262	1450.0	B1	LIC	95.89	143.00	-47.1
CJMJ	ON	OTTAWA	100.3	262	0.0	C1		199.69	239.00	-39.3
CJMJ	ON	OTTAWA	100.3	262	100000.0	C1		199.69	239.00	-39.3
WBTZ	NY	PLATTSBURGH	99.9	260	9900.0	C	LIC	65.23	95.00	-29.8
WBTZ	NY	PLATTSBURGH	99.9	260	9900.0	C	LIC	65.22	95.00	-29.8
WBTZ	NY	PLATTSBURGH	99.9	260	100000.0	C	LIC	65.22	95.00	-29.8
WBTZ	NY	PLATTSBURGH	99.9	260	0.0	C	USE	65.21	95.00	-29.8

Channel 263

Call Sign	ST	City	Freq.	Ch#	ERPower	Class	Status	D	Sep	Cir
WBTZ	NY	PLATTSBURGH	99.9	260	0.0	C	USE	65.21	95.00	-29.8
WBTZ	NY	PLATTSBURGH	99.9	260	100000.0	C	LIC	65.22	95.00	-29.8
WBTZ	NY	PLATTSBURGH	99.9	260	9900.0	C	LIC	65.22	95.00	-29.8
WBTZ	NY	PLATTSBURGH	99.9	260	9900.0	C	LIC	65.23	95.00	-29.8
CBFFM	QC	MONTREAL	100.7	264	100000.0	C1		142.33	164.00	-21.7
WFFG-FM	NY	WARRENSBURG	100.3	262	1450.0	B1	LIC	95.89	96.00	-0.1

Channel 265

Call Sign	ST	City	Freq.	Ch#	ERPower	Class	Status	D	Sep	Clr
WWFY*	VT	BERLIN	100.9	265	0.0	C3	USE	111.81	142.00	-30.2
CBFFM	QC	MONTREAL	100.7	264	100000.0	C1	LIC	142.33	164.00	-21.7
WWFY	VT	BERLIN	100.9	265	4500.0	C3	LIC	124.72	142.00	-17.3

Channel 266

Call Sign	ST	City	Freq.	Ch#	ERPower	Class	Status	D	Sep	Clr
CHEQFM	ON	SMITHS FALLS	101.1	266	100000.0	C1		188.04	239.00	-51.0
	ON	SMITHS FALLS	101.1	266	0.0	C1		188.04	239.00	-51.0
WCPV	NY	ESSEX	101.3	267	1000.0	A	LIC	49.74	72.00	-22.3
WCPV	NY	ESSEX	101.3	267	1000.0	A	LIC	49.53	72.00	-22.5
891012MO	NY	ESSEX	101.3	267	0.0	A	USE	51.40	72.00	-20.6
WCPV	NY	ESSEX	101.3	267	100.0	A	LIC	74.66	72.00	2.7
WSLL	NY	SARANAC LAKE	90.5	213	600.0	A	LIC	12.19	10.00	2.2
CBF10F	QC	SHERBROOKE	101.1	266	35000.0	B		214.31	206.00	8.3

Channel 267

Call Sign	ST	City	Freq.	Ch#	ERPower	Class	Status	D	Sep	Clr
WCPV	NY	ESSEX	101.3	267	1000.0	A	LIC	49.74	115.00	-65.3
WCPV	NY	ESSEX	101.3	267	1000.0	A	LIC	49.53	115.00	-65.5
891012MO	NY	ESSEX	101.3	267	0.0	A	USE	51.40	115.00	-63.6
WCPV	NY	ESSEX	101.3	267	100.0	A	LIC	74.66	115.00	-40.3
WRCD	NY	CANTON	101.5	268	50000.0	C2	LIC	70.52	106.00	-35.5
WRCD	NY	CANTON	101.5	268	0.0	C2	USE	70.52	106.00	-35.5
WSLL	NY	SARANAC LAKE	90.5	213	600.0	A	LIC	12.19	10.00	2.2