

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of )  
 )  
Wireless Telecommunications Bureau ) RM-11738  
Seeks Comment on Supplement to )  
Enterprise Wireless Alliance and Pacific )  
DataVision, Inc. Petition for Rulemaking )  
Regarding Realignment of 900 MHz )  
Spectrum )

To: The Wireless Telecommunications Bureau

**COMMENTS OF THE LOWER COLORADO RIVER AUTHORITY**

Pursuant to Sections 1.1415 and 1.1419 of the rules of the Federal Communications Commission (FCC or Commission)<sup>1</sup>, the Lower Colorado River Authority (LCRA) hereby submits its comments in response to the Commission’s *Public Notice* in the above-captioned proceeding requesting comment on a supplement to the Petition for Rulemaking filed by the Enterprise Wireless Alliance and Pacific DataVision, Inc. (collectively, the “Petitioners”) to realign the 900 MHz band to create a 3 MHz Private Enterprise Broadband (PEBB) Allocation.<sup>2</sup>

The LCRA reiterates its objections filed January 12, 2015 in response to the proposed realignment of the 900 MHz Business and Industrial Land Transportation (B/ILT) band and stresses that the size and makeup of the LCRA system cannot be accommodated within 2 MHz

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<sup>1</sup> 47 C.F.R. §§ 1.1415 and 1.1419.

<sup>2</sup> *Wireless Telecommunications Bureau Seeks Comment on Supplement to Enterprise Wireless Alliance and Pacific DataVision, Inc. Petition for Rulemaking Regarding Realignment of 900 MHz Spectrum*, RM-11738, Public Notice, DA 15-79 (rel. May 13, 2015).

of contiguous spectrum.<sup>3</sup> The Petitioners' proposed rules do not take into account that the 900 MHz B/ILT band is used by Public Safety entities for essential public safety services. Their proposal fails to ensure that Public Safety users will continue to have adequate access to the 900 MHz B/ILT band and be protected against harmful interference. The LCRA objects to the proposed level of interference protection set forth in Petitioners' proposed rules. The LCRA objects to the unprecedented lack of guard bands imposed. The LCRA objects to rules requiring B/ILT licensees and Public Safety entities to concede to accepting interference while awaiting longer-term remedies.

The LCRA owns and operates a 900 MHz land-mobile radio system throughout Central Texas for emergency voice communication and daily electric utility operations. In addition, and pursuant to section 90.179 of the FCC's rules,<sup>4</sup> the LCRA provides non-profit, shared use of its 900 MHz land-mobile radio system to a variety of public safety and other public service entities in the lower Colorado River region, resulting in highly efficient use of the spectrum. The LCRA communications network is a growing shared system and is providing critical communications to many different entities and thousands of users on a cost-sharing basis. Shared use of the LCRA's system has given these entities access to state-of-the-art, wireless communications capability that would probably not be available to them otherwise. As such, the LCRA's system serves a vital role in many communities.

The LCRA system is used to monitor river and stream flood stage levels and to provide life-saving warnings to the public. It also allows various emergency service entities the ability to

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<sup>3</sup> Comments of LCRA (Jan. 12, 2015).

<sup>4</sup> 47 C.F.R. § 90.179.

communicate with each other. Furthermore, community-based emergency sirens are controlled over the 900 MHz system, as well as dispatch paging for fire- fighting units and emergency medical services (EMS). Police, Fire, EMS, first responders, and electric and water utilities all use the LCRA 900 MHz system for critical communications on a daily basis. Other users include power generation, electric transmission and distribution entities, emergency management departments, school districts, public transit systems, and flood management/warning systems, as mentioned above.

For a recent example of the critical nature of the LCRA system, one must only look back to the devastating floods that hit Central Texas in May 2015. The floods resulted in disaster declarations in 18 counties throughout the LCRA service territory, several deaths, and hundreds of homes destroyed. The LCRA system provided primary communications for many of the public safety and utility entities managing this event.

The LCRA operates a state-of-the-art digital system also in order to maintain it as a critical component to statewide public safety interoperability. The LCRA has invested tens of millions of dollars in infrastructure, engineering, and implementation costs. The system has recently been upgraded and provides critical two-way digital voice and data services throughout approximately 50,000 square miles, which is nearly one-fifth of the State of Texas. The system is hardened, incorporating high-reliability backhaul and power backup systems. The system is designed to be operating when everything else fails, and it covers both urban and rural areas.

The Petitioners would have the FCC believe that the proposed 900 MHz band realignment is in the public interest, when in fact it is not. The Petitioners would have the FCC

believe that they would only be following past precedent by allowing the 900 MHz realignment. In fact, if the request is granted, the FCC would be opening a door to (1) completely eliminate narrowband operations within the 900 MHz band, and (2) establish a monopoly within the 900 MHz band.

Petitioners are requesting to be allocated 240 channels of contiguous spectrum under the notion that Petitioners already own or control that many channels in most major markets. The FCC made clear in its Report and Order adopted October 9, 2008 that “the dedicated spectrum allotted to B/ILT licenses at 900 MHz represents one of the few remaining opportunities for such licensees to obtain much-needed spectrum.”<sup>5</sup> The FCC recognized that this vital spectrum was needed for present and future use by Critical Infrastructure. The FCC made concessions during the 800 MHz rebanding to allow Commercial Mobile Radio Service (CMRS) on 900 MHz B/ILT licenses; however, it made clear this was to facilitate 800 MHz rebanding. The LCRA objects to the allocation of 40 additional channels to a Major Trading Area (MTA) license. Since the 800 MHz rebanding has been completed, rather than permanently allocating an additional 40 channels as a 240 channel MTA, the FCC should reset the rules to disallow the use of CMRS service on B/ILT channels.

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<sup>5</sup> *Amendment of Part 90 of the Commission’s Rules to Provide for Flexible Use of the 896-901 MHz and 935-940 MHz Band Allotted to the Business and Industrial Land Transportation Pool*, WT Docket No. 05-62, *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, Report and Order, 23 FCC Rcd 15856, 15865 ¶ 12 (2008) (“900 MHz Report and Order”).

The LCRA objects to the -88/-85 dBm interference standard in Section 90.1421(a)(2)(i)-(iii) of the proposed rules.<sup>6</sup> Further, in the *900 MHz Band Report and Order*, the FCC took up the issue of levels of interference. Objections at the time requested the same protection afforded at 800 MHz by section 90.672(a) of the Commission's rules regarding unacceptable interference to non-cellular licensees from 800 MHz cellular systems.<sup>7</sup> Objectors requested the definition of "unacceptable interference" as occurring when a fully operational transceiver receives minimum median desired signal strengths of -104/-101 dBm, as measured at the radio frequency (RF) input of the receiver of a mobile/portable unit, and when a voice transceiver receives an undesired signal or signals that cause the measured Carrier to Noise plus Interference (C/(I+N)) ratio of a receiver to be less than 20 dB. Nextel argued at the time that the Commission should follow the temporary levels set during 800 MHz rebanding as the nature of the 900 MHz channels were in an interleaved environment. If the Commission were to adopt the proposed rule changes, this argument is no longer valid as the 900 MHz band would no longer be interleaved. Even if the Commission sets the 900 MHz interference levels to match the current 800 MHz interference levels (-104/-101), it would still greatly affect the LCRA system, especially given that it would be wideband interference. Those levels still would not give the LCRA the needed interference protection, made worse by no guard band. The lack of a guard band would most certainly result in interference.

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<sup>6</sup> Letter from Elizabeth R. Sachs, Esq., counsel for Enterprise Wireless Alliance and Pacific DataVision, Inc., to Marlene H. Dortch, Secretary, FCC, dated May 3, 2015 at 13-14 ("*EWA/PDV Ex Parte Letter*").

<sup>7</sup> 47 C.F.R. § 90.672(a).

The LCRA system is designed to operate above -109 dBm, and any interference above this threshold directly reduces the established coverage of the system. Signals below -109 dBm can also be detrimental to LCRA's system due to the Signal to Noise ratio required for reliable digital communications. If the Petitioners are allowed to interfere below -110dBm, any operations by the LCRA in the -91 to -109 dBm range would be at risk for degraded service. For the Commission to allow interfering signals at a level of -88/-85 dBm is completely unrealistic. It would call for a massive increase in the number of sites and channels that would be required to provide equivalent system coverage. It is clear by requesting this interference level that the Petitioners want the FCC to condone a devastating rise in the noise floor with which B/ILT operators (and Public Safety entities that have shared access to the LCRA's system) would have to contend. Additionally, the interference from a wideband system would be wideband interference, which is much different than localized narrow band interference. Wideband interference would affect all narrowband channels. There would be no way to tune away or filter the interference. If the FCC grants the Petitioners desired interference threshold of -88/-85 dBm, the 900 MHz B/ILT band will be rendered unreliable and useless for incumbents including public safety. The idea of sandwiching a broadband carrier between systems without a guard band is unprecedented and dangerous. Such a move will lead to increased interference and reduced system coverage for the LCRA system. It will put public safety at risk.

The LCRA objects to the clause in Section 90.1421(c)(4) of the proposed rules, which states:

Whenever short-term interference abatement measures prove inadequate, the incumbent licensee shall, consistent with but not compromising safety, make all

necessary concessions to accepting interference until a longer-term remedy can be implemented.<sup>8</sup>

Any interference with the LCRA system is considered a public safety concern, and, if the Commission seriously considers adopting the proposal of Petitioners, the Commission should include strong language protecting critical infrastructure and public safety. Likewise, if the FCC decides to move forward, there should be significant penalties for any interference that is not resolved in the shortest time practicable, as well as liability assumed by any known interferer, to include liability for loss of life or property from system malfunctions as a result of interference.

The LCRA opposes realignment of the 900 MHz B/ILT band to allow for a commercial broadband monopoly within the band that would primarily serve the business interests of the Petitioners. Broadband commercial opportunities exist in numerous other frequency bands specified by the FCC. The Commission has been very clear in the public interest and need for Critical Infrastructure to be able to maintain private systems and the need for viable frequency spectrum to do so. Again, the FCC made clear in its Report and Order adopted October 9, 2008 that “the dedicated spectrum allotted to B/ILT licenses at 900 MHz represents one of the few remaining opportunities for such licensees to obtain much-needed spectrum.”<sup>9</sup> The FCC recognized that this vital spectrum was needed for present and future use by Critical Infrastructure, such as the LCRA. In that the FCC has gone to great lengths to reallocate spectrum over time for commercial use in the cellular, 800 MHz, PCS, and AWS bands, it is fitting that the FCC reclaim the entire 900 MHz band for B/ILT use. In doing so, the FCC could

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<sup>8</sup> *EWA/PDV Ex Parte Letter* at 16.

<sup>9</sup> *900 MHz Report and Order*, 23 *FCC Rcd* at 15865 ¶ 12.

allow private entities to obtain limited broadband spectrum for use in deploying new technologies.

**WHEREFORE, THE PREMISES CONSIDERED,** the Lower Colorado River Authority respectfully requests the Commission to take action in this docket consistent with the views expressed herein and deny the Petition for Rulemaking.

Respectfully submitted,

**LOWER COLORADO RIVER AUTHORITY**

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Date: June 29, 2015