

## **Facilities Proposed**

The facilities are as proposed in the application form.

A **Waiver of 73.509 is respectfully requested** to permit received overlap from two second adjacent stations. This request is made pursuant to the Commissions decision in Educational *Information Corporation, 6 FCC Rcd 2207 (1991)* (“WCPE”) (File No. BPED-840328CA) and WCCE File No. BPED-880810MA). This document is attached as a PDF for reference.

Also included is a Study of Alternative Channels and Sites

This proposal otherwise fully complies with 73.509, and 73.525

The proposed changes are Minor as defined by the rules.

**ALLOCATION STUDY  
&  
Request for Waiver of 73.509**

**Four Rivers Community Broadcasting  
WZXM  
Middletown, Pennsylvania  
File No. BPED-19970806MC**

**Allocation Study**

The first attached two figures demonstrate compliance with 73.509 contour overlap requirements. Figure One depicts the relationship between this proposal for WZXM and all relevant co-channel and 1<sup>st</sup> adjacent channel facilities. Figure Two depicts the relationship between this proposal and all “cleared” 2<sup>nd</sup> and 3<sup>rd</sup> adjacent channel facilities.

This proposal fully complies with the contour overlap requirements of 73.509 with respect to all stations except WFNM and WWEC. Both of these stations are second adjacent to WZXM and fall completely inside (donut) the proposed 60 dBu contour. The relationship of their 100 dBu contours and the proposed WZXM 60 dBu contour is shown on Figure Three (see also Figure Five).

The distance to the 100 dBu contour of both WFNM(Ch 206), and WWEC(Ch 202) is less than 1.5 km and therefore not covered by the F50/50 or F50/10 curves. The free space formula was used in calculating the distance to their 100 dBu contours. The distance to the 100 dBu contour of each is 0.714 km. The area encompassed by each 100 dBu contour is 1.6 Sq km.

**Request for Waiver of 73.509**

WZXM proposes to receive a total of 3.2 Sq Km of overlap from both WFNM and WWEC, a miniscule amount by any measure. We hereby request a waiver of 73.509 to permit receipt of this overlap. In support thereof we offer the following facts:

- The population within the 100 dBu contour of WFNM is 5,836 persons. The population within the 100 dBu contour of WWEC is 2,757 persons.
- The total 60 dBu coverage area of this WZXM proposal is 4,199 Sq km. WZXM is currently authorized a service area of 1,645 Sq. km. See Figure Four map of the present and proposed 60 dBu contours. This is an increase in area served of 2,554 Sq km. This would result in a 255.3% increase in WZXM’s 60 dBu service area.

- The total 100 dBu overlap areas to be received by WZXM's proposed 60 dBu contour is 0.076%. Total population within the two 100 dBu overlap areas is 8,593 persons
- The population to be served by the proposed 60 dBu WZXM area is 857,051. Compared to the currently authorized service to 392,017 persons. When subtracting the 8,593 persons within the 100 dBu overlap areas, the new total population served without overlap would be 848,458 persons. This is a 216.4% increase in population.
- Given the dramatic increases in both area and population served, the public interest would be well served by a grant of this application.

### **WCPE Waiver Policy and history**

In it's 1991 *Educational Information Corporation*, 6 FCC Rcd 2207 ("WCPE") MO&O (copy attached as a PDF) the Commission stated at paragraph 10 "we are inclined to grant waivers of second and third adjacent channel overlap in circumstances such as WCPE's where the benefit of increased service so heavily outweighs the potential for interference in very small areas."

Here, as in WCPE, the area of overlap is very small while the increased service is substantial. Indeed an additional 456,441 persons will be served, without overlap, by WZXM. This application proposes significantly less overlap received than WCPE requested.

The Commission has granted other waivers to many NCE stations throughout the country. Other NCE stations located in the region that have received such waivers include WRTI and WXPB, both Philadelphia, PA and WWSJ Dover Township, NJ. WRTI receives overlap from WGLS and WWSJ while WXPB receives overlap from WBYO, WVBU and WYBF. WWSJ receives overlap from WYRS. The Commission even granted a number of waivers on its own motion in a case of multiple mutually exclusive applications involving Fordham University; et, al. several years back. By letter dated September 30, 1992 to the various applicants in that case, the Commission stated among other things that "the encompassment of Westchester's 80 dBu contour by WFUV(FM)'s 60 dBu contour is consistent with the public interest calculus set forth in WCPE". The instant case involves significantly less increase in area and population overlap.

In this case the area of overlap is significantly smaller than WCPE. In fact when rounded to the nearest whole number the area of overlap is 0%. This area is so small that it should be deemed not to exist at all. In any case, the requested waiver would result in a significant increase in population served by WZXM and would not harm either WFSM or WVEC.

WZXM acknowledges that both WFNM and WWEC will be able to modify their respective facilities without regard to WZXM if this waiver request is approved. Such a case would represent “the other side of the coin” as the Commission stated in paragraph 14 of WCPE. WZXM further acknowledges that such “future modifications (by either or both of these two stations) will not constitute a *per se* modification” of WZXM’s License. (paragraph 16).

This waiver request is consistent with the Commission’s Waiver policy as established in WCPE and as applied to other cases throughout the United States. The benefit of increased noncommercial educational service heavily outweighs the potential for interference in very small areas inasmuch as the overlap received here is far less than that in the WCPE/WCCE case and the increases in area and population served are far greater. Under these circumstances, the WZXM proposal clearly meets the public interest calculus prescribed by the Commission in WCPE.

### **Lack of Alternative Channels**

A study of all twenty reserved channels was made to determine whether an alternative channel would work to provide the coverage requested herein. The results are as follows:

<b><u>Channel</u></b>	<b><u>Limitation</u></b>	<b><u>Location</u></b>	<b><u>Nature of Overlap</u></b>
201	WXPH	Harrisburg	Co-Ch Caused & Received
	WWEC	Elizabethtown	1 <sup>st</sup> Adj Caused & Received
202	WWEC	Elizabethtown	Co-Ch Caused & Received
	WDCV	Carlisle	Co-Ch Caused & Received
	WXPH	Harrisburg	1 <sup>st</sup> Adj Caused & Received
203	WAMU	Washington	Co-Ch Received
	WXPB	Philadelphia	Co-Ch Received
	New	Halifax	Co-Ch Caused & Received
	WWEC	Elizabethtown	1 <sup>st</sup> Adj Caused & Received
204*	WWEC	Elizabethtown	2 <sup>nd</sup> Adj Received*
	WFNM	Lancaster	2 <sup>nd</sup> Adj Received*
205	WFNM	Lancaster	1 <sup>st</sup> Adj Caused & Received
	WETH	Hagerstown	1 <sup>st</sup> Caused & Received
	WITF	Harrisburg	3 <sup>rd</sup> Adj Caused
206	WFNM	Lancaster	Co-Ch Caused & Received
	WETH	Hagerstown	Co-Ch Caused & Received
	WITF	Harrisburg	2 <sup>nd</sup> Adj Caused
207	WFNM	Lancaster	1 <sup>st</sup> Adj Caused & Received
	WITF	Harrisburg	1 <sup>st</sup> Adj Caused & Received
	WETH	Hagerstown	1 <sup>st</sup> Caused & Received
208	WITF	Harrisburg	Co-Ch Caused & Received
209	WITF	Harrisburg	1 <sup>st</sup> Adj Caused & Received
	WJTL	Lancaster	3 <sup>rd</sup> Adj Caused & Received
210	WJTL	Lancaster	2 <sup>nd</sup> Adj Caused & Received
	WITF	Harrisburg	2 <sup>nd</sup> Adj Caused

211	WJTL	Lancaster	1 <sup>st</sup> Adj	Caused & Received
	WITF	Harrisburg	3 <sup>rd</sup> Adj	Caused
212	WJTL	Lancaster	Co-Ch	Caused & Received
213	WJTL	Lancaster	1 <sup>st</sup> Adj	Caused & Received
	WRTL	Ephrata	1 <sup>st</sup> Adj	Caused & Received
214	WVMM	Grantham	1 <sup>st</sup> Adj	Caused & Received
	WRTL	Ephrata	Co-Ch	Caused & Received
	WVMM	Grantham	Co-Ch	Caused & Received
	WJTL	Lancaster	2 <sup>nd</sup> Adj	Caused & Received
	WLCH	Lancaster	3 <sup>rd</sup> Adj	Received
	WMSS	Middletown	2 <sup>nd</sup> Adj	Received
215	WHYY	Philadelphia	1 <sup>st</sup> Adj	Received
	WMSS	Middletown	1 <sup>st</sup> Adj	Caused & Received
	WVMM	Grantham	1 <sup>st</sup> Adj	Caused & Received
	WHFC	Bel Air	1 <sup>st</sup> Adj	Caused
	WLCH	Lancaster	2 <sup>nd</sup> Adj	Received
	WJTL	Lancaster	3 <sup>rd</sup> Adj	Caused & Received
216	WMSS	Middletown	Co-Ch	Caused & Received
	WZBT	Gettysburg	Co-Ch	Caused & Received
	WHFC	Bel Air	Co-Ch	Caused & Received
	WLCH	Lancaster	1 <sup>st</sup> Adj	Caused & Received
	WIXQ	Millersville	3 <sup>rd</sup> Adj	Received
	WLCH	Lancaster	Co-Ch	Caused & Received
217	WVUD	Newark	Co-Ch	Caused
	WBJC	Baltimore	1 <sup>st</sup> Adj	Caused & Received
	WHFC	Bel Air	1 <sup>st</sup> Adj	Caused
	WIXQ	Millersville	2 <sup>nd</sup> Adj	Received
218	WBJC	Baltimore	Co-Ch	Caused & Received
	WLCH	Lancaster	1 <sup>st</sup> Adj	Caused & Received
	WIXQ	Millersville	1 <sup>st</sup> Adj	Caused & Received
	WJAZ	Summerdale	1 <sup>st</sup> Adj	Caused & Received
	WYTL	Wyomissing	1 <sup>st</sup> Adj	Caused & Received
	WMSS	Middletown	2 <sup>nd</sup> Adj	Received
219	WJAZ	Summerdale	Co-Ch	Caused & Received
	WIXQ	Millersville	Co-Ch	Caused & Received
	WYTL	Wyomissing	Co-Ch	Caused & Received
	WLCH	Lancaster	2 <sup>nd</sup> Adj	Received
220	WJAZ	Summerdale	Co-Ch	Caused & Received
	WIXQ	Millersville	Co-Ch	Caused & Received
	WYTL	Wyomissing	Co-Ch	Caused & Received
	WLCH	Lancaster	3 <sup>rd</sup> Adj	Received

As can be seen from the above study, only channel 204 can be used without causing any overlap to any station while receiving overlap only from second adjacent stations WWEC and WFNM as discussed above.

### **Lack of Alternative Sites**

There is no alternative site available that would not also result in overlap received from WWEC and WFNM. In order to cover the area proposed to be served, this proposal would receive overlap from each of these stations regardless of the site proposed. This is due in large part to the location of both stations well within the 1 mV/m contour of this proposal. See Figure Five. It should be noted that some locations would in fact result in overlap caused to one or both WWEC or WFNM.