

**City of Winnemucca
Humboldt County Rural Areas**

Broadband Enhancement Summary

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1. RFP Timeline

- **June 4, 2020** **RFI is released**
- **June 18, 2020** **Initial Vendor Questions e-mailed to:
RFI@humboldtcountynv.gov**
- **June 29, 2020** **Vendor Meeting**
- **July 2, 2020** **Final Vendor Questions**
- **July 7, 2020** **Q&A posted**
- **August 7, 2020** **Responses due at 5 PM PT; E-mailed to:
RFI@humboldtcountynv.gov**

2. Humboldt County Background and History

Humboldt County and City of Winnemucca, Census Designated Places: Denio, Fort McDermitt, Golconda, McDermitt, Orovada, Paradise Valley, and Valmy.

Humboldt County

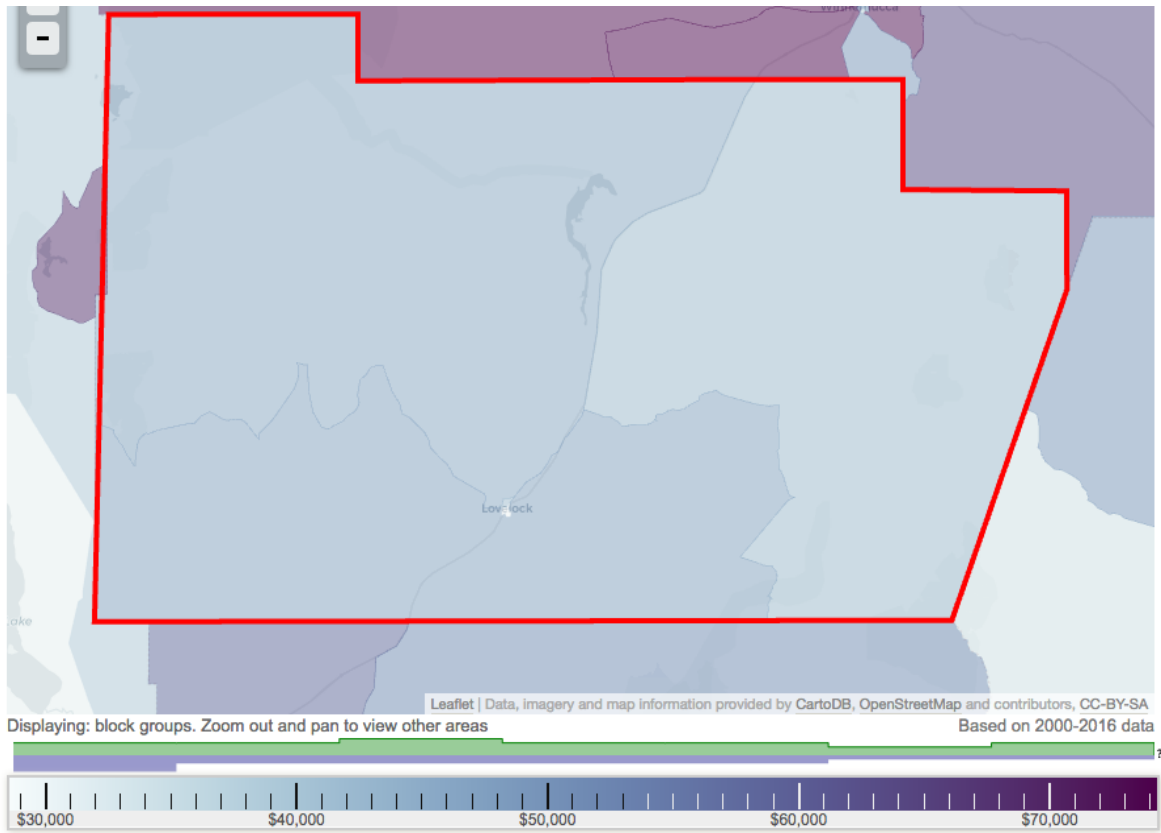
Humboldt County is the oldest county in Nevada, created by the Utah Territorial Legislature in 1856. It was also one of Nevada's original nine counties created in 1861. The county is named after the Humboldt River, which was named by John C. Frémont, after Alexander von Humboldt, a German naturalist, traveler and statesman. Humboldt never saw the places that bear his name. Unionville was the first county seat in 1861 until the mining boom died there and it was moved to Winnemucca on the transcontinental railroad line in 1873.

As of the 2010 United States Census, there were 16,528 people, 6,289 households, and 4,316 families residing in the county. A 2016 count of population showed growth to 17,698.

The population density is 1.7 inhabitants per square mile (0.66/km²). There were 7,123 housing units at an average density of 0.7 per square mile (0.27/km²).

Of the 6,289 households, 36.3%-children under the age of 18 living with them, 53.2%-married couples living together, 8.9%-female householder with no husband present, 31.4%-non-families, and 25.6%-households made up of individuals. The average household size was 2.60 and the average family size was 3.13. The median age was 36.2 years.

The median income for a family in the county was \$69,938 (well above the State of Nevada's average at \$55,180). The per capita income for the county was \$25,965. About 7.8% of families and 12.0% of the population were below the poverty line, including 17.3% of those under age 18 and 4.6% of those age 65 or over.



County Land Area:

Land area: 9648 sq. mi.

Water area: 10.0 sq. mi.

County Employment Overview

Industries providing employment: Professional, scientific, management, administrative, and waste management services (42.4%), Educational, health and social services (19.1%), Arts, entertainment, recreation, accommodation and food services (16.8%).

Type of workers:

- Private wage or salary: 43%
- Government: 1%
- Self-employed, not incorporated: 56%
- Unpaid family work: 0%

City of Winnemucca

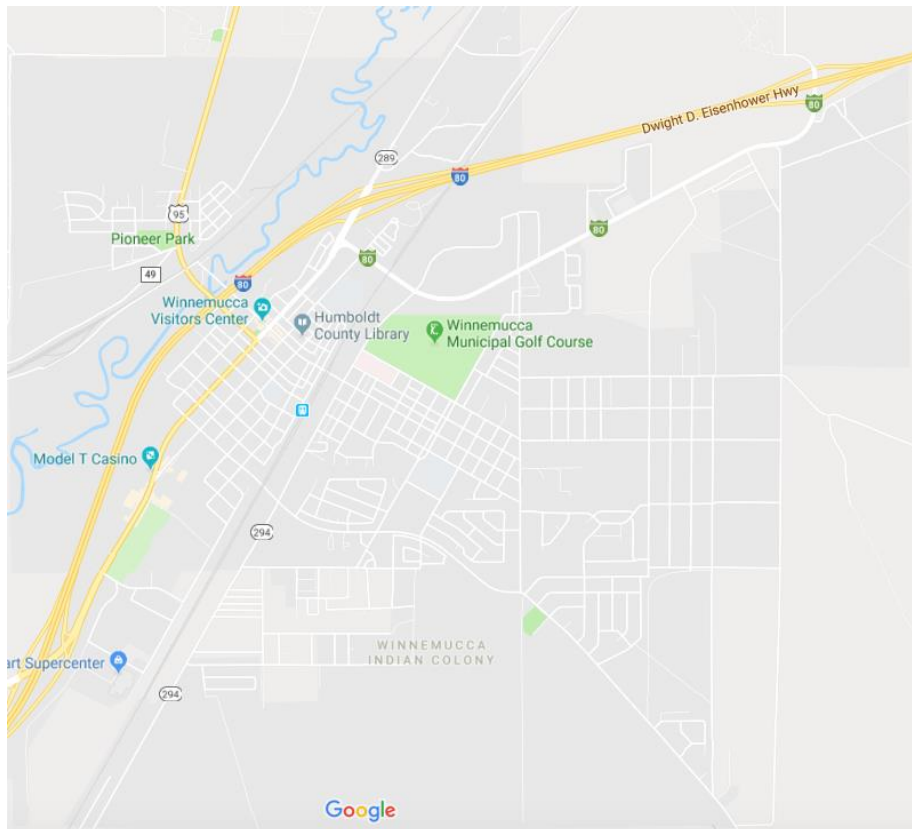
Winnemucca is the only incorporated city in Humboldt County and is the county seat.

Population in 2014: 8,001 (97% urban, 3% rural). Population change since 2000: +11.5%

Estimated median household income in 2016: \$75,978

Land area: 8.27 square miles.

Population density: 967 people per square mile



Mining in Humboldt County

Mining is a significant industry in Humboldt County with Nevada Gold Mines, LLC mining 102,281 acres in the County and Lithium Nevada increasing operations. Mining companies are very supportive of the initiative to attract better broadband service to the residential and business areas of the County. Mining companies see broadband access as essential to quality of life.

Denio

Denio is a census-designated place (CDP) that lies on the Nevada-Oregon state line in Humboldt County, Nevada, in the United States. The population of the CDP, which is entirely in Nevada, was 47 at the 2010 census; The CDP includes a post office, a community center, a library, and the Diamond Inn Bar. Recreational activities available in the Denio area include fishing, opal mining, rockhounding, hunting, and visiting the hot springs. The

Humboldt County School District operates the Denio School, a kindergarten-eighth grade (K-8) school, on the Nevada side of the state line.

McDermitt

McDermitt and Ft. McDermitt Indian Reservation are unincorporated communities straddling the Nevada–Oregon border, in Humboldt County, Nevada, and Malheur County, Oregon, United States. McDermitt's economy has historically been based on mining, ranching, and farming.

The last mining operation closed in 1990, resulting in a steady decline in population.

As of the 2010 census, the combined population was 513. Seventy-five percent of the residents were American Indian, predominantly Northern Paiute of the Fort McDermitt Indian Reservation, whose members include Shoshone people.

The median household income is \$69,939.

Most homes are clustered around a small area as shown in the aerial photo below:



Golconda

Golconda is a census-designated place in southeastern Humboldt County, Nevada, United States. As of the 2010 census it had a population of 214. It is located along Interstate 80 on the Humboldt River. It is located 16.2 road miles and about 12 miles due east of Winnemucca. Most of the population is clustered around a 4 square block area north of Interstate 80.

Orovada

Orovada is a census-designated place in Humboldt County, Nevada. The population was 155 at the 2010 census. Orvada is located on US95 – 42 road miles North of Winnemucca and 31 road miles south of McDermitt. Most of Orovada’s core population is centered around US95. Kings River Elementary School and Orovada School are located in Orovada.

Paradise Valley

Paradise Valley is a census-designated place in Humboldt County, Nevada, United States, near the Santa Rosa Ranger District of Humboldt National Forest 39 miles NNE of Winnemucca and 13 miles east of US95. As of the census of 2010, there were 109 people, 51 households, and 35 families residing in the CDP. There were 92 housing units.

Valmy

Valmy is a census-designated place in Humboldt County, Nevada, United States, named after the Battle of Valmy in France. It is home to Newmont Mining's large Lone Tree gold-mining complex; mining ended there in 2007, though a small gold resource remains in place there. Valmy is also home to the North Valmy Generating Station, jointly owned by NV Energy and Idaho Power.

Valmy has a post office, with the ZIP code 89438. As of the 2010 census, the community had a population of 37

3. Humboldt County Location Map

This map depicts both telecommunications assets and public sector locations. Telecommunications assets are orange markers and government facilities are in blue.

[Humboldt County/Winnemucca Map](#)

4. Problem Statement and Statement of Need

In 2018 Humboldt County (including the census designated places), and the City of Winnemucca formed the Humboldt Broadband Action Committee (HBAC) to address the lack of scalable broadband access in the county. This lack of scalable broadband access is prevalent in both high-density population and remote/rural areas of Humboldt County. Access to education, access to healthcare, communication with public safety, schoolwork, economic vitality, business innovation, entertainment, tourism and other critical services are increasingly delivered over a broadband Internet connection.

The lack of scalable broadband infrastructure and broadband services in Humboldt County will limit the county's ability to:

- Retain jobs and existing business
- Increase tourism and destination location opportunities
- Promote Economic Development efforts to attract and expand commercial business
- Conduct business without fear of Internet connectivity loss
- Provide life-long "K to Gray" education for its citizens
- Advance the capability for digital and distance learning
- Provide leading edge healthcare
- Ensure the timely delivery of government services to Humboldt County, City of Winnemucca and municipal residents
- Ensure timely and seamless public safety communication throughout Humboldt County
- Benefit from cloud-based/streaming services currently rendered inoperable by poor broadband
- Expand home business capability

Goals of the HBAC:

The HBAC set Several Goals:

1. Throughout Humboldt County create a scalable network solution to foster diversity and innovation, drive job retention and creation, stimulate economic growth, and serve new areas of development in the community; by providing service for a minimum of twenty (20) years from the date of first operation.
2. While the HBAC prefers that the broadband solutions proposed by providers/vendors network be fiber based; **all technologies will be considered, especially in lower density unserved/underserved areas.**
3. Provide a flexible menu of broadband services, that improve service to the following eligible service areas:
 - a. Service in the City of Winnemucca - Offer enhanced service along key business and high-density residential corridors in Winnemucca's higher density areas. Humboldt County and the City of Winnemucca have produced maps outlining a phased approach to enhanced provision of service in the City of Winnemucca. These maps are attached as Phase 1 and Phase 2 in the City of Winnemucca Section.
 - b. Unserved/Underserved/oversubscribed areas - Offer new or enhanced service in underserved and unserved areas of the county.
 - c. Government facilities – Offer lit or dark fiber services to meet the administrative and public safety needs of Humboldt County Government and municipal governments.

Note that the HBAC owns no assets nor is the HBAC a decision-making body. The HBAC is a coordination body that allows service providers to coordinate efforts with one organization that represents all bodies (called Affiliates) who possess jurisdictional authority over areas

of Humboldt County. An example of affiliates are the Humboldt County Commissioners, and the City of Winnemucca City Council.

The Affiliate with jurisdictional authority over a proposed service area is the only organization with the authority to enter into service agreements, subsidy agreements or other agreements with service providers.

Members of the HBAC:

Here is the most current list of members of the HBAC:

Abel del Real-Nava	775.623.6300	abel.del.real-nava@humboldtcountynv.gov
Alicia Heiser	775.623.6333	manager@winnemuccacity.org
Jan Morrison-NNRDA	775.217.0602	jan@nnrda.com
Terry Boyle	775.623.8766	tboyle@winnemuccainn.com
Dave Garrison	775.623.6396	wpd34@winnemuccacity.org
Rich Stone	775.623.6341	rdstone@winnemucca.net
Betty Lawrence	775.623.6393	betty.lawrence@hcnv.us
Josiah Brown	775.625.0064	jbrown@hcsdnv.com
Ric Grantham	775.623.6040	rt1@hccdnv.com
Dave Mendiola	775.623.6300	dave.mendiola@hcnv.us
Marlene Brissenden	775.623.3988	mcb3333@yahoo.com
Maria Anderson	775.386.8185	maria.anderson@lithiumamericas.com
Melissa Schultz	775.748.1052	mschultz@nevadagoldmines.com
Rich Stone	775304.0737	rdstone@winnemucca.net

5. Areas of Need

The HBAC has identified three areas in need of new or improved service –

1. City of Winnemucca services residents, businesses.
2. Unserved/Underserved/oversubscribed areas - Offer new or enhanced service in underserved and unserved or oversubscribed areas of the county
3. Government facilities – Offer lit or dark fiber services to meet the administrative and public safety needs of Humboldt County Government and municipal governments.

Description of Services for City of Winnemucca High Density Areas

The HBAC will consider one type of proposal to serve these areas of the City of Winnemucca.

Fully Managed Service

For the service option under this category, the HBAC will consider proposals to serve the areas within the City of Winnemucca with a fully managed service with the infrastructure owned by the vendor/service provider.

For these areas of the City of Winnemucca, the vendor/service provider will take responsibility to design, engineer, construct, project manage and, if providing a fully managed service, equip the Network(s).

Network(s) access and/or network construction proposals should include building up to the end user drop point or the end user Network(s) interface device. In addition, the Vendor(s) will bear all the operating and maintenance costs, including insurance costs and relevant taxes of the Network(s). Vendor(s) should also demonstrate a clear and continuous upgrade path for the Network(s) to meet future consumer demand, business demand, community anchor institution demand, and service developments.

- SPEED: At initial service introduction, minimum 25 Mbps download /3 Mbps upload for business and consumers within the city limits with availability of service packages up to 1 Gbps symmetrical. As part of the respondent's proposal, please outline how the service will scale to a minimum of 100 Mbps symmetrical minimum service up to 10 Gbps maximum service by 2022.
- SERVICE REQUIRED: For fiber-to-the-premise proposals, Active Ethernet, GPON, and/or WDM/PON technologies to provide services to households, businesses, governments, and institutions throughout the Service Area are all acceptable technologies. This Network(s) must include all active and passive infrastructure, including fiber cabling, active repeater equipment, uninterruptible power supplies, Network(s) cross-connections, software, and ancillary equipment.
- PREFERRED TECHNOLOGY:
 - **Lit Fiber Service**-Service provider owned fiber with a fully managed lit service at a minimum of 25 Mbps download /3 Mbps upload for business and consumers within the city limits with availability of service packages up to 1 Gbps symmetrical. As part of the respondent's proposal, please outline how the service will scale to a minimum of 100 Mbps symmetrical minimum service up to 10 Gbps maximum service by 2023
- OTHER TECHNOLOGY OPTIONS (HBAC Affiliates would offer no incentive for these technologies):
 - **Lit Point to Point Fixed wireless service** - Service provider owned fixed wireless with a fully managed, bundled (transport and access included) service at a minimum of 25 Mbps download /3 Mbps upload for business and consumers

within the city limits with availability of service packages up to 1 Gbps symmetrical. As part of the respondent’s proposal, please outline how the service will scale to a minimum of 100 Mbps symmetrical minimum service up to 10 Gbps maximum service by 2023.

- **Mobile Broadband Service using existing wireless networks** – Preferred using LTE or other current generation fully managed, bundled (transport and access included) service at a minimum of 25 Mbps download /3 Mbps upload for business and consumers within the city limits with availability of service packages up to 1 Gbps symmetrical. As part of the respondent’s proposal, please outline how the service will scale to a minimum of 100 Mbps symmetrical minimum service up to 10 Gbps maximum service by 2023.
- Others proposed by vendors

○ SERVICE LEVEL AGREEMENT

- For all services wired or wireless provided in high density areas, the following service specifications should be met for all connections:
 - 99.95% circuit uptime
 - Frame/packet loss .25% commitment
 - 35 ms Network Latency Commitment
 - 5 ms Network Jitter Commitment
 - Rate limiting and throttling will be reported to customer
 - Credits for outages according to the following schedule:

Length of Service Outage	Credit is the following percentage of Monthly Recurring Cost
Less than 45 minutes	No Credit
Forty-five (45) min. to four (4) hours	5%
Greater than four (4) hours and less than eight (8) hours	10%
Greater than eight (8) hours and less than twelve (12) hours	15%
Greater than twelve (12) hours and less than sixteen (16) hours	20%
Greater than sixteen (16) hours and less than twenty-four (24) hours	35%

Greater than twenty-four (24) hours	50%
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- INCENTIVE CONSIDERATIONS FOR ALL VENDORS FIBER OR WIRELESS:
No rental fee access to HBAC Affiliates owned or controlled towers, utility poles and buildings for attachment of fiber or antennas. This does not include access to third party owned utility poles. Any rental fee waiver is contingent upon approval by the Affiliate who has jurisdiction over the area of proposed service.

Service Providers will have to negotiate use agreements for these assets with the asset owner’s jurisdictional agency. Depending on the asset, the agency could be the Winnemucca City Council, the Humboldt County Commissioners or another agency.

- SERVICE PERIOD: Up to 20 years from date of first operation
- EXPANSION: Provides a comprehensive broadband infrastructure that can be expanded upon to serve other areas of Humboldt County, including those outside the high density areas, when deemed practical.
- OPEN ACCESS: open access solution is preferred; the main network vendor offers lit and dark fiber services to other service providers, but proposals that have some variance on this preferred solution may be considered.
- GRANT ASSISTANCE: Providers may seek Federal or State Grant assistance to serve these “higher density” areas. The Governor’s Office of Science, Innovation, and Technology can advise and provide resource avenues. This could include:
 - Grants available to Federally Recognized Tribal Organizations
 - Universal Service reimbursement funds
 - Anticipated Federal Infrastructure Investment Funds
 - USDA Community Development and ReConnect Grant
- PRICING:
 - Service for government may be priced as;
 - Transport only
 - Transport and access (bundled) package

 - Service for business may be priced as:
 - Transport only
 - Transport and access (bundled) package

 - Service for residences may be priced as:
 - Transport and access (bundled) package

Government Services

The Community Anchor Institutions located in Humboldt County and listed in the **Government Facilities table** would be interested in receiving quotes for broadband service.

The City of Winnemucca and Humboldt County have internal Information Technology staff that coordinate their purchases, but prospective vendors can be introduced to the individuals who recommend broadband services purchases to their respective governing bodies.

The desired Service Level Agreement and Service Credits are outlined on the following schedule.

- For all services wired or wireless provided in high density areas, the following service specifications should be met for all connections:
 - 99.99% circuit uptime
 - Frame/packet loss .25% commitment
 - 25 ms Network Latency Commitment
 - 5 ms Network Jitter Commitment
 - Rate limiting and throttling will be reported to customer
 - Credits for outages according to the following schedule:

Length of Service Outage	Credit is the following percentage of Monthly Recurring Cost
Less than 45 minutes	No Credit
Forty-five (45) min. to four (4) hours	5%
Greater than four (4) hours and less than eight (8) hours	10%
Greater than eight (8) hours and less than twelve (12) hours	15%
Greater than twelve (12) hours and less than sixteen (16) hours	20%
Greater than sixteen (16) hours and less than twenty-four (24) hours	35%

Greater than twenty-four (24) hours	50%
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Attachment A has desired bandwidth at each location and requests 60-month pricing. This is to begin dialog with the purchasing entity.

Government Facilities – in City of Winnemucca –Existing contracts are in place for the Humboldt County School District locations and for other facilities, but service providers offering a fully managed service should consider future service to these locations in their bid submission.

Bolded entries indicate possible Universal Service Fund reimbursement eligibility.

Facility Name/Type	Address	Latitude/ Longitude
Winnemucca Rural Counseling & Supportive Services	475 W. Haskell St., Winnemucca, NV. 89445	40.965524, -117.731198
Humboldt Community Health Nurse	50 E. Haskell St., Ste. B, Winnemucca, NV. 89445	40.971107, -117.728403
Incline Medical	118 E Haskell St, Winnemucca, NV 89445	40.971165, -117.72668
Golden Valley Medical Center	515 W. Haskell, Winnemucca, NV 89445	40.965749, -117.73216
Humboldt General Hospital	118 E Haskell St, Winnemucca, NV 89445	40.971165, -117.72668
Grass Valley Elementary School	6465 S. Grass Valley Road, Winnemucca, NV 8944	40.923520, -117.761822
Sonoma Heights Elementary School	1500 Melarkey St., Winnemucca, NV 89445-3830	40.965166, -117.722431
Winnemucca Grammar School	522 Lay Street, Winnemucca, NV 89445	40.969971, -117.734588
French Ford Middle School	5495 Palisade Drive, Winnemucca, NV 89445	40.967732, -117.707555
Winnemucca Junior High	451 Reinhart Street, Winnemucca, NV 89445	40.975182, -117.729405
Albert Lowry High School	5375 Kluncy Canyon Road, Winnemucca, NV 89445	40.971944, -117.708777
Humboldt County Schools Adult Education	731 Fairgrounds Road, Winnemucca, NV 89445	40.977541, -117.722372
Humboldt County Schools Central Office	310 E. Fourth Street, Winnemucca, NV 89445	40.974853, -117.730709
Bureau of Land Management	5100 E Winnemucca Blvd, Winnemucca, NV 89445	40.976672, -117.713604
Nevada Department of Motor Vehicles	3505 Construction Way, Winnemucca, NV 89445	40.953863, -117.748928

Nevada Department of Transportation	3505 Construction Way # 1, Winnemucca, NV 89445	40.953863, -117.748928
Humboldt County Main County Building (Also Sherriff)	50 W 5th St, Winnemucca, NV 89445	40.972082, -117.733351
City of Winnemucca City Hall	90 W 4th St, Winnemucca, NV 89445	40.972448, -117.734784
Humboldt County District Court	25 W 5th St, Winnemucca, NV 89445	40.971932, -117.733046
Nevada State Health Division	102 E Haskell St, Winnemucca, NV 89445	40.971319, -117.72822
City of Winnemucca Youth Center	304 E Haskell St, Winnemucca, NV 89445	40.973562, -117.726717
United States Forest Ranger Station	3275 Fountain Way, Winnemucca, NV 89445	40.958458, -117.743339
Humboldt County Road Department	3340 Bengochea Cir, Winnemucca, NV 89445	40.990372, -117.740327
Humboldt County Annex Offices	20 East Fifth Street, Winnemucca, Nevada 89445	40.972181, -117.732531
Humboldt County Building Department	20 East Fifth Street in Winnemucca, Nevada 89445	40.972181, -117.732531
Humboldt County District Attorney	501 South Bridge Street, Winnemucca, NV 89445	40.972107, -117.732804
Humboldt County Recorder	25 West 4th Street, Winnemucca, NV 89445	40.972474, -117.733878
Winnemucca Events Center	50 West Winnemucca Blvd., Winnemucca, NV 89445	40.973525, -117.735409
Winnemucca City Cemetery Maintenance Building	1811 West Winnemucca Blvd., Winnemucca, NV 89445	40.958255, -117.747394
City of Winnemucca - Vesco Park	Mizpah Street, Winnemucca, NV 89445	40.973097, -117.725417
City of Winnemucca - Skateboard Park	Mizpah Street, Winnemucca, NV 89445	40.973097, -117.725417
City of Winnemucca - Highland Park	4251 Water Canyon Rd, Winnemucca, NV 89445	40.956820, -117.714978
City of Winnemucca - Pioneer Park	Maple Avenue, Winnemucca, NV 89445	40.978180, -117.742525
City of Winnemucca - Riverview Park	40 S Bridge St, Winnemucca, NV 89445	40.975924, -117.738908
City of Winnemucca - Municipal Golf Course	1365 Mizpah St, Winnemucca, NV 89445	40.973097, -117.725417
City of Winnemucca - Animal Control Shelter	3268 Bengochea Circle, Winnemucca, Nevada 89445	40.990738, -117.740978

City of Winnemucca - Police Department	3268 Bengochea Circle, Winnemucca, Nevada 89445	40.990738, -117.740978
City of Winnemucca-Water and Sewer		40.946979, -117.835650
City of Winnemucca-Visitors Center	30 W Winnemucca Blvd, Winnemucca, NV 89445	40.973525, -117.735409
City of Winnemucca-Airport		40.906018, -117.801783
City of Winnemucca-Fire Station	1078 E. Winnemucca Blvd., Winnemucca, NV 89445	40.974678, -117.722321
Humboldt County Library	85 East 5th Street, Winnemucca, NV 89445	40.972783, -117.732481

Government Facilities in Rural Humboldt County-These facilities may require service from the provider(s) who offer broadband service in rural Humboldt County areas. The Humboldt County Schools locations are currently under contract for a fiber based service.

Facility Name/Type	Address	Latitude/ Longitude
Denio Branch Library (School)	PARCEL #02-601-07 DENIO, NV 89404	41.982361, -118.638611
McDermitt Branch Library	135 Oregon Rd, McDermitt, NV 89421	41.999842, -117.718239
Nevada Department of Transportation	Quinn River Road, Quinn River, NV	41.577604, -118.435833
Fort McDermitt - Indian Health	112 N Rd, McDermitt, NV 89421	41.971539, -117.626888
McDermitt Combined School	100 Olavarria St, McDermitt, NV 89421	41.996459, -117.718158
Orovada Elementary School	85 Kings River Hwy, Orovada, NV 89425	41.569137, -117.790005
Paradise Valley Elementary School	Bridge Street, Paradise Valley, NV 89426	41.493598, -117.537982
Denio Elementary School	Juniper Road, Denio, NV 89404	41.989598, -118.632708
Kings River School	134 Kings River Rd, Orovada, NV 89425	41.569733, -117.786258
US Indian Health Services	112 Old Reservation Rd # 111, McDermitt, NV 89421	41.969626, -117.636444

[Humboldt County/Winnemucca Map](#)

This Google Map displays government facility and communications asset locations.

Humboldt County School District – Humboldt County School District is currently under contract with Zito Media for the Schools within the City of Winnemucca and with Humboldt Telephone for the rural school locations. Humboldt County School District will consider broadband service options through an E-rate procurement but will accept information from

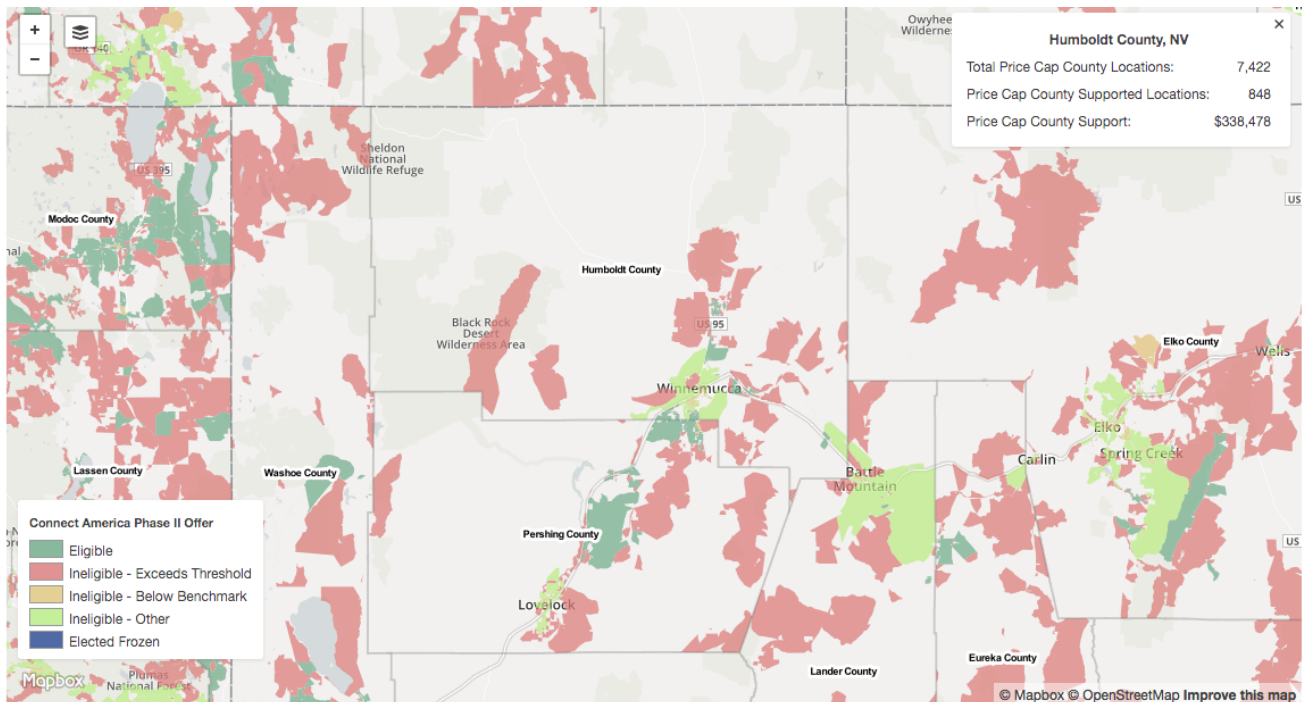
Service Providers interested in serving the broadband requirements of Humboldt County School District through this HBAC process.

Fiber Construction-If new fiber is constructed to serve any of these locations, the HBAC prefers using the construction specifications located in Appendix A.

Access to county assets: The Community Anchor Institution facilities listed above as well as county properties listed in Appendix C are considered “broadband assets” of the county and available for use by vendors upon negotiation of terms and conditions of access with the County.

Unserviced and Underserved Areas of Humboldt County

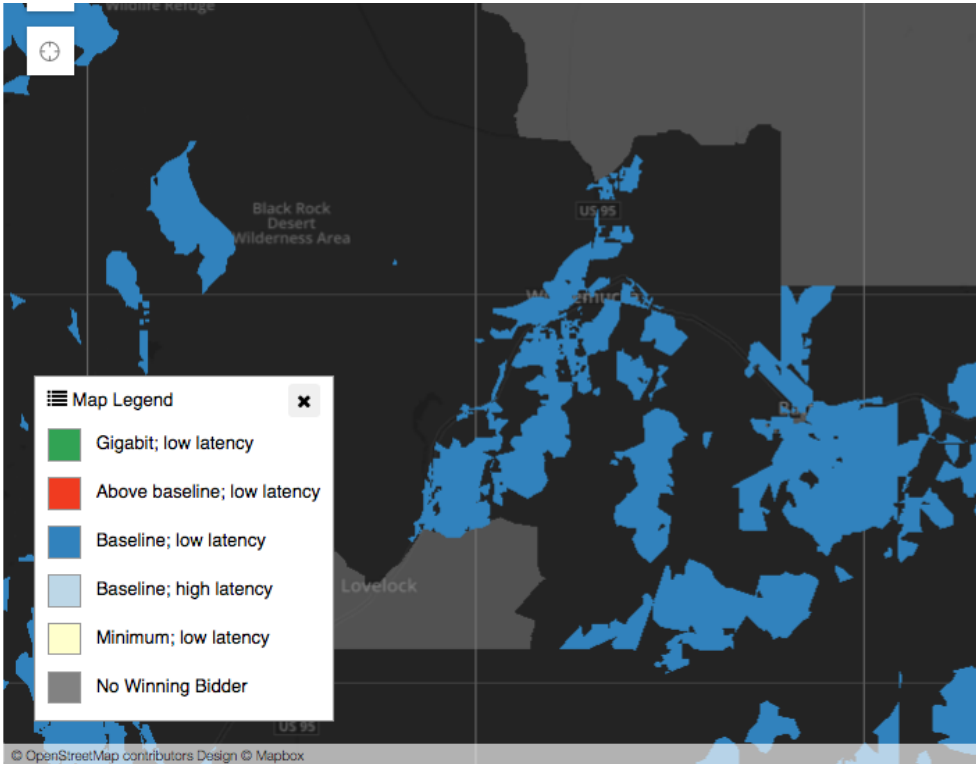
According to the Federal Communications Commission’s (FCC) Connect America Fund (CAF) map the areas in green in Humboldt County are underserved.



In all, there were 848 locations in Humboldt County with \$338,478 of support.

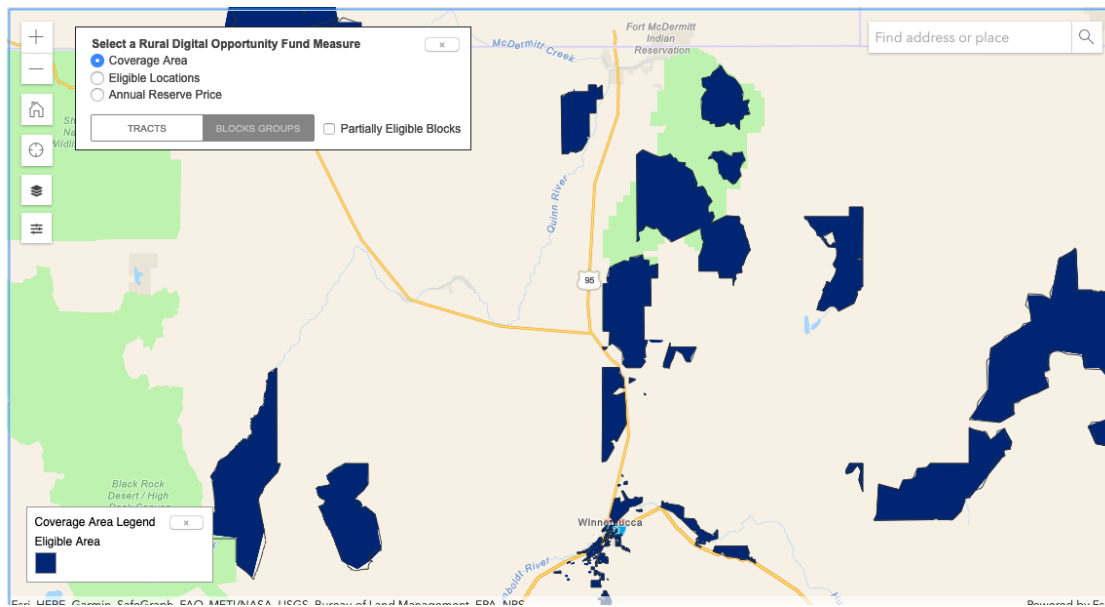
In the FCC’s Connect America Fund Phase II Auction, which concluded in late August 2018, Fixed Wireless and Fiber vendor CommNet, accepted support in significant areas of Humboldt County. This commitment means CommNet will supply a minimum of 10 Mbps download and 1 Mbps upload broadband service in these areas (areas where CommNet accepted funding are in blue and gray). Other areas of Humboldt County where Connect America Fund support is available but was left unclaimed for Phase II (through 2023) or areas where there is no incumbent carrier. Note that United States Department of Agriculture

(USDA) Re-Connect and Community Connect Grant funding may be available in the gray areas. The Humboldt Broadband Action Committee and Humboldt County are interested in collaborating or entering into public private partnerships to seek USDA support for these areas.



Rural Digital Opportunity Fund

The FCC recently released eligible areas for its next round of subsidies. Subsidies for the new Rural Digital Opportunity Fund (RDOF) will be awarded via a reverse auction that is scheduled to begin October 22nd, 2020. In Humboldt County, there are 2365 eligible locations across 3 census tracts eligible for up to \$10.1 Million in total subsidies over a 10 year period.



Description of Services for rural and/or underserved areas of Humboldt County

Based on residential and business survey feedback, these Connect America Fund areas and other rural areas of the County appear to still lack appropriate broadband service, the County is seeking other options for service in unserved or underserved areas.

The HBAC has meeting with service providers individually to ascertain whether service can be provided to these rural/low density areas. The HBAC has developed the following specifications for broadband service providers interested in offering service in these regions. The HBAC is not a decision-making body. The HBAC will facilitate interactions with officials who represent the jurisdictional Affiliates, (namely, they City of Winnemucca City Council and the Humboldt County Commissioners) with providers who are interested in providing solutions that meet the technical specifications for one or more rural and/or underserved areas.

Provider(s) of the broadband services in the unserved/underserved areas will take responsibility to design, engineer, construct, project manage and equip the Network(s). Network(s) access should include building up to the end user drop point or the end user Network(s) interface device. In addition, the Vendor(s) will bear all the operating and maintenance costs, including insurance costs and relevant taxes of the Network(s). Vendor(s) should also demonstrate a clear and continuous upgrade path for the Network(s) to meet future consumer demand, business demand, community anchor institution demand, and service developments.

- SPEED: 25 Mbps download (down) and 3 Mbps upload (up) wired or wireless solutions, scaling to 50 Mbps symmetrical over the majority of rural areas of

Humboldt County by 2023. Preference will be given to Vendors offering higher network speeds.

- SERVICES REQUIRED: high quality voice, data, and video services, and tele-health solutions.
- PREFERRED TECHNOLOGY absent fiber infrastructure:
 - Lit Point to Point Fixed Wireless service - Service provider owned fixed wireless with a fully managed, bundled (transport and access included) service at a minimum 25 Mbps download/3 Mbps upload initially scaling to 50 Mbps symmetrical service by 2023.
 - Mobile Broadband Service using existing wireless networks – Preferred using LTE or other current generation fully managed, bundled (transport and access included) service at a minimum 25 Mbps download/3 Mbps upload initially scaling to 50 Mbps symmetrical service by 2023.
 - Others proposed by vendors
- TECHNICAL SPECIFICATIONS:
 - **Fixed Wireless-** The vendor shall engineer, design, and implement high-availability fixed wireless paths that have path reliabilities of not less than 99.95% and a fade margin of not less than 30 dB for all fixed wireless paths. The contractor shall apply for, coordinate and obtain FCC licenses for all fixed wireless paths requiring licensing.
 - **Mobile wireless solutions** – The vendor can propose to utilize an existing mobile network for delivery of last mile mobile to the premise solutions. An LTE platform or equivalent mobile wireless broadband technology should be proposed. The vendor should illustrate the existing capacity of the mobile network to be used for last mile broadband and the amount of oversubscription planned in the last mile, in the transport to a POP and at the POP.
 - **Mesh mobile network solutions or other innovative solutions-**Given the rapid pace of innovation in the wireless space, HBAC Affiliates are willing to consider other solutions for the last mile. In all proposals of this kind, the vendor(s) should illustrate the existing capacity of the mobile network to be used for last mile broadband and the amount of oversubscription planned in the last mile, in the transport to a POP and at the POP.
- SERVICE LEVEL AGREEMENT
 - For all services wired or wireless provided in high density areas, the following service specifications should be met for all connections:
 - 99.9% circuit uptime
 - Frame/packet loss .50% commitment
 - 50 ms Network Latency Commitment transport portion only

- 10 ms Network Jitter Commitment
- Rate limiting and throttling will be reported to customer
- Credits for outages according to the following schedule:

Length of Service Outage	Credit is the following percentage of Monthly Recurring Cost
Less than 2 hours	No Credit
Two (2) to four (4) hours	5%
Greater than four (4) hours and less than eight (8) hours	10%
Greater than eight (8) hours and less than twelve (12) hours	15%
Greater than twelve (12) hours and less than sixteen (16) hours	20%
Greater than sixteen (16) hours and less than twenty-four (24) hours	35%
Greater than twenty-four (24) hours	50%

- SUPPORT FOR BROADBAND AVAILABILITY: Depending on the location to which the service provider is interested in providing service, the HBAC will coordinate conversations with its Affiliates, namely, the Humboldt County Commissioners and the Winnemucca City Council. These are the agencies of jurisdiction in specific areas of the service region. These governing entities may consider small amounts of subsidy funding for deployment of enhanced terrestrial or wireless service into these unserved and underserved areas of the county. For example, the county may offer a per household or per business subsidy for deployment of terrestrial service or may support service to underserved areas by providing or funding the construction of towers required to bring wireless signal coverage and service availability to these underserved areas of Humboldt County. Any subsidy is contingent upon approval and funding by the specific Affiliate for the area of proposed service.
- SERVICE PERIOD: Up to 20 years from date of first operation
- EXPANSION: Provides a comprehensive broadband infrastructure that can be expanded upon to serve other areas of Humboldt County when deemed practical.

- GRANT ASSISTANCE: Providers may seek Federal or State Grant assistance to serve these “higher density” areas. The Governor’s Office of Science, Innovation, and Technology can advise and provide resource avenues. This could include:
 - Grants available to Federally Recognized Tribal Organizations
 - Universal Service reimbursement funds
 - Anticipated Federal Infrastructure Investment Funds
 - Future rounds of Connect America Funding
 - USDA Re-Connect and Community Connect Grant and Loan Funding

- ACCESS TO ASSETS: Access to other broadband delivery assets owned or controlled by the HBAC Affiliates that are detailed in Section 3A. HBAC Affiliates will also consider entering into service contracts with prospective vendors to meet HBAC member needs. Service Providers will have to negotiate use agreements for these assets with the asset owner’s jurisdictional agency. Depending on the asset, the agency could be the Winnemucca City Council, the Humboldt County Commissioners or another agency.

6. Survey Results (as of 4/8/19)

The Humboldt/Winnemucca Broadband Action Committee distributed residential and business broadband surveys. The response to the surveys from both residents and businesses was strong. The highlights of the survey results were as follows:

Residential Survey: 331 responses

- 1) Respondents receive home broadband service from the following provider -** ATT (38.97%) and PC Internet (25.38%) represent just over 64% of the market (CalNeva¹ with 12.99 % and 5D Networks (9.97%) are the next largest
- 2) Respondents level of satisfaction with their home broadband service:** 6.34% very satisfied; 19.34% Satisfied; 15.11% neither satisfied or dissatisfied; 39.88% Dissatisfied; 19.34% very dissatisfied
- 3) Dissatisfied or very dissatisfied respondents cited slow speeds and service interruptions** are the main reasons for dissatisfaction. Both of these were cited by more than 58% of dissatisfied users
- 4) Buffering:** 83% of users experience frequent buffering
- 5) Respondent interest in Faster Speeds:** 97.58% of users interested in faster speeds
- 6) Humboldt County/City of Winnemucca participation:** 97.58% of respondents want the county and city actively involved in seeking better broadband service
- 7) Broadband Costs-**Over 70% of respondents pay between \$50-99.99 for their home broadband service

¹ Now *Zito* after purchase of CalNeva Broadband by Zito Media in 2019

Business Survey: 31 respondents

- 1) **Respondents receive business broadband service from the following provider:** ATT had 13 users, PC Internet had 8 respondents: 5D Network serves 5, CalNeva 2², Humboldt Telephone 1 and other 2
- 2) **Respondents level of satisfaction with their business broadband service:** 45.16% are either dissatisfied or very dissatisfied
- 3) **Dissatisfied or very dissatisfied respondents cited slow speeds and service interruptions:** Slow speeds and service interruptions are the main reasons for dissatisfaction both cited by over 50% of dissatisfied users
- 4) **Upgrades:** 14 business respondents would upgrade to 1G if given the option; 29 business respondents interested in a 100 Mbps or higher
- 5) **Buffering:** 74.2% of respondents experience daily or weekly buffering
- 6) **Humboldt County/City of Winnemucca participation:** 93.55% of respondents want the county and city actively involved in seeking better broadband service

7. Characteristics of service providers

Eligible vendors will meet the following requirements:

- A Private For-Profit business licensed to operate in NV
- Vendors must have a minimum of three years of operations providing high-speed Internet service or experience in building and financing fiber and/or fixed wireless broadband networks.
- Vendors must be in good financial standing. Vendors should have a positive cash flow, a positive credit history and must provide an audit. Financial documents that must be submitted along with this application are outlined in Section 11.4.

Each Vendor will be an independent contractor that provides all or some of the following design, finance, construction, and operation services of broadband Network(s). Agency of government who has jurisdiction will have no ownership in the Vendor(s) that owns and operates the Network(s). HBAC and its Affiliates' contract(s) with the Vendor(s) do not constitute franchise(s). Agency of government who has jurisdiction do not plan to regulate generally Vendor(s) business activities, nor to grant Vendor(s) a franchise for its activities and operations. Agency of government who has jurisdiction expect that the contracts and property instruments associated with this effort shall establish terms and conditions governing the use of public assets that are utilized by Vendor(s) in its service delivery to its customers.

8. City and County Offerings to construction companies and service providers

² Now *Zito* after purchase of CalNeva Broadband by Zito Media in 2019

Buried Fiber in Conduit

There is no city or county owned fiber in Humboldt County.

Tower and Building Attachment Access

Access to space on towers that are owned by the City of Winnemucca, the Humboldt County TV District, and/or Humboldt County is possible by request for any respondent.

Any access to towers contingent upon approval by the agency of government who has jurisdiction over the area of proposed service.

A tower map and additional information about tower locations can be found in Appendix D.

Rights of Way

Construction and the installation of equipment in affiliated government entities rights-of-way will be subject to the applicable requirements and ordinances of the agency of government who has jurisdiction. Subject to existing rights-of-way and easements, the Affiliates will allow Vendor(s) to have access to necessary rights-of-way on property owned by an Affiliate and property on which it has an easement and authority to allow such access.

Access will be provided in accordance with the applicable requirements or ordinances, but generally access will be provided during regular business hours for non-emergency work and 24 hours a day, 7 days a week in the event of an emergency. Access includes permission to perform construction work on Affiliate's property, including construction in the streets as needed for the Network(s), subject to any permit requirements that the Agency of government who has jurisdiction. The agency of government who has jurisdiction will assist in obtaining on a timely basis the required approvals to allow such work in said rights-of-way. Any right of way access is contingent upon approval by the Affiliate who has jurisdiction over the area of proposed service.

If requested, the agency of government who has jurisdiction will also cooperate with Vendor(s) in efforts to allow Vendor(s) to gain access to rights-of-way owned or controlled by third parties within the Service Area.

Planned street maintenance could be utilized to coordinate any proposed work with preexisting construction schedules and these schedules may have certain flexibility to align with a potential network rollout.

Pole Attachment Rights

HBAC Affiliates may provide Vendor(s) with access to existing utility poles owned or controlled by its Affiliates. The mechanisms by which its Affiliates will provide such access to the poles, along with fees that will be charged, are listed in the will be subject to negotiation with the pole owner. Any pole attachment right is contingent upon approval by the Affiliate who has jurisdiction over the area of proposed service.

If requested, The Nevada Governor's Office of Science, Innovation and Technology (OSIT) will cooperate with Vendor(s) in its efforts to gain access to poles owned or controlled by third parties within the Service Area.

Co-location Space and Power

The agency of government who has jurisdiction may provide access to segregated, secured spaces for telecommunications and network equipment within facilities owned or leased by the agency of government who has jurisdiction; this space may exist in telecom closets or equipment huts at tower sites, fire stations, municipal buildings, or other locations. This space is typically not tiered data center space, and is generally unconditioned beyond standard building climate control. Some locations may contain generator/UPS backup for electrical utility service, although the agency of government who has jurisdiction is open to proposals from Vendor(s) to add redundant services. Vendor(s) may choose to segregate their equipment within the shared space. The agency of government who has jurisdiction will provide reasonable 24x7 access to the space for equipment maintenance and repair. The intent of the agency of government who has jurisdiction is to make space available through a leasehold interest that matches the term of service. Any access to these facilities is contingent upon approval of the Affiliate who has jurisdiction over the area of proposed service.

Access to a segregated, secured space within a data center facility or computer room owned or leased by the agency of government who has jurisdiction can be used for servers, telecommunications, and/or network equipment may also be made available. HBAC or its Affiliates may provide access to the space through routine IT operations processes or through accompanied access to the space; alternatively, Vendor(s) may choose to segregate Vendor(s) and HBAC and its Affiliates' equipment from each other in order for the agency of government who has jurisdiction to provide full access by Vendor(s) into the facility without escort. The agency of government who has jurisdiction will ensure data center is capable of receiving electrical service, computer room air conditioning, and customary facility monitoring services. The agency of government who has jurisdiction will provide reasonable 24x7 access to the space for equipment maintenance and repair. Vendor(s) will be required to adhere to municipal security policies and practices for working in such a space.

Note that Service Providers will have to negotiate use agreements for these assets with the asset owner's jurisdictional agency. Depending on the asset, the agency could be the Winnemucca City Council, the Humboldt County Commissioners or another agency.

Service to Underserved Areas of Humboldt County- Humboldt County Commissioners, and/or the Winnemucca Indian Colony with jurisdiction over a proposed service area may consider small amounts of subsidy funding for deployment of enhanced terrestrial or wireless service into these unserved and underserved areas of the county.

For example, the county may offer a per household or per business subsidy for deployment of terrestrial service or may support service to underserved areas by providing or funding the construction of towers required to bring wireless signal coverage and service availability to these underserved areas of Humboldt County. Any subsidy is contingent upon approval and funding by the Affiliate who has jurisdiction over the area of proposed service.

The amount of subsidy, if any, will be determined at the sole discretion the official governing body of the proposed service area and in no case will exceed 20% of the capital deployment costs (construction materials, construction labor, engineering, project management, core/edge/premise equipment) necessary to deliver broadband service to businesses and residences. Vendors requesting a subsidy, must provide detailed/line-item invoices of costs. Subsidies will be divided and paid on a per household or per business basis with proof of subscription.

Fiber to the premise service to higher density residential areas in the City of Winnemucca: The City of Winnemucca City Council or another entity who has jurisdiction over the area of high population density where service is proposed, may be willing to consider offering the following incentives if a bid meets the present and future bandwidth and service specifications:

- City of Winnemucca and/or Humboldt County will consider waiving franchise fees for up to the first 3 years of operation
- City of Winnemucca and/or Humboldt County will consider waiving right-of-way-permitting fees with 5 day expedited delivery
- Single point of contact for Humboldt County Right of Way permits and other administrative processes
- Promotion of the service by City of Winnemucca Economic Development entities and/or Humboldt County Chamber of Commerce members to businesses and residences
- Any subsidy is contingent upon approval and funding by the Affiliate who has jurisdiction over the area of proposed service.

Funding restrictions

All governing entities in Humboldt County have agreed **not** to award grants to substitute for lost government appropriations or cover pre-existing operating expenses for established organizations or pre-existing deployment to any of the Eligible Service Areas.

Assistance in Identifying and Generating Demand

All governing entities within Humboldt County, to include Humboldt County, the City of Winnemucca, and/or the Winnemucca Indian Colony with jurisdiction over proposed service areas may negotiate individual commitments to purchase Network(s) services needed for its operations (e.g., transmission capacity, Internet access, voice, video, security monitoring, cloud computing and storage) through the Network(s).

If requested, governing organizations will provide Vendor(s) with publicly available information as to entities in the Service Area that are candidates to enter into contracts for fiber or Network(s) services. Such potential end-users may include educational institutions, large/medium/small employers, and governments. An initial list of such entities and contact information for key personnel may be listed in the Schedules for each individual community.

The agencies of government who have jurisdiction may each publicize the proposed Network offerings in the same manner as other private economic development announcements.

9. Proposal Content from Fully Managed Service Provider Solutions

The HBAC is looking for innovative solutions which may entail one or more Vendors collaborating to create a turn-key system that either involves:

- A solution provided by a service provider that would provide enhanced broadband service in either the City of Winnemucca Phase 1 and Phase 2 areas; the rural areas of Humboldt County or both

For fully managed, service provider owned solutions, proposals must include:

- Proposed service packages for business and residential customers including all monthly recurring and on-time installation costs
- Plans for maintenance of the network
- Service level agreements for business and residential customers
- Detailed plans for installation, provisioning, maintenance, support of business and residential connections
- Detailed plans for periodic upgrade of the network

The Network(s) rollout will be based upon demonstrated demand by community residents, institutions, governments and businesses, and the availability of necessary infrastructure. The Network(s) design and operation should preferably provide an open access framework that maximizes wholesale and retail service delivery and competition.

10. Glossary of Terms

<p>Humboldt Broadband Action Committee (HBAC)</p>	<p>An effort led by the Humboldt County Commissioners and the City of Winnemucca City Council with jurisdiction over areas of Humboldt County and supported by its citizens and business to bring faster, more reliable, higher value, scalable broadband service to Humboldt County, NV. HBAC includes affiliate organizations that have agreed to support the effort to bring enhanced broadband service to HBAC.</p> <p>The HBAC has no decision-making authority on its own but works with the governing organizations of Humboldt County to provide seamless coordination of efforts between these governing organizations. All decisions regarding formal agreements with proposed service providers are the responsibility of the governing organization(s) for the area of proposed service.</p> <p>The goal of this effort is 3-fold:</p> <ol style="list-style-type: none"> 1. Reach underserved areas of the county with more and better broadband service. 2. Provide scalable broadband infrastructure within Humboldt County that will allow private sector service providers to offer enhanced services to business and consumers within the high-density business corridors of the county and relatively high density residential corridors of the county. This includes Winnemucca, Imlay and other unincorporated areas. 3. Meet HBAC member administrative, public safety, public health and other area needs for scalable broadband service for at least the next 20 years
<p>Affiliate</p>	<p>A HBAC member that possess jurisdictional authority over a proposed service area. An affiliate with jurisdictional authority is the only formal body with the authority to enter into contractual agreements regarding service, subsidies, access to assets for its area of jurisdiction.</p>

<p>Advanced Network</p>	<p>A comprehensive approach to meeting the goals of</p> <ol style="list-style-type: none"> 1. Better broadband access for the underserved areas of HBAC 2. Enhanced broadband access for key business/economic development and high-density residential corridors 3. An efficient way to meet the broadband needs of government, residents and businesses for the foreseeable future <p>Last mile solutions can be fiber, coax, mobile wireless or fixed wireless. Solution that provide 25 Mbps download/3 Mbps upload immediately and 50 Mbps symmetrical service by 2022. For last mile solutions in higher density areas the HBAC prefers fiber-based solutions.</p>
<p>Open Access</p>	<p>Humboldt County, and the City of Winnemucca with jurisdiction over proposed service areas prefer that the chosen vendor (s), if the vendors operate a wholesale network (sell access to other service providers), will have reasonable and non- discriminatory access arrangements that (i) ensure equivalence of price and non-price terms and conditions for all retail service providers and (ii) permit such providers to differentiate their product offerings. In addition, the Vendor(s) may not limit the ability of retail service providers or their customers to run applications, use services, and connect devices of their choice to the Network(s).</p>
<p>Service Area:</p>	<p>The HBAC service area includes Humboldt County and the following higher density areas (including The City of Winnemucca, and the unincorporated area of Imlay) and the outlying areas of Humboldt County, NV.</p>
<p>Vendor(s):</p>	<p>Business entity or entities which respond to HBAC needs</p>

Appendix A – Access to Assets

The Affiliate of jurisdiction will provide Vendor(s) with access to a common pool of the assets, services and infrastructure to the extent available and needed by the Vendor(s) for deployment of the Network(s). Infrastructure may include, but will not be limited to, conduit, fiber, poles, substations, rack space, nodes, buildings, facilities, central office or switch locations, available land, and other assets and services identified below. Ownership of any and all such assets used by the Vendor(s) shall remain with the owner unless provided for otherwise by contract. Any network elements added by the Vendor(s) shall belong to the Vendor(s) but may be purchased at the end of the term by the affiliate at reasonable, depreciated market value. If such network elements are not so purchased and are no longer in use, the Vendor(s) shall remove such elements at the affiliate's request. The affiliate may also offer access to additional assets, services, and infrastructure at their discretion, this will be determined during the negotiation process with the vendor.

The Affiliate may charge Vendor(s) as may be authorized or required by law for access to Affiliate assets and infrastructure as set forth herein or as otherwise may be required by law. If the response from the vendor indicates funds are required for the design, construction, engineering, project management of the aggregation network or last mile services, the Affiliate of jurisdiction, subject to applicable Nevada law, will consider provision of these funds.

Appendix B: Fiber Construction Specifications

The following are general terms that apply to the construction of fiber to the premise within the or in the area surrounding the cities or higher density unincorporated areas for routes to connect Humboldt County Government Offices or City of Winnemucca Government Offices.

These build specifications apply to all new fiber builds contained in this RFP whether directly owned by the HBAC Affiliate, leased dark strands by the HBAC Affiliate or within the cities and unincorporated areas and owned by a vendor to serve the citizens, businesses and government.

Colocation Space Availability

A HBAC Affiliate may decide lease rack or caged spaced at (interconnection address) to house electronics for traffic that will go upstream from the HBAC Affiliate Hub. Fiber construction/self-provisioning vendors should provide detailed information on access and cross-connect policies and arrangements for power and telephone service at (interconnection address).

Meet-me Hole and Mid-Span Interconnection Splicing

It is possible that the HBAC Affiliate may want to interconnect with the existing or newly planned carrier facilities at meet-me manholes or mid-span splice locations. Vendors should detail policies and guidelines that document meet-me manhole and mid-span interconnection procedures along with detailed costs for these activities.

Dark Fiber Performance

HBAC Affiliates prefer newly built fiber that contains a homogenous fiber type throughout the entire build. It is currently anticipated that fiber utilized for the self-provisioned fiber proposal will be G.652.D fiber.

New Build Fiber Specification.

If newly constructed fiber is part of any service offering, the HBAC Affiliates prefer the following fiber construction specifications/or more stringent ones be used:

Project Management

- Selected contractor and its subcontractors will provide all project management to accomplish the installation of all project work as outlined in the Statement of Work.
- Provide engineer(s), certified on selected fiber system specifications and procedures to manage all phases of project as outlined in this proposal. This includes ordering and managing the bill of materials as outlined below, directing and managing cable placement and restoration, directing and managing splicing crews and providing detailed documentation at the end of the project.
- Selected contractor and its subcontractors will develop a project management plan, which will include a milestone chart. The milestone chart will outline any critical path events and then track these with the appropriate agency/organization whether; selected contractor, a selected contractor subcontractor or (Vendor name).

Material Management

- Selected contractor and its subcontractors will provide all material management to ensure that the project remains on track according to the project milestones.
- Selected contractor and its subcontractors will develop in conjunction with selected contractor plants and other suppliers a material management plan.

Property Restoration

- All cable routes, which are plowed, will be restored to as near to original condition as possible.

Install overhead and underground fiber optic cable

- Microtrenching could be acceptable in areas where digging activity in the common use right of way is minimal. Requests for microtrenching will be reviewed on a case by case basis by the City or County.
- Bore approximately 3 feet of fiber optic cable through inner

duct/conduit/hand hole system.

- Plow approximately 3 feet of fiber optic cable in accordance with selected contractor installation specifications.
- Install customer approved hand-holes and place marker/locator posts.
- Customer will provide entry/exit holes into buildings for routing cables to distribution frames unless otherwise noted.
- (Vendor name) will provide specific details of cable placement using aerial photography and cad drawings.

Install and Splice Hardware at Head Ends and in the Field

- Install optical hardware and splice field cable to equipment tail at head ends and splice tail to pre-stubbed hardware with SC pigtails.
- Prep closures, cables, fibers and splice fibers at all field locations.
- Fiber to fiber fusion splicing of optical fibers at each point including head ends.
- Individual splice loss will be ≤ 0.10 dB for single-mode unless after 3 attempts these values cannot be achieved, then the fibers will be re-spliced until a splice loss within 0.05 dB of the lowest previous attempts is achieved. Splice loss acceptance testing will be based on the fusion splicer's splice loss estimator.

Total Project Splices: (number)

Final Testing

- In addition to splice loss testing, selected contractor will perform end-to-end insertion loss testing of single-mode fibers at 1310 nm and 1550 nm from one direction for each terminated fiber span in accordance with TIA/EIA-526-7 (OFSTP 7). For spans greater than 300 feet, each tested span must test to a value less than or equal to the value determined by calculating a link loss budget.
- Inspect each terminated single-mode fiber span for continuity and anomalies with an OTDR at 1550 nm from one direction in accordance with OTDR operating manual.

Documentation

- Provide final documentation consisting of:
 - o Route "As-Built" Maps/Diagrams
 - o End-to-End Insertion Loss Data
 - o OTDR Traces
 - o Individual Splice Loss Data

General Scope of Work (Description of all routes)

- Placing approximately (Number of Feet) of new (fiber count) SM cable to provide bored fiber connectivity in route that is used to provide

- connectivity to (Vendor's eligible facility).
- Placing approximately (Number of Feet) of (fiber count) SM underground cable along Wildlife Road from the route to Vendors Eligible Facility to reach (vendor eligible facility).
- Placing approximately (number of feet) of buried (fiber count) SM fiber from an existing handhold at (address) to vendor eligible facility.
- Placing approximately (number of feet) of buried (fiber count) SM fiber from an existing handhold at (address) to vendor eligible facility.
- Placing of associated hand holes, marker posts, locator posts, inner duct, and miscellaneous materials.
- Splicing of fiber optic cables as specified.
- Procuring and Provisioning of hand holes and miscellaneous materials required to accomplish the above.

Bid Specifications

- All fiber will be bid separately by the Owner in addition to turn-key including fiber and construction.
- All splicing shall be by the fusion method.
- All splicing enclosures and Hand Holes shall be of a type to be determined by the owner.
- All Hand Holes shall be NV DOT approved, 45,000 lb. load rated CDR or comparable enclosures.
- All plowed cables shall be placed at a depth of 36" along roadways and 24" on private property.
- All road and driveway bores shall be at a depth of 36" and will have a 2" inner duct placed within.
- All buried splice locations will be marked with a locator post and a copper ground wire shall be attached to the splice closure/cable sheath.
- Buried marker posts shall be placed every 1500'.
- A warning tape shall be placed 12" above the buried cable.
- All highway shoulders, schoolyards, and ditch lines will be compacted and restored to satisfactory condition.
- All DOT encroachment permits, railroad encroachment permits, and National Park Service permits shall be submitted by (Vendor) in accordance with the permitting agency requirements.
- The vendor shall be responsible for the payment of any permitting fees and shall be the owner of said facilities.
- Contractor shall furnish an as-built drawing to the owner.
- Contractor shall perform an end-to-end continuity and loss test on each spliced fiber segment and provide the owner with the db loss of each fiber segment.
- Contractor shall be responsible for submitting the appropriate ULOCO locate requests.
- The vendor, the (Vendor) of (name) and the municipalities of (name) and

(name) shall grant contractor right of way permission for municipal-owned properties and roadways.

- All cables to buildings shall be fusion spliced within a minimum of 50' of entering a building at a location to be determined by the owner with an existing single mode fiber and terminated at customers rack.
- A minimum of 100' coil of cable shall be left in each Hand Hole/Building for splicing use.
- The (Vendor) shall provide the contractor with secured space to store materials and equipment if needed.

Right-of-Way Acquisition & Permitting

- Vendor is responsible to ensure that all cable routes have approved access & rights-of-way for all proposed cables installations.
- Vendor will provide any information or points of contact to allow selected contractor and its subcontractors to facilitate the route prep "Make-ready" and actual cable installation.
- Vendor is responsible for pulling all required construction permits. Selected contractor and its subcontractors will provide officials at (Vendor) with any information necessary to pull these permits in a timely fashion.

Route Maps

- Vendor is responsible for providing; maps, drawings or aerial photographs of the route.

Termination and Splicing locations

- Vendor will in conjunction with selected contractor designate/decide on all termination locations, whether in-building, outside plant or in customer premises. This will include all hand-hole or manhole locations
- Vendor will in conjunction with selected contractor designate/decide on all field splice locations, in-building splice locations (if applicable), or other splice locations necessary to connect the network.

Cable and Hardware Approval

- Vendor will approve all cable and hardware prior to ordering or installation. Selected contractor will provide any required consultation to assist vendor in this effort.
- Vendor will approve all hand-hole or building entrance hardware prior to ordering or installation. Selected contractor will provide any required consultation to assist vendor in this effort.

Material Delivery, Receipt & Storage

- Vendor will provide warehouse or yard space to accommodate all materials provided by selected contractor to accomplish this project.

Vendor will inspect, receive and issue any materials to provide accountability. This will reduce the overall cost to the vendor with no added costs to the proposal to cover the receipt and storage.

Final Inspection

- Vendor will provide at their discretion a person(s) to witness any final testing or construction verification. The person designated by Vendor will be required to initial/provide acceptance of any results. This person(s) will represent Vendor during any and all acceptance testing. This does not relieve the selected contractor from providing agreed upon documentation or absolve the selected contractor of any warranty support.

Communications

- Vendor is responsible for all communications with its customers or other interested parties concerning the proposed construction. Notification of any person(s) affected by this construction is the responsibility of Vendor. Selected contractor will work directly with any persons designated to handle project communications to facilitate awareness and reduce turmoil in the Vendor. Selected contractor will provide consultation to assist in the development of a communications plan as required.

Appendix D: Tower Locations

[Tower Locations](#) Map

Tower Locations List:

Owner/Switch Code	Address	Lat/Long
CommNet of Nevada	Humboldt County, Denio, NV	41.848167, -118.591417
Buckaroo Broadcasting	5130 Weikel Dr., Winnemucca, NV	40.964833, -117.714944
WWC License LLC (Verizon)	Ne1/4 NE 1/4 Section 27, Township 39 N, Range 42 E, Winnemucca, NV	41.227944, -117.225389
WWC License LLC (Verizon)	.55 Miles East of I-80, Winnemucca, NV	40.274194 , -118.352750
CommNet of Nevada	County of Humboldt, Winnemucca, NV	41.474306, -118.057500
CommNet of Nevada	Winnemucca Mt Top- 4miles NW Of Winnemucca, Winnemucca, NV	41.010278, -117.764361
CommNet of Nevada	Paiute Trail, Winnemucca, NV	41.299583, -117.662861
WWC License LLC (Verizon)	SW 1/4 SE 1/4 Section 6, Township 43 N, Range 38 E, Orovada, NV	41.632111, -117.741806
WWC License LLC (Verizon)	710 Pioneer Rd., Mcdermitt, NV	41.992806 , -117.699833

MCDRNV11RS1	131 US 95, McDermitt, NV 89421	41.995305, -117.718828
ORVDNVXADS0	West Kings River Road, Orovada, NV 89425	41.56953, -117.85765
PRVYNV11RS3	120 Bridge Street, Paradise Valley, NV 89426	41.49232, -117.53281
WNMCNV01DS3	102 E RAILROAD ST, WINNEMUCCA, NV 89445	40.97230, -117.73056

Appendix E:

Local Service Providers

Company	Contact	Address	Phone and E-mail
PC Internet	Harold Gudmundsen	332 S Bridge St, Winnemucca, NV 89445	775.304.4003 Cell Harold@pcinv.com
5D Networks	Jeffrey Sealy	566 Hanson St Winnemucca, Nevada 89445	775.623.9434
Zito Media	Scott Neff	Vice President of Network and Business Development Zito Business	Ph: 814-260-0472 E-mail: scott.neff@zitomedia.com