

PROJECT SUMMARY

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| Applicant's Name: | Hunter Communications and Technologies, LLC |
| CPCN/U: | U-7281-C |
| 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 |
| Contact Person: | Keith Grunberg 801 Enterprise Drive Center Point, OR 97502 Mobile: (503) 819-7885 Fax: (541) 727-3066 kgrunberg@hunterfiber.com |
| UNSERVED HOUSEHOLDS INCLUDED IN GRANT REQUEST | |
| 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) | |
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| 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: | <p>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.</p> <p>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.</p> |
| <p>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.</p> <p>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</p> | |



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| <p>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.⁶</p> | |
| <p>Breakdown of Aerial and Underground installation:</p> | <p>One hundred (100%) percent of the 3,943 households are to be connected via underground fiber installation.</p> |
| <p>Major Equipment-Number and Expenses:</p> | <p>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</p> <p>The estimated cost for all this material and equipment is \$12,856,213.50</p> |
| <p>Estimated construction timeline:</p> | <p>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.</p> |

⁶ <http://www.mendocinobroadband.org/wp-content/uploads/Napa-County-Fiber-Infrastructure-Engineering-Assessment-Report.pdf>



Description of proposed broadband project plan:

The Hunter 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).

Hunter has 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.

Hunter’s 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. Hunter 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 technological 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**



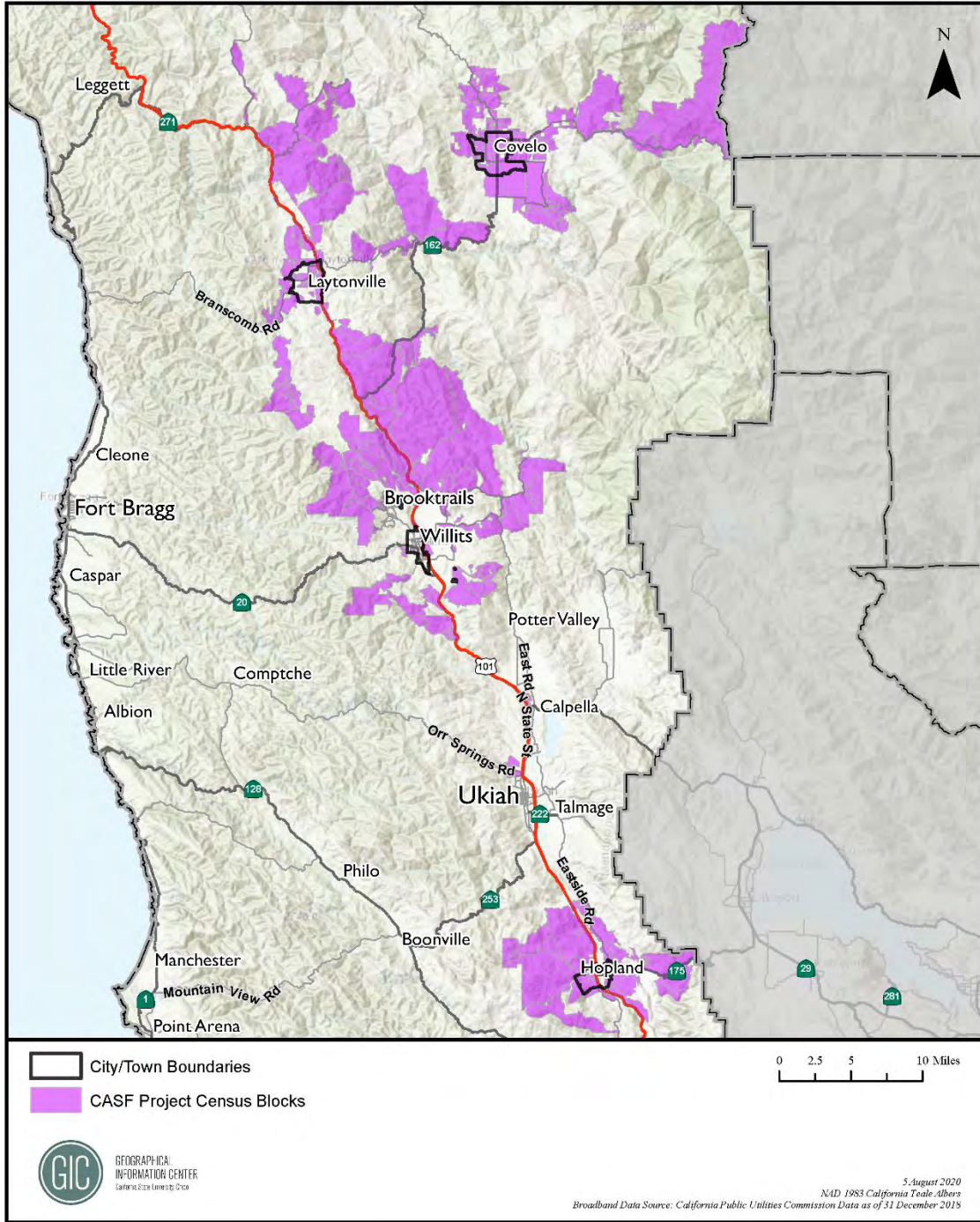
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| <p>Upload speed capabilities of proposed facilities:</p> | <p>The maximum residential service upload speeds customers may subscribe to are: 1000Mbps.</p> <p>For “low-income” customers (those at or below the poverty line, or any other CASF-mandated requirements) the Upload speed will be: 25Mbps</p> |
| <p>Preliminary indication of need for CEQA review: Hunter has contacted the Commission’s Energy Division CEQA section in advance of filing this application and has consulted with CEQA Staff regarding the process of developing and filing a Proponent’s Environmental Assessment (PEA) or other CEQA documents. Hunter is aware of its responsibilities if this proposed project is not exempt from CEQA. Hunter anticipates that parts of the project will require CEQA review and other parts will not which will also be identified by CalTrans.</p> | |
| <p>Identification of leveraging existing available facilities:</p> | <p>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.</p> <p>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.</p> |
| <p>Disputing the Broadband Map:</p> | <p>No</p> |
| <p>Seeking Ministerial Review:</p> | <p>No</p> |
| <p>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.</p> | |



MAPS OF THE PROPOSED PROJECT AREA

CASF Project Mendocino County - Project 1 Revised



Mendocino County - Project 1 Revised

