BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Modifications to the California Advanced Services Fund

Rulemaking 12-10-012 (Filed October 25th, 2012)

REPLY COMMENTS OF THE NORTH BAY NORTH COAST BROADBAND CONSORTIUM ON ASSIGNED COMMISSIONER RULING SETTING WORKSHOPS AND SEEKING COMMENT ON ELIGIBILITY FOR AND PRIORITIZATION OF BROADBAND INFRASTRUCTURE FUNDS FROM THE CALIFORNIA ADVANCED SERVICES FUND

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I. BACKGROUND

The North Bay North Coast Broadband Consortium (NBNCBC) Oversight Committee which is composed of County Supervisors Hamburg (Mendocino), Rodoni (Marin), Dillon (Napa), and Hopkins (Sonoma) and non-voting consortium manager Tom West, submits our Reply to Comments filed in the Assigned Commissioner's July 11th, 2018 *Order Instituting Rulemaking to Consider Modification to the California Advanced Services Fund.*

II. RESPONSE TO THE COMMISSION'S QUESTIONS FOR COMMENT

NBNCBC has provided responses to the Commission's questions for comment below in the order they were asked.

1) Eligibility and Challenge Process

<u>The use of Census Blocks.</u> Coupled with the current definition of a "Served Census Block", the use of census blocks overstates broadband availability in many regions of the state, primarily in rural areas where census blocks can be significantly larger than they tend to be in urban or suburban areas. NBNCBC recommends that going forward, provider reported data be submitted and analyzed at a more granular level that captures broadband availability in an equal manner for urban, suburban, and rural areas.

One alternative solution to capturing more granular broadband availability data could be by validating individual broadband subscriptions in geographical shapes that are uniform in size rather than census blocks. As NTIA mentioned in their comments to the FCC's Modernizing Form 477 Data Program¹,

"Alternatively, the Commission could request that broadband service providers report service areas as polygons, road segments, or other geographic representations, rather than in terms of Census blocks. Then using its estimates, the Commission could project the total numbers of housing units and population covered."

A second alternative NBNCBC would support is the CPUC adoption of the AT&T proposal to create a single definitive list of CASF eligible census blocks and a pre applications eligibility map challenge process.² This solution would retain the use of census blocks but provide for more granular eligibility data. For instance, 51 percent of the households in a census block may be served but the other 49 percent would still be eligible for a CASF grant.

¹https://www.ntia.doc.gov/files/ntia/publications/ntia_comments_on_modernizing_the_fcc_form_477_data_program.pdf

²https://tellusventure.com/downloads/casf/2018/att_reply_comments_casf_phase2_1may2018.pdf

As a last alternative, the NBNCBC would support the CPUC Staff proposal over the continuation of the current definition.

As far as validating the reported data and maps, local information seems to be the most practical method to validate broadband availability. It is more effective for consortia or county personnel to listen to local broadband consumers and their customer experiences rather than relying on inaccurate data collected and supported through Form 477. As the NTIA mentioned in their comments to the FCC's Modernizing Form 477 Data Program,

"In the case of broadband deployment, local governments and even individuals may in some cases be in the best position to validate the data."

NBNCBC agrees - allowing individuals or local governments to validate data themselves could be a more effective route to validate broadband availability accuracy. In response to the challenge process, local governments and individuals should be able to challenge broadband availability using a fast and efficient process. As NTIA mentions in regards to validating broadband availability,

"The present requirement to file a formal comment is too burdensome to encourage constructive responses from individual stakeholders. In the case of broadband deployment, local governments and even individuals may in some cases be in the best position to validate the data. The Commission should develop a methodology for reviewing and responding to public input—in concert with broadband service providers—aimed at meaningful data quality improvement. This process should be streamlined and efficient, and avoid being overly burdensome to small, particularly rural providers."

<u>The challenge process.</u> NBNCBC believes the challenge process should be the same for everyone, allowing the public, local government, rural providers, consortia and individual residents to challenge a CASF application. We endorse the 21-day proposed challenge window timeline. The criteria to be used should be dependent upon which of the above alternatives is selected. Lastly, the challenge process should not vary by technology.

2) Process of Prioritizing Projects and Areas to Support

NBNCBC recommends the Commission not prioritize communities via census blocks or census tracts going forward. We believe the two examples of CPUC's previous approaches to prioritization, highlighted in the July 25, 2018 CPUC/CASF workshop, have not significantly advanced the CASF program goal and over the years have been challenged by many organizations promoting the goal.

Background

• In 2012, the consortium designated up to five priority areas based on known unserved areas within each county contained within the consortium boundaries. Napa County

contracted with Chico GIC to do extensive ground truth testing, both mobile and wireline, but after 2012. Systematic ground-truth testing was not conducted in the other three counties as their areas were known to be unserved as a result of written and verbal communication between resident and businesses with consortium personnel.

- In 2014, and based on T-17443, additional priority areas were added, following extensive ground truth testing that were referenced in the resolution. In addition, existing priority areas established in 2012 were verified as unserved via ground truth testing that was conducted by a third party hired the NBNCBC in the event the designated areas might be challenged by either the Commission or providers.
- The High Impact Analysis developed by CPUC Staff in determining the 'biggest bang for the buck' in 2017 added 8 new priority areas statewide, not necessarily related to household income, but based on the most economical cost factors to develop on a per household passed basis.

July 25, 2018 CPUC CASF Workshop Comments

- The CPUC panel reviewed income level as an important factor in broadband deployment. Comments from attendees brought up the fact that low income shouldn't be a limiting factor. In many instances higher income households in unserved areas may include potential telecommuters which would reduce greenhouse gas production by working at home, young people requiring connectivity for homework, solving a need for telemedicine and IOT within the households.
- Economic Development was cited by attendees as an important factor in determining new priority areas. Business clusters, precision Ag, and recreation connectivity in unserved areas certainly are factors which should be considered.
- Increased wildfires, earthquake and tsunami zones, and need for rapid response and resiliency, require Public Safety to be a vital consideration for priority areas. Smoke/fire detection cameras, earthquake detection devices, enhanced communication for residents and responders are vital to preserve homes, forests, lives and public safety in general. Although not discussed in the workshop there has been strong support over the past year for Rural USDA's proposal for prioritizing and extending fiber broadband to county fairground sites in California since fairgrounds are used as emergency communications hubs during natural disasters.

As we have suggested in our reply to Question #1 above, the CPUC should adopt a more granular approach to capturing and presenting the availability data and maps. The two alternative solutions we outlined are much better approaches going forward.

NBNCBC subscribes to and considers the three points made in the July 25th workshop to be vital criteria in evaluating the merits of a project, including: low income areas, economic

development, and the fact that NBNCBC is now experiencing a loss of broadband infrastructure as a result of disasters. In addition, NBNCBC also supports the Rural USDA's proposal for prioritizing and extending fiber broadband to county fairground sites in California since fairgrounds are used as emergency communications hubs during natural disasters.

In the instance of handling the impact of a disaster on the availability of broadband infrastructure and services, the CPUC should immediately adjust the reported data in the CPUC availability database and interactive maps when such a disaster occurs. In essence, there should be an assessment process to ascertain the damage to broadband infrastructure so the CPUC availability database and interactive maps reflect the current status, not a year earlier.

NBNCBC is also submitting additional information about other priority regions that include a list of unserved census blocks with population greater than zero. We are submitting this information in the Appendix using the process prescribed by CPUC.

As stated, NBNCBC supports an expedited review process for all project applications. Multiple review processes will only raise many more challenges. Finally, the funding level and percentage for a project should be based solely on the merits of that specific project.

3) Providing Access to Broadband Service to Areas Adjacent to CAF II Areas

As stated by the CPUC in the July 25, 2018 workshop, the number of eligible CAF II locations exceeds the number of required locations to which CAF II providers must offer service. Many census blocks may have more households than CAF II eligible locations, meaning that some households will not benefit.

Furthermore, AB 1665 specifies that Connect America Fund Phase II (CAF II) areas are ineligible for CASF funding until July 1, 2020, unless the existing facility-based broadband provider has notified the Commission before July 1, 2020 that it has completed its CAF deployment in the census block. However, an existing facility-based broadband provider is eligible to apply for CASF funding pursuant to the CAF II fund to expand broadband service within identified census blocks, as needed. NBNCBC believes this is a major issue the CPUC can solve through regulatory enforcement by requiring transparency on CAF II buildout plans from providers who are utilizing federal grants generated by taxpayer's dollars.

Nothing in AB 1665 prevents the CPUC from requiring the providers with CAF II funding from informing the CPUC before July 1, 2020 of their specific plans as to where they will deploy infrastructure by July 1, 2020. We recommend the guidelines require these providers to submit their specific plans to the CPUC by January 15, 2019 so the CPUC Broadband Availability Database and Interactive Broadband Map can accurately reflect these actual plans. This action will then enable other ISPs to begin to develop projects for areas that are not going to be deployed with CAF II funds. Such action coupled with implementation of one the solutions we

recommend in Question #1 will go a long way to creating a transparent understanding of the unserved areas throughout the state that need CASF funding support.

We do recommend the Commission encourage CAF II grantees to deploy broadband infrastructure, but not provide them any special or direct funding incentives to build beyond their commitments to the Federal Communications Commission. Furthermore, CAF II grantees making applications for CASF grants to extend their CAF II areas should be subject to the same review process as other applicants. We do not agree with setting aside funding to expand CAF II related projects. As grant recipients, CAF II providers should be subject to the same CPUC oversight criteria as all other approved projects.

4) Reimbursement Process

NBNCBC believes grantees should receive funding on a more frequent basis, either monthly or bi-monthly. This would benefit smaller organizations that do not have the appropriate cash flow to support the current reimbursement process and require more frequent funding. Something along the lines of what AT&T proposed should be considered.³

5) Middle Mile Infrastructure

It is unfortunate that AB 1665 specifies that projects that only deploy middle-mile infrastructure are not eligible for grant funding. NBNCBC believes this provision is detrimental to closing the digital divide in California, as a robust, accessible and affordable middle-mile infrastructure is indispensable for the deployment of competitive last-mile services. It is compelling to the State's best interest to make sure that appropriate middle-mile infrastructure exists throughout the state, especially in rural regions. The CPUC should do everything possible within the constraints of AB1665 to fund middle-mile infrastructure as part of eligible last-mile projects.

As stated in AB 1665, for a project that includes funding for middle-mile infrastructure, the Commission is required to verify that the proposed middle-mile infrastructure is indispensable for accessing the last-mile infrastructure. NBNCBC believes the definition of "Indispensable" should be simple. We recommend the Commission adopt the following definition.

Indispensable: A middle-mile infrastructure (build or lease) may be part of a CASF funded project if it makes the applicant's last mile project feasible.

As AT&T stated in its support of our earlier recommendation:

"Such an approach properly leaves it to providers to decide for themselves, on a business-to-business level, whether it makes sense for the applicant to lease access to middle-mile infrastructure from an existing provider, given all of the service,

³ https://tellusventure.com/downloads/casf/2018/att_reply_comments_casf_phase2_1may2018.pdf

technological, and financial considerations, and other commitments and obligations that go along with a CASF-funded project. Providers are capable of determining between themselves whether and when it makes sense to enter into such sharing arrangements, and a business decision not to enter into such arrangements should not preclude an applicant from seeking middle-mile funding to make its last mile project feasible."

As part of awarding a project that includes middle-mile infrastructure the applicant should be required to sign an Affidavit with the State, stating under perjury, that it agrees to the following terms:

- The Middle-mile infrastructure will be "Open Access" i.e. other providers may acquire access to fiber strands or backhaul services for competitive purposes
- The applicant will sustain operation of its services for at least 10 years; in the event of failure to do so, ownership of the middle-mile infrastructure will revert to the State for resale to another provider.

6) Line Extension Items

In the NBNCBC region, the Line Extension Program would primarily benefit small communities, such as a subdivision, private community, or home owners association (HOA), where incumbent cable providers are already nearby (e.g. main road, end of a private driveway), but have not extended their services to every home in the vicinity.

Below is a case study for an unserved community in a rural/low density NBNCBC region that could benefit from the CASF Line Extension Program. Cost estimates for a line extension were quoted in 2012 by an incumbent cable provider whose infrastructure is within 1/8 mile of the community, but the project was never pursued due to high costs and lack of participation from all community residents. The project is based on 100% aerial fiber, including service drops; unfortunately, costs per foot were not accounted for, but rather costs per household were.

NBNCBC LINE EXTENSION COMMUNITY Year 2012 2018*						
Number of Homes	26	26				
Line Extension Grand Total	\$ 126,000.00	\$ 137,206.80				
Total ISP Investment	\$ 56,000.00	\$ 60,980.80	% Covered by Provider	44%		
Total Community Investment	\$ 70,000.00	\$ 76,226.00	% Covered by Resident	56%		
Total Cost Per Household	\$ 2,692.31	\$ 2,931.77				
Total Investment per Structure Passed	\$ 4,846.15	\$ 5,277.18				

^{*}The numbers presented in this table are based on actual line extension estimates received from a cable provider. The 2012 costs have been adjusted for inflation to reflect real costs in 2018.

As shown in the table, the grand total for the project was intended to be cost-shared between the residents and the incumbent cable provider. The average cost for each household to pay out of pocket in 2018 is \$2,931.77. Adding the ISP investment per household to the residents' out of pocket would equal a total of \$5,277.18 per household.

This table demonstrates that a line extension project for a rural/low density NBNCBC community could cost on average \$5,277.18.

While NBNCBC believes it is important to create a limit on aerial and underground line extension costs to increase competitive pressure on internet service providers – primarily incumbent providers, NBNCBC also believes the LEP is best suited for serving smaller communities where incumbent cable providers tend to be already close by, but have not been historically active in the CASF Infrastructure Program. In addition, incumbent cable providers have not historically provided connection access to other providers to use their wireline infrastructure as backhaul. In conclusion, it appears most realistic and time efficient to connect unserved communities by focusing the LEP on information provided by nearby incumbent cable providers as they may be the best candidate in serving smaller unserved communities in the NBNCBC region.

Based on the cost estimate provided by the incumbent cable provider in the case study in 6a, the average cost per household for <u>aerial</u> line extension is \$5,277.18. As this project was not completed in 2012 due to a lack of participation from the community over the high installation costs (\$2,931.77/HH), NBNCBC believes the LEP should account for a customer's willingness to pay and subsidize accordingly.

Regarding the length of wireline allowed for a line extension project, NBNCBC supports a 750 foot aggregated distance it originally proposed on Commissioner's Amended Scoping Memo and Ruling Phase II (filed April 16, 2018, at 16-19.) NBNCBC would like to recognize that the case studies presented in those comments represented worst-case scenarios for unserved communities. Since the communities represent the worst- case scenario for a broadband deployment project in the NBNCBC region, it should also reflect a maximum length of wireline allowed in an LEP project.

NBNCBC does not have cost estimate data on fixed-wireless broadband deployment. The majority of communities in NBNCBC region that would primarily benefit from the LEP are located in rural areas where line-of-sight is not always available due to topography (redwood trees, heavy forests, and deep valleys.) As stated above, the LEP is probably best suited for most communities in the NBNCBC region using wireline technology; however, each project should be evaluated case by case as fixed wireless can be suitable for many scenarios, but not all.

NBNCBC believes a service provider <u>and</u> an individual property owner should be able to apply on behalf of an individual property owner, or multiple property owners. The LEP should allow projects that serve multiple households and small communities in order to close the Digital

Divide more rapidly and effectively. This would result in a more cost effective use of LEP funds and greater impact on serving unserved homes.

In the NBNCBC region, many communities ranging anywhere from dozens to hundreds of households reach out to NBNCBC staff claiming their entire community does not have access to the incumbent cable providers service and that the installation costs are too high for homeowners to pursue individually, thus, requiring them to collectively pursue together as a community. Unfortunately, residents' financial capabilities are not the same, keeping many projects from coming to fruition.

This scenario has occurred many times in the NBNCBC region, impacting thousands of residents. Each community has their own 'champion' who willingly takes leadership on finding solutions to serve broadband services to their community. These 'champions' should be allowed to orchestrate and apply for a LEP grant on behalf of their community. This could incentivize service providers that do not historically apply for state or federal grants to deploy broadband infrastructure in unserved communities.

NBNCBC respectfully recommends that the Commission consider the comments proposed in this document as potential solutions to improve the California Advanced Services Fund and better serve our Northern California region.

Respectfully submitted,

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III. APPENDIX A: NBNCBC 2018 PRIORITY AREAS

In response to the Commission's request for consortia to identify priority areas within consortia boundaries, NBNCBC decided with CPUC staff at a 2018 workshop that we could not, or have no authority to prioritize specific *census blocks* over other areas. Instead, NBNCBC decided it should identify priority *regions* that would benefit our consortium member counties at a greater cause and geographic coverage.

Wildfire Impacted Areas

First off, it is extremely important to the NBNCBC that the CPUC identify wildfire impacted areas as unserved until services are restored and verified. Figure 1 illustrates a map of the 2017 Northern California Wildfires and their burn zones. These areas, including 2018 wildfires, are all priorities for NBNCBC to restore infrastructure to that can provide affordable services of same or improved quality.

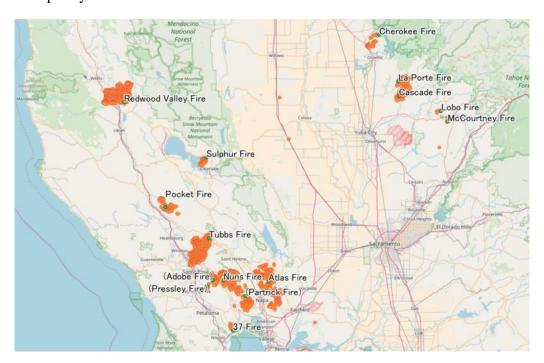


Figure 1: This is a map illustrating the 2017 Northern California Wildfires and their burn zones.

Additional Priority Areas for NBNCBC Member Counties

• Napa County decided to prioritize several unserved communities within their county, many of which are located within areas impacted by the 2017 wildfires. These areas include Lake County Highway, Oathill Rd., Ink Grade Rd., Howell Mountain Rd., Pope Canyon Rd., Rimrock area, Langtry Rd. (West of St. Helena), Oakville Rd., Mt. Veeder, Redwood Rd., Partrick Rd., Montecello Rd., Wildhorse Valley Rd., Wedlands Edge, and American Canyon Rd.

- Sonoma and Mendocino County prioritized their Coastal regions to coordinate efforts as connectivity along the coast is lacking significantly, creating many issues for the communities that reside in those locations, primarily in regards to public safety. Tourism along the coast is one of the primary economic drivers; and, public safety resources are limited to cover the entire coastal region. The significant lack of adequate wireline and cellular coverage obstruct 9-1-1 calls, GPS software, Nixle alerts, etc. In addition, the demand for modernized technology and connectivity is increasing along the Coast for many tourism based businesses to remain competitive and sustainable. Marin County has also prioritized sections of their coastline to coordinate efforts.
- The Marin Broadband Task Force (MBTF) has prioritized The Marconi, Tomales, Chileno Valley, and Hicks Valley Quadrant of rural West Marin. The population core of this under-/un-served area in the Tomales (Census designated place) community. The area is also comprised of low density coastal and inland villages and clusters. The majority of this area includes locations awarded to AT&T by FCC under CAF II.

MBTF will need CPUC staff support to coordinate CAF/CASF funding. The Task Force believes that some of this overall area is served by one or more providers. We will need to work with them to determine what areas they are now serving. Middle mile / backhaul remains a central challenge in our plan to bring broadband infrastructure to West Marin.

In addition, MBTF has identified three (3) adoption target communities as priorities for our work with groups pursuing CASF-Adoption Account funding. These communities include:

- o The Canal Area, City of San Rafael
- o Marin City, unincorporated County of Marin
- o Hamilton community of City of Novato

While these areas have been identified as served with broadband infrastructure, local community groups and residents state these areas each have significant adoption challenges. Lastly, there are several clusters of residents in rural West Marin that are prioritized for broadband adoption program development, primarily lower-income agricultural workers and their families. Given that much of this same area is lacking in broadband infrastructure, MBTF will also be guided by any adoption data we will be able to glean from the CPUC broadband mapping program.

2018 NBNCBC Priority Areas

As NBNCBC prioritized hundreds of unserved census blocks in the NBNCBC boundary, NBNCBC understands its response does not align with CPUC's original request. The intent of NBNCBC's response is to prioritize larger swaths and regions that are unserved to impact a greater portion of Northern California's communities. If the CPUC would like NBNCBC to provide additional information for each priority region, county staff members can do so upon request.

Do the following block		Are any of the following blooming bloom	
locations? Yes ATT	Yes, Frontier No	served" by fixed wireless?	Yes No
060230115002265	060230115002183	060230115002282	06023011500225
060230115002266	060230115002158	060230115002174	06023011500319
060230115002238	060230115002177	060230115002147	06023011500221
060230115002251	060230115002179	060230115002229	06023011500217
060230115002224	060230115002189	060230115002245	06023011500311
060230115002215	060230115003124	060230115002230	06023011500317
060230115002268	060230115003200	060230115002169	06023011500222
060230115002216	060230115002149	060230115003111	06023011500222
060230115002210	060230115002264	060230115002235	06045010200212
060230115002218	060230115002223	060230115002219	06045010200327
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060230115002217	060230115002263	060230115002220	06045010200300
060230115002255	060230115002197	060230115003166	06045010200300
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060230115002152	060230115002241	060230115002151	06045010200300
060230115003113	060230115002214	060230115002191	06045010200300
060230115002232	060230115002213	060230115002156	06045010200303
060230115002258	060230115002254	060230115002194	06045010200315
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060230115003191	060230115002277	060230115002208	06045010200314

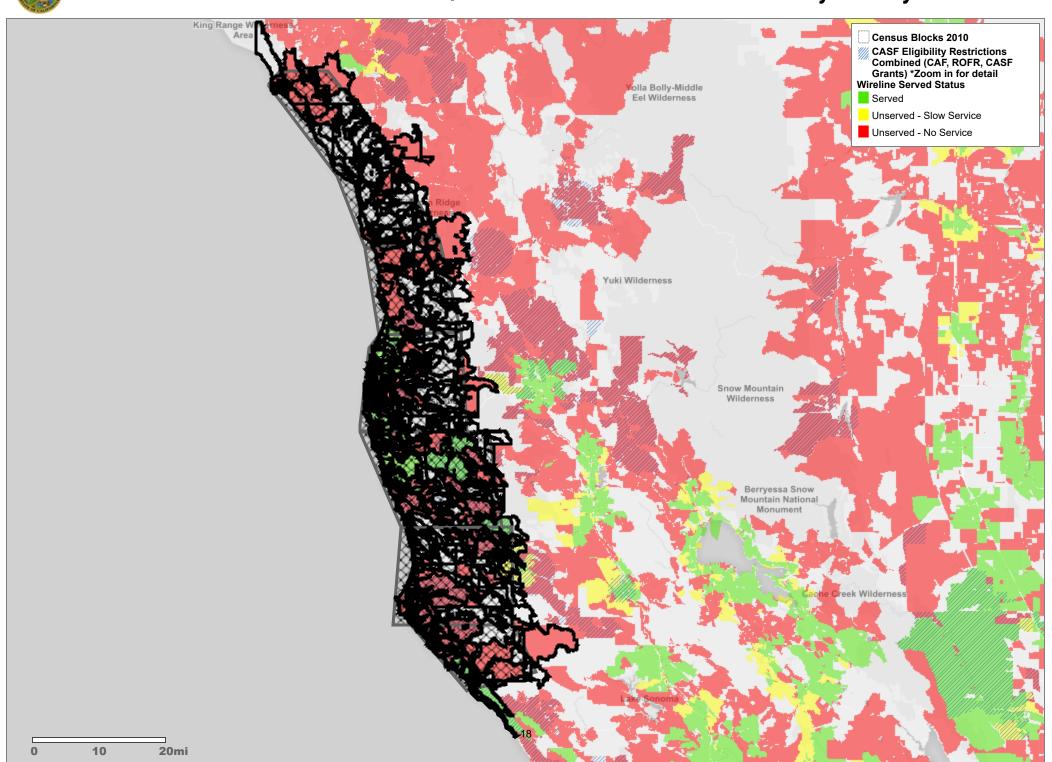
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060450102002203	060450102003175	060450110023006	060450110021016
060450102002241	060450102003246	060450110021041	060450110025041
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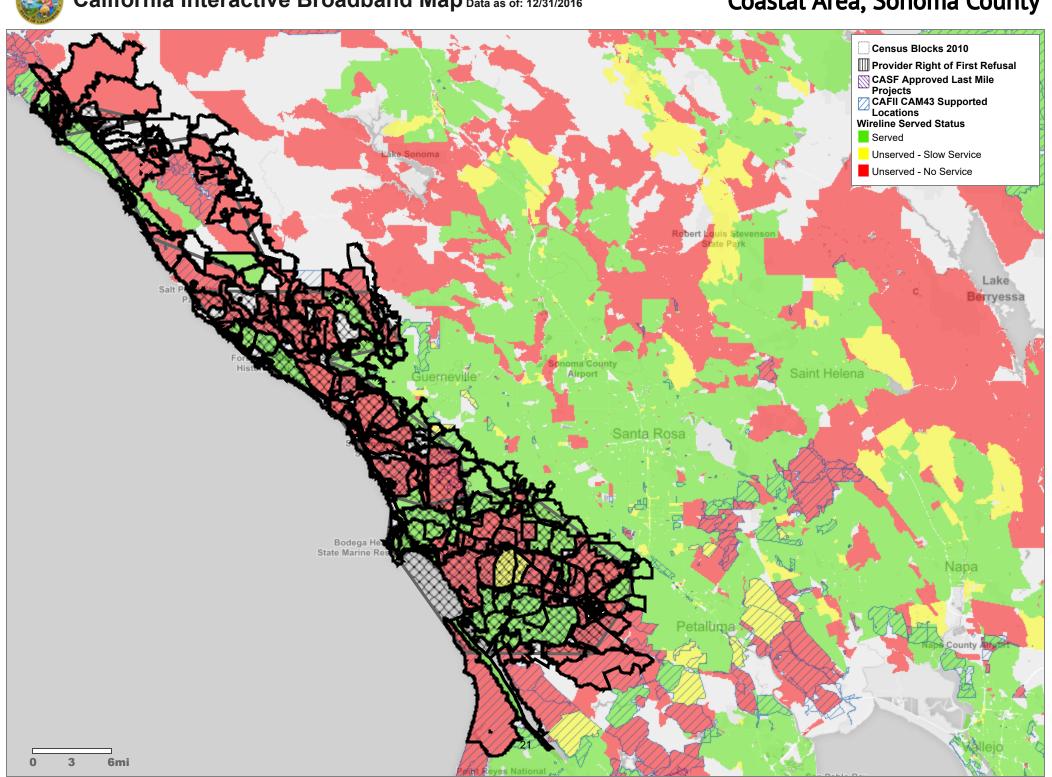
Mendocino County Priority Areas 2018



Community Name: Coastal Region, Sonoma County Do the following blocks contain CAF II Are any of the following blocks "partially served" by fixed wireless? locations? des ATT Yes, Frontier No Yes No

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060411330003064	060971543024055	060971511001059	060971511001068
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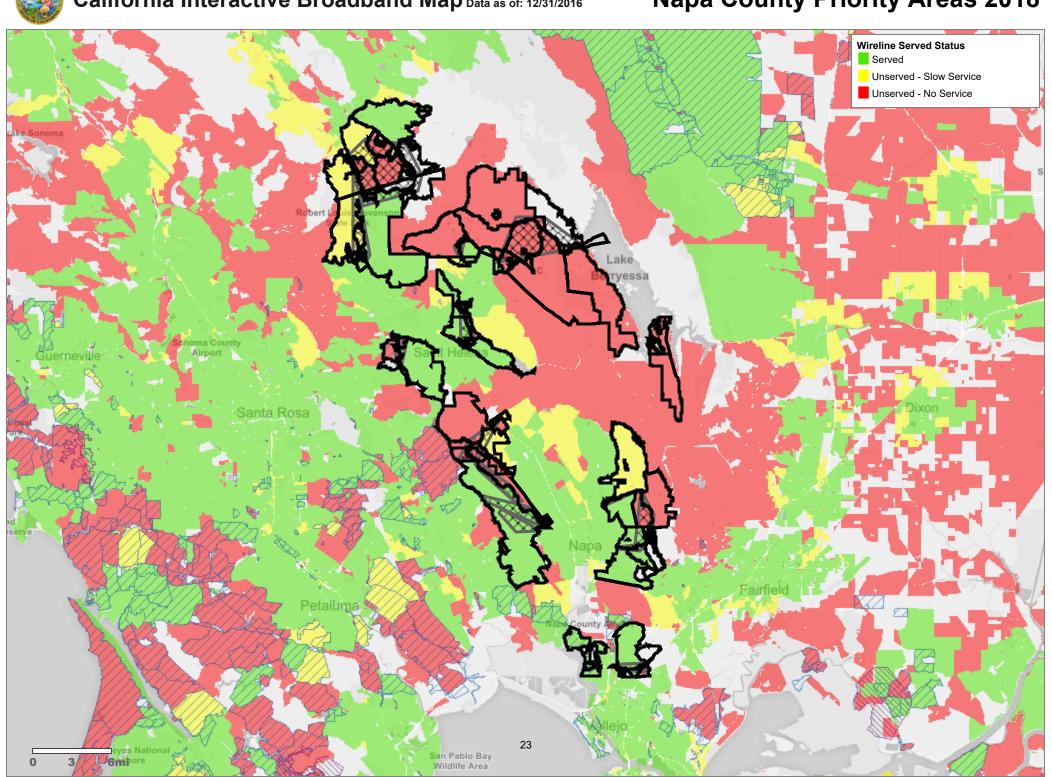
Coastal Area, Sonoma County



• <u>Community Name:</u> Lake County Highway, Oathill Rd., Ink Grade Rd., Howell Mountain Rd., Pope Canyon Rd., Rimrock area, Langtry Rd. (West of St. Helena), Oakville Rd., Mt. Veeder, Redwood Rd., Partrick Rd., Montecello Rd., Wildhorse Valley Rd., Wedlands Edge, and American Canyon Rd. - Napa County

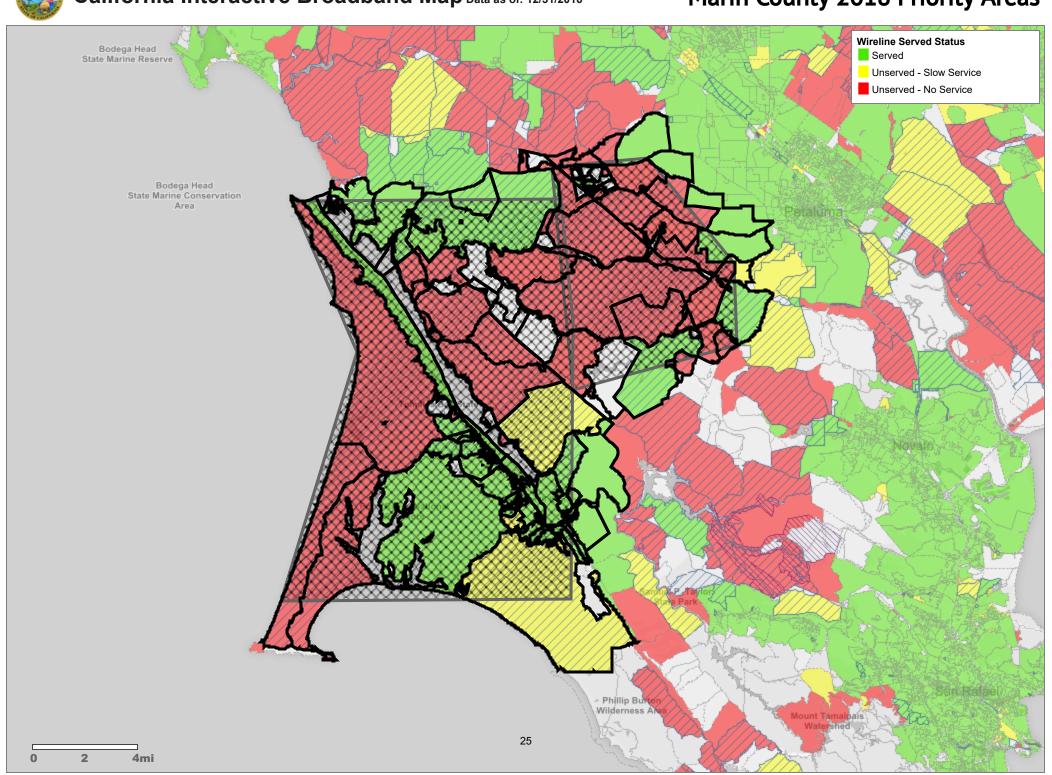
Do the following block	as contain CAF II	Are any of the following bl	ocks "partially
locations? Yes ATT	Yes, Frontier No	served" by fixed wireless?	
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060330013001059	060552018001089	060552011021000	060552018002004
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060330013001088 060552019001025	060552014031015 060552014012014	060552015001051 060552012001023	

Napa County Priority Areas 2018



Community Name: The Marconi, Tomales, Chileno Valley, and Hicks Valley Quadrant –					
Marin County					
		T			
Do the following block		Are any of the following bl			
locations? Yes ATT	Yes, Frontier No	served" by fixed wireless?	Yes No		
060411330001073	060411330001053	060411330001050	060971511001070		
060411322002029	060411330001049	060411330003017	060971511003007		
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060411330001042	060411330003008	060411330001021			

Marin County 2018 Priority Areas



Priority Adoption Areas: The Canal Area, Marin City, Hamilton Community - Marin County

Do the following blocks contain CAF II locations? Yes ATT Yes, Frontier



Are any of the following blocks "partially served" by fixed wireless? Yes

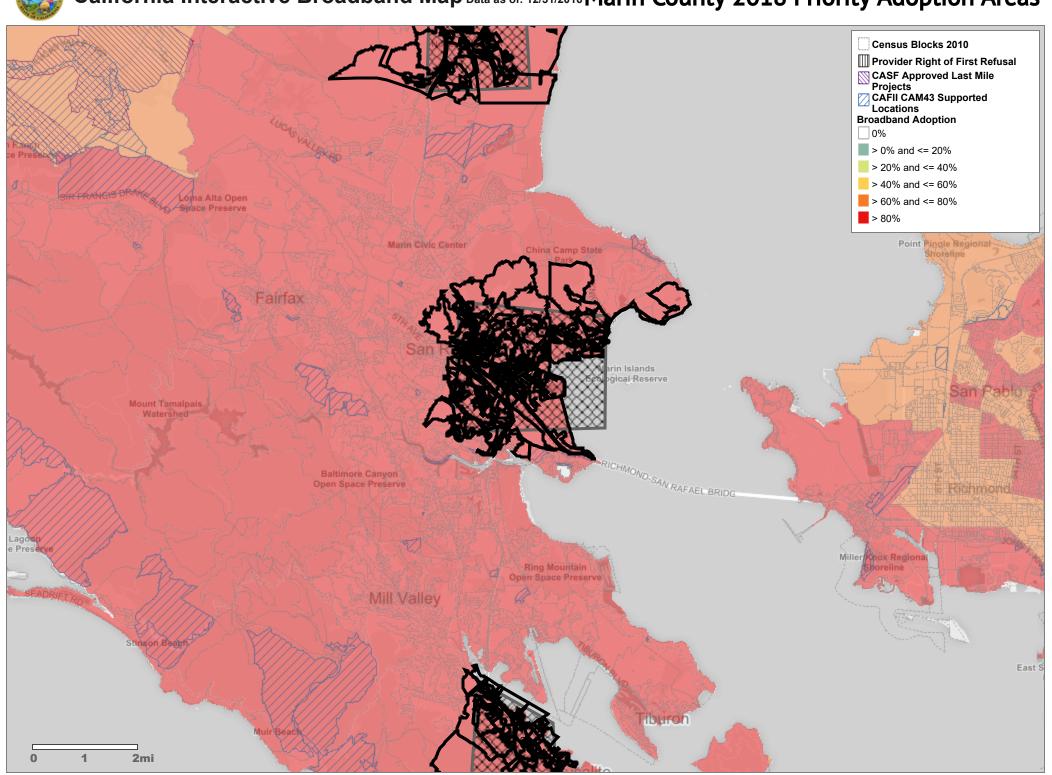
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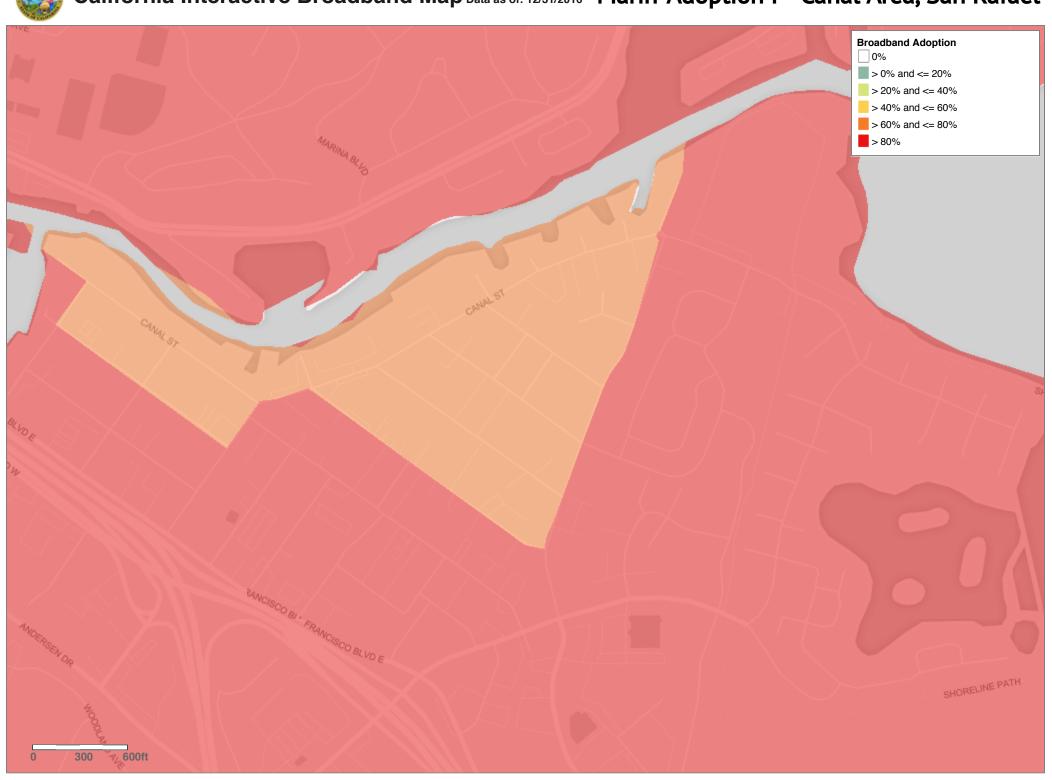


California Interactive Broadband Map Data as of: 12/31/2016 Marin County 2018 Priority Adoption Areas

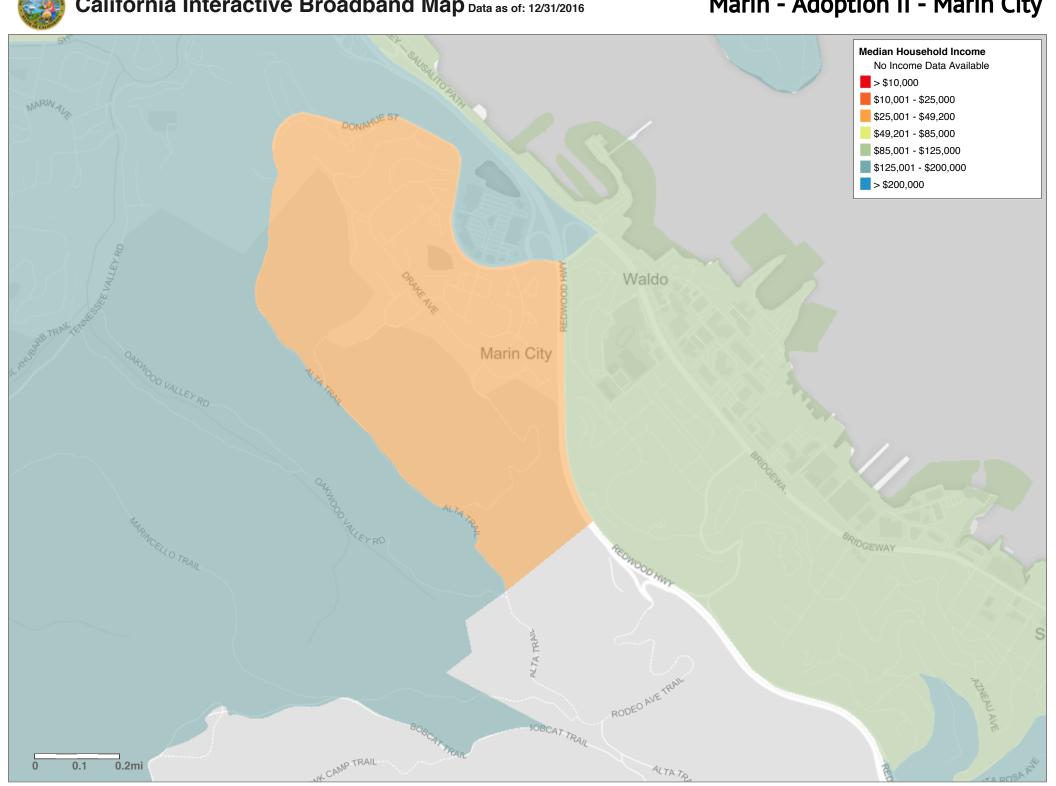




California Interactive Broadband Map Data as of: 12/31/2016 Marin-Adoption I - Canal Area, San Rafael



Marin - Adoption II - Marin City



Marin-Adoption III - Hamilton, Novato

