Hunter Communications and Hoopa valley Public Utilities Districts Hoopa Valley Broadband Initiative CASF Grant Application

Company/Applicant Name: Hunter Communications, Inc. is the lead applicant and fiscal agent, deploying the proposed Hoopa Valley Broadband Initiative (HVBI) in collaboration with the Hoopa Valley Public Utilities District (HVPUD).

CPCN Number: U-7281-C (Hunter Communications)

Contact Person: Carey Cahill (Chief Revenue Officer, Hunter Communications); Linnea Jackson (General Manager, HVPUD).

Named project (Community/County): The Hoopa Valley Broadband Initiative (HVBI) will provide high speed broadband internet services across the rural, remote, 92,000-acre Hoopa Valley Indian Reservation in Humboldt County, California.

Project type: The HVBI is a hybrid fiber optic and wireless last-mile infrastructure project that includes a critical backhaul via licensed microwave and a fiber optic middle-mile component critical to the last-mile distribution. (Last-mile or Hybrid Last-Mile/Middle Mile)

Amount of CASF grant funding requested and project cost: CASF grant funding requested = $8,233,340; Matching funds provided = $1,308.515; Total project cost = $9,541,855.

Map of the proposed project area

Number of unserved households with <u>no-service</u>: 327 **number of underserved households with <u>slow-service</u>** for which the project will provide service: 871. A small local ISP claims to serve some areas of the community, these areas are described as served. However, speed tests of a sampling of the tribal offices show they are under the minimum requirement to be served. As part of the Engineering the extent of the underserved area will be tested and discovered.

Dial-up funding only? Not applicable.

The maximum Mbps downstream and upstream speed currently offered to households: Velocity is a small WISP based in Weaverville, California. The company provides limited WiFi service to some parts of the Hoopa Valley Indian Reservation. The company is currently only serving approximately 10% of the Reservation, leaving about 90% without coverage. The maximum downstream it claims to offer is 20 Mbps and the upstream is 2 Mbps. However, speed tests conducted in February and March 2020 clearly dispute those claims within the 10% of the area they serve, not including the areas outside their ability to serve.

Median Household Income (MHI) of the project area: Per the California Broadband Map, the MHI of the project area is $23,750 (Census Block Group 1-060239400001); and $35,221 (Census Block Group 2 - 060239400002).

The number of businesses (16)**, anchor institutions** (35) **and public safety locations (**5) **in the project area that will receive new or improved service.**

A description of the major infrastructure to be deployed: miles of planned fiber, Central Offices used, number of remote terminals/fiber huts/wireless towers to be built, and if an IRU is used: With the support of the requested CASF funding and matching funds to be provided, Hunter Communications--in collaboration with the Hoopa Valley Public Utilities District--will deploy the Hoopa Valley Broadband Initiative (HVBI), which will bring reliable, robust and affordable high speed broadband internet to the highly rural, economically depressed homelands of the Hoopa Valley Tribe in Northern California. To provide the proposed services, HVBI will develop and deploy a broadband infrastructure comprising a hybrid fiber optic and wireless infrastructure that together, will provide a critical backhaul via licensed microwave with fiber and wireless distribution.

The HVBI CASF project comprises approximately 16 miles of fiber optic cable to be hung on existing joint-use poles, interconnecting at HWY 96 in Weitchpec and the Hoopa Valley fire house. Included in the 16 miles is the 5 miles that run to the Bald Hills cell tower site, which is a critical aspect to the wireless backhaul. The Hoopa Valley Public Utility District will house all WISP services and operations at a tribal building located at 22 Willow Street, Hoopa, CA 95546. When HVBI construction is complete, this will serve as the network operations center (NOC) for the WISP. Hunter communications currently houses the Central Office (C.O.) at the Hoopa Valley Fire House. This project will interconnect with both the C.O. and the NOC. At this time no IRUs have been negotiated between Hunter, the Hoopa Valley Tribe, the HVPUD or adjacent entities and tribes. This project includes several tower sites already built however has included a single tower replacement for the Water Tank.

Estimated breakdown of aerial and underground installation: All aerial on joint-use poles. We do not anticipate any underground installation. However, in the event that any underground installation is required, HVBI will utilize minimally invasive techniques that have been used successfully by similar projects in our region (e.g., Klamath River Broadband Initiative). Details about these minimally invasive techniques are provided in the project description below.

Major equipment expenses (e.g., number of DSLAMs, multiplexers, etc.):

Funding Source	Funding Amount	Expense Category	
CASF Funds	$564,521	Fiber	These are Major equipment Costs found under the Fiber Budget Tab identified as "Material Sub Totals"
CASF Funds	$574,320	Towers	These are Major Tower and equipment Costs directly from the under the Towers Budget Tabs
CASF Funds	$634,203	Wireless Backhaul and Last Mile	These are Major equipment Costs directly from the under the Wireless equipment Tab

Estimated construction timeline: Once the CASF Ruling approving funding for the proposed Hoopa Valley infrastructure (HVBI) project has been published, we anticipate construction being completed within 24 months. The Wireless component will be fully complete and operational during year one while the fiber component will be fully complete and operational during year two.

Description of proposed broadband project plan for which CASF funding is being requested, including the type of technology to be provided in the proposed service areas:

Hunter Communications (lead applicant and fiscal agent), the Hoopa Valley Public Utilities District (HVPUD) and EnerTribe have partnered on the development and completion of the Hoopa Valley Broadband Initiative (HVBI) that will bring reliable, robust, affordable, high speed internet services to residents, Tribal departments and programs, businesses, anchor institutions and other community stakeholders throughout the Hoopa Valley Indian Reservation.

As noted, HVBI will serve the Hoopa Valley Indian Reservation, which covers more than 92,000 acres of primarily timber and agricultural land in northwestern California. This remote river valley lies 300 miles north of San Francisco, 64 miles northeast of Eureka (CA), and 90 miles south of

the Oregon border. The Reservation is within the Trinity River watershed, the longest tributary of the Klamath River Basin.

The Hoopa Valley Tribe (HVT) governs the jurisdiction of the Hoopa Valley Indian Reservation. As the governing body for residents of the Hoopa Valley, HVT is a complex Tribal organization that provides multi-faceted programs and services through nearly seventy (70) departments/programs; operates several tribal enterprises; and manages an annual budget of at least $65 million. The Hoopa Valley Tribe is often recognized for leading the way in self-governance and self-determination among the nation's more than 500 federally recognized tribes. In fact, in 1990, HVT was one of the first selected to participate in the Self-Governance Demonstration Project and is just one of an estimated ten percent (10%) of tribes in the nation to develop their own Tribal Business Codes. Additionally, HVT was the first California Tribe granted treatment as a state (TAS) under the federal Clean Water Act, and continues to be a leader among Tribal nations in the areas of forestry management and education. These advancements in self-determination are rooted in the strong cultural values and heritage of the Hoopa citizens.

Despite such advancements in self-determination, the Hoopa Valley economy continues to struggle with limited access to economic opportunity, and even basic goods and services. Poverty in the Hoopa Valley is pervasive. While 2017 American Community Survey (ACS) data shows the local poverty level as being 42.6%, in reality, about 66.2% of the residents live below the federal poverty level. ACS data shows the Median Household Income of the project area is just $36,830 (data obtained from the California Broadband Services Map, shown elsewhere in this proposal shows this as even being lower), as compared to $70,489 for the rest of California. The Tribe has experienced decades of litigation and challenges that stem from failed past federal policies and actions involving land ownership, broadband, water and fishing rights, and tribal authority and jurisdiction.

Efforts to identify and lay the foundation for economic opportunity in this rural, isolated region include development of a five-year Comprehensive Economic Development Strategy (CEDS), plan that was developed with local stakeholder input and identified development of high speed broadband infrastructure as a critical element to improve access to social, educational, healthcare, entrepreneurial and economic opportunities for residents of the Hoopa Valley. The Hoopa Valley Indian Reservation is one of the largest reservations in the State of California. As such, the HVT is striving to be at the forefront of positive change and upgrade its technological capacity building to provide broadband to the entire community for the betterment of Native American people now and for the future.

Hunter Communications and the HVT have spent considerable time, money and resources to address the severe need for high-speed broadband in the valley. The Hoopa Valley Tribe, which is a sovereign nation, understands and acknowledges that it is a critical time for the Tribe to have access to the same resources and modern infrastructure as other areas in California. High speed broadband, just like a natural resource or utility, encompasses many facets of modern life. The lack of broadband for the Tribe, its citizens and subsequent departments has led to significant negative impacts on economics, education, emergency services, health care and well-being of residents of the Reservation. The existing limited options are not sufficient to meet this need. This

has become appallingly evident as current events, including the COVID-19 outbreak, have pushed most of the country to work from home. Sadly, this is simply not an option for our mostly high-poverty residents in the Hoopa Valley, where 90% of homes are without robust high-speed broadband. And although incumbent provider Velocity claims to provide coverage to the Hoopa Valley Reservation (as does HughesNet), we firmly believe that California Broadband Map does not accurately reflect actual internet access and up/down speeds on the Reservation.

Hunter Communications in partnership with the Hoopa Valley Public Utilities District and teams of highly skilled subject matter experts--plans to bring reliable, robust, and affordable high-speed internet to residents of the Hoopa Valley via a wireless and fiber infrastructure deployed across the Hoopa Valleyon the Reservation. Hunter proposes to become the fiber-to-the-home provider in the Hoopa Valley while HVPUD proposes to complement that by providing wireless internet provider services (WISP) to the Valley.

The Hoopa Valley Broadband Initiative (HVBI) will be a critical fiber middle-mile run from the Hoopa Valley to the north along joint-use P G & E poles on HWY 96 into Weitchpec, connecting two current CASF funded projects--the Digital 299 project and the Klamath River Rural Broadband Initiative (**KRRBI**). The primary goal of HVBI is to service the CASF eligible areas on the Reservation. However, in essence, the project is the center pole of an "H" between two state funded projects that also broadens high speed connectivity throughout the region. The project has been designed to require little to no impact from an environmental and permitting standpoint by using existing infrastructure for all of the project components. Given the high probability of fire in Northern California, route diversity is required to sustain a safe and reliable network. In addition to the critical fiber middle-mile component, Hunter and the Hoopa Valley Tribe would like to acquire a wireless point-to-point backhaul to the coast from the Roads Department as part of the project. This wireless backhaul, has the capability of supporting a 1GBps licensed microwave connection to AT&T or Sudden Link on the coast, giving the project and the Hoopa Valley route diversity and an immediate means to deploy the wireless portions of the project and light up the existing fiber lines that run between Tribal entities. By means of a point-to-point and point-to-multipoint wireless network the Hoopa Valley tribe will solve a dire problem on the reservation. In addition, this project will provide services to the more than 3,000 local residents, plus more than 70 Tribal departments and programs, HVBI will serve the following community anchor institutions and businesses in the Hoopa Valley (A = anchor institutions; B = businesses; and S = safety/medical facilities).

When complete, HVBI will result in construction of a critical fiber middle-mile run from the Hoopa Valley (starting at Hostler Field Housing which is managed by the Hoopa Valley Housing Authority, which is on a portion of Lot 313, Hostler Field) and then will run along existing joint-use poles north along HWY 96 into Weitchpec, connecting two current CASF-funded projects. As noted, these projects include Digital 299 and the Klamath River Rural Broadband Initiative (**KRRBI**).

For all CASF eligible areas within the Hoopa Valley we will deploy fiber-to-the-home (FTTH) to ensure the highest quality services once the project is complete. Once the Digital 299 and the KRRBI projects are complete, the HVBI will be able to interconnect with providers seeking route

diversity and in some cases redundancy. This will also support 500+MBp - 1GBps speeds to the home and businesses throughout the Hoopa Valley.

Download and upload speed capabilities of proposed facilities: HVBI will offer customers download speeds ranging 10 mbps to 25 mbps for wireless and upload speeds of up to 2.5 mbps for wireless. Once the fiber component becomes available, those download speeds will range from 100 mbps to 1,000 mbps and upload speeds will range from 25 mbps to 50 mbps.

CEQA Review: As fully described in Application Item 8.18, based on our extensive analysis and discussions with Hoopa Valley Tribal legal experts, we fully anticipate that the HVBI will be exempt from CEQA. This is because much of the proposed construction will take place on Tribal lands and utilize existing infrastructure that is located on land that has previously been disturbed. For example, fiber middle-mile, wireless backhaul, core wireless network and tower site upgrades are being deployed using existing infrastructure located on previously disturbed tribal lands. In the cases where upgrades are required (e.g., at any tower sites) these will be a "swap and replace" for gear within the existing fence line and does not require additional ground disturbance. In regard to the middle-mile fiber run to Weitchpec and the fiber run to the Bald Hills Cell site, we expect minimal pole replacements due to make-ready and loading issues. In any case, the project is expected to meet or even exceed CEQA requirements to qualify for exempt status. Should this not be the case, the project deployment schedule will be modified as appropriate while still meeting the 24-month construction timeline.

Identification of the leveraging of existing available facilities: To maximize impact, reduce costs and increase efficiencies, the Hoopa Valley Broadband Initiative will leverage existing infrastructure and facilities such as towers, poles and builds requiring no ground disturbance. This infrastructure consists of five-Tribal-owned towers and three leased towers that together provide a backbone to the coast. However, these towers have no direct internet access (DIA) or feed-- **leaving the backbone essentially unconnected to the outside world.** The towers include: the Roads Tower, the Water Tank Tower, the Radio Station Tower, the Bald Hill Cell Phone Tower, and the Sugar Pine Mountain Tower. This infrastructure is available for HVBI use in bringing affordable, high speed internet services to the Reservation. Each tower, other than Sugar Pine, can be used for Point/Multipoint WiFi connectivity, which will be provided, once HVBI construction is complete.

Additionally, HVBI will leverage the infrastructure of nearby Tribal and non-Tribal broadband initiatives such as the Klamath River Rural Broadband Initiative (KRRBI) and Digital 299. With the support of CASF funding, HVBI will interconnect with these two congruent CASF funded projects to the north and south of the Hoopa Valley Reservation. As such, HVBI will have both direct internet access and redundant pathways to the internet. Additional details about how all existing infrastructure will be leveraged is provided in Application Item 8.3. Please cross-reference.

Statement of whether the applicant is disputing the BroadBand Map depiction of served status: Hunter Communications and the Hoopa Valley Public Utilities District are disputing the Broadband Maps depiction of under served and served status for the project area.

A statement of whether the applicant is seeking Ministerial Review and, if so, information that the application meets all requirements for Ministerial Review: Hunter Communications is seeking Ministerial Review and does believe that the project meets all requirements for this review. We believe this to be the case because:

- The applicant meets all eligibility requirements.
- We believe that after the CPUC review, the proposed service area will be deemed as unserved.
- The CASF grant request is below the $10 million threshold.
- The project is expected to be CEQA-exempt.
- There are no competing applications in the area.
- We believe that the per household costs are below the threshold.

An explanation of why any Middle Mile facilities in the proposed project are "indispensable" for accessing the proposed last-mile infrastructure: HVBI will interconnect with the following Middle Mile Facilities:

- Karuk & Yurok Klamath River Rural Broadband Initiative (KRRBI) in Weitchpec California for direct internet access (when completed). This is indispensable because without this interconnection, HVBI will not have the direct internet access it requires.

- Inyo Networks Digital 299 CASF project in Willow Creek, CA, for direct internet access and pathway redundancy (when completed). This is indispensable because without this interconnection, HVBI will not have the direct internet access it requires, nore the redundancy necessary to ensure a reliable, robust network.

- Wireless backhaul to the coast interconnecting with AT&T or SuddenLinkto connect the Hoopa Valley Tribe's recently completed "intranet" which at this point, does not have direct internet access. This middle mile connection is indispensable because as noted in the "Speed Tests" in Application Item 8.6 of this proposal, Velocity's advertised up/down speeds are not accurate.

Census Blocks to be served

Block 1105
Block 1099
Block 1023
Block 2079
Block 1121
Block 1109
Block 1086
Block 1079
Block 1022
Block 1004
Block 2123
Block 1006

Block 1120
Block 1064
Block 2035
Block 2046
Block 2025
Block 2029
Block 1034
Block 1127
Block 2044
Block 1018
Block 2027
Block 2050
Block 2031
Block 2055
Block 1041
Block 2087
Block 1101
Block 2061
Block 1130
Block 1028
Block 2062
Block 1056
Block 1490
Block 2105
Block 1124
Block 2080
Block 1058
Block 1137
Block 2097
Block 1067
Block 2122
Block 2099
Block 1094
Block 2049
Block 1063
Block 2017
Block 2051
Block 2047
Block 2053
Block 1016
Block 1125
Block 2119
Block 2077
Block 2043
Block 1215

Block 1071
Block 2006
Block 1027
Block 1068
Block 1055
Block 1128
Block 1038
Block 1024
Block 2054
Block 2081
Block 1134
Block 1035
Block 1111
Block 2121
Block 2104
Block 2078
Block 1017
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Block 1220
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Block 2048
Block 1114
Block 1100
Block 2107
Block 1073
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Block 1110
Block 1103
Block 1065
Block 2014
Block 1089
Block 1019
Block 1008
Block 1032
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Block 1123
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