Mendocino County Digital Infrastructure Plan: 2019 - 2025

Implementation Plan

Project #1

This is a brief version of Hunter Communications' revised CASF Infrastructure grant application submitted

August 7, 2020

Round Valley/Covelo/Dos Rios, Laytonville, Willits/Brooktrails, Hopland and parts of Ukiah/Calpella/Redwood Valley

To: Mendocino County Board Supervisors and County Administration

The Mendocino NBNCBC Planning Team is pleased to submit this document as the Project #1 implementation plan. It is one of three project plans for Mendocino County to use in implementing the *Mendocino County Digital Infrastructure Plan: 2019-2025.* These three broadband implementation project plans can be used for consideration for future grants, or other means to address the growing need for broadband services throughout the county.

The Mendocino Team of NBNCBC selected Hunter Communications to jointly plan, design, and engineer Project #1 to begin implementation of the *Mendocino County Digital Infrastructure Plan: 2019-2025.* In May 2020 Hunter Communications submitted Project Plan #1 for a CASF Infrastructure grant. As of November 13, 2020 the CPUC has informed Hunter that its decision will be made March 31, 2021.

The Mendocino NBNCBC Team brought to the Hunter Communications Team considerable knowledge and experience in Mendocino County, from current or past CASF grant applications; this experience was applied in the creation of this project plan.

In formulating the Project #1 plan the joint team arrived at all estimates for material, equipment, and construction costs using current market rates and supported by budgetary quotes. Revenue targets, and operating expenses were derived from current market conditions. The team used publicly provided data, mostly provided by the California PUC, to determine eligibility where to build.

While Project #1 is very detailed, Projects #2 and #3, although detailed, are our best effort and should viewed as high-level estimates. They are intended to give the County a solid starting point to pursue implementation of the *Mendocino County Digital Infrastructure Plan: 2019-2025.*

To know and understand all costs and financial benefits of Project #1, Hunter will do more detailed engineering estimates after CASF approval to obtain the actual cost of building this broadband infrastructure.

Respectfully submitted by the Mendocino NBNCBC Planning Team,

Tom West-NBNCBC Manager
Victor Braud-Consultant
Mitch Drake-Consultant
Jeff Tyrrell-County Liaison
Calvin Sandeen-WiConduit and NBNCBC Deputy Manager

Future contact on Project #1 should be directed to Hunter Communications' Lead:
Keith Grunberg, Director of Business Services

801 Enterprise Drive

Center Point, OR 97502

Mobile: (503) 819-7885

Fax: (541) 727-3066

kgrunberg@hunterfiber.com

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INTRODUCTION AND OVERVIEW

Mendocino County is one of the original counties of California created in 1850 at the time of statehood. Located on the north coast of California, it is north of Sonoma County and south of Humboldt County, with Lake, Trinity, and Tehama Counties to the east. The 2019 population was estimated to be 89,009 by the CPUC, where 29,246 resided in the four incorporated cities of Ukiah, Willits, Fort Bragg and Point Arena, 15,322 lived in 19 census designated places, and 44,441 were scattered across 28 unincorporated zip code areas.

According to the CPUC, there are an estimated 26,595 out of 35,361 households in Mendocino County, or 75.2 %, served by broadband services that provide a minimum of 6 Mbps download and 1 Mbps upload. Out of California's 58 Counties, Mendocino County, at 75.2% served households, has the 7th lowest broadband access percentage at the current California speed standards of 6/1 Mbps. AB 1665 called for each region of the State to attain 98% broadband access by the end of 2022. In order for Mendocino County to attain 98% we must deploy infrastructure and services to an additional 8,059 households.

IMPACT OF TELECOMMUNICATIONS OUTAGES IN MENDOCINO

In December 2015, NBNCBC and the Broadband Alliance of Mendocino County (BAMC) issued a report titled **September 2015 Telecommunication Outage and the Impacts on Residents of Mendocino County**.

In the wake of the devastating wildfires of October 2017 NBNCBC issued a report titled **Telecommunications Outage Report: Northern California Firestorm 2017.**3F[1] The report was based on a survey to assess and document the scope of the telecommunications outages that affected residents of Mendocino, Napa and Sonoma Counties during the fires, both within and outside of burn area and to provide an overview on the state of services/infrastructure in the 3-county region and the impact any outages had on residents.

Results show that in the 3-county area, 66% of residents lost landline services, 74% of residents lost cellular services, and 66% of residents lost Internet services with Napa County experiencing the most severe impacts. The 3-county average of service loss for these combined technologies is 71%. Many of these outages impacted residents that were geographically far from the actual burn areas.

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[1]http://www.mendocinobroadband.org/wp-content/uploads/1.-NBNCBC-Telecommunications-Outage-Report-2017-Firestorm.pdf

DEVELOPMENT OF THE DIGITAL INFRASTRUCTURE PLAN

As part of a CASF Regional Consortia planning grant (2017-2018) awarded to the North Bay/North Coast Broadband Consortium (NBNCBC), the Mendocino County team used funding from the consortium grant, as one of NBNCBC's members, to develop the ***Mendocino County Digital Infrastructure Plan: 2019 - 2025.***

An assessment of the current status found there are at least 14 different internet service providers in Mendocino County providing fiber optic cable internet, DSL, Fixed Wireless, Dial-Up, and Satellite Internet. The two largest providers of fiber-based Internet services are AT&T and Comcast, mostly in the more concentrated population areas. Sonic has recently come into Mendocino offering fiber-based services. In addition to these three corporations, several smaller fixed wireless Internet Service Providers including North Coast Internet, Mendocino Community Network, 101 Netlink, Willits Online, Further Reach, SeaKay Broadband, and Ukiah Wireless serve niche markets/communities.

IMPLEMENTATION OF THE DIGITAL INFRASTRUCTURE PLAN

The stated goal of the ***Mendocino County Digital Infrastructure Plan: 2019 - 2025*** is to:

> "develop the digital infrastructure needed to have available and affordable high-speed internet access for 98% of households by 2025. High-speed Internet, for the purposes of this plan is defined as 100 megabits per second (mbps) download speed and 20 mbps upload speed. This is an ambitious goal, but critical for the economic future of Mendocino County and through advancements in technology it is possible."[2]

With a new CASF Regional Consortia planning grant awarded to NBNCBC in 2019, the Mendocino County Team developed a three-year work plan focused on implementing the County's Digital Infrastructure Plan with three projects to be funded by grants from the CASF Infrastructure Program and other sources. These projects will deploy broadband infrastructure and services to provide broadband access to unserved households in several communities throughout Mendocino County. These projects areas include:

Project 1: Round Valley/Covelo/Dos Rios, Laytonville, Willits/Brooktrails, Hopland, and parts of Ukiah/Calpella/Redwood Valley

Project 2: Piercy, Leggett, Branscomb, Westport, Cleone, Fort Bragg, Mendocino, Little River, Albion, Elk, Manchester, Point Arena, Anchor Bay, Gualala, Comptche, Philo, Boonville and Yorkville (Whitethorn is being developed as a separate sub-project)

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[2]http://www.edfc.org/wp-content/uploads/2015/12/Final-Digital-Infrastructure-Plan-for-Mendocino-County-12.31.18.pdf

Project 3: Redwood Valley, Potter Valley, Talmage, Calpella, Ukiah and outlying areas in Projects 1 and 2

When all three projects are completed, nearly 9,000 unserved households will have broadband access plus hundreds of small businesses. There will also be a technologically advanced, robust, and diverse fiber-based infrastructure around the county, as depicted on the maps included in this document.

PROJECT #1

This project, Project #1, is focused on strengthening the economic vitality in the rural communities and surrounding areas of Round Valley/Covelo/Dos Rios, Laytonville, Willits, and Hopland in Mendocino County. Project #1 will deploy broadband access to **3,943 unserved households** currently with slow service or no service in unserved census blocks. We value the support and assistance we have received from a wide range of individuals and entities across the County in developing this Project #1 which is designed to launch the implementation of the ***Mendocino County Digital Infrastructure Plan: 2019-2025.***[3]

The Mendocino Team of NBNCBC and a non-profit, WiConduit, selected Hunter Communications to plan, design, and engineer Project #1 to begin implementation of the ***Mendocino County Digital Infrastructure Plan: 2019-2025***.

Hunter is a Southern Oregon based Telecommunications Company, Competitive Local Exchange Carrier ((Phone Service) (CLEC)), and Internet Service Provider (ISP), with offices and facilities located throughout the State of Oregon and Northern California. Since 1994, Hunter has been involved in a variety of cabling and installation services to customers in Oregon and throughout the Pacific Northwest. Currently, Hunter provides high bandwidth and voice service needs to Siskiyou, Humboldt and Shasta counties in Northern California.

Hunter is the applicant of an application to the California Advanced Services Fund (CASF) Infrastructure Grant program for **$158,145,578** to launch the implementation of this first project to serve Round Valley/Covelo/Dos Rios, Laytonville, Willits/Brooktrails, Hopland, and parts of Ukiah, Calpella, and Redwood Valley.

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[3]http://www.edfc.org/wp-content/uploads/2015/12/Final-Digital-Infrastructure-Plan-for-Mendocino-County-12.31.18.pdf

PROJECT SUMMARY

Project Title:	**Mendocino County Project 1:** Round Valley/Covelo/Dos Rios, Laytonville, Willits/Brooktrails, Hopland and parts of Ukiah/Calpella/Redwood Valley
Named Project Location:	Mendocino County
Project Type:	Last Mile
CASF Grant Funding Request:	$ 158,145,578
Project Cost:	$ 158,145,578
UNSERVED HOUSEHOLDS INCLUDED IN THE PROJECT	
ROUND VALLEY/COVELO/DOS RIOS	991
HOPLAND	403
LAYTONVILLE	720
WILLITS/BROOKTRAILS	1,501
PART OF UKIAH/CALPELLA/REDWOOD VALLEY	328
TOTAL	3,943

CURRENT MAXIMUM DOWNSTREAM AND UPSTREAM SPEEDS (MBPS)	
COMMUNITY	**PROVIDER AND SPEEDS** - (As reported in the official 2019 CPUC Data Availability and Mapping Report)
ROUND VALLEY/COVELO/DOS RIOS	NO-SERVICE
HOPLAND	VALLEY INTERNET—14Mbps/3Mbps
LAYTONVILLE	101 NETLINK---20Mbps/5Mbps
WILLITS/BROOKTRAILS	COMCAST----1GIG/35Mbps
PARTS OF UKIAH/CALPELLA/REDWOOD VALLEY	(Limited Areas of Ukiah) COMCAST----1GIG/35Mbps
Median Household Income:	$42,780
Estimated Number of Businesses, anchors and Public safety locations:	There are, 17 anchor institutions, schools and health facilities that could benefit with new services or improved speeds. We have not included public safety until the FirstNet initiative unfolds and we gain a better understanding of where we can provide support. Eighty-two (82%) of the 5,000 businesses in the County have nine (9) or fewer employees. There are approximately 200 of these small businesses in the five community areas.

Description of major infrastructure to be deployed:

The project provides high-speed Internet, delivered over fiber optic cable to 3,943 households in five communities and surrounding areas including: Round Valley/Covelo/Dos Rios, Laytonville, Willits/Brooktrails, Hopland, and parts of Ukiah/Calpella/Redwood Valley. A total of 474 miles of underground fiber routes are being deployed across these five areas creating a seamless distribution system, consisting of core arteries and distribution, last-mile, and drops which we will collectively refer to as "Last- Mile" for the remainder of this document. The last-mile fiber drops to 100% of the 3,943 households, at an average of 300 feet per household, adds another 224 miles.

The fiber design calls for deploying as much fiber underground as possible to preserve infrastructure during wildfires and other unforeseen disasters. According to an assessment by Magellan Advisors for Napa County 30 percent of the telecommunications infrastructure was damaged by the 2017 wildfires. None of the underground infrastructure was damaged.[4]

Breakdown of Aerial and Underground installation:	One hundred (100%) percent of the 3,943 households are to be connected via underground fiber installation.
Major Equipment-Number and Expenses:	5 Shelters (12' x 20") 5 Backup Generators 10 144 Fiber Termination Panels with Connectors 1 Media Gateway with TDM Capability 1 VM Stack for EAS, MV, N Series and SAS 2 Core IP Network Equipment 4 10 Gbps Optical Transmit/Rcvrs w/4" ROADMs 3 Edge Routers 10 GPON Cabinets 234 XPON OLT Ports 35 XPON OLCs 986 XPON Splitters 986 Hand Holes/Pull Boxes 3943 XPON ONTs w/Router, Battery 698 Miles of Conduit and 144 ct Fiber 986 Vaults and Splice Cases The estimated cost for all this material and equipment is $12,856,213.50
Estimated construction timeline:	The deployment schedule assumes a start date of January, 2021 and a completion date of January, 2023 or a total of 24 months from start to finish, including time to process all necessary permits.

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[4] http://www.mendocinobroadband.org/wp-content/uploads/Napa-County-Fiber-Infrastructure-Engineering-Assessment-Report.pdf

Description of proposed broadband project plan:

The fiber approach is to provide up to 1 Gbps symmetrical Internet connectivity and voice service to all 3,943 homes, plus dozens of small businesses, 18 anchors, and other institutions in the five community areas via a robust last-mile fiber network. These five community areas include six Native American Tribes including: Round Valley Tribes and Reservation (Round Valley/Covelo), Cahto Tribe and Rancheria (Laytonville), Sherwood Valley Pomo Tribe and Rancheria (Willits), Coyote Valley Band of Pomo Indians (Redwood Valley), Pinoleville Pomo Nation (Ukiah), and the Hopland Band of Pomo Indians (Hopland).

We have designed and will build and operate the Last-Mile distribution system by providing all the necessary equipment to light the network. Our primary goal is to provide a reliable high-speed Internet network to all potential users in the communities at a competitive price, encouraging economic development, providing excellent customer service and doing so in a manner that minimizes risk.

Unit pricing is based on research done Q1 2020 and due to uncertainty in the global economy as well as political issues the prices on labor and materials may vary greatly if the project starts a year after the CASF application is submitted.

The design calls for the FTTx XGS PON network to utilize a passive optical network for residential and small business, and Active Ethernet for larger businesses, cell towers, and WISP's. We will utilize this hybrid approach to create a state-of-the-art network designed with the future in mind. This do it right approach will take into consideration minimizing downtime caused by wildfires, future bandwidth needs, and future advancements.

Each of the five community areas are planned to have either a hut or cabinet based upon size of the community; these locations will service as the aggregated data center where the Last-Mile distribution system where we plan to place fiber terminals, core and edge routing, and Optical Line Terminals (OLT) and where the infrastructure will be extend via fiber drops to connect the households.

For larger businesses and cellular locations we will provision for either a dark fiber or lit service using traditional industry interconnection equipment (small router). Our intent is to enable wireless carriers to build out their networks to further enhance voice and data connectivity to this rural and neglected area.

Download speed capabilities of proposed facilities:	The maximum residential service download speeds customers may subscribe to are: **1000Mbps.**
	For "low-income" customers (those at or below the poverty line, or any other CASF-mandated requirements) the Download speed will be: **25Mbps**

Upload speed capabilities of proposed facilities:	The maximum residential service upload speeds customers may subscribe to are: **1000Mbps.** For "low-income" customers (those at or below the poverty line, or any other CASF-mandated requirements) the Upload speed will be: **25Mbps**
Preliminary indication of need for CEQA review: The Commission's Energy Division CEQA section has been contacted and consulted with CEQA Staff regarding the process of developing and filing a Proponent's Environmental Assessment (PEA) or other CEQA documents. We are aware of the responsibilities if this proposed project is not exempt from CEQA. We anticipate that parts of the project will require CEQA review and other parts will not, which will also be identified by CalTrans.	
Identification of leveraging existing available facilities:	This project does not anticipate using other providers' facilities for "last mile" connectivity. The cable-based facilities of COMCAST and AT&T are private and they do not share with other providers; 101 Netlink, Valley Internet and North Coast all have private fixed wireless networks that they do not share with competitors. In addition, much of the existing infrastructure is dilapidated and requires replacing, including poles. Therefore, there are no existing facilities available for the last-mile needed in this project. As shown in the project expenditure plan, Hunter will acquire Internet backhaul capacity for the first five years. Three potential carriers were asked for preliminary cost estimates.
Disputing the Broadband Map:	No
Seeking Ministerial Review:	No
Explanation why Middle-Mile facilities are "indispensable": This is totally a "last-mile" infrastructure project designed to provide a seamless fiber-based distribution infrastructure that ties together these five community areas, to which we will connect to third party carriers for transit backhaul (ingress/egress points) for the network.	

PROFILE OF THE COUNTY AND PROJECT

SUMMARY DATA

The 2019 County population was estimated to be 89,009 by the CPUC, where 29,246 resided in the four incorporated cities of Ukiah, Willits, Fort Bragg and Point Arena, 15,322 lived in 19 census designated places, and 44,441 were scattered across 28 unincorporated zip code areas. The official 2019 CPUC Data Availability and Mapping Report stated there were 35,361 households in the county. Of that total 26,595 households, or 75.2 percent, had access to broadband services at 6 Mbps download and 1 Mbps upload or better and were deemed served. That leaves 8,766 households unserved. The three deployment projects in the *Mendocino County Digital Infrastructure Plan: 2019-2025* are targeting to reach 8,615 of these unserved households.

As can be seen in Table 1 Project #1 is targeting to reach 3,943 unserved households.

Table 1

Community Areas	2019 Est. Population	Number of Households	HHS Served	Targeted Unserved HHS
Covelo/ Dos Rios	2,591	1,041	0	991
Laytonville	2,415	1,017	292	720
Willits/ Brooktrails	13,716	5,533	3,979	1,501
Ukiah +++		See Project #3		328
Hopland	17,66	645	120	403
Project #! Totals	20,488	8,236	4,391	3,943

GEOGRAPHY

According to the U.S. Census Bureau, Mendocino County has a total area of 3,878 square miles (10,040 km2), of which 3,506 square miles (9,080 km2) is land and 372 square miles (960 km2) (9.6%) is water. Mendocino County's unique geography includes 130 miles of rugged Pacific Ocean coastline, coastal range mountains, and ancient redwood trees. The inland oak savannas and rolling hills provide the backdrop for the county's most populous city and county seat, Ukiah, CA.

The communities in the county are interconnected by a series of highways. Along the coast, Highway 1 stretches for over 100 miles starting in Gualala and reconnects with Hwy 101 in the town of Leggett. Hwy 101 runs through inland Mendocino County, connecting the cities of Ukiah and Willits, and the towns of Hopland, Laytonville, and Leggett. Highway 20 is a major arterial route that runs from Fort Bragg on the coast east across the county all the way to the border with Lake County. Large rural communities live off of Hwy 20 east in Redwood Valley and Potter Valley and at the end of Hwy 162 in Round Valley/Covelo/Dos Rios. Another major route, Highway 128 runs northwest from Highway 101 in Cloverdale through the Anderson Valley to Albion to connect with Highway 1 on the coast.

ECONOMY

The economy of Mendocino County is constantly evolving. Traditionally, Mendocino County had a natural resource-based economy, dependent on fishing, timber production, and farming. Over-extraction in both timber and fishing has changed the economy; while these are still active industries in Mendocino County, they do not have the same level of economic impact as they once had. Tourism, viticulture, wineries and cannabis production are some of the major economic forces in the county today. Additionally, small niche manufacturing is on the decline in the county. An increasingly important part of the economy is the number of people who work remotely at home as contractors or for businesses and corporations located outside the county.

A unique aspect of the County's economic profile is the number of self-employed and small businesses. According to data provided by the California Employment Development Department's Labor Market Information System, there are over 5,000 employers in the county and over 82% have fewer than 10 employees, 99% have fewer than 100. Most major employers are the school districts, health care (15%), and local governments.

The most visible of these small businesses are typical "mom & pop shops" providing products and services in the downtown areas. However, this is only a small percentage of the small businesses in the county. Mendocino County is home to many professionals and artisans including everything from luthiers (guitar makers), potters, and basket weavers, to high-tech executives, project managers, and other professionals.

The County has recently launched a major effort to develop an Economic Recovery Resiliency Plan MOVE 2030. Supported by funds from Economic Development Administration and the County, the effort has three outcomes:

- •   Develop an Economic Recovery and Resiliency Plan
- •   Complete a broadband implementation plan
- •   Create Digital Learning Hubs.

CENSUS BLOCK GROUP DATA-MEDIAN INCOME, POVERTY AND UNSERVED HOUSEHOLDS

As shown in Table 2 the weighted median household income for this project area is $42,780. This is well below the $51,500 stipulated for this CASF Infrastructure Program. Also, there are 1,955 of the targeted households estimated to be in poverty. In essence, there is a 49.6 percent weighted-average of the households at 200 percent below Federal Poverty Level.

TABLE 2			
Total Project Area - Weighted Average Percent Households below 200% of Federal Poverty Level	Total Project Area - Weighted Average MHI	Total Project Households	Total Project Estimated Households in Poverty
49.6%	$42,780	3,943	1,955

The 3,943 targeted unserved households in this project are located in 30 Census Block Groups. Table 3 shows the: 1) percentage of households below 200% of Federal Poverty Level, 2) median household income, and 3) the number of eligible households.

Table 3: Income and Poverty Breakdown by Census Block Group			
Census Block Group	**Percent Households below 200% of Federal Poverty Level**	**Median Household Income**	**Project Households Eligible - TOTAL**
060450101001	50.5%	$45,750	232
060450101002	67.3%	$32,875	325
060450101003	59.2%	$35,938	413
060450102001	39.3%	$50,299	258
060450102002	49.0%	$28,021	13
060450102004	17.2%	$53,341	163
060450102005	56.7%	$32,962	356
060450106001	37.8%	$53,304	458
060450106002	51.1%	$45,670	226
060450106003	13.7%	$47,181	35
060450106004	49.0%	$49,185	413
060450107001	70.0%	$30,333	33
060450107002	16.0%	$66,520	7
060450107003	70.3%	$31,528	27
060450107004	53.5%	$0	13
060450107005	61.9%	$34,511	63
060450107006	45.0%	$20,707	56
060450107007	59.4%	$0	122
060450108014	36.8%	$57,045	55
060450109002	24.2%	$48,889	2
060450109003	55.4%	$38,224	3
060450113001	60.1%	$27,007	14
060450113002	46.9%	$52,935	19
060450115002	38.3%	$56,827	1
060450115005	42.7%	$38,516	68

060450116001	40.3%	$0	30
060450116003	64.4%	$27,353	61
060450117005	63.4%	$80,500	1
060450118001	32.0%	$62,708	240
060450118002	46.8%	$51,750	237

PROJECT DESCRIPTION

SCOPE

The maps included in this document conceptually represent the planned build-out to Round Valley/Covelo/Dos Rios, Laytonville, Willits/Brooktrails, Hopland parts of Ukiah/Calpella/Redwood Valley to reach the unserved households in eligible census blocks, as defined by the CPUC. This project has two infrastructure components, "Core Arteries and Distribution" and "Last-Mile and Drops". For the remainder of this document, both infrastructure components will be referred to collectively as "Last-Mile".

Last-Mile: The project provides high-speed Internet, delivered over fiber optic cable to 3,943 households in nine communities and surrounding areas including: Round Valley/Covelo/Dos Rios, Laytonville, Willits/Brooktrails, Hopland and parts of Ukiah/Calpella/Redwood Valley. A total of 474 miles of underground fiber routes are being deployed across these five areas creating a seamless infrastructure, Last-Mile distribution system. The average 300 foot drop between the distribution infrastructure and each of the 3,943 households adds another 224 miles.

- Round Valley/Covelo/Dos Rios - 991 households
- Laytonville - 720 households
- Willits/Brooktrails - 1,501 households
- Hopland - 403 households
- Ukiah/Calpella/Redwood Valley – 328 households

The fiber design calls for deploying as much fiber underground as possible to preserve infrastructure during wildfires and other unforeseen disasters. According to an assessment by Magellan Advisors for Napa County 30 percent of the telecommunications infrastructure was damaged by the 2017 wildfires. None of the underground infrastructure was damaged.

MAPS OF THE PROPOSED PROJECT AREA

CASF Project Mendocino County - Project 1 Revised

Mendocino County - Project 1 Revised

Project 1 Census Blocks

6 August 2020
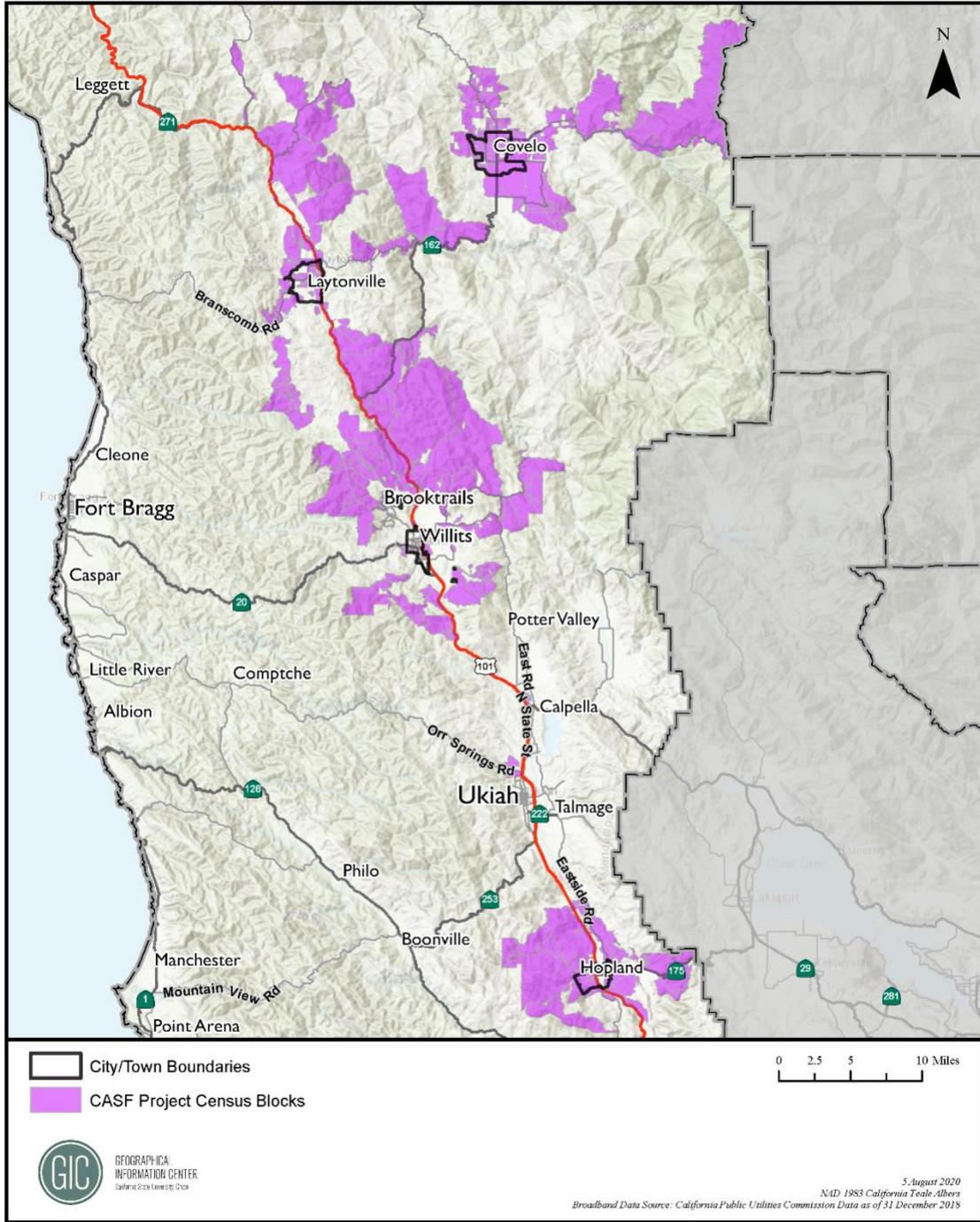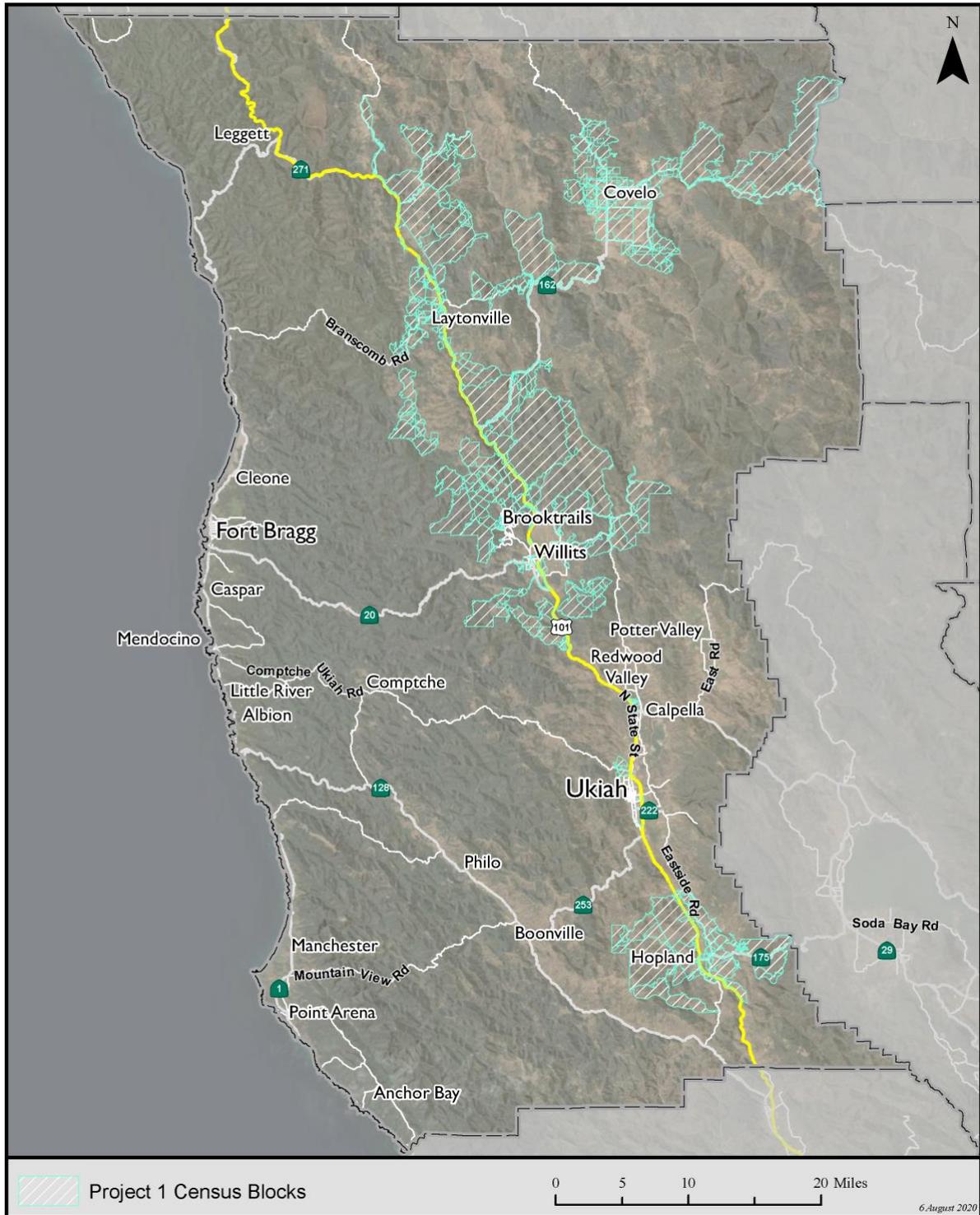
OVERVIEW OF THE NETWORK ARCHITECTURE

The approach is to bring up to 1 Gbps symmetrical Internet connectivity and voice service to all homes, businesses, towers, and other institutions in the four communities via a robust last-mile fiber network, augmented by fixed wireless to reach the more remote households. The provider will design, build, and operate the entire network by providing all the necessary equipment to light the last-mile network. The primary goal is to provide a reliable high-speed Internet network to all potential users in the communities at a competitive price, encouraging economic development, providing excellent customer service, and doing so in a way that minimizes risk.

Through partners (cable manufacturers, equipment providers) the provider will design and build the last-mile network utilizing a passive optical network for residential and small business, and Active Ethernet for larger businesses. We will utilize this approach to create a state-of-the-art network design with the future in mind. This approach will minimize downtime caused by potential wildfires and other threats, while taking into consideration future bandwidth needs and technological advancements.

We plan for each of the five communities to have a hut or cabinet based upon the size of the community. These locations will serve as the aggregated data center where we plan to place conduit, fiber, fiber distribution terminals, core and edge routing, and Optical Line Terminals (OLT). The cabinets will be supplied with eight-hour back-up power and generators with quick connect capabilities. The huts will be equipped with stand-by generators and batteries to address long-term power interruptions ensuring service is non-interrupted. All electronics are addressed later in this document.

At each end-user location, we plan to place a fiber drop wire connected from the distribution cable terminal to a point on each location, which typically is a fiber clamshell termination point. From the termination point, we will perform in-house fiber cable installation to a neutral location in the home. At this neutral location, we will place an integrated optical network (ONT) termination device with backup power that provides both fiber light termination and indoor Wi-Fi capabilities; additionally, this device will terminate voice services. This device will have four Ethernet ports and one voice jack in the event a customer wants hard wired connectivity into the Internet.

For larger businesses, we will provision a dark or lit fiber service using traditional industry interconnection equipment (small router). The intent is to enable wireless carriers to build out their networks to further enhance voice and data connectivity to most rural and neglected areas beyond our fiber cable reach.

Internet peering and voice service (diverse 911 path to Mendocino County PSAP) is planned to be from primary network hut locations in Ukiah (east), Laytonville (north), and Cloverdale (south). At these locations, we will install fiber and routing equipment that will provide much needed diverse routing ensuring diversity for 911 service as well as internet backhaul. As of now we have identified three known carriers that can provide 10 Gbps Internet backhaul capacity, which will provide much needed diversity for this important component of our project. The choices will be decided through an open quote process when we get closer to activating the network; pricing varies greatly and is expected to be lower as time goes by. Internet backhaul is designed to be reliable, reduced cost, improve performance and utilization, and predictable performance via purchasing a small amount of bandwidth, but with bursting capabilities on this upstream/downstream component of the network.

This project will interconnect these five communities via a Last-Mile Distribution System that we will build between Round Valley/Covelo/Dos Rios in the north and Hopland in the south.
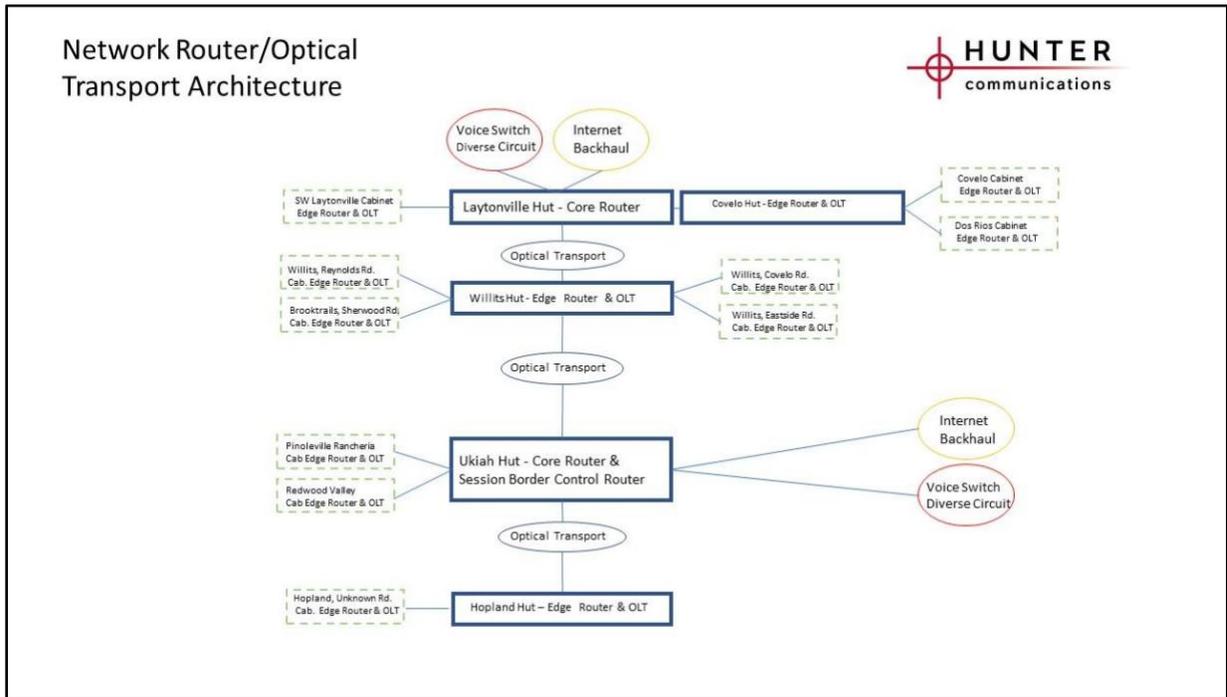
GEOGRAPHIC LOCATIONS OF UNSERVED HOUSEHOLDS

The geographic locations of the households and housing units within the project area are provided in the CASF prescribed format. There are 5,689 addresses including 4,610 housing units in the following list. The differential of 1,079 entries can be attributed to addresses of businesses and other non-residential locations. We based this estimate on a master address point data set provided by Mendocino County. While the data set has been determined to be incomplete, the current data set provides the most accuracy. Detailed household location data can be found on the website for Project #1

GEOGRAPHIC LOCATIONS OF NETWORK EQUIPMENT

table 4 below provide the geographic location of the project related network equipment.

Mendocino County, CASF Grant Application Project #1				
Geographic Location of project-related, key, network Equipment				
Proposed Network Equipment	Units	Key Network Equipment Location	Address	Latitude/ Longitude
Huts, 12' X 20"				
Hut #1	1	Covelo	SE Corner of Greely St. and Commercial	(39.793229° - 123.247786°)
Hut #2	1	Laytonville	NW Corner of Hwy 101 & Davidson Land	(39.651715° - 123.478442°)
Hut #3	1	Willits	NE Corner of Walker Rd and Shafer Ranch Rd	(39.651691° - 123.331863°)
Hut #4	1	Ukiah	210 Norgard Lane	(39.119025° - 123.196419°)
Hut #5	1	Hopland	NW Corner of Ralph Bettcher Dr and MacMillin Dr	(38.968021° - 123.118915°)

DEPLOYMENT SCHEDULE

The "Project 1" build out schedule has ten simultaneous construction crews that will begin work in each of the primary communities, using an "inside-out/outside-in" strategy, working towards a meet in the middle; location TBD, and based upon construction crew productivity.

Our priority location is the Ukiah Hut, location of Data Center, which will initially connect to the Internet backbone (CenturyLink, AT&T). Additionally, each community will be built out in three phases:

1) back towards Data Center from cabinet/hut,
2) distribution within each community from the hut or cabinet, and
3) rural or far-reaching, last-mile, distribution builds.

As segments are completed, crews will focus on "optical fiber cable drops" to the homes, businesses, and anchor institutions. A separate "drops crew" will follow "construction crew" installing drops from distribution cables, and a separate crew completing premise wiring, and turning-up service; this service activation process is dependent upon, and managed through, the service activation process.

Due to size of this project, we expect to complete Project 1 in 24 months, subsequently to CASF and CEQA approval. Obviously, schedule is dependent upon construction factors including weather, permits, and environmental challenges.

We have assumed a construction start date beginning January of 2021, following all approvals. The schedule provides for twelve months of construction activity before service activation can begin. The business model begins producing revenue in January, 2022, and runs through March, 2026, for the original 3,943 targeted homes passed. This forecast of homes depends on sales success.

Community	Test & Turn-up Date
Laytonville	1/1/2022
Willits	1/1/2022
Hopland	4/1/2022
Covelo	10/1/2022
Dos Rios	10/1/2022
Willits/Brooktrails	10/1/2022

The dates shown above represent when enough construction completion allows for service activation of customers, with additional construction to continue in these communities until all homes are passed, including the most rural areas of the communities. We understand there are several different ways to deploy this scale of a network and we understand the severity of those underserved. We are open to change in the schedule, but this factor can change the P&L statement as a risk factor. We believe this as of now is the best solution for those under served and us trying to make it happen in a timely manner.

The tables below represent a more detailed view into the construction timeline which includes the number of crews per location and other deployment factors.

Task		From	To	Route Feet	Work Days	Feet/ Day
I.	Middle Mile	Laytonville	Pieta	420,288	266	1,580
I.a	Middle Mile Spread #1	Laytonville	Redwood Valley	201,696	127.66	1,580
I.a.1	Identify and acquire Network Opns. Center Site					
I.a.2	Design & Engineer optical transport					
I.a.3	Evaluate and select optical transport hardware, switches, routers, storage devices					
I.a.4	Route Engineering					
I.a.5	Research, prepare submittals, and secure misc. permits					
I.a.6	Prepare and submit CEQA permit application where required					
I.a.7	Procurement					
I.a.8	Mobilization					
I.a.9	Deploy and provision Network Opns. Center in Ukiah					
I.a.10	Construction					
I.b	Middle Mile Spread #2	Redwood Valley	Pieta	41,396	26	1,580
I.b.1	Identify and acquire Network Opns. Center Site					
I.b.2	Design & Engineer optical transport					
I.b.3	Evaluate and select optical transport hardware, switches, routers, storage devices					
I.b.4	Route Engineering					
I.b.5	Research, apply, and secure misc. permits					
I.b.6	Prepare and submit CEQA permit where required					
I.b.7	Procurement					
I.b.8	Mobilization					
I.b.9	Deploy and provision Network Opns. Center					
I.b.10	Construction					
I.c.	Middle Mile Spread #3	Laytonville	Covelo/ Round Valley	105,600	67	1,580
I.c.1	Identify and acquire Network OADM/Regen Site Requirements					
I.c.2	Design & Engineer optical transport					
I.c.3	Evaluate and select optical transport hardware, switches, routers, storage devices					
I.c.4	Route Engineering					
I.c.5	Research, apply, and secure misc. permits					
I.c.6	Prepare and submit CEQA permit where required					
I.c.7	Procurement					
I.c.8	Mobilization					
I.c.9	Deploy and provision Network OADM/Regen Site					
I.c.10	Construction					

		Construction Timeline				2021												2022											
Task	From	To	Route Feet	Work Days	Feet/ Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
I.d	Middle Mile Spread #4 — Hopland — Nacomis Indian Rancheria		6.40		21	1,580																							
I.d.1	Identify and acquire Network Regen site																												
I.d.2	Design & Engineer optical transport																												
I.d.3	Evaluate and select optical transport hardware, switches, routers, storage devices																												
I.d.4	Route Engineering																												
I.d.5	Research, apply, and secure misc. permits																												
I.d.6	Prepare and submit CEQA permit where required																												
I.d.7	Procurement																												
I.d.8	Mobilization																												
I.d.9	Deploy and provision Network Regen Site																												
I.d.10	Construction																												
II	Last Mile Construction and Deployment											4, 6-Day Constr. Weeks																	
II.a	Spread # 1, Covelo		516,806	327.09	1,580							54.52																	
II.b	Spread #2, Laytonville		379,753	240.35	1,580														40.06										
II.c	Spread # 3a, Willits		514,061	325.35	1,580							54.23																	
	Spread # 3b, Willits		514,061	325.35	1,580							54.23																	
II.d.	Spread # 4, Hopland/ Nacomis and Ukiah/Pinole Indian Rancheria Sites		577,959	365.80	1,580							60.97																	
III.	Fiber to the Home (FTTH), Construction, Optronics Deployment, and CPE Installation																												
III.a	Spread # 1, Covelo/Round Valley		297,300	188	1,580							31.36																	
III.b	Spread # 2, Laytonville		216,000	137	1,580							22.78																	
III.c	Spread # 3, Willits		450,300	285	1,580							47.50																	
III.d.1	Spread # 4, Hopland/Nacomis and Ukiah/Pinole		109,650	69	1,580							11.57																	
III.d.2	Spread # 4, Hopland/Nacomis and Ukiah/Pinole		109,650	69	1580							11.57																	

PROPOSED PROJECT EXPENDITURES

The following table represents the cost expenditures used for this application. The expenditures represent soft quotes from multiple project partners, manufacturers, construction companies, and backhaul providers. Hard quotes will be forthcoming following grant approval. The costs are separated by the "Last Mile Distribution" and "FTTP Drops" components, making it easier for reviewers.

The "Last Mile Distribution" expenditure table encompasses all OSP infrastructure components, and electronics to light fiber and transport data across the Last-Mile Distribution System. OSP Infrastructure components include huts, fiber cable, passive materials (splice boxes, pull boxes, manholes, etc.), and the electronics components include fiber terminals, and core routers.

The "FTTP Drops" expenditure table depicts the OSP distribution infrastructure including distribution fiber, passive components/splitters, drops, and terminal equipment at the Household. The "Last-Mile and Drops" electronics include OLT and ONT/Wi-Fi for inside the home.

The "Last Mile Distribution" and "FTTP Drops" expenditure tables include labor and associated project costs, such as project management, construction bonds, and permits.

Mendocino County Broadband Initiative		
Project #1-Round Valley/Covelo/Dos Rios, Laytonville, Willits/Brooktrails, Hopland and parts of Ukiah/Calpella/Redwood Valley		
	EXPENDITURE CATEGORY	**PROJECT #1**
	Number of Unserved HHs	**3943**
	Route Miles	
	County Backbone + Last Mile	**474**
	FTTH	**224**
	Total	**698**
		x
	Countywide Backbone and Last Mile	
	OSP Materials--Conduit, Fiber Optic Cable, Splice Vaults and Cases, Pull boxes	**$7,533,693**
	Electronics--Edge Routers, Edge Core Electronics, ROADM's	**$1,282,131**
	Labor Costs--Route Engineering and Drawings; Delivery and Installation of Conduit, Fiber, Splice Vaults, Handholes, Pull Boxes, Termination Panels, Splice Cases; and Prevailing Wage Kicker	**$110,000,707**
	Project Mgt. and Construction Oversight--Project Mgr, Adminitrator, Construction Superintendents, Procuremen, Accounting, Mapping, and Legal	**$3,790,400**
	Other--Bond, Mobilization,Traffic, Tribal, Permits, Easements and CEQA	**$11,809,199**
	Total-Last Mile	**$134,416,130**
	FTTH	
	OSP Materials--HDPE Fiber and Conduit	**$1,814,047**

	XGS PON-- Cabinets, OLT Ports, CPE ONTs	**$1,889,208**
	Splice Cases, XGS Splitters	**$438,659**
	FTTH Hand Holes/Pull Boxes	**$221,794**
	Labor Costs--Engineering, Permitting, Construction Design; Install FTTH Handholes and Pull Boxes, Conduit, CPE, Cabinets, Electronics; Network Design; Prevailing Wage Kicker	**$17,848,608**
	Project Costs--Completion Bond, Mobilization,Tribal Monitoring, Traffic	**$1,517,132**
	Total FTTH	**$23,729,448**
	GRAND TOTAL	**$158,145,578**

ECONOMIC LIFE OF ALL ASSETS

The provider will depreciate its CASF funded equipment using the Internal Revenue Service's Publication 946 "How to Depreciate Property". The following table identifies all the equipment to be funded by the CASF by type, including the number of units and the economic life of that equipment. According to the publication, Hunter's assets will have the following economic life:

ASSET CLASS	EQUIPMENT	NUMBER OF UNITS	ESTIMATED USEFUL LIFE
48.11	Shelters (12"X 20")	5	45
48.31	Backup Generators	5	19
48.34	144 Fiber Terminal Panels and Connectors	10	16.5
48.35	Media Gateway w/ TDM	1	10.5
48.35	VM Stack for EAS, MV, N series and SAS	1	10.5
48.35	Core IP Network Equipment	2	10.5
48.35	10 Gbps Optical Transmit/Rcvrs w/4" ROADMs	4	10.5
48.35	Edge Routers	3	10.5
48.34	GPON Cabinets	10	16.5
48.33	XPON OLTs ports	234	26.5
48.33	XPON OLCs	35	26.5
48.33	XPON Splitters	986	26.5
48.33	Hand Holes/Pull Boxes	986	26.5
48.33	Vaults and Splice Cases	986	26.5
48.32	Conduit and 144 Count Fiber	698	26.5
48.38	XPON ONTs w/Router, Battery	3943	10

PROJECT VIABILITY

Pricing Commitment

We are committed to providing services to residential; low-income (those persons at or below the poverty line, along with any other CASF-mandated requirements); and, commercial customers at the speed and fixed monthly service level subscription rates, as summarized in the table below, for the first 24 months starting from the beginning date of service.

COMMUNICATIONS' INTERNET SERVICES & MONTHLY PRICING

Plan A (Residential)	100/100 mbps	$49.99
Plan B (Residential)	500/500 mbps	$69.99
Plan C (Residential)	1000/1000 mbps	$99.99
Plan D (Low Income)	25/25 mbps	$14.99
Plan E (Business)	100/100 mbps	$69.99
Plan F (Business)	500/500 mbps	$119.99
Plan G (Business)	1000/1000 mbps	$159.99

In addition, any installation/service connection charges will be waived during the initial sign up period. In house equipment such as routers will be provided free of charge during the initial sign up period, but must be returned to the provider by the customer if they decide to unsubscribe to Hunter's internet services. Low income services will be offered to customers with a median household income no greater than $51,500.

FIVE YEAR FINANCIAL PROJECTIONS

Our intent is to offer high-speed Internet service to Mendocino County. The following is a preliminary statement of cash flows and income statement, but no balance sheet at this time. Since this Mendocino Project business will be a standalone start-up entity, there are no existing financial statements to work from.

The income statement below indicates that sales will begin in January 2022, twelve months after the anticipated grant award date of January 2021. Once approved by the CASF we will begin the engineering, permitting, and construction phases, which will be simultaneous construction activity between the last-mile and drop sections. Due to the large amount of construction, the project anticipates several construction crews, many of which we intend to hire locally near the project area.

INCOME STATEMENT (Mendocino - Project 1)

	2022	2023	2024	2025	2026
	January Start	Yr 2	Yr 3	Yr 4	Yr 5
REVENUE From RES/BUS	$191,953	$672,547	$918,988	$920,144	$920,144
VOICE SERVICE	$168,244	$343,685	$354,752	$354,752	$354,752
CELL TOWER REVENUE	$39,600	$39,600	$79,200	$79,200	$79,200
TOTAL REVENUE	$399,797	$1,055,833	$1,352,940	$1,354,096	$1,354,096
COST OF GOODS SOLD	$9,995	$26,396	$33,824	$33,852	$33,852
GROSS PROFIT	$389,802	$1,029,437	$1,319,117	$1,320,244	$1,320,244
Gross Profit %	98%	98%	98%	98%	98%
Gross Profit Per Cust.	$969	$721	$670	$670	$670
OPERATING COSTS	$421,502	$500,064	$500,064	$533,064	$503,064
EBITDA	-$31,700	$529,373	$819,053	$787,180	$817,180
EBT	-$31,700	$529,373	$819,053	$787,180	$817,180
INCOME TAXES	$0	$158,812	$245,716	$236,154	$245,154
PROPERTY TAXES	$0	$0	$0	$0	$0
NET INCOME	-$31,700	$370,561	$573,337	$551,026	$572,026
Net Income per cust.	-$79	$260	$291	$279	$290

Net Income	-$31,700	$370,561	$573,337	$551,026	$572,026
Add: Depreciation Expense	$0	$0	$0	$0	$0
CASH FROM OPERATIONS	-$31,700	$370,561	$573,337	$551,026	$572,026

The total revenue at steady state (year 3) of $1.31 million annually comes mostly from residential and commercial categories (63%), while voice and cell tower revenue comprise the remaining 37%.

Operating expenses in steady state (year 3) total $1.04 million annually, which comprises mostly labor for technicians, vehicles, and cell phones. We anticipate leveraging existing resources from the provider's current operations and more are not contemplating additional resources; therefore, there are no direct or allocated expenses in this model.

PROJECT ASSUMPTIONS

This project is a mix of residential and small businesses located in Laytonville, Covelo, Willits, Ukiah, Ukiah/Calpella, Hopland, and surrounding areas. Connecting these communities occur following test and turnup of last mile construction per site. We, along with CSU Chico, have determined there are 3943 premises that qualify for CASF Grant funding; this model shows a 50% penetration level.

Assumptions:

- The project requires simultaneous builds starting from last-mile build from Ukiah to Laytonville/Covelo to the north, and Ukiah to Hopland/Yorkville to the south.
- Installation of new service is anticipated to begin in January of 2022
- The take rate for residential services assumes 20 installs in the first month and 80 installs per month until all forecasted 2,835 units are sold in 2024. The take rate for business services assumes 2 units first month and 3 each month until all 100 units are sold in 2024.
- Construction teams will build the distribution plant, and then connect a drop to the side of each home; a separate crew will complete install within the premise. Home installation costs are included in the grant.

Residential Forecast:

Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	Total
900	960	62	0	0	1872

Commercial Forecast:

Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Total
35	15	50	100

Speed and Price Tiers:

Our plan calls for four residential speed/price tiers and three Commercial speed/price tiers, pricing based upon area market rates and surveys:

Residential Pricing Assumptions and Take Rate

Residential Service Plan	Take Rate
LOW INCOME (25/25Mbs) $14.99	46%
REGULAR STANDARD (100/100Mbps) $49.99	43%
REGULAR MEDIUM (500/500 Mbps) $69.99	6%
REGULAR EXTREME (1000/1000 Mbps) $99.99	5%

Commercial Pricing Assumptions and Take Rate

Residential Service Plan	Take Rate
BUS STANDARD (100/100Mbs) $69.99	70%
BUS STANDARD (500/500Mbs) $119.99	15%
BUSINESS EXTREME (1000/1000Mbps) $159.99	15%

Voice Revenue

Voice revenue is projected to be $29.99 per line and assumed to have a 25% take rate from the 3943 potential subscribers as we expect many customers to port numbers to their new network and depart from their existing voice carriers.

Cell Tower Revenue

$1,100 per site; 3 sites in year 1, growing to 6 total sites year 2-5.

Cost of Goods Sold

Assumes $2,000 per month in marketing expense for advertisements, door hangers, community sponsorships, and other civic responsibilities.

Expenses

- The provider will operate the network with a combination of on-site technicians and support groups from the existing services, where the additional workload is anticipated to be absorbed into existing business, therefore no additional costs have been allocated or added to this income statement with the exception of a OSP Plant Manager who will manage the technicians remotely in Mendocino County.

- The provider will plan to obtain a suitable Maintenance Yard/Warehouse for storage of material, office space, and reporting center for employees estimated at $12,000/month and based upon research of current local real estate firms.

- One Installation and Repair (I&R) technician will be hired in January 2022 prior to the initial launch. A second I&R Technician will be hired in April 2022, and a third I&R Technician will be hired in October 2022. I&R technicians will handle service orders and repair activities within a 24-response period. Additional techs can be supplemented from Oregon operations during initial rollout as needed. One I&R technician will be located in the Willits/Laytonville area, one in Hopland, and the third in Covelo. The I&R salary per tech is estimated to be $23 p/hr. including 20% for benefits; total cost per employee is $57,408, or $4,784 per month. our preference is to hire and train employees locally from the community.

- One Network Technician hired January 2023, will operate and maintain the electronics (routers, fiber terminals, OLT/ONTs) and supplement I&R workload as necessary. Salary is $93k or $45/hr. loaded at 20%; annual salary is $111,600 or $9,300/month

- A GM/OSP Plant Manager will be hired January 2022 and will oversee Mendocino County Operations remotely, with planned on-site visits as needed; allocated at 50% in this income statement. The OSP Plant Manager salary is $120k or $57.69/hour, which includes 20% for benefits.

- Vehicle expenses are budgeted at $850 per month per technician; which includes: monthly costs of: $450 for vehicle leasing, $250 for fuel, $100 for insurance and registration, and $50 for maintenance. Three vehicles will be required for I&R and one for the Network Technician. The vehicles for I&R are budgeted in January, April, and October of 2022 and are consistent with their hiring; the Network Technician vehicle is budgeted beginning January 2022.

- Electricity is budgeted for $360/month/site and is assumed to cost $18/amp/month; 20 amps are planned for each hut and cabinet location. Wireless tower locations, which have lower power consumption are budgeted at $180 per month

- Marketing is budgeted for $2,000 per month and will be used for local advertisements, signage, local sponsorships, community involvement, etc. and is included in the COGs line.

- Tools - A ruggedized PC, OTDR hand-held light meter, and drop kit supplied to each tech and consistent on their hire date; replacement for these budgeted as 4-year replacement.

- Cell Phones are planned for $125/month/tech and will be consistent with hiring.

Expense Categories	2022	2023	2024	2025	2026
	yr. 1	yr. 2	yr. 3	yr. 4	yr. 5
Labor - I&R Techs, Net. Techs, GM/OSP Mgr., and Customer Support	$226,416	$321,264	$321,264	$321,264	$321,264
Network Support - Vehicles, Electricity, Cable Locates, and OSP Maintenance	$130,800	$160,800	$160,800	$160,800	$160,800
Marketing & Communication	$12,000	$12,000	$12,000	$12,000	$12,000
Administrative - Yard/Warehouse, Cell Phones, Tools, Office Eq.	$52,286	$6,000	$6,000	$39,000	$9,000
GRAND TOTAL	$421,502	$500,064	$500,064	$533,064	$503,064

Cash Flow Statement	2021	2022	2023	2024	2025
Beginning Balance	$1,000,000	$1,000,000	$968,300	$1,338,861	$1,912,198
Money In					
Net Income		-$31,700	$370,561	$573,337	$551,026
CASF Grant Proceeds	$51,666,667	$51,666,667	$51,666,667	$0	
Total	$52,666,667	$52,634,967	$53,005,528	$1,912,198	$2,463,224
Money Out					
Payments to Contractors	$51,666,667	$51,666,667	$51,666,667	$0	$0
Cash Distribution					
Total	$51,666,667	$51,666,667	$51,666,667	$0	$0
Cash Balance	$1,000,000	$968,300	$1,338,861	$1,912,198	$2,463,224
Cumulative Cash Flow	$1,000,000	$1,968,300	$3,307,161	$5,219,359	$7,682,583

PROVIDING VOICE SERVICE

A Voice Network would be included powered by a state-of-the-art Class 5 Metaswitch, an industry leading software manufacturer that is trusted by more than 1000 service providers throughout the global communications marketplace. Voice deployment has a unique combination of VoIP and TDM connectivity that makes our product second to none in reliability and performance.

This would be a fully redundant voice network with automatic failover routing that provides the highest reliability. The system does not have an expected end of life, as it is always upgradeable via software and/or hardware when required.

We will require redundant connections in California to the Intrado emergency network for E-911 services. The redundant connections would allow reliable 911 services for the Mendocino County area. These connections will be transported over the proposed data network infrastructure. Customer equipment battery backups would be available as part of the design of the underlying last mile infrastructure.

Required are three routes, one being a diverse/redundant connection south of Ukiah for backhaul out of Cloverdale where the other two diverse/redundant backhaul connection in Ukiah and Laytonville will be to either AT&T or CenturyLink in California to the SS7 network that will allow for Local Number Portability (LNP) in the 722 LATA. These connections will also traverse the underlying data network design and be connected to a remote media gateway (Metaswitch) in the selected Point of Presents (POP) in the 722 LATA.

The project will provide the following: SIP Trunking service using our own equipment, so when you have a problem, we can fix it quickly without all the hassles a national provider will put you through. Hosted Voice over IP (VoIP) from Hunter gives you the absolute best in hosted voice solutions for both small and large businesses. Replace your existing voice service with Hunter voice products. Whether you are looking for a PRI/T1, traditional POTS/Analog and/or long-distance service, we can save you money. Two-Way Fax to Email Service is not only convenient but can save your business time and money.

A Hosted IP Phone System gives you all the traditional benefits without any up-front capital expenditure or the hassle of maintenance. A "hosted" service means that your home or business accesses the services it needs through the "cloud." As a cloud-based system, Hosted PBX service from Hunter is a great solution for home or businesses looking for voice services that are cost-effective, reliable and feature-rich.

CEQA ATTESTATION

We have contacted and engaged the staff of the Commission's Energy Division CEQA section in advance of filing this application. We are working with CEQA staff to determine whether or not this project is exempt from CEQA; however, due to the size and scope of the project, we believe some sections of the project will not be CEQA exempt. Part of the consultation is focused on the process of developing and filing a Proponent's Environmental Assessment (PEA) or other CEQA documents.

We are familiar with its responsibilities if this proposed project is not exempt from CEQA. We are prepared to remain CEQA compliant and would hire a professional engineering consultant to assist the project deployment process through the following phases:

- Phase 1: Permitting Feasibility
- Phase 2: Permitting Strategy and Execution
- Phase 3: Permitting
- Phase 4: Transition to Construction
- Phase 5: Post Construction

We are also mindful that we need to address environmental factors associated with the project area to account for environmental risks relative to CEQA review including our review of the overall project relative to:

- Proposed Construction
- Historic/Archaeological Resources
- Affected Environment
- Mitigation

We expect that some of the activities fall within the following classes of projects that are exempt from CEQA and for which neither an Environmental Impact Report nor a Negative Declaration is required.

Class 1 Exemption: operation, repair, maintenance, leasing or minor alteration of existing public or private structures and facilities, with negligible or no expansion of an existing use. This includes existing facilities used to provide public utility services. 14 CCR § 15301.

Class 3 Exemption: construction including water main, sewage, electrical, gas and other utility extensions of reasonable length to serve such construction. This includes the Construction of limited numbers of new small facilities or utility extensions. 14 CCR § 15303.

BENEFITS OF THE PROJECT

Resilience - By deploying fiber underground, as opposed to aerial, this Last-Mile Distribution System will be better protected against wildfires, other unforeseen disasters and outages.

Tribes - In addition to providing broadband access to 3,943 households this project would also be serving the needs Native American Tribes located within the project area including: Round Valley Tribes and Reservation (Round Valley/Covelo/Dos Rios), Cahto Tribe and Rancheria (Laytonville), Sherwood Valley Pomo Tribe and Rancheria (Willits), Coyote Valley Band of Pomo Indians (Redwood Valley), Pinoleville Pomo Nation, and Hopland Band of Pomo Indians (Hopland).

Low-Income - With a total weighted average median Household Income of $42,780, this project is serving a population that is well below the $51,500 CASF standard. According to official CPUC data this project serves 1,955, or 49.6% of the households are considered below 200% of Federal Poverty. This project provides broadband services to these qualified households at $14.99 per month for 25 Mbps download and upload speeds.

No Service - Based on the official 2019 CPUC Data Availability and Mapping Report, there are no providers currently serving Round Valley, Covelo/Dos Rios with 991 targeted unserved households.

Closing the Digital Divide - Finally, this project makes a significant contribution to the NBNCBC region achieving the State's 98% access goal for all regions throughout the state.