Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Improving Public Safety Communications in the 800 MHz Band	)	
	)	
	)	WT Docket No. 02-55
Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels	)	
	)	

Second Round of Reply Comments of
Pinnacle West Capital Corporation
To Nextel's "Consensus" Plan

Pinnacle West Capital Corporation, an Arizona corporation ("**Pinnacle West**") hereby submits to the Federal Communications Commission (the "**FCC**" or the "**Commission**") its reply comments to Nextel's "Consensus Plan (the "**Second Round Reply Comments**") submitted in the Docket referenced above.[1] Specifically, these Second Round Reply Comments are in response to **DA 02-2202** and supplement Pinnacle West's Initial Comments submitted to the FCC on May 6, 2002, and its reply comments submitted August 7, 2002 (the "**First Round Reply Comments**"), both of which reflect the position of a Critical Infrastructure enterprise that is an FCC-licensee in the 800 MHz Band.[2]

I. Comments on Nextel's "Consensus" Plan

The "Consensus" Plan submitted by the Joint Commenters[3] includes what is characterized as a compromise proposal presented by a representative body of *all* users in

[1] Published in the Federal Register on April 5, 2002, Vol. 67, No. 66, at page 16352.

[2] Pinnacle West is the parent company of Arizona Public Service Company, Arizona's largest electric utility company.

[3] The Joint Commenters include: The Association of Public-Safety Communications Officials-International, Inc. (APCO); the International Association of Chiefs of Police (IACP); the International Association of Fire Chiefs, Inc. (IAFC) and International Municipal Signal Association (IMSA); the Major Cities Chiefs Association (MCC); the Major County Sheriffs' Association (MCSA); and the National Sheriffs' Association (NSA) (collectively, Public Safety Organizations); in conjunction with Aeronautical Radio, Inc. (ARINC); the American Mobile Telecommunications Association (AMTA); the American

the 800 MHz Band. The "Consensus" Plan calls for: (a) the swapping of licensees in the Band; (b) limited reimbursement of incurred costs to affected licensees; (c) relocation of some industrial and Critical Infrastructure licensees to guard band positions; and (d) makes Nextel whole with additional spectrum allocations.

Pinnacle West is not a member of this so-called coalition nor does its review of the list of its participating entities reflect that the electric utility industry or its members are a part of or otherwise supports the compromise as a feasible solution to the problem of interference in the 800 MHz Band.

The basic flaw in the "Consensus" Plan is the absence of recognition that there is an *immediate* need to remedy the 800 MHz Band conflict. The "Consensus" Plan will take years to implement and it is questionable that it will resolve interference problems. In practical effect, all it achieves is the perpetuation of the status quo to the benefit of those who have caused this conflict in the first place.

Yet another shortcoming relates to problems experienced in the Mexican Border Area. Fully 100% of the new proposed public safety allocation is currently allotted to Mexico. Realigning the border area plans to achieve the "Consensus" Plan's goal would trigger the need to renegotiate the governing treaty. Pinnacle West has stated its position in prior filings in this Docket that no proposed rulemaking should go forward until the border issues are resolved. If the Mexican border plan is to be re-negotiated it should: 1) not allow Mexican channels to be used on U.S. soil unless licensed by the FCC in the U.S. and be of like kind use to co-channel U.S. users; 2) do away with the offset channel requirement; 3) replace the fixed 70 mile zone boundary with a limit for signal strength at the border (*e.g.,* utilization of these Mexico-allocated channels in the U.S., must comply with the requirement that signal strength at and beyond the border does not exceed –110 db); 4) extend the 'regular' channel plan into the border area so that SMR channels are co-channeled with SMR channels, B/ILT are co-channeled with B/ILT, PS are co-channeled with PS, etc; and 5) provide a means for each country to 'coordinate' border area frequencies with each other.

The "Consensus" Plan ties re-banding of the 800 MHz Band together with issues in the 700 Mhz Band, 900 Mhz Band and the 1.9 Ghz Spectrum. By including all these spectrum uses and users into one plan and one proposed notice of rulemaking unnecessarily burdens resolution of the 800 Mhz Band interference issue, which was the focal point of this Docket in the first place. When considering the 800 Mhz Band re-banding issue as a standalone issue it can be treated as simple frequency swaps (*e.g.,* Nextel does not have to give up spectrum). With the proper FCC blessing, frequency swaps can be worked out among the swapping parties, with the effected parties

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Petroleum Institute (API); Association of American Railroads (AAR); the Forest Industries Telecommunications (FIT); the Industrial Telecommunications Association, Inc. (ITA); MRFAC, Inc. (MRFAC); the National Association of Manufacturers (NAM); the National Stone, Sand and Gravel Association (NSSGA); the Personal Communications Industry Association (PCIA); Small Business in Telecommunications (SBT); and the Taxicab, Limousine and Paratransit Association (TLPA) (collectively, Private Wireless Coalition) and, notably, Nextel Communications, Inc. (Nextel)

negotiating cost and logistics among themselves. The 700 Mhz, 900 Mhz and 1.9 Ghz spectrum items should not be any part of a rulemaking in this proceeding.

Yet another deficiency in the "Consensus" Plan is the Joint Commenters' definition of a cell site. The approach used makes it possible for Nextel-like entities to qualify with their equipment by just utilizing 18 transmitters at a site, which is one of Nextel's standard configurations. On the other hand the definition could also exclude sites used by standard trunking systems if the licensed frequency count is 20 or above.

Experience has shown that there should not be a channel count constraint. **All it takes is one adjacent IDEN channel** to wipe out Critical Infrastructure or public safety communications near a Nextel site (see Pinnacle West's May 6th comments). Alternatively, the emission designator should identify the interference potential for a given technology. Additionally, a better definition of overlap is needed, *e.g.* should trunking system sites as far away as 70 miles qualify as hand off sites? A usable urban cell site definition would address closeness to business, schools, major transportation corridors, etc, where public safety or critical infrastructure communications are likely to be needed, or simply be any low HAAT site in a populated area.

The "Consensus" Plan also places heavy reliance upon the *Best Practices Guide* as a compilation of methods available to solve the problem of interference in the near-term. As it indicated in its First Round Reply Comments, Pinnacle West does not believe the *Best Practices Guide* goes far enough to solve the problem, and is really an unacceptable solution. More appropriately the FCC should take the lead in defining (with industry guidance and input) specific avoidance strategies and technological fixes or remedies to specific types of interference. As indicated in Pinnacle West's First Round Reply Comments, these strategies might take into consideration the following principles, among others:

1. The interfering party should be made to reduce power until the interference is eliminated. The highest power IDEN subscriber unit is 3 watts, for two-way communications it is hard to see a need for repeater output any greater then 10 watts. This is an immediate fix that can be employed until the interference problem is fully studied and new rules can be placed in effect. In all events, offending users should be given no more than 60 days to correct the interference they cause. The first 30 days should be used to negotiate a satisfactory solution, and the second 30 days should used to implement remediation.

2. Inasmuch as transmitters are the major source of interference in the 800 MHz Band, users of these offending transmitters should be required to employ band limiting filters and isolation devices to eliminate them as a contributing source of interference. Particularly in the instant case, Nextel needs to be required to conduct its operations in a manner that conforms to the representations it made in its application for licensed use – meaning that users who operate outside the authorized scope of their license should be required to conform their uses to the manner in which they were

represented at the time the license was applied for and granted – failing which, they should be made to cease operation.

3. The practice of licensing more frequencies at a site than will reasonably be used should be stopped. We have seen 200 or more frequencies licensed, but only a fraction of those will actually be used. Employing the practice of limiting frequencies heightens compatibility among neighboring users by lowering the opportunity to "frequency hop" to the detriment of nearby licensees. When an application for licensed use is made to the FCC, careful consideration of the proposed use in relation to existing licensed uses should be made to *proactively* reduce the chance of interference and heighten compatibility.

II. Recommendations

In both its Initial Comments and First Round Reply Comments, Pinnacle West enunciated its suggestions for dealing with the issue of interference in the 800 MHz Band. At the risk of belaboring its position, Pinnacle West believes that these principles are worth enunciating again, in light of the "Consensus" Plan presented by Nextel.

Pinnacle West is not at all swayed from its position that a sound strategy to address 800 MHz Band conflicts today must be premised upon a two-phased approach which includes, as Phase I, careful technical evaluation of the problem, implementation of stronger technical standards such as those proposed by the UTC technical subcommittee corrective activity in the near-term with greater accountability and cooperation among licensees in their operations in the 800 MHz Band – overseen and consistently enforced by the FCC. Phase I is seen to effect a near-term LEAST COST solution. A longer term Phase II, will evaluate the desirability and logistics of rebanding (*assuming a need for Phase II truly remains after application of near-term solutions in Phase I*).

Pinnacle West's position is consistent with others expressed in this Docket, in that a tighter emission standard that constrains the transmitter emissions to the licensed frequency, will solve the vast majority of the interference problems. Implementation of a tighter emission standard is independent of the technology used and thus will provide the flexibility to take advantage of technology advances in the future without imposing unnecessary spectrum allocation inhibitors.

It remains Pinnacle West's position that Critical Infrastructure be afforded a higher priority of consideration when determining how interference in the 800 MHz Band is to be addressed; monetary compensation will not remedy the harm done to the public interest which will result if the partnering relationship among Public Safety and those entities which make up Critical Infrastructure is materially altered or dismantled.

The FCC needs to reemphasize its commitment to continual active oversight of the 800 MHz Band by assuring that licensed users in the Band conduct their operations in a manner that is consistent with the terms and conditions under which they were issued licenses, failing which such offending users should be made to cease their use until they conform to such terms and conditions and prevailing FCC-endorsed operating practices.

Pinnacle West does not oppose all forms of near-term restructuring, provided they make sense. For instance, licensees may agree at the local level to exchange frequencies. This form of case-by-case reshuffling can eliminate some conflict in the Band through reduction of frequency interleaving. However, this should not be mandated for all cases, but rather should be left to licensees to consider on a case-by-case basis if their circumstances suggest that it makes sense. In all events, however, the FCC should make clear its intention to hold the parties to their deal and to require implementation of safeguards to assure the benefit of the bargain is achieved, *e.g.*, "clean" transmitters and emissions.

Pinnacle West is opposed to any plan – including the "Consensus Plan -- that ignores the need for near-term action in preference for a more drastic, disruptive long-term solution. Properly addressed, the resolution of the 800 MHz Band conflict needs to be managed in two separate and sequential proceedings: the first should identify and evaluate technical operating specifications for Band management, while the more complicated issues of reshuffling within the 800 MHz Band and among adjacent Bands is considered in the second proceeding. Once re-banding begins, it is something that must be seen through to conclusion. Pinnacle West does not believe that such commitment exists today (in terms of important ingredients like sheer will-power, money and technology), nor that this is the right time to undertake such action, given events that place a premium on the efficacy of Critical Infrastructure. That does not suggest that the entire issue of 800 MHz Band conflicts be put on hold – it only begs the need for technically feasible, economic solutions that can address and perhaps eliminate some of the aspects of the conflict in the near-term without working needless hardships, disruption and dismantling of important resources.

Pinnacle West has paid continuing attention to the UTC-sponsored forum that has addressed technical recommendations for improving public safety communications in the 800 MHz Band. Pinnacle West actively supports the recommendations of this group and urges the Commission to give careful consideration to UTC's recommendations, many of which echo the points enumerated in Pinnacle West's First Round Reply Comments and these Second Round Reply Comments. Indeed before any action is taken to implement improvements, dialogues such those sponsored by the UTC should be fostered by the FCC in order that there be a complete understanding of the nature of the problem, its root causes and feasible solutions for the resolution of this important conflict. In particular, consideration should be given to:

- Beefing up the stringency and consistency of allowable emissions in the 700-, 800- and 900 MHz Bands.

- Discouraging mandatory rebanding as an effective interference resolution tool.

- Establishing interference mitigation standards in FCC regulations, including: (a) a definition of "harmful interference," (b) reaffirmation that the interferor bears the burden and cost of fixing the interference, even if he is utilizing his equipment within published specifications and (c) introduction of external filtering to mitigate interference.

III. Conclusion

Based upon the discussions in which Pinnacle West has participated, it is clear that there is ***no consensus*** of solutions to the problem of interference in the 800 MHz Band, despite the fact that the root causes are generally identified. Accordingly, the FCC should refrain from introducing new rules for rebanding to address this problem until there has been further technical study, leading to a complete appreciation of the problem and available solutions to fix interference in both the short and long run. Interim measures can and should be taken, however, like requiring offending users to lower power emissions, filter their emissions or employ other temporary fixes to correct interference. Under no circumstances, however, should an existing user be made to accommodate or tolerate a conflict especially if the nature of the existing use is important to the protection of public health and safety. Any proposal for rebanding as *the* solution should be put on hold until less disruptive and more economic options have been identified, used and exhausted.

Thank you for this opportunity to present our views. As indicated in its Initial Comments and First Round Reply Comments, Pinnacle West would welcome the opportunity to discuss its position and recommendations with the FCC's staff in an effort to better appreciate the issues and needs for interference-free, reliable communications in the 800 MHz Band. Any questions on our submittal should be directed to Mr. Jeffrey M Pell, IS Group Manager, Engineering & Construction, at (602) 371-6363, Jeff.Pell@pinnaclewest.com, who serves as point-of-contact for the Company on matters of telecommunications.

Respectfully submitted as of this 23rd day of September, 2002.

PINNACLE WEST CAPITAL CORPORATION

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