

## **ATTACHMENT 2**

Technical Exhibit in Support of Interference Reduction Agreement



STATEMENT OF CYNTHIA M. JACOBSON, P.E.  
IN SUPPORT OF  
INTERFERENCE REDUCTION AGREEMENTS  
WWRC - WASHINGTON, DISTRICT OF COLUMBIA  
Facility ID: 8681  
and  
WKDL - Warrenton, Virginia  
Facility ID: 53368  
and  
WNWK - Newark, Delaware  
Facility ID: 2646

I am a Consulting Radio Engineer, an employee in the firm of Carl T. Jones Corporation with offices located in Springfield, Virginia.

My education and experience are a matter of record with the Federal Communications Commission. I am a Registered Professional Engineer in the Commonwealth of Virginia, Registration No. 027914.

GENERAL

This office has been authorized by Salem Media of Virginia, Inc. ("Salem"), licensee of Standard Broadcast Station WWRC, Washington, District of Columbia, to prepare this statement and the attached engineering exhibits. Salem has entered into separate Interference Reduction Agreements ("IRA"s) on behalf of WWRC with Metro Radio, Inc., licensee of station WKDL, Warrenton, Virginia and EKO Media Group, Inc., licensee of station WNWK, Newark, Delaware. Based on the first IRA, applications for Construction Permit were filed simultaneously by WWRC<sup>1</sup> and WKDL<sup>2</sup>. The applications are contingent

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<sup>1</sup>FCC File No. BP-20110223ACB.

<sup>2</sup>FCC File No. BP-20110223ABY.

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on the grant of each other under Section 73.3517(c) of the Commission's Rules.

In furtherance of the second IRA, that between WWRC and WNWK, which will require surrender of the WNWK license prior to or upon commencement of Program Test Authority ("PTA") by WWRC, WWRC seeks to amend its pending Application for Construction Permit, FCC File No. BP-20110223ACB, to increase WWRC's proposed radiated fields toward WNWK. The cumulative effect of the two separate IRAs is outlined herein.

Measurement data as employed in the pending WWRC and WKDL Applications for Construction Permit is herein employed. Contours were calculated at 5 degree intervals using measured ground conductivity values where applicable and the FCC's M-3 estimated soil conductivities.

Station WWRC, Washington, District of Columbia, is licensed for operation on 1260 kHz with a power of 5 kilowatts employing a directional antenna during daytime and nighttime hours (DA-2). Station WKDL, Warrenton, Virginia is licensed<sup>3</sup> to operate on 1250 kHz with a power of 7.9 kW daytime and 0.125 kW nighttime, (DA-2). Radio Station WNWK, Newark, Delaware, is licensed to operate on 1260 kHz. The licensed authority provides for operation at 1 kW utilizing a directional antenna system during daytime hours. WNWK is also authorized for a low-power nighttime operation at 0.042 kW utilizing the

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<sup>3</sup>A license application was filed (FCC File No. BMML-20091209AEO) to cover the outstanding construction permit BMP-20091021ACN.

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same directional antenna system as employed during daytime hours.

As stated above, permit applications for WWRC and WKDL were filed simultaneously pursuant to the IRA between those stations. It was necessary to modify the daytime antenna parameters and reduce the daytime power of WKDL to 3.0 kW to permit the increase in power of WWRC to 20.0 kW.

Under the WWRC IRA arrangement with WNWK, WNWK has agreed to relinquish its license for operation on 1260 kHz prior to or upon WWRC's commencement of operations pursuant to PTA with the facilities as proposed in the WWRC application for construction permit, as amended herein.

The power reduction of Station WKDL from 7.9 kW to 3.0 kW and deletion of WNWK will permit an increase of daytime power to 25.0 kW for WWRC<sup>4</sup>. Also, existing prohibited overlap of WNWK to the protected contours of four stations will be eliminated. These gains, along with the gains to be enjoyed by WWRC, outweigh the service reductions that are the results of the reduction of power for WKDL and the removal of service by WNWK. Upon cancellation of the WNWK license, all of the present WNWK coverage area will receive service from five or more aural services. Moreover, Newark, Delaware, will continue to have a licensed local radio broadcast station, WVUD(FM), Facility ID 19716. As previously stated in BP-20110223ACB, all WKDL loss areas will also

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<sup>4</sup>No change to WKDL's facilities beyond those proposed in BP-20110223ABY is necessary to permit authorization of the WWRC facilities proposed in the amendment discussed herein.

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receive five or more aural services. Figures 1 and 2 depict the loss of protected service area to WNWK and WKDL. Figure 3 depicts the gain that will be experienced by WWRC with the power increase. Figure 4 depicts the reduction of existing prohibited overlap to co-channel WFJS that will result from the deletion of WNWK. Figure 5 depicts the removal of prohibited overlap to first adjacent stations WYYC, WMIZ, and WLBR with the deletion of WNWK. Based on the 2010 Census, the loss and gain population and area are as follows:

	<u>2010 Census</u>	<u>Area</u>
<u>LOSS</u>		
WNWK - 1260 kHz, Newark, Delaware	832,093 persons	3,831 sq.km
WKDL - 1250 kHz, Warrenton, Virginia	<u>314,154 persons</u>	<u>2,264 sq.km</u>
TOTAL LOSS	1,146,247 persons	6,095 sq.km
 <u>GAIN</u>		
WWRC - 1260 kHz, Washington, D.C.	1,362,209 persons	3,614 sq.km
WFJS - 1260 kHz, Trenton, New Jersey	368,094 persons	1,031 sq.km
WYYC - 1250 kHz, York, Pennsylvania	69,804 persons	458 sq.km
WMIZ - 1270 kHz, Vineland, New Jersey	106,720 persons	905 sq.km
WLBR - 1270 kHz, Lebanon, Pennsylvania	<u>56,721 persons</u>	<u>192 sq.km</u>
TOTAL GAIN	1,963,548 persons	6,200 sq. km
 <b>NET GAIN</b>	<b>817,301 persons</b>	<b>105 sq. km</b>

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A grant of the proposed simultaneous modification of WWRC and WKDL, and the surrender of the WNWK license, would result in a reduction of interference in the AM band and an increase in the area of AM interference-free service, in accordance with the provisions of Section 73.3517(c) of the Rules.

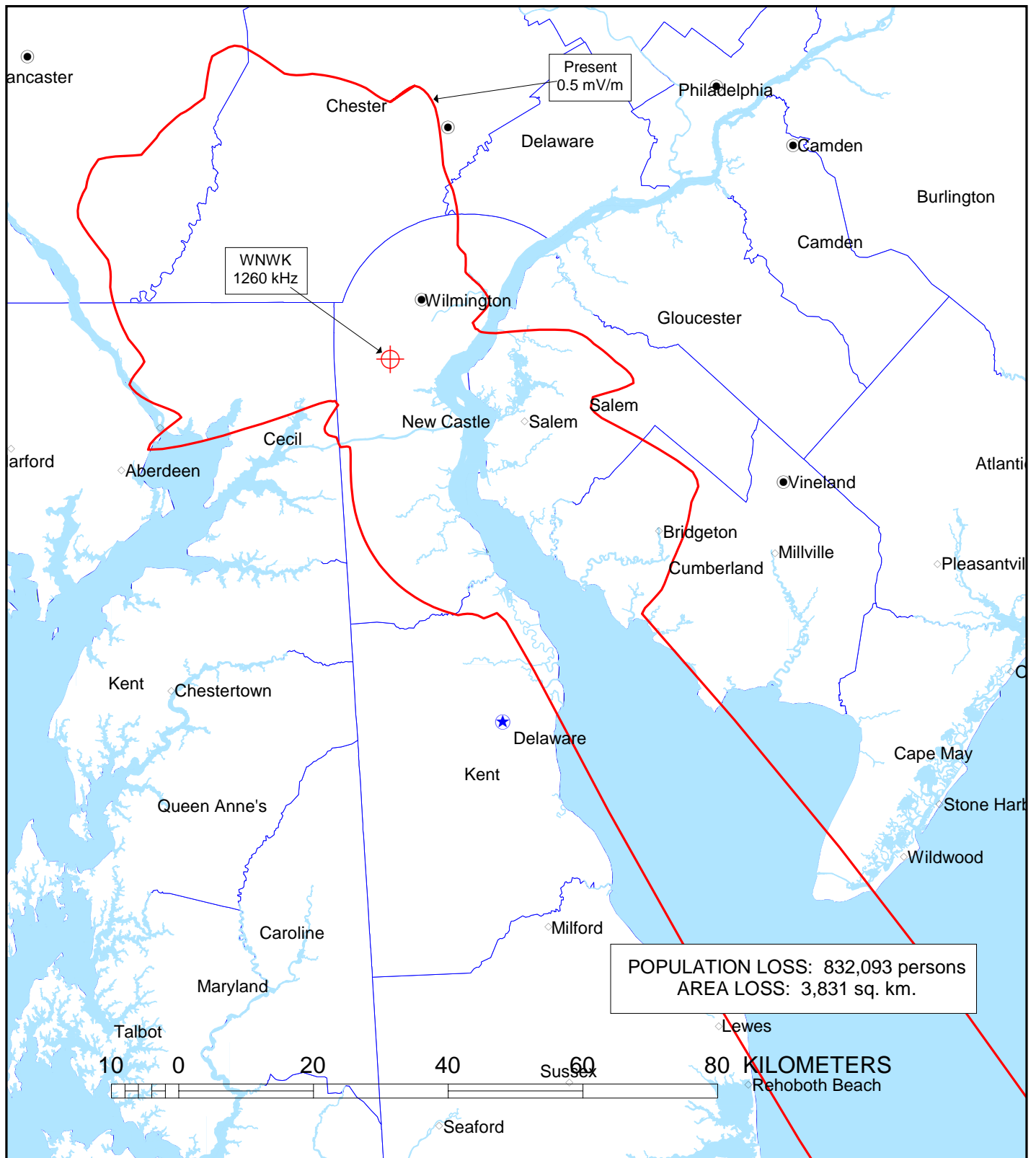
#### CONCLUSION

This statement and the attached figure was prepared by me or under my direct supervision and are believed to be true and correct.

DATED: October 5, 2011



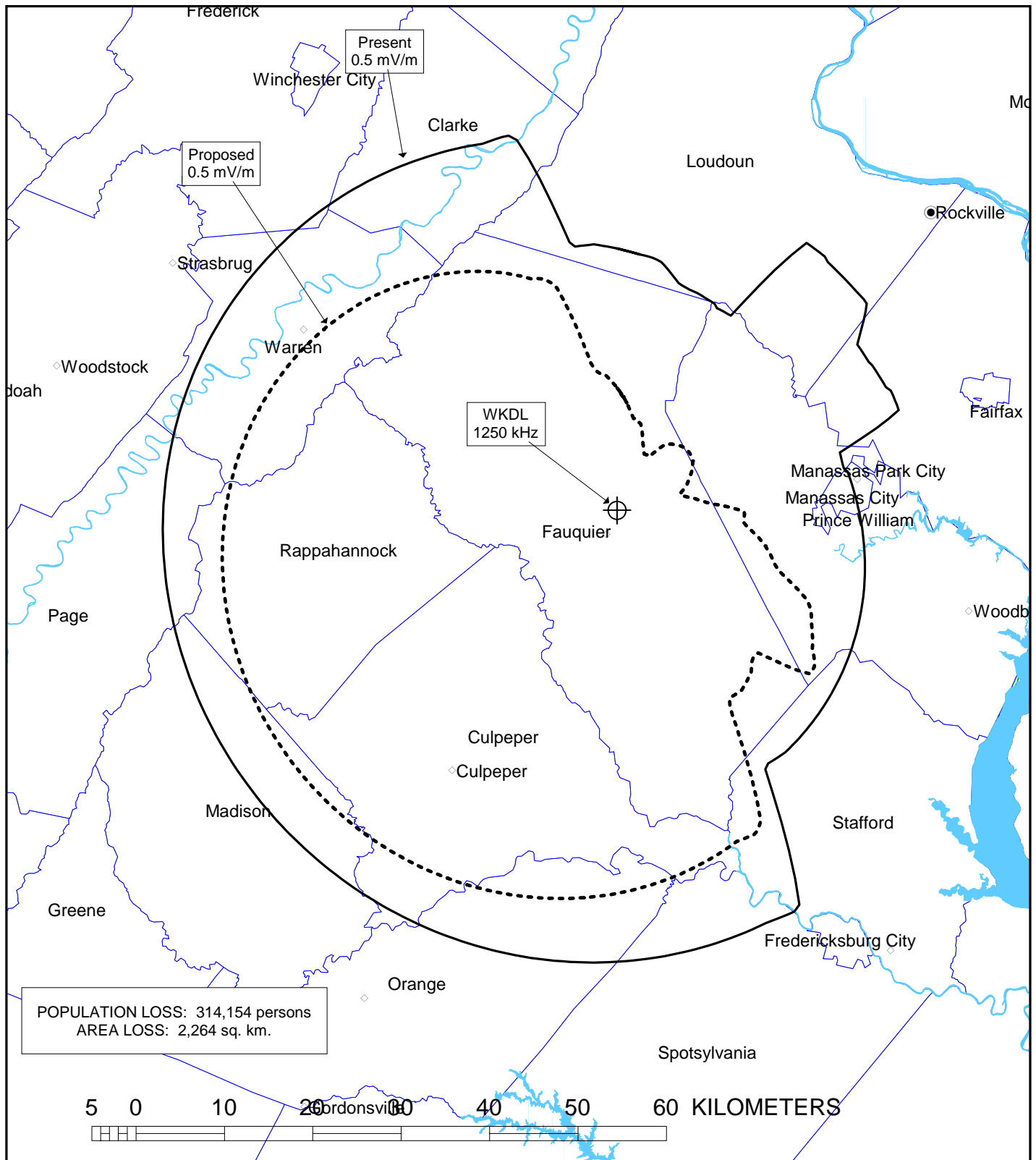
FIGURE 1



Measured Soil Conductivities Employed

PRESENT 0.5 MV/M DAYTIME CONTOUR  
 WNWK(AM) - 1260 KHZ - NEWARK, DELAWARE  
 PRESENT: 1.0 KW DAY/0.042 KW NIGHT - DA-2  
 OCTOBER, 2011

FIGURE 2

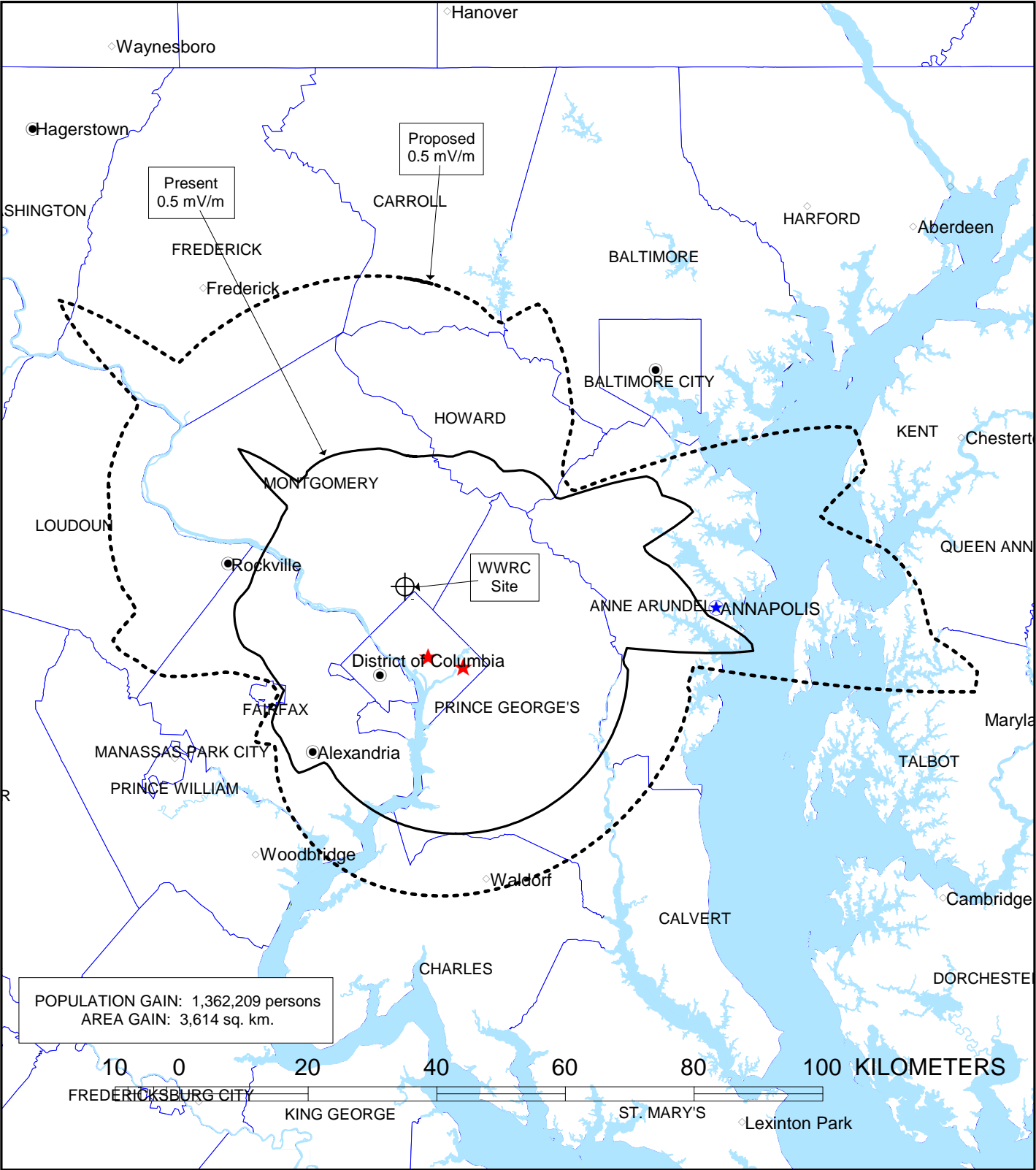


Measured Soil Conductivities Employed

PROPOSED 0.5 MV/M DAYTIME CONTOUR  
WKDL(AM) - 1250 KHZ - WARRENTON, VIRGINIA  
PRESENT: 7.9 KW DAY/0.125 KW NIGHT - DA-2  
PROPOSED: 3.0 KW DAY/0.125 KW NIGHT - DA-2  
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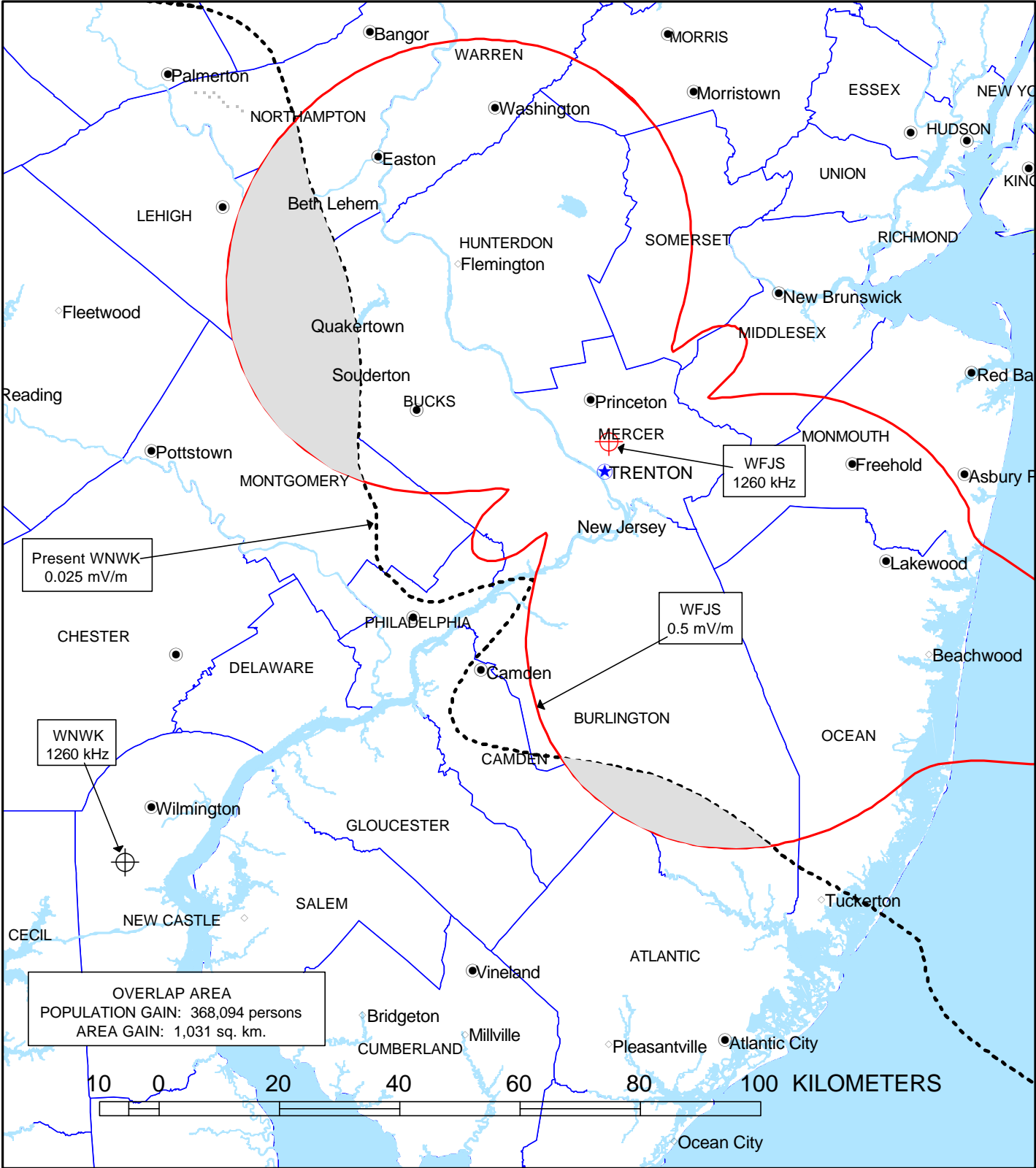
**FIGURE 3**



Measured Soil Conductivities Employed

**PRESENT & PROPOSED 0.5 MV/M DAYTIME CONTOURS**  
**WWRC(AM) - 1260 KHZ - WASHINGTON, DISTRICT OF COLUMBIA**  
**PRESENT: 5.0 KW DAY/5.0 KW NIGHT - DA-2**  
**PROPOSED: 25.0 KW DAY/5.0 KW NIGHT - DA-2**  
**OCTOBER, 2011**

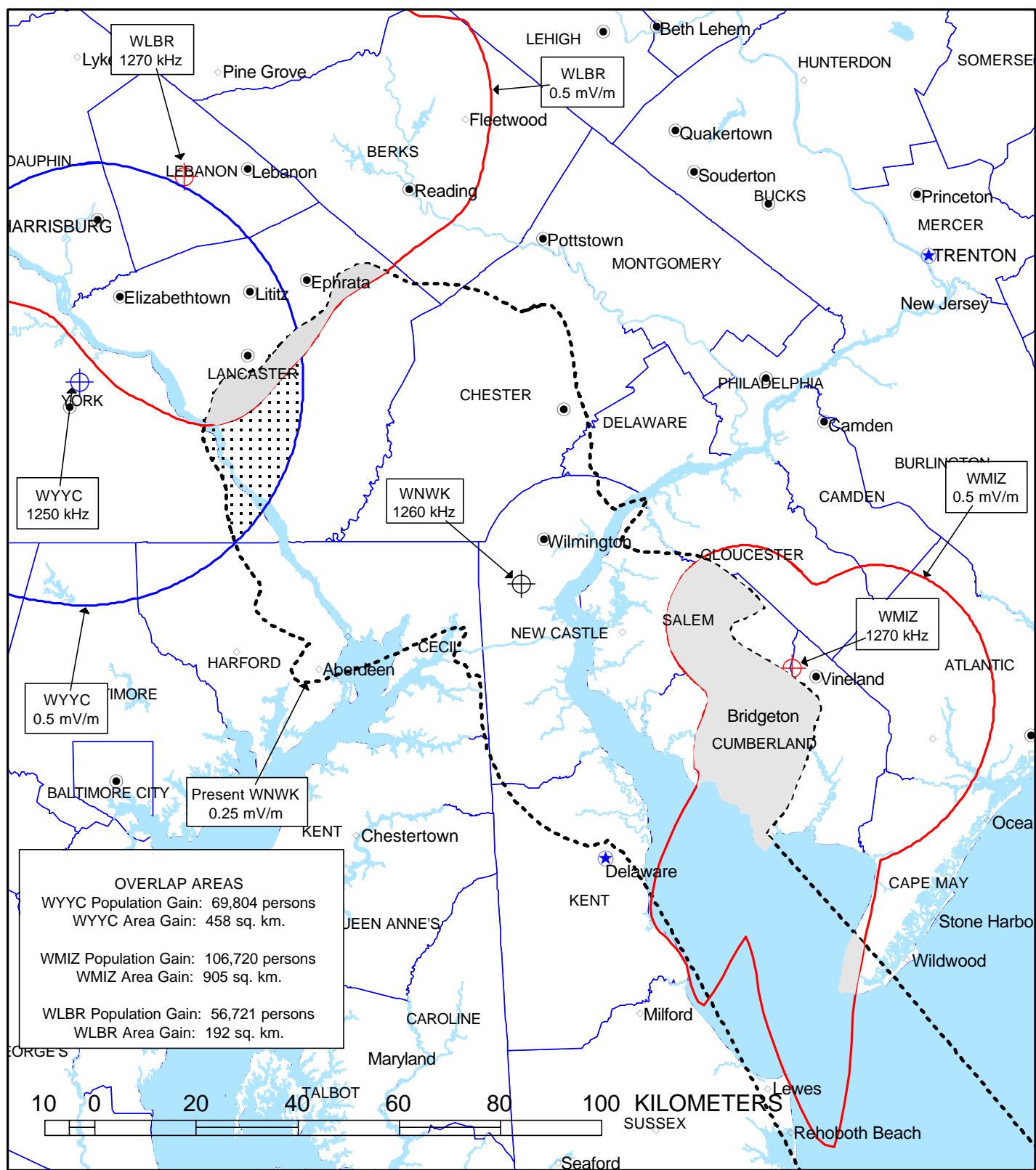
FIGURE 4



Measured Soil Conductivities employed for WNWK.  
M-3 Soil Conductivities employed for WFJS.

PRESENT DAYTIME OVERLAP STUDY  
BETWEEN  
WNWK(AM) - 1260 KHZ - NEWARK, DELAWARE  
AND  
WFJS - 1260 KHZ - TRENTON, NEW JERSEY  
OCTOBER, 2011

FIGURE 5



Measured Soil Conductivities employed for WNWK.  
 M-3 Soil Conductivities employed for WMIZ, WLBR & WYYC.