

# Broadband Alliance of Mendocino County

Date: July 20, 2015

To: Mendocino County Board of Supervisors

Subject: Inland Zoning Ordinance Revisions and Wireless Guidelines Update

From: Trish Steel, Chair of Broadband Alliance of Mendocino County

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Dear Chairwoman Brown and Supervisors;

I would like to share with you a survey comment from a resident of Mendocino County during the fiber outage last year. It may seem like this is un-related to the topic at hand, but please bear with me:

*“My Mother quit breathing and it took me awhile to get Skype up and running while continuing mouth to mouth (resuscitation) and trying to reach a friend to call 911 for me. It was hell. She is OK now.”<sup>1</sup>*

This person could not connect to the 9-1-1 system via phone, but he had the bright idea to use his computer and his internet connection to Skype a friend, who did call 9-1-1 on their behalf.

Like it or not, the land line telephones are going away and the transition to “Internet Protocol” (IP) is well underway. The copper infrastructure is old, deteriorating and not being maintained because the telecoms don’t want to put money into such “legacy” services. We are seeing prolonged repair times which often don’t actually fix the problem. Incumbents are lobbying to get out of their universal service requirements, liquidating their landline assets (such as the current application before the FCC and CPUC by Verizon to sell all their landline assets in California, Florida, and Texas to Frontier Communications<sup>2</sup>) and are transitioning customers onto their wireless (and more profitable) services.

Unfortunately for our rural county, the telecoms will not be putting enough resources into their wireless infrastructure to fill all the gaps in areas that do not meet their “Return on Investment” (ROI) models for expansion, possibly leaving residents outside of the higher population areas or travel corridors without any type of reliable communication. Even areas that the cellular companies are claiming as “served”, may not be. The new North

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<sup>1</sup> From Mendocino County Broadband Outage Report; Appendix B, Response 1; [http://www.co.mendocino.ca.us/bos/pdf/CPUC\\_Incident\\_Report\\_Letter\\_-\\_4\\_Appendix\\_B.pdf](http://www.co.mendocino.ca.us/bos/pdf/CPUC_Incident_Report_Letter_-_4_Appendix_B.pdf)

<sup>2</sup> See the article in the Redwood Times <http://www.redwoodtimes.com/general-news/20150713/cpuc-hears-local-communications-concerns>

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Bay-North Coast Broadband Consortium did extensive “ground truth” testing across our four counties, and determined that claims by providers for areas as “served” by mobile wireless did not match up with their ground-truth test results.<sup>3</sup>

However, there are solutions. BAMC’s Technology Chair recently provided an educational “Fixed Wireless” tutorial at a recent public outreach meeting, and his closing comment was:

“Wireless is our only solution for now for various areas. What we need is to get creative and work from the grassroots. We can’t make wireless work without our neighbors, which in this area is how people typically think. Meet with your neighbors, and solve this.”<sup>4</sup>

Our small local Wireless Internet Service Providers, or WISPs are willing to find these innovative creative solutions and to work with a lower ROI model, and they work hard to deliver reliable and affordable service. During the big storms in December, with 50 mph winds and 4 inches of rain, coastal resident Phil Burdock posted on social media how impressed he was with his new wireless De Novo service: “There was ZERO slowdown or interruption in service.”<sup>5</sup>

However, it is definitely an uphill battle. Working on very thin profit margins with few employees, they are often ineligible for state and federal money; these grants typically go to the “big guys” (the price-cap carriers like AT&T and Verizon). Even with recent state and federal changes to make WISPs eligible for funding, the application requirements are prohibitive. One local provider was successful in receiving a federal Broadband Experiment grant, but had to withdraw because of the difficulty meeting the requirements.<sup>6</sup> The state CASF grant application has 27 pieces<sup>7</sup>, and a recent WISP applicant told me he

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<sup>3</sup> Phase 2 Results; <http://www.mendocinobroadband.org/wp-content/uploads/Phase-2-NBNBCB-GTT-Report-1-9-15.pdf>; Detailed testing and analysis (using CPUC-accepted methodology) based on 184 field tests across four priority areas showed that none of these priority areas should be designated as “served.” The NBNBCB has requested that the CPUC officially change the designations on the California Broadband

<sup>4</sup> Brian Churm, Fixed Wireless Tutorial; <http://www.mendocinobroadband.org/wp-content/uploads/05-03-15-Fixed-Wireless-Tutorial-Notes.pdf>

<sup>5</sup> Reposted to BAMC’s Facebook page on May 12, 2015; <https://www.facebook.com/BroadbandAlliance>

<sup>6</sup> From their withdrawal later dated Dec. 2014: “Despite our best efforts, as a small WISP we are finding it impossible to meet the requirements of the program. This is due specifically to the burdensome Letter of Credit (LOC) requirements as stipulated in the Rural Broadband Experiments Order.”

<sup>7</sup> From CASF website; [http://delaps1.cpuc.ca.gov/cpuc\\_notices/CASF\\_Home\\_Page.htm](http://delaps1.cpuc.ca.gov/cpuc_notices/CASF_Home_Page.htm)

spent almost 1,000 hours on his application (which has since been challenged and will require more time and effort).

How does all this relate to permitting and the issue before you? It tells the story of how crucial broadband provided by small local providers is *and will increasingly become for our county*, and also how our local providers face many challenges and barriers. Our outdated county permitting is currently another obstacle for our small providers.

Concern for public safety is a large part of why permitting is even necessary. Yet, our current regulations are barriers to projects that could increase public safety. Having broadband available during a telephone outage may be a way for residents to access 911 services (as evidenced by the quote at the beginning of these comments). The beaches along our coast, with sometimes dangerous ocean conditions, unstable cliffs, and uneven ground are also our high tourist areas and often receive no cell signal. In the case of an emergency, reaching 911 is problematic. A personal friend of mine experienced this firsthand: he and his wife were at Schooner Gulch State Beach when his wife slipped, fell, and cracked her pelvis. With his wife in pain and unable to walk, and no cell signal available, he had to leave her alone on the beach and run up to an emergency landline phone located about a mile away to call for help. He then waited at the phone for emergency responders to arrive, and then led them down to the beach and his wife. She was airlifted by chopper off the beach to an airstrip close by where search and rescue routinely transfer patients (which also doesn't have cell coverage). However, the communications saga continued, as responders had to call various hospitals to find which one had an orthopedist available to determine where to transport her by ambulance. The ambulance travelled north to get cell coverage to make these calls, but ultimately decided to transport her to Santa Rosa, backtracking south. This lack of cell coverage delayed her arrival at the Santa Rosa hospital by 45 minutes. This delay for a cracked pelvis was not a big deal, but for a stroke victim it could mean the difference between life and death. If some of our local providers were working in these areas, they could provide Wi-fi coverage for our beaches and high-tourist areas so that Emergency Services could be reached quickly. Although not currently available, Greg Blake from the Mendocino County Sheriff's office has said that "TEXT to 9-1-1 will be here...once we go live with ESI Net we are 6-7 months away from accepting TEXT to 9-1-1."<sup>8</sup> Companies are building phones with "wi-fi calling" built into their operating systems, and providers are offering the service in their plans<sup>9</sup>. Many people already use third party applications (Skype, Google Voice, Magic Jack) on their smart phone to enable VoIP calling.

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<sup>8</sup> From a phone conversation with Greg on 7/17/15 and subsequent email on 7/21/15; counties are currently waiting on the state to approve standards before it can be implemented.

<sup>9</sup> Sprint currently has Wifi-calling; AT&T and Verizon have said it will be available in 2015; for more information please visit <http://support.sprint.com/support/article/FAQs-about-WiFi-Calling/173e331f-8423-453e-93cb-4688f6a91f67#!>

The current regulations may be inhibiting the economic development of our county, as businesses can't start or expand if they don't have adequate broadband. According to a recent FCC report, Internet access is a key economic driver and was behind their move to up broadband speed standards to 25 Mbps download/3 Mbps upload. And yet, rural Americans continue to be underserved at all levels. Using this new metric, more than 68% of rural households in Mendocino County are not being served according to CPUC data.<sup>10</sup> Many residents and businesses in our county are still on dial-up and thirsty for service or improved services. Ensuring that all Mendocino County residents have routine access to high-speed Internet must be an economic development top-priority for the County.

The Pew Research Foundation recently reported on the "homework gap" which found that kids *without* access to broadband are not doing as well on homework compared to those students *with* broadband, and that access to broadband at home is correlated to overall educational level.<sup>11</sup> Our state Superintendent of Public Instruction set a goal years ago for students to learn from "any time, any place, any pace" <sup>12</sup> ...but that is not a reality for our kids. Our schools may have finally received adequate broadband, but when kids go home they can't do their homework. We are doing our kids a dis-service.

Broadband access is believed to offer social and economic benefits that are in the public interest. Individuals, businesses, non-profit organizations, and the government all critically depend upon reliable high speed Internet for all aspects of their operations including finance, administration, regulatory compliance, information acquisition and emergency and localized services. High-speed Internet access saves time, money, petroleum, and road maintenance. A report by the Public Policy Institute of California (PPIC) which conducted a large study on the gap between rural and urban California, concluded that broadband policy in California should focus on increasing availability in rural areas and on helping to raise adoption rates among disadvantaged groups in urban areas.<sup>13</sup> Anchor institutions and non-profits that often serve disadvantaged groups are frequently themselves underserved, which compromises their ability to perform their missions. Our country as a whole is

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<sup>10</sup> Broadband Availability by County, CPUC June 2014 Data; <http://www.mendocinobroadband.org/data-and-reports/6>

<sup>11</sup> Pew Research April 2015; <http://www.pewresearch.org/fact-tank/2015/04/20/the-numbers-behind-the-broadband-homework-gap/>

<sup>12</sup> Tom Torlakson, California State Superintendent of Public Instruction Education Technology Task Force Recommendations from August 2012; <https://www.mydigitalchalkboard.org/cognoti/content/file/resources/documents/68/6888f59f/6888f59f10eb3403fb69e00110c12515bb735e3a/FinalETTFMemo.pdf>

<sup>13</sup> [http://www.ppic.org/content/pubs/cep/EP\\_707JKEP.pdf](http://www.ppic.org/content/pubs/cep/EP_707JKEP.pdf)

recognizing the negative effect this “digital divide” has on our nation, and is pledging resources to address it.<sup>14</sup>

Current regulations that require a Major Use Permit for small isolated projects are often ignored because this requirement is unreasonable given the size and scope of the project (and from my understanding, no such applications have been submitted). Access Sonoma Broadband and the Broadband Alliance work closely together on broadband issues, and Tennis Wick, Permit and Resource Management Director for Sonoma County, has looked at our proposed revisions and commented that they are “very similar to what Sonoma County currently has in place, and that work well.”<sup>15</sup>

### **In conclusion:**

The Digital Divide in our county needs to be addressed proactively. Our current county permitting regulations are outdated and need to work with the telecommunications realities of today. We recognize that the county must balance various priorities in setting policies and regulations, including the subjective quality of aesthetics. However, the permitting process must be *flexible* in order to take into account the nature of these much smaller, often solar-powered, and line-of-sight community-based networks.<sup>16</sup> For all the reasons articulated above the Broadband Alliance is in support of these revisions. Because these changes have already been “in the works” for three years,<sup>17</sup> we ask that **they be approved today** with no further delay.

The coastal permitting problem also needs to be actively addressed. We respectfully ask that you **direct the county CEO to direct our Planning Department staff to make it a top priority and fast-track similar revisions to the coastal zone permitting process.** Many unserved and underserved populations live, work, and go to school in our coastal areas and are in need for improved broadband services. The coastal beaches and towns are also our high-tourist areas that would benefit from improved communications for public safety.

Thank you for this opportunity to comment.

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<sup>14</sup> 7-15-15 [https://www.whitehouse.gov/share/heres-what-digital-divide-looks-united-states?utm\\_source=email&utm\\_medium=email&utm\\_content=email478-text&utm\\_campaign=connecthome](https://www.whitehouse.gov/share/heres-what-digital-divide-looks-united-states?utm_source=email&utm_medium=email&utm_content=email478-text&utm_campaign=connecthome)

<sup>15</sup> Said publicly at the 7/15/15 Access Sonoma Broadband meeting; and also confirmed in an email to me on 7/16/15 with permission to quote him.

<sup>16</sup>Due to the low power of these networks, they cannot penetrate through forests and must therefore be line-of-sight.

<sup>17</sup> We first met with Planning Department staff in May of 2012 and began to discuss revisions of the ordinance. Notes from this meeting are available on our website; <http://www.mendocinobroadband.org/topics/steering-committee/page/4/>

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