

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Review of the Commission's Rules Governing)	WT Docket No. 17-200
The 896-901/935-940 MHz Band)	

**COMMENTS OF THE CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER**

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I. INTRODUCTION

The Department of Water and Power of the City of Los Angeles (“LADWP”)¹ submits these Comments in the above-captioned proceeding in response to the Commission’s Notice of Proposed Rulemaking² (“NPRM”) contemplating realignment of the 896-901/935-940 MHz band (the “Band”) to permit future development of broadband services. LADWP, the nation’s largest municipal utility, relies on 900 MHz narrowband systems to connect its employees in areas often unreachable via any other communications medium, and harbors serious reservations about the potential impact of the Commission’s proposals. As in other proceedings, LADWP seeks to provide a constructive voice from the perspective of an incumbent utility operator as the Commission seeks to reallocate and realign spectrum for new uses.³ The Commission must ensure that any action taken as a result of this NPRM does not come at the expense, either operationally or financially, of existing narrowband users.

II. LADWP’S OPERATIONAL USE OF THE BAND IS CRITICAL, AND SUPPORTED BY ONGOING INVESTMENT.

The Department of Water and Power of the City of Los Angeles is the largest municipal utility in the United States. It provides power generation, transmission, and distribution to more than 1.6 million customers via 23 generation plants and more than 3,500 miles of transmission lines, 15,000 transmission towers, and tens of thousands of utility poles and other pieces of power infrastructure. LADWP also serves more than 680,000 water customers through more than 7,300 miles of distribution pipe network and maintains more than 60,000 fire hydrants. A 900

¹ LADWP is a department organized and existing under the Charter of the City of Los Angeles, a municipal corporation of the State of California. The mission of the LADWP is “*Providing clean, reliable water and power and excellent customer service in a safe, environmentally responsible and cost-effective manner.*” Detailed information about our mission, our leadership and our programs may be found at www.ladwp.com.

² *In the Matter of Review of the Commission’s Rules Governing the 896-901/935-940 MHz Band*, Notice of Proposed Rulemaking, FCC 19-18 (rel. Mar. 14, 2019) (“NPRM”).

³ *See, e.g.* Comments & Reply Comments of the City of Los Angeles, ET Docket No. 18-295.

MHz land mobile radio system forms an integral part of a communications system spanning portions of four states and including fixed and wireless operations incorporating a variety of technologies.

A. LADWP's Ongoing 900 MHz Operations

The 900 MHz Band supports approximately 5,000 LADWP users across Los Angeles, Kern, Inyo, and Mono Counties. Narrowband voice services support both routine and emergency operations for both the water and power activities of LADWP, including engineering, construction, and maintenance of its extensive infrastructure. LADWP's 900 MHz narrowband radios cover a service area of approximately 16,500 square miles, and date back more than thirty years. Fourteen base stations operate under three licenses with 50 frequency pairs to provide LADWP users with reliable voice communications even in extended rural areas.

Voice communications in the 900 MHz band support dispatch and safety operations, as well. LADWP personnel inspecting and maintaining high-voltage transmission lines, investigating the integrity of dams, measuring water levels in the high Sierras, and operations managers coordinating these and other functions in times of crisis, all rely on 900 MHz narrowband voice systems maintained and expanded by LADWP over a period of decades. These voice systems include automatic audio recording to preserve information to assist in risk management analysis and for evidentiary purposes, and incorporate emergency assistance functionality to inform dispatchers of injuries or accidents at remote locations, to ensure help can be dispatched immediately. In many of these areas, furthermore, existing mobile carriers simply do not provide adequate service – self-provisioning using the 900 MHz Band is the only practicable option for reliable voice communications. These systems remain in active use, and are not easily replaced by any utility, particularly a municipal entity subject not only to practical operational constraints but also extended public procurement requirements.

B. LADWP Views 900 MHz as a Long Term Communications Tool and Continues to Invest in the Narrowband 900 MHz Band.

LADWP's ongoing investment in upgraded 900 MHz equipment and system expansions demonstrates the agency's current and future dependence on the 900 MHz band as one of its primary communications tools. In a ten year period from 2005 to 2014, LADWP planned and installed an upgrade to its existing 900 MHz narrowband communications. This was an approximately \$13 million investment that replaced the Department's existing network in Los Angeles County and expanded coverage to Kern, Inyo, and Mono Counties. The Kern, Inyo, and Mono Counties investment was approximately \$2 million, not including the cost of infrastructure upgrades or the value of internal resources devoted to the product. Starting this year, LADWP is undertaking a two-year project lasting through January 2021 to further upgrade the existing system, and is in the process of executing an additional maintenance contract covering the coming decade. The Department estimates that this will amount to a further investment of \$7-11 million dollars. That means LADWP will have invested on average \$1.5 million dollars per year for a sixteen year time period. Narrowband operations not only provide significant value to operators, as they have for decades, but continue to drive investment in communications technologies and services, as well.

III. ANY IMPAIRMENT OF 900 MHZ NARROWBAND OPERATIONS WILL NEGATIVELY IMPACT LADWP OPERATIONS.

A. Absent Comprehensive Commission Protections and Gradual Transition, Realignment Will Place Financial and Operational Burdens on 900 MHz Incumbents.

Any realignment of the band risks significant disruption to the important functions described above. Whether in the form of actual direct interference (due to the NPRM's proposal to provide no separation between broadband and narrowband channels), or coverage reduction due to realignment in some but not all counties, or due to the burden of realignment itself,

potentially including repacking or, depending upon the Commission's actions, outright relocation, LADWP and incumbents like it will bear the burden of accommodating a new broadband service, while others will reap the benefits. The NPRM recognized that narrowband operations remain important;⁴ aggressive realignment to promote broadband is inconsistent with that conclusion.

To the extent it decides to pursue realignment despite the risk of harm, the Commission must take a cautious approach, adopting its most conservative realignment plan of 1.4/1.4 MHz broadband realignment on a voluntary basis, as it is least likely to harm incumbents while permitting expanded use of the Band. To move more aggressively by realigning a greater portion of the band would directly harm incumbent users almost immediately, even under a voluntary transition model, by inhibiting narrowband users' ability to expand their existing operations. And should the Commission elect to realign the entire band, it will effectively force narrowband users out of the Band. LADWP estimates its costs from such a change would be at least \$13 million solely in capital costs and the value of existing contracts, not including the costs to be incurred in locating and deploying alternative communications means.

B. Incumbents, Such as LADWP, Must Not be Responsible for the Costs or Consequences of Any Realignment.

No matter the approach the Commission pursues, incumbents must not be made to bear the burden of the Commission's policy. While the precise costs occurred may vary depending upon the degree of impact, those costs must in all cases be borne by those reaping the benefits of 900 MHz broadband operations. LADWP supports the Commission's acknowledgement that broadband licensees should bear the costs incumbents incur in adapting to realignment.⁵ The

⁴ NPRM at ¶ 1.

⁵ *Id.* at ¶ 36-38; 42; *cf. Id.* at ¶ 50 (questioning whether reimbursement of relocation costs is appropriate under an incentive auction model.) LADWP strongly opposes any framework under

Commission suggests that in both the voluntary transition and overlay license auction models it is considering, new licensees will be responsible for addressing the costs incurred by incumbents.⁶ This is consistent with the Commission's recent actions in the broadcast incentive auction, though LADWP notes with concern the problems encountered by broadcasters related to the insufficiency of repacking funds allocated for their compensation. It will be critical, should the Commission ultimately order realignment, that impacted incumbents play a larger role in determining both the nature & scope of applicable costs. In LADWP's case, for example, the unique challenges of public agency acquisitions may necessitate a different approach than may be appropriate for private utilities or other incumbent users.

C. Realignment Must Empower Incumbents, Not Reward Speculation.

LADWP shares the Commission's concern regarding the windfall likely to come to a small handful of licensees under any broadband realignment plan.⁷ pdvWireless ("PDV") holds approximately 60 percent of channels with a nationwide footprint in the 900 MHz band and "averages approximately 240 channels in major markets."⁸ Given the Commission's proposed eligibility criteria for 900 MHz broadband licenses, it appears likely that in most, if not all circumstances, PDV may be the only viable applicant for a 900 MHz broadband license.⁹ The significant increase in value of PDV's holdings will only be amplified if the Commission not only fails to protect incumbents, but adopts so aggressive a realignment plan that any incumbent wishing to make later use of the 900 MHz band for broadband operations is left with little option but to become a customer of PDV's. The Commission must ensure that narrowband licensees

which incumbents are forced to bear the financial burden of relocation from which incumbents will derive no benefit.

⁶ *Id.*

⁷ *Id.* at ¶ 34.

⁸ pdvWireless, *900 MHz Channels* (last accessed May 28, 2019),

<https://www.pdvwireless.com/900-mhz-channels/>.

⁹ See NPRM at ¶ 28.

remain able, both technically and under the Commission's rules, to develop and implement wideband and broadband technologies of their own.

Even if the Commission consents to the windfall PDV seeks, it must not effectively confine narrowband incumbents whose future needs may include broadband to the sole choice of becoming PDV's customers. While LADWP's communications needs do not currently include broadband services in the 900 MHz Band, the Commission should not take steps which inhibit narrowband licensees' ability to deploy broadband in the future. Nor should it adopt a framework in which broadband is prioritized at the expense of existing, effective narrowband functions already in place. Furthermore, broadband solutions already exist in other bands geared toward utility operations, and the Commission is contemplating further changes in other bands which may bring both new opportunities and new hardships to incumbents like LADWP.¹⁰ The 900 MHz Band forms yet another essential element of a utility communications system, and to the extent broadband technologies become important in this band in the future, they must be available to all – not only through contract with PDV.

The Commission may be correct that existing narrowband users in some instances may have unmet broadband needs.¹¹ But that need is not universal, nor is broadband inherently preferable to narrowband operations in all circumstances. Nor should the Commission's focus be so singularly placed on broadband that it dictates to utilities and other incumbents which technologies they must use, as would be the case if realignment is adopted based on an assumption that incumbents may have some unmet need.

IV. FIRST AND FOREMOST, ANY REALIGNMENT MUST BE CAREFUL, DELIBERATE, AND EMPHASIZE PROTECTION OF INCUMBENT OPERATIONS .

Should the Commission elect to realign the Band, the transition must minimize

¹⁰ See Comments & Reply Comments of the City of Los Angeles, ET Docket No. 18-295.

¹¹ NPRM at ¶ 18.

disruption, and the framework adopted must place incumbent protections first in all instances. Such an approach would minimize the burden imposed on incumbents, while limiting the scale of the windfall granted to PDV. A deliberate, careful transition must include ample lead time at all stages, and maximize incumbent choice – as the Commission recognizes, narrowband operations remain both viable and important,¹² and displacing those operations and burdening those users, while granting one company a clear spectrum windfall, stands in sharp contrast to the Commission’s obligation to serve the public interest. LADWP strongly opposes any framework under which the Commission, or any applicant, will compel repacking, relocation, or other action by an incumbent, or under which an incumbent bears any part of the costs of realignment.¹³ The reality may be that in congested markets broadband licensing simply is not viable due to the volume of existing use of the band; the Commission should not see this as a problem, however, but rather a reflection of the value and importance of narrowband operations in the Band, and a demonstration that broadband should be at most one option, but never something forced, in the 900 MHz Band.

A. A 1.4/1.4 MHz Broadband Allocation Is the Best Starting Point.

The public interest is best served by a smaller 1.4/1.4 MHz broadband allocation made available through a voluntary, gradual transition. This permits utilization of unused capacity for new broadband services, while minimizing disruption to incumbents. Provided strong incumbent protections remain in place, it also preserves future opportunities for both narrowband and broadband growth in the band, maximizing flexibility for all parties, rather than favoring one service over others. A smaller initial broadband allocation permits development and deployment

¹² *Id.* at ¶ 2.

¹³ *See, e.g. Id.* at ¶ 42 (contemplating an overlay auction granting licenses which would include the power to compel relocation; *id.* at ¶ 48 (describing an incentive auction which would necessitate repacking)).

of broadband solutions in the Band without displacing incumbent users, and may increase the viability of broadband services in markets otherwise too congested to realistically accommodate repacking without severely harming incumbents. A smaller broadband allocation also preserves flexibility, permitting negotiations between incumbents and potential broadband licensees to be more flexible with regard to precise channelization. Greater flexibility in band planning also reduces the risk that the Commission's proposal not to include any guard band for narrowband operations will discourage narrowband providers from accommodating broadband licensees.

This approach may also preserve the possibility for competition within the band in the future; a 3/3 MHz allocation with the proposed eligibility requirements effectively hands control of 900 MHz broadband to one company. Even the 3/3 MHz allocation will substantially disrupt existing LADWP operations in the most congested (and most valuable) markets, such as LA County. And 15 LADWP frequency pairs would be impacted by that plan in the Owens Valley (including Kern, Inyo, and Mono Counties). The 3/3 MHz plan, while perhaps preferable to a broadband licensee, does not protect either the present or future needs of narrowband licensees.

A 5/5 MHz reallocation plan – essentially clearing the band of narrowband operations in favor of broadband – should not be considered. Clearing a band of a service whose value and importance the Commission recognizes is fundamentally inconsistent with promotion of the public interest in the use of spectrum, and would only further amplify a potential windfall whose scale is already of concern to the agency. The impact on LADWP and other users would be maximized under such an approach, forcing tens of millions of dollars in costs on LADWP without the availability of any real alternative.

B. Future Narrowband Use of the 900 MHz Band Must be As Protected as Present Operations.

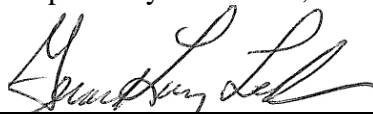
Any framework for realignment must protect incumbents' ability to grow and develop

their operations. The 3/3 MHz realignment plan does not; it would effectively prevent growth of narrowband operations in many markets.¹⁴ Even today, without any broadband allocation in the Band, LADWP faces coverage gaps due to congestion in the Band. In upgrading its 900 MHz operations over the past decade (described in greater detail above), LADWP sought to add capacity to its system in the LA County area, in addition to the expansions into the Owens Valley. No additional licenses were available in the necessary areas, however, resulting in a coverage gap between the Owens Valley and LA County areas which LADWP was forced to bridge with other communications means. The Band is, in some markets, *already* too congested for existing utility uses; the addition of a broadband allocation will only amplify these issues, and the adoption of a smaller, 1.4/1.4 MHz broadband plan will minimize these impacts and protect not only the present, but also the future of narrowband operations.

V. CONCLUSION

For the foregoing reasons, LADWP strongly urges the Commission to exercise all due care in considering the potential realignment of the band. A new framework whose benefits flow to an audience of one, and whose costs are born by incumbents with vital public safety and critical infrastructure operational needs, is fundamentally at odds with the Commission's duty to manage spectrum resources to further the public interest.

Respectfully Submitted,



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¹⁴ See, e.g. *Id.* at ¶ 49 (describing a repacking model under which incumbents would be repacked into only the minimum channel capacity necessary for current operations, with no clear accommodation for growth and expansion.)