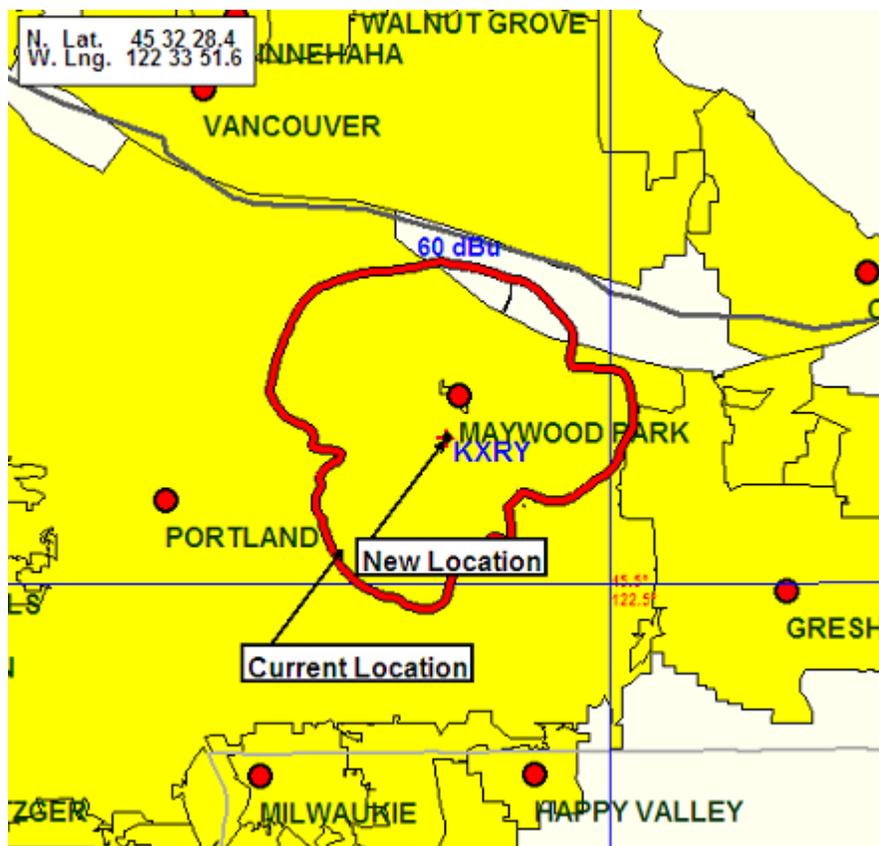


## PROPOSED MINOR MODIFICATION OF FACILITY KXRY

Proposed is a minor modification to move KXRY 91.1 FM 4.7 km from its current licensed location to a new broadcast location

COOR:	45 32 20.4 N 122 33 51.6 W(NAD 27)
GROUND	162 m
TOWER	14
ASR	NA
AGL	9 m
HAAT	86.7 m
WATTS	7
CHANNEL	216



Proposed 60 dBu

- (1) Proposed location continues to serve Portland, Ore; the proposed location has overlapping 1 mv/m contour with previous location.
- (2) Per revision to Class D facility rules, Class D facilities are limited in broadcast

coverage smaller than the minimum Class A facility.<sup>1</sup> KXRY proposes 7 watts at 86.7 m HAAT which the FCC's online "FM and TV Curves Calculation" program validates is under 5.6 km.

- (3) Using U/D methodology, the proposed relocation will provide zero-population interference overlap areas with both second-adjacent channels:

Channel study is included on next page.

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<sup>1</sup> Per revision of the rules, Class D facilities may not surpass minimum Class A facilities (100 watts at 30 meters; examples: KGSP Parkville, Mo (99 watts), WGTE Chicago, Il (73 watts), WGUR Milledgeville, GA (85 watts), KPTS (16 watts at 141 m HAAT), WVAC-FM (87 watts))



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Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in  
KM

Contour distances are on direct line to and from reference station. Reference Zone= - Zone 2, Co to 3rd  
adjacent.

All separation margins (if shown) include rounding

Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E),  
Beamtilt(Y,N,X)

""affixed to 'IN' or 'OUT' values = site inside protected contour.

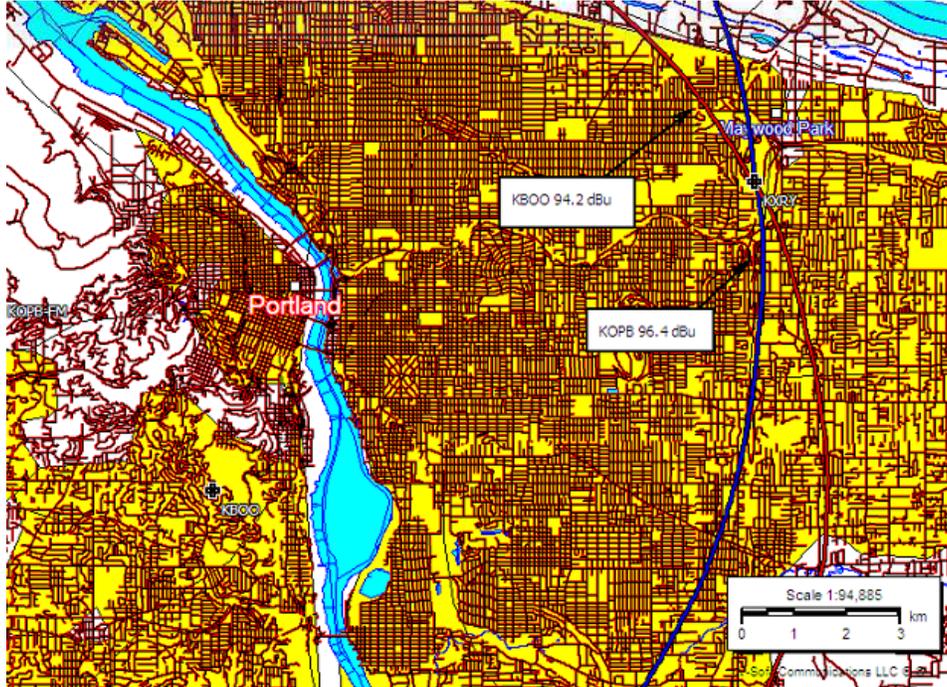
Reference station has protected zone issue:

NOTE:

\$ = Second Adjacent Waiver Request (see below)

\$\$ = No interference to 60 dBu protected contours

## SECOND ADJACENT FACILITIES



The map above demonstrates the second adjacent facility's signal strengths (KBOO and KOPB) at the proposed transmitter location.

*Concerning CH 214, KBOO (FM):*

Using U/D methodology: At the proposed KXRY transmitter location KBOO has a signal strength of 94.2 dBu (see *Map*, next page). Interference will occur when the interfering signal exceeds the desired signal by 40 dbu. So the area of predicted interference would then be bounded by the 134.2 dBu contour. The distance to this contour, using free space method:

$D = (7.01 * P^{1/2}) / E$ , where P is power (watts), E is field strength (v/m), and D is distance to contour (meters):

$P = 7 \text{ w}$ ,  $E = 134.2 \text{ dBu}$

$D = 3.6 \text{ meters}$

Conclusion: The area of interference resides 3.6 meters around the antenna; no population affected.

*Concerning CH 218, KOPB-FM:*

Using U/D methodology: At the proposed KXRY transmitter location KOPB has a signal strength of 96.4 dBu. Interference will occur when the interfering signal exceeds the

desired signal by 40 dbu. So the area of predicted interference would then be bounded by the 136.4 dBu contour. The distance to this contour, using free space method:

$D = (7.01 * P^{1/2}) / E$ , where P is power (watts), E is field strength (v/m), and D is distance to contour (meters):

P = 7w, E = 136.4 dBu

D = 2.8 meters

Conclusion: The area of interference resides 2.8 meters around the antenna; no population affected.

## **Exhibit 22: Non-Ionizing Electromagnetic Radiation (NEIR) Analysis**

The Effective Radiated Power for proposed will be 7 watts, mounted on a guyed pole. The OET program FM Model for Windows, Version 2.10 Beta was used to determine the maximum predicted RF exposure. The settings used were:

Antenna: Phelps-Dodge "Ring Stub"  
Horizontal ERP (W): 7  
Vertical ERP (W): 7  
Antenna Height (m): 9  
Number of Elements: 1

The Phelps-Dodge Antenna (circular polarized) was selected in FM Model as an exaggerated "worst case" emitter. Using these settings, the maximum predicted RF exposure for a human standing on the ground would be  $5.8 \mu\text{W}/\text{cm}^2$  at 2 m. This represents less than 5% of the FCC Maximum Permissible Exposure (MPE) of  $200 \mu\text{W}/\text{cm}^2$  for uncontrolled environments. 47 CFR 1.1307(b)(3) exempts applicants from preparing an Environmental Assessment when the predicted exposure levels when the predicted exposure levels would be less than 5% of the FCC limits.