To: Jim Lowers, Board Chair
Mitch Drake, Interim CEO
Golden Bear Broadband, LLC

From: Tom West, UCCC and NECCC Consortia Manager

Subject: **AT&T's Challenge to the GBB Application for a CASF Infrastructure Program Grant**

Date: March 28, 2013

You have requested assistance in responding to the CASF staff about the AT&T challenge to the Golden Bear Broadband grant application. The following summarizes the Upstate California Connect Consortium (UCCC) and Northeastern California Connect Consortium (NECCC) efforts to engage AT&T last year. We:

- made multiple efforts last year to engage AT&T in the development of the Northern California Regional Middle-Mile Infrastructure (NCRMMI) plan and in participating in the formation of the Golden Bear Broadband, LLC; and,
- analyzed AT&T's infrastructure deployment in the 16 counties and current services to Incorporated Communities and Census Designated Places in relation to the proposed NCRMMI.

Before discussing these matters, I would like to comment on ATT's challenge.

Question the Legitimacy of the AT&T Challenge

AT&T has two parts to its challenge. First, AT&T states that the CBG portion of its challenge is based on its December 2012 State Broadband Mapping Program filing (Round 7) with the Commission. We claim Round 7 data are not official or public; therefore, cannot be used by AT&T or the CPUC as a basis for such a challenge. Later in this memo we do present our analysis of AT&T's services, based on Round 6 Availability Report data.

Second, AT&T's challenge states that it has inter-office fiber between its serving wiring centers and NCRMMI duplicates these paths. However, AT&T does not state if these fiber routes are diverse, redundant and provide complete coverage and interconnections across the 16 counties. Based on our knowledge AT&T's deployed middle-mile infrastructure is not diverse or redundant and certainly does not cover and interconnect all 16 counties.

Furthermore, we question the age, quality of upkeep, capacity and the ability of AT&T's infrastructure to provide the growth path to the minimum speeds of 100 Mbps download and 50 Mbps upload called for in the National Broadband Plan by FY 2020. Also, AT&T references they have fiber to wire centers, but make no reference to having fiber to remote electronics necessary to supply broadband to rural communities. Based on our assessment, AT&T and other companies are providing services to customers throughout Northern California over obsolete copper, trying to squeeze the last amount of revenue from copper; copper they installed decades ago. Physical characteristics of copper will never be able to provide the minimum of 100Mbps download and 50 Mbps to households, the national goal by FY 2020.

The deployment of NCRMMI will cover and interconnect all 16 counties, as well as provide diversity, redundancy, robustness and a growth path for increasing broadband speeds as future needs demand. Furthermore, the deployment of NCRMMI will enable the research and education institutions (CENIC's CalREN, the health delivery facilities (CTN) and the libraries (Statewide Library Network) to develop their own dedicated networks in Northern California through one unified infrastructure that NCRMMI will provide and with the ability to be connected with their counterparts across the State.

These dedicated networks will continue to demand ever-increasing bandwidth. Many of the locations these anchor institutions and the ones they serve in Northern California are currently copper fed and lack redundancy/diversity. The robustness of the NCRMMI design plan provides the long-term solution for the middle-mile component for these dedicated networks.

Unless AT&T has made a firm and binding commitment to the CPUC and the State of California to do what the NCRMMI will do, we question the validity of AT&T's challenge to the GBB grant application.

Finally, as we describe below, for the past year the UCCC/NECCC staff members were not successful in engaging AT&T in our planning efforts for the broadband needs of Northern California. And, this challenge is further evidence that AT&T has little regard for what the larger community in Northern California thinks or wants.

Background and Context

The mission of the **NECCC and UCCC** is to develop and facilitate the implementation of a broadband infrastructure plan that will provide a cohesive, integrated, and robust regional middle-mile, countywide backbone and last-mile community network infrastructures that will interconnect these 16 Northern California counties (Butte, Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, Glenn, Colusa, Yolo, Lake, Sonoma, Mendocino, Trinity, Humboldt and Del Norte).

This mission is similar to that of the Central Valley Next Generation Broadband Infrastructure Project (CVNGBIP) and the Digital 395 project; both funded by ARRA and CASF grants. Unfortunately, the 16 rural counties in Northern California did not receive any ARRA funding to develop a similar middle-mile infrastructure to serve nearly 28 percent of the geography of the State. Unless NCRMMI is implemented, we will be leaving behind a significant part of our State and 1.634 million of our citizens.

Incidentally, AT&T did not specifically challenge the CVNGBIP or Digital 395 projects.

As part of the FY 2012 Work Plan the NECCC and UCCC consortia focused efforts on:

- developing the Northern California Regional Middle-Mile Infrastructure (NCRMMI) plan; and,
- facilitating the formation of Golden Bear Broadband LLC (GBB) to implement, own, manage, and operate the NCRMMI.

We started our planning of the NCRMMI by identifying the telecommunications companies already providing middle-mile capacity to various parts of the Northern California. We identified seven major telecommunications providers that have fiber installed across parts of the 16 counties that might be utilized to help implement the NCRMMI. We met with six of these seven providers, each multiple times, to determine their interest in participating in this effort. The six included: Cal-Ore Telecommunications, Frontier Communications, Level 3 Communications, IP Networks, Plumas-Sierra Rural Electric Cooperative, and Siskiyou Telephone. We were never able to set up a meeting with the seventh, AT&T, although we contacted them on several occasions.

We found several instances among the six companies where segments of their fiber-based infrastructure could become part the NCRMMI to interconnect all 16 counties. However, we did not find any one telecommunications provider with a sufficient fiber footprint to pursue having a single provider develop and manage the NCRMMI. Our efforts are documented in a report we submitted to the CASF on April 5, 2012, entitled ***"Potential Fiber for the Northern California Regional Middle-Mile Infrastructure".***

Realizing that no single telecommunications company was prepared to undertake the development of NCRMMI we initiated a series of meetings among current telecommunications providers starting in early April. The purpose of the meetings was to facilitate the creation of a broadband cooperative as a limited liability company (LLC). We named this LLC Golden Bear Broadband (GBB). We proposed that GBB develop the NCRMMI across the 16 counties and own, manage and operate this infrastructure as a unified system. The concept was for these entities to pool their resources including existing fiber-based infrastructure and funds. GBB would secure the necessary funds through grants, loans, and private investors to deploy the entire NCRMMI as well as to underwrite the start-up of operations. The advantage of this model would be the

unification of the effort throughout the life of the fiber. The major disadvantage is the challenge of start-up and sustaining the entity.

We spent several months, April to November, working with these companies in several group meetings and in one-on-one meetings with each of them to facilitate the formation of Golden Bear Broadband, LLC (GBB). During this period attempts to engage AT&T failed. In November 2012, Siskiyou Telephone, a current telecommunications provider in rural Northern California and Native Business Enterprises LLC, a Native American community-based organization, which represents Tribal interests across the 16 counties, formed GBB to implement, own, manage, and operate the NCRMMI.

Attempts to Engage AT&T

Over the course of FY 2012, UCCC/NECCC staff members made several attempts in engage and involve various AT&T representatives in our efforts. Also, the Broadband Alliance of Mendocino County (BAMC) and Sonoma Connect attempted to connect with AT&T related to NCRMMI as well as their countywide broadband plans.

Our objectives were to find out where AT&T had fiber/conduit deployed that might be used to help create NCRMMI, determine if that fiber/conduit might be available, and to see if AT&T would be interested in participating in GBB. We were unsuccessful in gaining any traction with AT&T representatives, therefore, did not achieve these objectives. (**NOTE:** We did estimate where AT&T has fiber/conduit deployed.)

The following summarizes our attempts to interact with AT&T the past year.

Efforts by Cathy Emerson, Co-Manager of the UCCC and NECCC. Cathy made efforts to find and invite AT&T representatives to the initial and subsequent meetings we held with telecommunications companies about NCRMMI and the formation of GBB. Between April 17 and May 16th, 2012, Cathy exchanged 6 e-mails in total with a Barbara Winn, External Affairs, Area Director, AT&T. They had met in March at Gold Country Broadband Consortia meeting in Auburn. Cathy sent her a copy of NECCC/UCCC first quarterly report to the CASF and they had a couple telephone conversations. On the telephone Barbara always sounded eager and willing, but never committed. All attempts to schedule a meeting with her failed. Cathy, realizing that while she was receiving a "yes, and" response to Cathy's requests to talk further about NECCC, UCCC, GBB, etc., however, Barb Winn's actions indicated otherwise. Cathy stopped trying.

Efforts by Broadband Alliance of Mendocino County (BAMC). Jim Moorehead, BAMC Steering Committee Chair reported that after repeated attempts, BAMC finally had a meeting scheduled with Rhunette Alums, AT&T on May 11, 2012, but she cancelled at the last moment. BAMC was not successful in setting up a new meeting date. Three AT&T California folks receive the BAMC weekly agendas/minutes:

Rhunette Alums -External Affairs - North
Mary Liz DeJong -Director Regulatory
Barbara Winn - AT&T Area Director

Efforts by Sonoma Connect. Steve Sharpe, Sonoma County Economic Development reported the following about the meeting that Sonoma Connect had with AT&T on September 26, 2012.

"On September 26, 2012 Mike Nicholls, Mitch Drake and I met in the Sonoma County Administration building with ATT representatives Rhuenette Alums, Governmental Affairs and Dave Kearnan, North Coast Area Manager to review our local rural broadband program. At the meeting we reviewed the County's plans to develop a local broadband plan and showed them a "concept" backbone for new broadband infrastructure. We also described Sonoma Connect and asked for their participation. Mitch described the NCRMMBIP and highlighted the Route 1 Corridor project. Both Dave and Rhuenette asked questions (particularly Dave) and appeared interested in our efforts.

We specifically requested AT&T's assistance and possible partnering on the Route 101 project section and other future rural projects. Rhuenette stated that AT&T would not be interested in partnering nor assistance. In addition AT&T would not share information regarding their existing infrastructure or future plans to provide service and upgrade service to Sonoma County.

Mitch requested assistance with GBB's connection to AT&T's (long-lines) existing broadband infrastructure along Interstate 5 in the northwest Central Valley. He was referred to a local account consumer assistance office, and also needed a customer account to receive any help. Rhunette made a commitment to help Mitch, but never sent the contact information."

Since the Sonoma meeting Steve reports he has not received any additional comments from Rhuenette or Dave.

Efforts by Mitch Drake, in his role as Chief Architect of NCRMMI. In his role as Chief Architect of NCRMMI, Mitch made several attempts to find the right persons within AT&T to meet and discuss the NCRMMI network design and the potential to acquire access to conduit on the AT&T fiber route between the Bay Area and Eureka along Route 101 and between Etna through Trinity and Lake counties into the Bay Area. Every attempt came up dry. **EXHIBIT #1** is illustrative of the exchange between Drake and AT&T after the September 26th meeting in Sonoma.

Efforts by Tom West, Co-Manager of the UCCC and NECCC. On November 16, 2012 I wrote to William Devine, AT&T Vice President for Government Relations, requesting a meeting to discuss the NCRMMI plan and to discuss AT&T's Project

Velocity IP and its implications for Northern California. I enclosed a copy of the NCRMMI Technical Plan. On December 11, 2012 I was referred to Kathy McKim, AT&T Vice President for External Affairs. I sent her a memo on December 12, 2012 requesting a meeting with the same topics as I had sent to Devine. She responded on December 14 stating that a meeting would need to take place after January 7, 2013. I wrote an e-mail on January 3, 2013 asking if we could meet before January 17, 2013. On January 4, 2013 Kathy sent an e-mail requesting that I outline expectations of the meeting so she could involve the right folks. On January 7, 2013 I sent an e-mail stating the topics and expected outcomes of the meeting. I also urged we meet before January 17th since I could not meet again until February 8th. I have not had any further communications from AT&T since that last e-mail. **EXHIBIT #2** provides the correspondence.

In essence, every attempt to engage AT&T was unsuccessful.

Analysis AT&T's Deployed Infrastructure and Current Services in Northern California

The 16 rural counties in Northern California: Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Siskiyou, Sonoma, Tehama, Trinity, and Yolo encompass nearly 28 percent of the state's geography, and over 1.634 million Californians live in this region. There are 54 Incorporated Communities and 262 Census Designated Places.

Deployed AT&T Infrastructure. As stated, our approach was to secure as much existing fiber or conduit from companies that currently have fiber to help implement NCRMMI. Without access to official AT&T information it was difficult to precisely determine the extent, capacity, and quality of fiber-based infrastructure that AT&T has deployed in Northern California. Based on some secondary analysis it appears that AT&T's primary deployment of middle-mile infrastructure is along Route 101 from the Bay Area to Eureka and along the Interstate 5 corridor from Sacramento to the Oregon border.

We also know of a fiber/conduit route that runs north to south from Oregon to the Bay area through Siskiyou, Trinity, western Tehama and Glenn counties and through Lake and Sonoma to the Bay Area. This route has not been available for local connections. For example, it runs directly through Weaverville in Trinity County but does not provide that Underserved community access.

Based on the AT&T service areas there appears to be some AT&T infrastructure in Butte, Plumas, and Lake counties.

The NCRMMI design includes a fiber path that is the same as the AT&T Route 101. The GBB proposal is based on a new build instead of acquiring conduit from AT&T because we were unable to engage AT&T.

Likewise, the NCRMMI design includes a north-south fiber path through Trinity County but it was not included in the GBB grant since it is based on acquiring AT&T conduit.

EXHIBIT #3 depicts our best estimate of the existing AT&T middle-mile fiber routes. Based on our secondary analysis we concluded that some of these AT&T routes could meet some of the needs and requirements for the comprehensiveness, robustness and redundancy as planned in NCRMMI, but not all.

Based on this evidence, AT&T does not have the middle-mile infrastructure in place to displace the need for NCRMMI.

Finally, we have questions about the quality of the AT&T middle-mile infrastructure. As a result of our travels throughout Northern California, especially in Sonoma and Mendocino counties some of the AT&T infrastructure appears to be dated technology and in several instances not well maintained. **EXHIBIT #4.1** shows photos of the condition of AT&T's infrastructure in Sonoma County. **EXHIBIT #4.2** shows a copper cable drifting in the breeze since June 2011 at the intersection of Albion Ridge Road and Hwy 1, just north of Albion Remote Terminal ALBNCAU00003 in Mendocino County.

Broadband Speeds Offered by AT&T. As depicted in **Table 1.0,** AT&T is providing services in 11 of the 16 counties. AT&T does not have a presence in Del Norte, Trinity, Modoc, Lassen or Colusa counties. The following analysis is based on the data submitted by AT&T for the CPUC Round 6 Availability Report, as of June 30, 2012.

AT&T offers services in 41 of the 54 Incorporated Communities and 107 of the 262 Census Designated Places. Of the 41 Incorporated Communities only 12 receive broadband speeds from AT&T that exceed the CPUC standard of 6 Mbps download and 1.5 Mbps upload and are rated as **Served**. Seven (7) of these 12 communities are located in Sonoma County, three (3) in Yolo County and one (1) each in Lake and Glenn counties. The other 29 Incorporated Communities are **Underserved** by AT&T, as measured by the CPUC standard.

As stated, AT&T serves 107 of the 262 Census Designated Places. Of these 107 Census Designated Places only 14 are rated as **Served** since AT&T provides speeds that exceed the CPUC standard of 6 Mbps download and 1.5 Mbps upload. All 14 of these communities are located in Sonoma and Yolo counties. The remaining 93 Census Designated Places are considered **Underserved** since AT&T speed offerings are less than the CPUC standard.

As **EXHIBIT #5.1** shows the AT&T served and underserved areas in relationship to the NCRMMI footprint. Aside from Sonoma and Yolo counties AT&T services are rated **Underserved. EXHIBIT #5.2** vividly suggests AT&T has only concentrated it efforts on providing broadband speeds that exceed the CPUC standard in the two-most populated counties that are in the most southern parts of the NCRMMI.

EXHIBIT #5.3 provides a closer view of Sonoma County and **EXHIBIT #5.4** provides a closer view of Yolo County. **Tables 2.0 and 3.0** show there are several "last mile" competitors offering services in Incorporated Communities and Census Designated Places in each of these two counties at broadband speeds that exceed the CPUC standard.

Based on our analysis of the CPUC Round 6 Availability Report data we concur with AT&T's challenge that 359 CBGs in these two counties may be rated as **Served**. However, upon looking at the data in more detail we find that the proposed GBB footprint encompasses 180,133 households, whereas, AT&T services are accessible by 150,717 of those households. This means there are 29,416 potential households, or 16.4 percent, that could be served through the GBB Regional Internet Service Partners using the NCRMMI Fixed Wireless capability or direct fiber connections. Only in 105 of the 359 of the challenged CBGs, or 29.2 percent, are AT&T broadband services accessible to a 100 percent of the households. It needs to be noted that there are no public data to indicate how many accessible households actually acquire and utilize AT&T's broadband services.

Table 4.0 below depicts these data by county. **EXHIBIT #6** provides a detail breakdown by CBG.

Table 4.0 AT&T Challenge CBGs by Households served at 6Mbps down and 1.5Mbps up

	Households in GBB Footprint	Households "Served" (6dn & 1.5up) by AT&T	Percent Served by AT&T	Number of CBGs	Number of CBGs Served 100% by AT&T	Percent
CBGs in Sonoma County	116,096	96,112	82.8%	252	80	31.7%
CBGs in Yolo County	64,037	54,605	85.3%	107	25	23.4%
All Challenged CBGs	180,133	150,717	83.7%	359	105	29.2%

In essence, as a regional middle-mile provider GBB needs to work with "last mile" providers in these two counties, including AT&T, to ensure that every household has access to the quantity and quality of broadband capabilities they will need in the future.

Finally, we also made a comparison of the changes in the service levels reported by AT&T between to the CPUC Round 5 Availability Report, December 31, 2011 and Round 6. The only increases in the speed levels of AT&T services were made in Yolo County. Three (3) Incorporated Communities and three (3) Census Designated Places moved from **Underserved to Served**, in terms of broadband speeds that exceed the CPUC standard.

Closing Observations

It is interesting to note that AT&T is challenging the GBB grant application yet AT&T has not demonstrated or provided any evidence to the UCCC and NECCC that it has a plan or a commitment to meet the broadband requirements and needs of the most significantly **UNDERSERVED** region of California-the 16 rural counties in Northern California. To the contrary, its actions in the past year suggest that this challenge is designed to block any attempt to provide a comprehensive fiber-based regional middle-mile infrastructure to serve this region and to just hold on to its current revenue stream for services that for the most part are below the current CPUC standard, and substantially below the National Broadband Plan goal of 100Mbps download and 50 Mbps upload by FY 2020.

I cite the following actions as examples of AT&T's lack of commitment to rural Northern California:

- The only increases in AT&T service levels between CPUC Round 5 and Round 6 Availability Reports came in Yolo County, which is a growing part of the metropolitan Sacramento Area and where they face significant competition.
- AT&T did not apply for any CASF Infrastructure Grant anywhere in California in the October or February rounds.
- In July 2012 AT&T rejected the opportunity to participate in the Connect America Fund that has several hundred millions dollars available for broadband deployment in rural America.
- AT&T has not shared any information with the UCCC and NECCC or any leaders about its proposed Project Velocity program to suggest it plans to invest in Northern California.

- All UCCC/NECCC staff attempts to engage AT&T personnel in the development a Northern California Broadband Plan have been rebuffed for over a year.

Recently, AT&T Chief Executive Officer Randall Stephenson said that the company was looking for ***"a broadband solution that was economically viable to get out to rural America, and we're not finding one, to be quite candid."***

To Mr. Stephenson and the California AT&T executives, I would like say that UCCC and NECCC have developed a viable solution for rural Northern California; it is the NCRMMI. And, Golden Bear Broadband LLC has taken on the challenge to bring it to life.

So, instead of challenging GBB's grant application, AT&T needs to begin to cooperate with UCCC and NECCC and Golden Bear to help put into place NCRMMI as the foundation to bringing to the 1.634 million citizens, thousands of businesses and hundreds of anchor institutions in the 16 Northern California counties the broadband capabilities they will need to thrive for the long range future.

EXHIBITS
TABLE 1.0

cc: Randall Stephenson and William Devine, AT&T; Members of the UCCC and NECCC; Jim Moorehead, BAMC; and, Steve Sharpe, Sonoma Connect