

# NORTH BAY-NORTH COAST BROADBAND CONSORTIUM

*A member of the California Public Utilities Commission's Rural and Urban Regional Consortia Program*

## Oversight Committee

Supervisor Steve Kinsey (Marin)

Supervisor Dan Hamburg  
(Mendocino)

Supervisor Diane Dillon (Napa)

Supervisor Efren Carrillo  
(Sonoma)

Liza Crosse- Oversight  
Committee Manager

## Consortium Manager

Tom West

## County Management Teams

### Marin:

Peter Pratt - County Liaison/Manager  
and private consultant

Barbara Thornton – County Co-  
Deputy/Liaison Manager and EO

Marin Telecommunications Agency  
Barbara Layton – County Co-Deputy  
Liaison/Manager and Manager,  
County Enterprise Systems Manager

### Mendocino:

Jim Moorehead-retiring County  
Manager/Chair of The Broadband

Alliance of Mendocino County  
Steve Dunicliff –New County  
Liaison/Manager and Director of  
County Planning and Building  
Services

Trish Steel - County Deputy Liaison/  
Manager and upcoming Chair of The  
Broadband Alliance

### Napa

Anthony Halstead – County Liaison/  
Manager

### Sonoma:

Mike Nicholls – County Liaison/  
Manager

Steve Sharpe- County Deputy  
Liaison/Manager



*Broadband Alliance Technology Chair Brian Churm making a presentation on Net-Neutrality*

## FORMATION AND MISSION OF THE BROADBAND CONSORTIUM

A year ago the county Boards of Supervisors of Marin, Mendocino, Napa and Sonoma endorsed the formation of the North Bay/North Coast Broadband Consortium. The mission of NBNCBC is to ensure the needs for broadband access and adoption are met in every corner of all four counties. NBNCBC's top priority and immediate focus is on bringing broadband services to the "unserved" and "underserved" areas in our four counties. The long-range goal is to ensure that each county and the four-county region have the robust broadband infrastructure needed to spur economic development and provide to the needs of its citizens.

In June 2014, the NBNCBC became the 16th regional state consortium when they were awarded a two-year grant for \$250,000 from the CPUC-CASF Rural and Urban Regional Broadband Consortia Grant Account. The CPUC grant has been augmented by: 1) in-kind, 2) volunteer and 3) county resources in each county.

## NBNCBC Priority Areas

In early Spring 2014 the CPUC requested the regional consortia and counties submit their “unserved” and “underserved” priority areas for inclusion in CPUC’s impending Resolution T-17443. Three of the four NBNCBC counties (Mendocino, Sonoma and Marin) submitted 30 priority areas to the CPUC and designated them as either “unserved” or “underserved”. Napa has since submitted 3 priority areas for inclusion (see map at right)

The current CPUC Speed Standards are:

### SERVED

Download Speeds  $\geq 6$  Mbps  
 Upload Speeds  $\geq 1.5$  Mbps

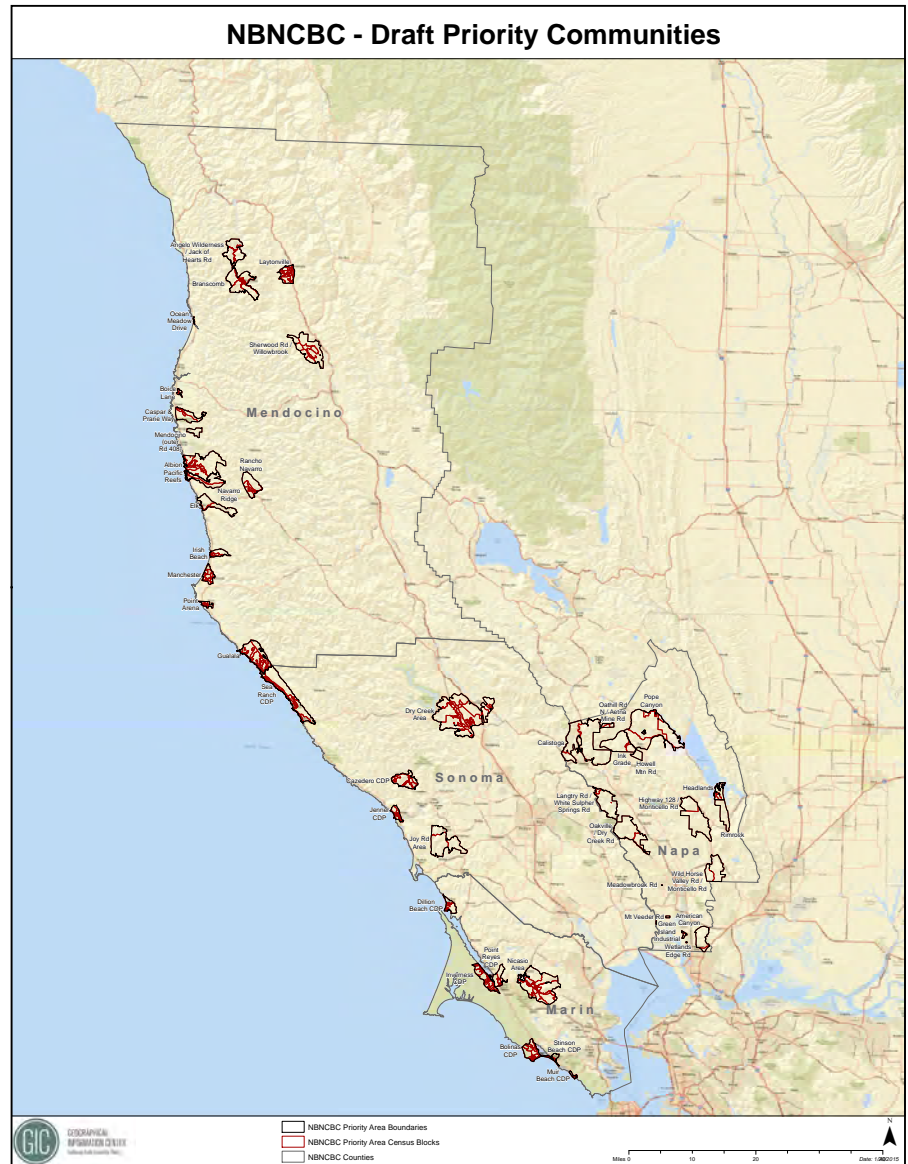
### UNDERSERVED

Download Speeds  $\geq 768$  Kbps  
 and  $< 6$  Mbps  
 Upload Speeds  $\geq 200$  Kbps  
 and  $< 1.5$  Mbps

### UNSERVED

Download Speeds  $< 768$  Kbps  
 Upload Speeds  $< 200$  Kbps

Based on the California Broadband Availability Map, 25 of these 33 priority areas are designated as “served”, including 13 priority areas that are only reached by mobile wireless service.



These 33 priority areas include: (Marin) Greater Nicasio Area, Dillon Beach Area, Inverness, Point Reyes Station, Point Reyes-Stinson Beach Area, Bolinas, Muir Beach Area, and Stinson Beach; (Mendocino) Laytonville, Branscomb, Wilderness Road/Jack-of Hearts, Ocean Meadows Circle, Boice Lane, Caspar/Prairie Way, Road 408/409, Albion, Navarro Ridge Road, Pacific Reefs, Elk, Irish Beach, Manchester, Point Arena, Rancho Navarro, Sherwood Road/Willowbrook, and Gualala;(Sonoma) Jenner (Jct. Highway1 and Highway 116), Joy Road (near Occidental), Cazedero (near Guerneville), Dry Creek, and Sea Ranch; (Napa) Pope Valley, Dry Creek, and Green Island Industrial Park.

## Mobile Wireless Ground Truth Test Results

As stated in another section of this newsletter, three of its four counties (Mendocino, Sonoma and Marin) submitted 30 priority areas to the CPUC and designated them as either “unserved” or “underserved”. However, based on the California Broadband Availability Map, 22 of these 30 priority areas are already designated as “served”, including 13 priority areas that are only reached by mobile wireless service.



We expressed our concern in a letter to the CPUC that mobile wireless should *complement*, but not *replace*, fiber-based broadband infrastructure. CPUC CASF staff suggested the best recourse for NBNBCB would be to prove that the provider advertised speeds in the California Broadband Availability Map for specific priority areas were incorrect through ground truth testing evidence.

Thus, in September 2014 NBNBCB launched a multi-faceted, ground truth testing effort across the four counties to test wireline, fixed wireless and mobile wireless speeds. The primary purpose of this effort is to validate or refute the provider reported (and advertised) download and upload speeds in these areas that are claimed to be “served” according to the official CPUC map, and to solve this discrepancy.

Using the CPUC’s standing protocols and methodology, the NBNBCB contracted Chico GIC to conduct 632 field tests in 158 locations in 17 NBNBCB priority areas for mobile wireless. Chico determined that five areas were already listed as “underserved” on the CA Broadband Availability Map, and thus were not tested. Results from phase 1 and phase 2 conclude that *all of the 17 priority areas tested out as being “unserved” or “underserved” for mobile wireless services*. Combined with the five areas that were not tested, we have a total of 17 of 22 priority areas confirmed as unserved/underserved by the mobile ground truth testing.

NBNBCB submitted a cover letter and two reports to the CPUC with the results of our testing, and requested that based on our testing results, the CPUC change the designations of these areas from “served” to either “unserved” or “underserved”, and also that the data be used to update the California Broadband Availability Map.

More testing is scheduled for January and February, 2015 in three priority areas of Napa.

## Seven Years of Dedication

On Dec. 5th, 2014 the Mendocino Community crowded into a local restaurant to give a hearty farewell and thanks to Jim Moorehead, the retiring county manager and Chair of the Broadband Alliance of Mendocino County. Jim dedicated seven years of his life to the broadband cause, showing a commitment that went above and beyond. The county Board of Supervisors also honored Jim at their December meeting and issued a proclamation which “hereby recognizes Jim Moorehead for his efforts and commitment, and warmly acknowledges his dedicated community service in working to bring 21st century broadband technology to all of the residents of Mendocino County and Northern California.” Thanks Jim for your years of hard work and dedication. You will be missed.



*Retiring Broadband Alliance Chair Jim Moorehead receiving an award from Supervisor Dan Hamburg for seven years of dedication to the broadband cause.*

## Synopsis of NBNCBC's First Six Months of Activity

As a regional planning consortium we have completed our first six months of effort on the **Year 1 Work Plan**. Here is a synopsis of the activities and results of **NBNCBC** over this period.

Collectively and as individual county teams we have spent considerable time identifying the priority areas in each county; working with community groups to better understand their broadband needs; meeting with some of the major providers and the majority of the local broadband providers to better understand their current offerings and plans for the future; interacting with the CASF/CPUC staff to seek clarification on the rules, regulations, and processes that govern the CASF Infrastructure Grant Program and the California Broadband Availability Mapping; conducting extensive mobile ground truth testing in our priority areas to confirm or refute the designations of the CPUC on the California Broadband Availability Map; and, monitoring the activities and actions of the FCC, especially as they relate to the Connect America Fund serving rural areas across the country and the public policy issue of Net Neutrality.

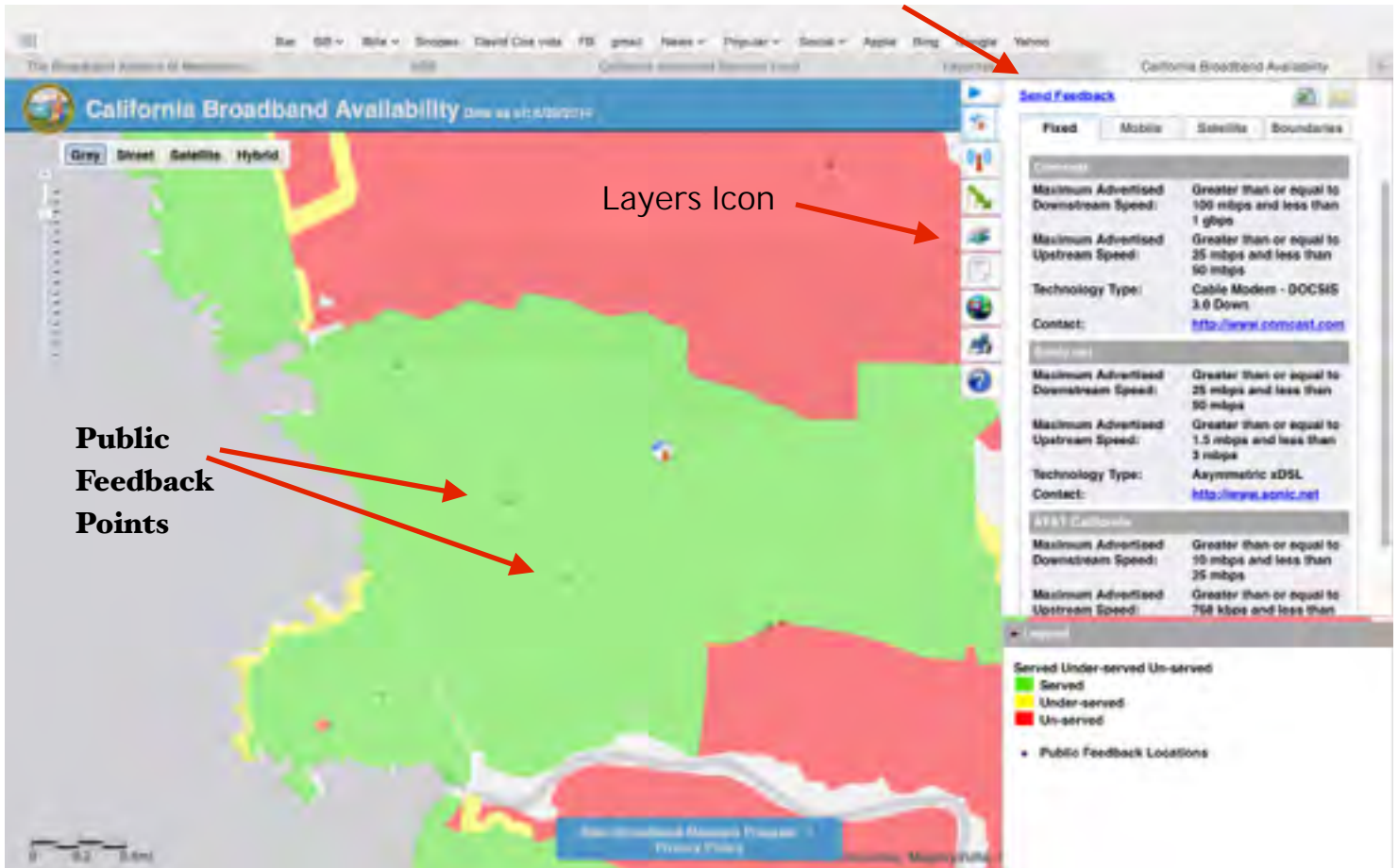
As a result of these activities here is what we have learned:

- **Priority areas** in Marin, Sonoma and Mendocino have been ground truth tested for mobile wireless in all the priority areas; as a result all these areas tested as either “unserved” or “underserved”. *clarify for mobile wireless*. We have requested the CPUC to change the designations on the California Broadband Availability Map. The priority areas in Napa will be tested in January and February.
- **Community groups** in “unserved” and “underserved” areas that we have met have expressed deep frustration about the lack of adequate broadband capacity and services. They have also expressed concerns about the affordability of existing and future services. They are eager to have one or more providers implement infrastructure and services that will meet their growing needs for capacity broadband. They want broadband capacity that meets and exceeds the current CPUC and FCC speed standards.
- **Major Providers**, AT&T and Verizon, have not been willing to share with us their plans for upgrading infrastructure and services in any of our four counties They contend their plans are private and proprietary. Both seem to be focused on expanding their mobile wireless capabilities and to just hold status quo or abandon their wireline services in the four counties.
- Comcast has shared information with us about its current services and fiber-based infrastructure. It does not appear Comcast has plans for major expansion of infrastructure in our four counties.
- **Local Providers** are eager to provide the quality and capacity of broadband services needed by the communities they serve. The technologies they use vary; some companies are using wireline technology (existing copper, fiber or cable) while the more recent entrants are deploying fixed wireless to deliver their services. These local providers face at least two major challenges. One challenge is gaining access to affordable and diverse/redundant middle-mile backhaul transit capacity. They have limited options.
- The second challenge facing local providers is having sufficient investment capital to maintain, upgrade and expand their infrastructure to meet the growing customer needs and to stay ahead of the broadband speed minimum standards of the CPUC and FCC. While these providers are creative business people they operate on a smaller return on investment than the major providers; this results in their having less reinvestment capital to expand their service area.
- **CPUC's** decisions, rules, regulations and processes provide key to deploying ubiquitous and affordable access to broadband across California, especially rural Northern California. While our interactions with CASF/CPUC staff over the past six months have been positive and helpful the reality is that existing CPUC decisions, rules, regulations and processes for the CASF Infrastructure Grant Program present major challenges for local providers to seek such grants These challenges include: 1) Eligibility Requirements, especially the need for a CPCN; 2) the required 30 or 40 percent of Matching Funds is a major challenge to the small local providers; 3) the lack of sufficient numbers of staff in the small provider entities to develop the grant application; and 4) the cost to submit a grant application. In spite of these challenges we are encouraging and working with local providers to submit applications.
- **FCC's** Connect America Fund (CAF) is a potential source of funding for infrastructure deployment in “underserved” areas in the four counties. This month the FCC increased its speed standards to 10 Mbps download and 1 Mbps upload. The Rural Experiments Program that is just underway is using these standards to judge these grant proposals. It is anticipated the over \$1 billion will be available in CAF over two years, once they are made available for competition.

Based on what we have learned over the past six months we have developed a set of strategies for the next six months.

# California Broadband Availability Map

## Send Feedback Link



The California Broadband Availability Map has a lot of useful information found in the various layers, and although it takes a little time to learn it, it's a good resource to use. In addition, your input is important to help improve it's accuracy, especially since grant funding often depends on this map. Here's how to begin using the map and checking out it's features:

- To go <http://www.broadbandmap.ca.gov/map/>, put in your address, and click "locate"
- The map will tell you which providers are available in the technologies of fixed (cable, DSL, fiber, fixed wireless, etc), mobile (cell phones) and satellite services.
- If the map says that a certain service is available (for example, Comcast in the example map above), and you were told *by* Comcast they they do not provide service to your address, it's REALLY important to convey that information to the CPUC by clicking the blue "send feedback" link that is directly above listings. This takes you to a short survey where you can provide this important feedback. In the example map above, the house is in a green wireline "served" area surrounded by red "unserved" area; since designations are based on census blocks the house may actually be unserved.
- Click the 5th icon down to explore the various Layers of the map (this layer has the colors). You can see census block and political boundaries, broadband availability by technology and speeds, public feedback locations, and much more. If you have filled out the "send feedback" survey, a dot should be visible at your location (no name or address though) for having provided public feedback.
- Have Fun!

## Marin County Update

County Manager Peter Pratt

Media reporting on the Commission's approval of NBNBCB and Marin County's role in organizing the new Consortium generated a favorable editorial in the local newspaper of record, The Marin Independent Journal, on August 18. [http://www.marinij.com/opinion/ci\\_26360837/editorial-its-about-time-connect-entire-county](http://www.marinij.com/opinion/ci_26360837/editorial-its-about-time-connect-entire-county)

With the title It's About Time to Connect the Entire County, the paper's editors wrote, "According to the California Public Utilities Commission assessment of broadband access, 3.2 percent of our county is unserved or underserved." The editorial concluded, "Without the regional consortium's leadership, communities that are unserved or underserved will be left stranded on the side of the road of the (information) superhighway." You can read the entire article [here](#).

The inclusion of mobile wireless data in the published Priority Areas of Commission Resolution T-17443 of the Commission unfortunately had 'converted' all 4 underserved and unserved communities of West Marin to "served" designation. Marin is the only county in NBNBCB to experience such a 100% conversion rate. For this reason, Marin officials are gratified that the testing work conducted by the Consortium, and the commitment of CASF staff to use the corrected sampling data to adjust CPUC's published Broadband Availability data has been successful.

As the Marin Broadband Task Force (MBTF) works with providers interested in securing CASF grants to build new and upgraded broadband networks in the under- and un- served communities of West Marin, these corrected figures at the Census block level have been of critical importance. We look forward to supporting and endorsing applications to CPUC for these communities during 2015.

Particularly through the representatives of Marin County's Department of Public Works and Information Services Department on MBTF, we enter 2015 with a simultaneous focus on the important changes to the national E-Rate program issued by the Federal Communications Commission (FCC) in its two (2) E-Rate Modernization Orders of 2014. Given the presence in Marin County of competitive high capacity optical fiber loops, we now believe that these initiatives of FCC may be implemented locally to help finance the extension of needed fiber networks into our underserved areas, as schools and libraries are provided with higher bandwidth more cost effectively.

## Sonoma County Update

County Manager Mike Nicholls

Access Sonoma Broadband (ASB) over the last quarter has been involved in meeting and exceeding goals established in our application to CASF.

Groundtruthing within Sonoma County was completed, was evaluated by CPUC and our Sonoma County Priority Areas were reclassified from served to either unserved or underserved. This action, proving to CPUC our areas were actually unserved or underserved, qualified ASB to move forward in preparation for grant applications. To that end ASB contracted with a third-party qualified plant designer to develop feasibility studies for Dry Creek, Greater Joy Road, and the Cazadero priority areas. The Greater Joy Road feasibility study was successfully completed and presented to the members of that community for study and consideration for the next step in developing a successful grant application. Feasibility study development for the Cazadero and Dry Creek priority areas is underway and expected to be completed by the end of February 2015. Funding for this project was included in our budget submitted to CASF through NBNBCB.

Monthly meetings have included presentations by key anchor groups, the county librarian, Sonoma County Department of Education, Public Safety (County Sheriff's Department), Internet Service Providers, and County Planning (PRMD).

ASB Co-chair Michael Nicholls traveled to Washington DC in late October. The invitation was extended by the advocacy group, Public Knowledge, to lobby and discuss with key members of the California Delegation Staff, RUS, USDA and FCC the issues of Net Neutrality, the need for Title II Oversight, educational disparity between served urban and unserved rural students, non-redundant 911 service and the challenges facing the unserved in our four county consortium.

## FCC Proposes to Up Speed Standards to 25/3

FCC Chairman Tom Wheeler is proposing a change in the definition of broadband in order to promote faster internet speeds. “Advanced telecommunications capability”, or what we all call “broadband”, is defined by the speed of your internet connection in megabits per second (Mbps) for download and upload. Currently the speed to be considered “broadband” by the FCC is 4 Mbps/download and 1 Mbps/upload. (You might note that standards vary across states; the California Public Utilities Commission uses the standard of 6 Mbps/download and 1.5 Mbps/upload.)

Now FCC Chairman Tom Wheeler is proposing to increase those speed standards to 25 Mbps/download and 3 Mbps/upload out of concern that

Internet Service Providers are failing to serve rural communities. Rural residents are by far the ones impacted by the “Digital Divide”, that gap between those with access to adequate broadband and those without access. Failing to have adequate broadband negatively impacts the economy, public safety, education, health, and many other aspects of life for rural residents. In fact, 55 million Americans lack access to broadband service that would meet the proposed new definition, 96.4% of them living in rural areas.

<http://www.blogforiowa.com/2015/01/09/fcc-chair-tom-wheeler-redefining-broadband-will-help-53-million-rural-americans/>

## Telecommunications Failure Can Mean Life-or-Death Situations

Both Sonoma and Mendocino have recently experienced telecommunications failures, and the impacts were widespread and sometimes terrifying.

The person quoted above had no 911 services, yet could Skype with a friend who made the call for help when his mother was in a life-or-death situation.

Fortunately such situations were rare, but the outage did lead many seniors and disabled persons to feel vulnerable and fearful without any connection to their families and medical care. Businesses, including many small home-based businesses completely dependent on their internet connection, also faced economic losses, as many were unable to function and had to shut

*“At the time I was giving my Mother mouth-to-mouth resuscitation between trips to the computer.”*

*-Survey Respondent*

down for the duration of the outage or lost valuable opportunities. Tourist establishments had their reputations damaged as they were not able to respond to reservations and questions.

To read more comments and the full report, please visit <http://www.co.mendocino.ca.us/bos/incidentreport.htm>

To file a complaint with the CPUC about telephone or internet quality, please visit The Utility Reform Network website at [www.TURN.org](http://www.TURN.org) and click “File a Complaint” in the upper right hand corner. This provides TURN a copy of the information before you proceed to the CPUC website.

## What Does It Take To Get Adequate Broadband?

Many people and communities without broadband or sub-standard are asking this question. Some are only feet away from the end of a cable, and yet cannot get companies to extend service to their house. Unfortunately, living in rural, low-density areas mean that we provide a low "return on investment" for these companies, and hence they are often not willing to spend the money that it would take to extend their networks.

"Broadband Silos" also create a challenge. Silos result when a company provides (often subsidized) service to a major institution (schools, hospital, etc), but not to the surrounding communities. Hopefully changes in legislation such as E-rate to schools will help break down some of these silos.

Mendocino County is currently in the process of developing and approving an "Alternative Permit Process" to make permitting for small, solar-powered broadband antenna sites less prohibitive and costly.

Many smaller local providers, who are willing to operate at a lower return on their investment, are stepping up to fill these gaps. They feel a sense of responsibility for their communities, and are trying creative ways to connect people up.

Some cities have organized and created Municipal Broadband Networks with excellent results. Check out the Institute for Local Self-Reliance website for information about these networks (<http://ilsr.org>).

Other people are figuring out ways to "do it themselves." Communities across our four-county region are organizing to advocate on their own behalf. One thing is clear though: the challenge is great, but so are the rewards that come with success.



*"One tired 65 year old after a 120 foot trek to the top of his redwood tree to realign his broadband antenna for 2 mbps service!"*



## Rep. Jared Huffman Invites President Obama to Visit California's North Coast

Congressman Jared Huffman (D-San Rafael) today invited President Barack Obama to visit California's North Coast to discuss closing the digital divide in rural America. During the recent State of the Union Address, President Obama called for a major investment in "21st century infrastructure—modern ports, stronger bridges, faster trains and the fastest internet."

In a letter sent January 21st, Huffman noted that many communities on California's rural North Coast do not have access to reliable high speed Internet choices due to difficult terrain and chronic underinvestment in physical infrastructure. Many of Huffman's constituents have slow connection speeds and frequently lose connectivity. The lack of reliable broadband infrastructure on the rural North Coast has left many communities unable to pursue new economic opportunities.

"My constituents who currently have slow connection speeds and intermittent Internet service know the importance of broadband access for economic development and a vibrant quality of life. Bringing reliable broadband to underserved rural areas would improve educational opportunities, expand access to healthcare, and help local businesses," Huffman wrote. "I respectfully invite you to travel to the North Coast and meet firsthand with the people on the frontline of closing the digital divide in rural America. I believe that visiting the region and seeing the work that must be done to connect these communities — and the significant value that broadband connections would bring — would be instructive to your administration."

***"Bringing reliable broadband to underserved rural areas would improve educational opportunities, expand access to healthcare, and help local businesses."***

***-Representative Jared Huffman***

Huffman also invited President Obama to tour the Point Arena-Stornetta Unit of the California Coastal National Monument, which President Obama created using the Antiquities Act last year.

A copy of the Letter that US Congressman Huffman sent to President Obama can be found on his website: <http://huffman.house.gov/media-center/press-releases/rep-jared-huffman-invites-president-obama-to-visit-california-s-north>

## Upcoming Events

### NBNCBC Oversight Committee Meeting

April 2nd, 2015 9 am

- Meeting locations vary with each county, contact the person below for specific information:

**Marin:** Supervisor Steve Kinsey,  
skinsey@marincounty.org  
(415) 473-7331

**Mendocino:** Trish Steel,  
Chairman@MendocinoBroadband.org

**Napa:** Anthony Halstead,  
anthony.halstead@countyofnapa.org

**Sonoma:** Steve Sharpe,  
steve.sharpe@sonoma-county.org

### Broadband Alliance of Mendocino County

- Please check the website for location  
[www.mendocinobroadband.org](http://www.mendocinobroadband.org)

Friday, February 6th, 10am

Friday, March 6th, 10 am

Friday, April 3rd, 10 am

### Access Sonoma Broadband

- Please check the website for location  
<http://sonomacounty.ca.gov/Projects/Access-Sonoma-Broadband/>

Wednesday, February 18th, 10 am

Wednesday, March 18th, 10 am

Wednesday, April 15th, 10 am

## NBNCBC Strategies For the Next Six Months

Over the next six months each county management team plans to undertake the following strategies for its county independently of the other counties:

- Work with the priority area communities to secure commitment to a broadband project for that area. The commitment might also include pledges to acquire services; make one-time capital investment; and/or provide letters of support
- Identify local providers who will Address Immediate Opportunities and Needs
- Help develop project plans
- Find potential investors who might help specific projects
- Find one or more providers who have the CPCN who will act as an agent for local providers to pursue CASF grant funding
- Or, go after grant funding without the CPCN (there are limited provisions for this to be done; not ideal but worth the try)
- Help develop grant proposal and assist in pursuing CASF grant funding for projects
- Set up meeting between NBNCBC Oversight Committee and County Managers and the County Superintendent of Schools to enlist their involvement in leveraging the use of E-Rate funds and the Williams Settlement to extend broadband into communities.