



Okanogan County and Colville Confederated Tribes Broadband Action Team

Expansion of Broadband Internet Strategic Plan

December 2020

PREPARED BY:



2601 NW Expressway, Suite 405W
Oklahoma City, OK 73112

TABLE OF CONTENTS

Tab 1	Narrative & Executive Summary Funding Opportunities Service Area Priorities Broadband Needs/Issues Identified Survey Responses List of BAT Participants
Tab 2	Conceptual Plan
Tab 3	Cost Estimates
Tab 4	Market Analysis & Subscriber Forecast PFSA New Subscriber Forecast Competitive Analysis USDA Rural Development Map Data
Tab 5	Financial Pro Forma
Tab 6	Assumptions
Tab 7	Timeline

Tab 8 Exhibits

- A. U.S. Census Bureau Demographic Data**
- B. FCC Fixed Broadband Deployment Maps**
- C. NTCA 2016 Broadband/Internet Availability
Survey Report**
- D. Construction Quotes**
 - 1. Aerial & Buried Cable Installation**
 - 2. Aerial & Buried Drop Installation**
- E. Cable Material Pricing**
 - 1. Buried & ADSS Fiber Cable Material Quotes**
 - 2. Aerial & Buried Fiber Drop Cable Material Quotes**
- F. Electronics Pricing & Product Literature**
 - 1. GPON FTTH Electronics**

Narrative & Executive Summary



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



NARRATIVE AND EXECUTIVE SUMMARY

1.0 Introduction and Scope

The following report provides a feasibility study and business plan for a proposed broadband network to serve selected communities in Okanogan County. The Okanogan County/Colville Confederated Tribes Broadband Action Team (BAT) has been the catalyst for the process.

This report provides cost estimates for the required construction, an analysis of various types of broadband infrastructures, market analysis of existing providers, local demographics, a subscriber forecast, permitting requirements, a timeline for the construction of the network, a financial proforma forecast and funding options with multiple related exhibits.

Stakeholder identification, formation and engagement

Under the aegis of the BAT, preliminary meetings were held to identify stakeholders, to inform stakeholders of the project, and to develop a broadband planning group in order to provide an accurate cross section of demographics, including communities, enterprises, chambers, educational institutions, ISPs, and other players. ACRS joined the group in subsequent meetings via conference calls and Zoom meetings to help facilitate the process. A list of participants is attached as an exhibit to this document. Attendance was fluid, but through the frequency of meetings, a fairly representational amount of input was gathered to paint the picture of the problems, needs and solutions to the proposed broadband expansion project.

Identify the Problems

The first item was to gather input from stakeholders and the relevant communities about broadband needs of the area, then to identify the gaps in existing services. This included information gathering regarding existing infrastructures, and the design and distribution of a market assessment instrument or survey to determine the interest in expanded broadband service. Additionally, virtual community forums and meetings were held to discuss survey findings and to seek additional public input. Part of the purpose of this effort was to be able to determine strategic redundancy methodologies supporting community and economic resilience, factors which have determined the outcome of the design of the network.

One of the most frequent problems is the expense of getting fiber to the home, even if there is fiber running close by. Other issues identified are the lack of reliability, slow connections and speeds, customer density as a barrier to bringing fiber to rural areas. Getting broadband out to city, county and tribal areas as a way to improve public safety, medical services and first-responder



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



services were also high priorities for the respondents to the survey and in the meetings and other information gathering efforts.

Educational opportunities were also high on the list from distance learning to the ability to access lessons and homework online. Business development and the ability to work from home or start a home-based business are also mentioned as part of the needs of the residents of the proposed service areas.

Attached herein is a full report from the surveys including a more detailed list of problems according to the local residents and businesses.

Identify existing providers, areas of weakness and assessment of local strengths

Working with the BAT stakeholders and conducting our own broadband search, ACRS was able to create a comprehensive list of existing providers and broadband networks that provide broadband services from DSL, to wireless, to satellite services. This list and analysis are addressed in the Market Analysis and Subscriber Forecast section of this study.

One challenge with the incumbent service providers is the accuracy, or lack thereof, in the providers' reports to the FCC. Each provider is required to submit a detailed 477 report to the FCC every six months detailing the coverage area and available speeds as well as their existing customer base. Research has shown however the accuracy of these filings is lacking and many service providers tend to overstate their speeds and coverage areas. This presents another challenge to determining unserved areas and trying to prioritize a large-scale buildout as contemplated herein. The reporting also tends to have a negative impact on available grant dollars or federal support dollars under the Connect America Fund and Rural Digital Opportunity Fund. Fortunately, some federal agencies such as the Rural Utilities Service are aware of this issue and when a grant application with RUS is being considered for funding, RUS will dispatch a field representative to verify any existing broadband.

As part of this report and in an effort to identify existing challenges in the area, individual interviews were conducted with several of the ISPs utilizing the existing PUD wireless and fiber networks. Attached to this narrative is a separate narrative entitled Broadband Issues, Problems & Solutions which contains a summary of the interviews and the ISPs concerns. The most common hurdles for the ISPs were the lack of fiber facilities, limited available bandwidth and the cost of service.

Strategies for broadband implementation

ACRS and its licensed professional engineers understand the existing broadband technologies available today and realizes one size doesn't fit all. Each of the selected 18 areas has its own



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



unique geography, demographics and level of interest and desire for adequate broadband deployment. Last mile, middle mile and backbone needs have been reviewed and the accessibility or inaccessibility to each area.

It is important to stress that the participation of the Okanogan PUD and the Colville Confederated Tribes (CCT) was important in the design and development of this study. PUD and tribal assets and access to federal assistance play important roles in the costs and potential funding of the 18 areas of interest. Although the study is a joint effort between the PUD and the Colville Confederated Tribes, multiple scenarios were analyzed as common service areas and individual PUD and Tribal service area projects.

With each service area analysis however, both the PUD and Colville Confederated Tribes own and operate existing fiber facilities. The cost analysis and proposed cabling was developed using as much of the existing facilities as possible. Within the PUD areas, it was assumed the majority of all construction would be aerial on existing PUD pole lines. Feedback from the PUD was obtained related to the amount of make ready work needed to accommodate the additional fiber cable with the make ready being part of the overall estimated cost of construction.

In the case of the Colville Confederated Tribes' service areas, the predominant electric service provider is Nespelem Valley Electric Cooperative. Through multiple coordination efforts with the Nespelem officials, the Co-Op is willing to partner in a variety of ways with the Colville Confederated Tribes for the deployment of broadband facilities. A few of the possible partnership scenarios discussed are as follows:

- Potential pole attachments in exchange for dark fiber or bandwidth for the Co-Op's own use or a revenue sharing agreement
- Make ready and related costs possibly being covered by the Co-Op
- Possible fiber installation within the power space resulting in few required make readies and pole changeouts, reducing construction costs and expediting the construction timeline
- Nespelem applying for potential broadband funding or a joint funding application or partnership

As a result of the above implementation possibilities, the construction cost estimates in this study were adjusted for a reduced amount of make ready. The financial forecast and recurring operating expenses assume some additional staff would need to be retained for both PUD and Colville Confederated Tribes service areas. However, it was also assumed, as neither was a completely new start-up company, we would utilize some of the existing staff, floor space and other assets.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



One of the largest struggles for new tribal and non-tribal broadband companies, if not necessarily the construction of the network, is the day to day operations and back office services such as sales and marketing, customer billing, customer support, new installs and troubleshooting, and maintaining the network. The Colville Confederated Tribes, however, are in a unique position with both the Okanogan PUD and the Nespelem Valley Electric Cooperative willing to provide support with these services. The PUD with its years of experience can easily assist the Colville Confederated Tribes with all of these operational requirements from day one. The same can be said for many of these service through the Nespelem Co-Op. The Co-Op has offered to assist the Colville Confederated Tribes and be a partner with the make ready and even the customer drop installs and other construction activities or maintenance. The Co-Op could also assist with some of the billing and customer service calls at least on an interim basis since the Co-Op offers these types of services on the electrical side today for the same customer base.

One other implementation strategy ACRS has seen and assisted other tribal broadband companies with is the utilization of the tribe's Tribal Employment Rights Office (TERO) regulations. In this case, during the fiber construction RFP process, the RFP is structured in a manner as to require the successful bidder to use a certain percentage of tribal members for both equipment operators and laborers. This accomplishes a couple of things. First it offers immediate employment opportunities for tribal members. The second, more long-term impact, is the tribal members who are involved with the construction, testing and turn-up of the system are essentially gaining training and knowledge of the existing network and are in a position to assist with future drop installs, line extensions and troubleshooting of the network. This is also offering long term employment to many of the tribe's members.

Lastly, some of the home owner associations are so desperate to obtain reliable broadband service, many of the associations and home owners are willing to assist with some of the construction costs for the fiber drop to the house or even the customer premise equipment. This is a business plan used in many areas across the country.

2.0 Proposed Service Areas

This study has identified 18 areas of primary interest for designing and deploying broadband. These Proposed Service Areas are:

Aeneas	Belvedere-Rebecca/McGinnis Lake	Brewster
Conconully	Coulee Dam	Disautel
East Omak	Elmer City	Harmony Heights
Knob Hill	Malott	Nespelem
Omak Flats/North Omak	Oroville	Pateros
South Pine Creek Road	Salmon Creek Road	



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



Attached under Tab 2, Conceptual Plan, are maps of the 18 different service areas depicting the service area boundary and the estimated fiber cabling required for a full fiber-to-the-home deployment.

Tab 8A contains census data of each area used in the Market Analysis and Subscriber forecast. Each area has its own unique set of circumstances, from geography to the demographics that make up the population. The parameters used in the subscriber projections give us some picture of the population and its rural and economic struggles. Median age for the 18 areas ranges from 17 to 59.6, poverty level ranges from a low of 11.3% of families below the poverty level to 55.7% of all families. Commute time ranges from less than 15 minutes to almost a half hour.

Geography

All 18 of the Proposed Service Areas lay on the eastern edge of the Cascades in Washington State and abuts the Canadian border in the north. Most of the populated areas are strung out like beads on the strands of the Methow, Okanogan and Columbia Rivers. Population ranges from 54 people in the Kartar PSA to 4,266 in the Oroville PSA.

The area can offer unique construction challenges and as shown with the most recent wildfires, come with increased maintenance requirements. Each of these were factored into the initial construction costs and recurring maintenance expenses.

3.0 Permitting and Licenses

3.1 Licenses

Providing broadband services is typically classified as deregulated services by state and federal authorities such as the Federal Communications Commission and most state corporation commissions. Voice services can be accomplished through a third-party provider or as an “over-the-top” VoIP service avoiding any required certifications should the Colville Confederated Tribes elect to pursue voice services in the future. At this time, the study herein is confined to broadband services only, allowing for a “broadband pipe” which can be used by its customers for VOIP phone service or “over-the-top” and streaming video services. The Okanogan PUD is prohibited from offering services directly to the residents of the county and is currently and projected to only offer wholesale rates to various ISPs in the area. To take advantage of future FCC support such as the current RDOF auction or the Lifeline and Link-up support from the FCC, an



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



Eligible Telecommunications Carrier (ETC) certification will be required. This is typically applied for on a state level through the Public Utilities Service. Oftentimes, a Competitive Local Exchange Carrier (CLEC) certification is a prerequisite of obtaining ETC status. The process for obtaining CLEC and ETC designation typically takes up to six months. This is something however that could be pursued in the future.

3.2 Permits

Typical permitting required for broadband networks as proposed herein consist of road permits, railroad crossings, environmental clearances and pole attachments permits.

Road permits are common applications with minimal to no permitting fees. Any crossing of or parallel facilities to state highways will require a standard Department of Transportation permit. These can typically be acquired within 30 days of applying for the permit. However, the majority of all proposed fiber facilities will be installed within the existing utility corridor, which is usually within 5 feet of the road right-of-way line.

Certain funding agencies and at times DOTs, will require proof of environmental clearances. Such clearances may be required from federal and state agencies such as the list below.

- US Fish & Wildlife Service
- State Fish & Game
- Bureau of Land Management
- Corps of Engineers
- State Historic Preservation Office
- Bureau of Indian Affairs

Section 106 requirements for SHPO will be closely adhered to, working with state, federal and tribal offices to ensure all historical buildings are identified well in advance of construction.

As described above, due to the nature of PUD owning the existing pole line and the opportunity to work with Nespelem Valley Electric Cooperative, pole attachment agreements are not applicable in the PUD service areas and may only be a simple formality in the Nespelem tribal areas.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



4.0 Infrastructure Solutions

4.1 Existing Network

Both the Okanogan PUD and the Colville Confederated Tribes presently own and operate a limited amount of fiber facilities today. A large portion of the existing PUD network was funded and constructed under a recent ARRA BIP award. The existing PUD system utilizes its existing fiber facilities for offering FTTx services but the footprint is limited as noted in the feedback from the BAT outreach and customer and ISP surveys. The Colville Confederated Tribes have also made an effort over recent years to begin deployment of some fiber facilities along the main roads interconnecting some of the Colville Confederated Tribes communities. These existing facilities are proposed to be utilized as a middle mile facility interconnecting the 6 Colville Confederated Tribes service areas to the proposed FTTx electronics known as an Optical Line Terminal (OLT).

The mapping under Tab 2 Conceptual Plan, depicts each of the proposed 18 service areas and how the existing fiber facilities for both the PUD and Colville Confederated Tribes can be utilized in the expansion and upgrade.

The PUD also owns and operates a couple of wireless systems to serve some of the more rural areas of Okanogan County. These systems include a wireless network of Motorola/Cambium 5.8GHz equipment and a Wi-Fi system of Ubiquiti unlicensed 2.4 and 5.8GHz devices.

As previously discussed, both the FTTx network and Wireless networks are used by numerous ISPs in the area offering retail broadband services to the residential and business customer base.

4.2 Fiber to the Home/Business (FTTx)

The Okanogan BAT and Colville Confederated Tribes propose to deploy a Fiber-to-the-Home or Fiber-to-the-Premise (FTTx) Gigabit Passive Optical Network also referred to as a GPON network. GPON is a point-to-point access mechanism utilizing passive optical splitters. The GPON network will utilize electronics capable of delivering a minimum of 2.488 Gbps downstream and 1.244 Gbps upstream with XGS-PON capable of 10Gbps symmetrical services. The bandwidth is shared among subscribers with a typical optical splitter ratio of 1x32. Smaller or larger split ratios can be deployed in the field as bandwidth and subscriber demand.

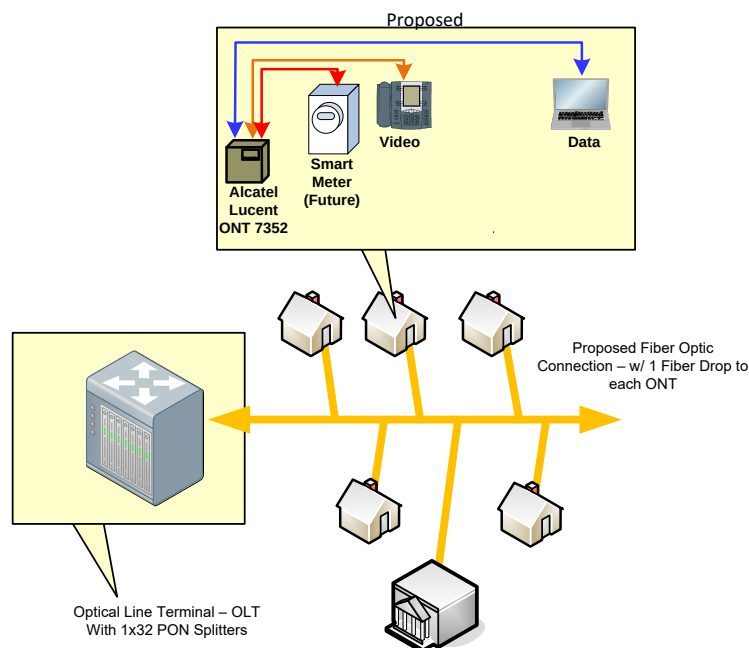


Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



The GPON standard was developed in conjunction with two industry standards bodies, Full Service Access Network (FSAN) and International Telecommunications Union (ITU). Today the standard proposed herein is known as the ITU-T G.984 Gigabit capable Passive Optical Network standard.

Fiber to the x (FTTx) is a generic term for broadband network architecture using all fiber optical cable in place of the usual metal (Copper or Coax) cable used for telecommunications. While there are a great number of ways to deploy fiber into the network, fiber is often said to be “future proof” because the data rate of the connection is usually limited by the terminal equipment rather than the fiber, permitting broadband speed improvements through upgrading the electronics without the need to replace the fiber itself.



Typical GPON FTTH Network

Utilizing the dynamic bandwidth allocation capabilities within the GPON electronics, or bypassing the splitters for point-to-point connections, GPON service providers are capable of offering 1 Gbps services to customer locations well above the FCC's 2015 Report adopting a new benchmark for broadband of 25 Mbps download and 3 Mbps



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



upload as well as the State of Washington's 2028 mandate for 150 Mbps symmetrical services. In the case of both the PUD and Colville Confederated Tribes service areas, the proposed FTTx solution will merely be an extension of the current fiber facilities and an upgrade of the FTTx electronics.

With the schools, hospitals, county and tribal facilities all proposing to utilize this fiber network, redundancy is a critical requirement. The post study engineering and design should be conducted in a manner as to incorporate additional, redundant bandwidth connections in case of an outage of the existing circuits in place today as part of the PUD solution. The proposed Colville Confederated Tribes and PUD expansions could also be developed in a ring configuration in which case if one circuit was cut to the outside world, all traffic would be rerouted. In this scenario, a customer could be utilizing the broadband network and would be oblivious to the rerouting of their traffic with zero loss of service.

5.0 Cost Estimates

Detailed cost estimates were developed for the fiber-to-the-home systems as described above. All design and cost estimates and financial forecasts assume a data only deployment. Future services of voice and/or video however could easily be overlaid and added as an additional service.

The cost estimates developed as part of this study were expanded to four different scenarios with those being a combination of PUD and Colville Confederated Tribes areas, PUD areas only, PUD areas less Conconully and Oroville, and Colville Confederated Tribes service areas only. Each of these were used in the financial forecasts as described in the 9.0 Pro Forma section below. The PUD less Conconully and Oroville was developed as the BAT members may elect to not construct these two service areas since the existing PUD subscriber count is presently equal to or greater than that of the Subscriber Projections herein.

The total cost estimates are listed below with a copy of the detailed Cost Estimates contained under Tab 3 of this report.

18 Okanogan & CCT Service Areas	\$41.78M
12 PUD Service Areas Only	\$36.99M
PUD Service Areas less Conconully & Oroville	\$29.44M
6 CCT Service Areas Only	\$4.55M



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



It should be noted that all costs were based on recent competitive bids from construction contractors for broadband deployments and recent quotes from multiple equipment suppliers. Adjustments were made to the outside plant construction costs to accommodate the local terrain in the BAT area. A copy of some of this pricing can be viewed within the enclosed exhibits. Additionally, the cost estimates above provide for fiber to the curb to 100% of the businesses and households passed.

6.0 Construction Timeline

Subsequent to the allocation of the necessary funds, each project will commence with a more detailed engineering review of requirements on the central office and core fiber facilities. Construction of the outside plant facilities can occur parallel to the delivery and installation of the central office electronics. It is anticipated that a typical service area or group of service areas can be fully engineered and constructed within 15 months.

A sample timeline is contained under Tab 7 of this report.

7.0 Market Survey

From researching the FCC databases, the usual mobile wireless service providers in the area, including Verizon, AT&T, and US Cellular are claiming broadband speeds from around 1 Mbps to 10Mbps. However, the cellular coverage in a lot of the areas selected for broadband expansion is at times limited and the cost of the data plans with most wireless service providers makes using a cell phone for broadband in the home or at a business unrealistic for most.

From researching the FCC Broadband Deployment Map, a small portion of the service areas are served with broadband by CenturyLink. This is the regulated Local Exchange Carrier (LEC) offering limited DSL over aging twisted pair copper infrastructure. A search shows one other provider in the area, Frontier Communications, also offering limited DSL.

There is one cable service provider in the area, Charter Communications, which offers a higher speed broadband service of 120Mbps down and 10Mbps up. It should be noted however that there is a bottleneck in their data capabilities and during peak demand times like in the evenings when multiple subscribers are attempting to access the network, slower speeds are experienced by all.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



In addition, there are several fixed wireless providers offering line-of-site broadband service. Most of these types of providers however are small locally owned service providers of which most use partially or wholly the existing PUD wireless infrastructure. The line-of-site requirement in the rugged terrain and heavy foliage is also problematic with these types of networks making it difficult to offer reliable service. As a result, the focus of this study is centered on a fiber-to-the-home solution.

As mentioned above, several areas have wireless and fiber services available from providers who are resellers for Public Utility District #1, and their prices and speeds vary from area to area.

Tab 4 contains a complete market analysis with the related narrative research of all existing service providers contained within the exhibits.

Below is a summary of the data service plans proposed by this broadband expansion and the recurring rates used within the financial pro forma. It should be noted however, the BAT management team may elect to reduce the number of service plans eliminating the 25/3 Mbps plan and offering the 100Mbps plan or the State's future mandated 150/150Mbps service requirement at this same price. This will have little impact on the overall cost of the system yet may help increase the subscriber take rate.

Residential

Bronze	25/3 Mbps	\$35.00
Silver	100/10 Mbps	\$59.95
Gold	250/25 Mbps	\$79.95
Platinum	1,000/100 Gbps	\$99.00

Business

Bronze	25/3 Mbps	\$49.95
Silver	100/10 Mbps	\$69.95
Gold	250/25 Mbps	\$89.95
Platinum	1,000/100 Gbps	\$149.95



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



8.0 Marketing Plan

The price per Megabit offered under this broadband expansion will generally be lower than the competition in the underserved market and in line with national statistics. Customers are also eager to do business with a local provider giving the PUD ISPs and the Colville Confederated Tribes a leg up on the national LECs and cable providers.

Advertisement and Promotions

The new broadband services have the potential to offer a single consolidated invoice to its customers. Local technicians will be a part of the community for which he or she is responsible to handle service calls and installations and familiar faces to the local residents. The residents will know the technician by name. National surveys conducted by research groups like J.D. Power and others confirmed through market research that customers, whether in Metropolitan or Rural communities, prefer to deal with a local technician.

The promotion and marketing plan is based on local media and references. Some of these may not apply to the PUD offering wholesale services only but should be considered by the Colville Confederated Tribes.

- Referrals: Consider offering a discount for referrals as word of mouth coupled with a monetary reward is sometimes the most effective means of advertising.
- Local Bulletins and Flyers: Upon the acquisition of funds, post flyers and bulletins throughout the service area and issue flyers through the mail to its existing customer base to commence creating a buzz within the community and hopefully prevent some of the potential subscribers from executing a long-term contract with another service provider.
- Local Newspapers and Media Services: Consider advertising in local papers and media services. In addition, utilize many other publications that are local in nature, community papers or bulletins for the residents of the community, and other sources in which they will start announcing and advertising these services to the residents.
- Meetings with Local Offices: The local technicians should participate in town meetings and other community events. Existing relationships will be strengthened with local businesses, community centers, and local administrations.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



- Website Marketing Tools: Upon receipt of financing, there should be plans to launch a state-of-the-art new website for the new services as well as advertising on other social media sites. The sites will enhance the broadband company's customer service and tech support offerings as well as feature several marketing-promotion tools to supplement the traditional sales and marketing efforts.

The cost for marketing and sales was included within the financial forecast and discussed in more detailed under the assumptions in Tab 6 of this report.

9.0 Pro Forma

Five-year financial forecasts, or pro formas, were developed based on the cost estimates for the network, the subscriber forecast, revenues, expenses and general assumptions as we have discussed above.

A pro forma was developed for comparing the returns of five different scenarios. This was done in an effort to demonstrate not only the joint overall project of the 18 service areas within the Okanogan PUD territory but the Colville Confederated Tribes areas served by Nespelem Valley Electric Cooperative, and to split the proforma into PUD and Colville Confederated Tribes only studies.

As could be expected, each of these demonstrate a negative net income but if successfully completed with grant dollars, as demonstrated under the Colville Confederated Tribes only scenario, they would begin to accumulate cash. Many of the service areas however should qualify for various grants due to their rural unserved nature. As is, each of the proformas except the one grant scenario were run assuming long term financing at 3% cost of money.

One item not demonstrated in the proformas are cost savings which could be realized by the PUD and the Nespelem Co-Op under a partnership with the Colville Confederated Tribes. Such benefits would be seen through the connection of all substations, remote meter reading and disconnects and reconnects and reduced uncollectables.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



The results of each study are summarized below.

18 Okanogan PUD & Colville Confederated Tribes Service Areas

\$2.48M negative net annual income

\$1.88M in expenses is a result of depreciation

12 Okanogan PUD Areas

\$1.94M negative net annual income

\$1.62M in expenses is a result of depreciation

Okanogan PUD Areas less Conconully & Oroville

\$1.43M negative net annual income

\$1.30M in expenses is a result of depreciation

6 Colville Confederated Tribes Service Areas

\$580,000 negative net annual income

\$276,000 in expenses is a result of depreciation

6 Colville Confederated Tribes Service Areas Grant Funded

\$251,000 negative net annual income

\$276,000 in expenses is a result of depreciation

Begins to accumulate cash in year 3 with total accumulated cash in year 5 of \$314,000

A copy of each five-year pro forma is attached under Tab 5 and contains a summary of all projections, a summary of the subscriber forecasts and revenues, a list of all assumptions, depreciation and a summary of all capital expenditures.

Other revenue generating possibilities are also not considered in the forecast but elaborated on in the following section.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



10.0 Additional Revenue Opportunities

There are numerous other revenue opportunities that should be considered in the analysis of this feasibility study. To take a more conservative approach in the financial analysis, the majority of these additional revenue opportunities were not included as a guaranteed revenue stream but should be considered during the initial engineering and marketing phases of the project.

One such revenue stream that is sweeping across our nation and that was part of the forecasted revenue stream is the need for additional bandwidth at cellular towers sites. As more and more cellular users utilize their mobile phones for messaging and streaming video, this need will continue to increase. Cellular carriers are not only paying a premium for this additional bandwidth, but in many cases, they are paying aid to construction to extend the fiber facilities to the tower sites. A quick search of the FCC website however reveals several registered tower sites in the Proposed Service Areas. This additional revenue stream is the only additional revenue assumed in this study beyond the basic residential and business data subscribers.

Another service and opportunity to sell more broadband connections is the offering of femtocell technology. Femtocells are devices that can be placed inside of a residence that acts as a repeater of cellular phone services. The technology rather than operating wirelessly over the cellular towers extends the cell phone coverage over the proposed broadband pipe to the femtocell which then connects to the user's cellular phone. This again is something to market to the potential customers as a way to improve their cell phone coverage. This is particularly attractive if management elects to not promote a landline voice offering where femtocell service could be viewed as competition to the traditional landline voice service.

Other possible revenues may involve other local business like offering the monitoring of oil and gas sites. Monitoring of these sites and the accuracy and accountability of the wells with increasing environmental concerns is making constant monitoring the of wells common place. One requirement in monitoring wells is a broadband connection. This project could help fulfill this requirement and may be the only option for the oil companies.

Once the fiber network is complete with connections to the major carriers, middle mile opportunities are also possible over the fiber network with the option to lease either dark fibers or bandwidth. Such requests could come from state agencies, schools, hospitals, electric cooperatives, cable providers, CLECs or ILECs seeking additional bandwidth or alternate routes for redundancy. One such potential customer is FirstNet, the First Responder Network Authority. Signed into law on February 22, 2012, the Middle Class Tax



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



Relief and Job Creation Act created FirstNet. The law gives FirstNet the mission to build, operate and maintain the first high-speed, nationwide wireless broadband network dedicated to public safety. FirstNet will provide a single interoperable platform for emergency and daily public safety communications. This broadband network will fulfill a fundamental need of the public safety community as well as the last remaining recommendation of the 9/11 Commission. FirstNet will bring 21st century tools to millions of organizations and individuals that respond to emergencies at the local, state, tribal and federal levels.

Other services may be considered by the Colville Confederated Tribes such as voice services to offer the triple play solution mentioned above. Two options are available as far as the technical solution to offer voice services. They can elect to purchase and deploy their own voice softswitch or utilize a third party for the switching services. Interconnects with the Public Switched Telephone Network (PSTN) will be required. This can be a time-consuming process and many service providers therefore elect to utilize a third-party switch provider on an interim basis until they can deploy their own switch and obtain the necessary PSTN interconnections. As mentioned above, regulated voice providers are also required to have ETC designations, offer Lifeline and Linkup to low income families, obtain their own 1,000 number blocks, offer local number portability (LNP) and coordinate with 911 PSAP centers. These are all factors to consider and why many providers elect to use a third party even long term for their voice switching solutions.

Another potential revenue stream is related to video services. As with voice services, there are a couple of options related to offering video services. The first two options are to either construct your own video headend which can easily cost \$1M or more or obtain the video content from another local provider. With providing your own headend additional negotiations are required with the content providers. The cost of a new digital headend is a substantial investment with small profit margins and the cost of the video content continues to rise. Many cannot justify the initial investment and are therefore eager to partner with another video provider.

Another video related service that is taking the country by storm is over the top video. Companies are now offering nationwide service with more of an a la carte channel selection and simply utilizing broadband pipes for the delivery mechanism. Dish Network is now offering a solution marketed as Sling TV starting at \$30 per month and includes major channels like ESPN. Again, these can be viewed by a subscriber on any broadband device including mobile phones. This is another reason why many broadband companies including the long time traditional rural telephone companies are having to shift their mindset to becoming more and more of a broadband pipe provider and allowing the end user to use this broadband pipe for video over the top or VoIP or Skype type communications. It may require additional negotiations with the content providers or other local video service



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



providers but the Sling TV type video service should be explored as another service and revenue opportunity and could potentially expand the market from one rural community to a nationwide footprint.

Another growing service that is sweeping our nation is in the area of smart home and security technology. There are companies that specialize in these types of solutions and can assist with setting up the core system and offering ongoing support. Smart homes go well beyond security and power consumption. Today's smart home technology allows one to remotely monitor and control any and virtually all electrical appliances, thermostats, water, lighting and much more. This is a growing industry and will someday be a given for all new home construction. Major telephone and broadband companies like AT&T are now pushing this industry through major marketing campaigns. Offering these types of services is not only an additional revenue stream but the opportunity to bundle these services with the proposed data plan should help in the subscriber take rate of the core data service offerings.

The management team may also want to consider offering computer networking and troubleshooting services with reseller opportunities for networking and computer equipment similar to the Geek Squad services. With nearly 2,500 additional subscribers projected over the next 3-5 years, beyond the existing PUD customers, this could be another company all to itself with a substantial revenue stream and additional job opportunities.

Last but not least we must consider the other job opportunities and trickle-down effect on the local economy. Bringing gigabit type broadband service to the region will have a significant impact on retaining existing businesses and attracting new businesses to the area. The growing trend today among many of the major corporations is allowing its employees to work from home. According to a 2012 report generated by the US Census Bureau, 9.5% of all workers worked at least one day per week from home while 6.6 % of all workers worked exclusively from home. Recent developments in the world have most likely changed this. With many more people working from home due to the Covid pandemic, the already taxed speeds and availability is made worse. It is imperative that fast, reliable broadband is available.

Among the fastest growing businesses in the country are those started by individuals out of their own homes. According to the same BLS report, of the 20.7 million who worked from home, nearly 23% were self-employed who had no other place of business. To make either of these employment options a legitimate possibility, broadband connections are a must.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



11.0 Executive Summary

In addition to the financial feasibility of the project, there are the numerous indirect but positive economic impacts. However, in addition to the economic impacts of the proposed project, one must consider the other benefits to the community related to public safety, healthcare and education which is never more evident than in today's crisis with the COVID pandemic.

A broadband system as the one proposed herein, could also be used to provide internal communications among the public safety officials, medical responders and other city officials and departments.

Other advantages of high-speed broadband networks are for educational and medical reasons. The network could be used to connect with neighboring communities or metropolitan areas establishing a link between the local schools and libraries to major universities resulting in a distance learning network. This network would allow students and even adults to take college or vocational courses remotely without ever having to leave the area. Homeschooling continues to grow nationwide and is expected to grow exponentially after the COVID crisis is resolved. However, this again requires adequate broadband service.

Similar to the distance learning, the community could establish a more reliable and faster connection from the local medical clinics and hospitals to the major metropolitan hospitals providing a way to share medical records and for patients to be remotely examined by a specialist via telemedicine technology. More and more hospitals and doctors are now conducting virtual office visits where the patient uses their cell phone. With an adequate broadband connection in the patient's home and a home Wi-Fi network, the patient can use this for their virtual office visit. Through construction of the broadband network, this capability could also be expanded to mobile medical units and mobile nursing operations bringing state of the art medical facilities and examinations to the homes of all residents. As described further in this report, grant funding is also available for such telemedicine systems.

Typical of greenfield broadband networks, the pro forma predicts negative net income in the initial years and without grant dollars to assist, it will be difficult to ever show a positive cash flow. Searching for ways however to cut operating costs and to pursue the additional revenue streams discussed above, the proposed projects can achieve and surpass a breakeven analysis. The Colville Confederated Tribes did apply for the recent FCC's 2.5 GHz wireless spectrum. Using the wireless spectrum in some of the more rural areas outside of the proposed FTTx network could help with the additional revenue needed for positive income business model.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



As discussed above under Implementation, the Colville Confederated Tribes can utilize both the PUD and Nespelem Valley Co-Op experience and staffing to help reduce the operating costs and alleviate some of the difficulties with any new start-up. Both electric providers have offered to assist the Tribes.

One complaint we have seen through the numerous ISP interviews was the minimal profit margin available to the ISP after having to pay the PUD for use of the existing network. Although either scenario works with the Colville Confederated Tribes owning and operating the network but leasing to an ISP or the Tribe's becoming their own ISP, one must note the additional employment opportunities and additional revenue stream if the Colville Confederated Tribes elect to become their own ISP. Having the electrical partners above can ease the concerns with this new venture. ACRS has assisted other tribal nations with similar ventures. With some of those projects, the tribes elected to employ an experienced broadband manager to manage the company until a tribal member was ready to take over the operations.

The immediate and long-term employment and financial impact on the area cannot be overlooked with the ability to offer job opportunities to work for a major corporation from their home, or to establish a lucrative home-based business. Neither of these however are possible without broadband service. In the case of the Colville Confederated Tribes, using the TERO regulations can provide immediate shovel ready job opportunities to tribal members while offering training and knowledge of the fiber network for long term operations and employment.

As discussed in the attached, there are numerous low interest loan and grant opportunities for this proposed project. In most cases it is not simply a matter of obtaining a single grant to construct the entire network but it is a matter of prioritizing the service areas based on a cost benefit analysis and available funding and applying for multiple grants to construct the network over time. A detailed list of various funding opportunities is attached along with our best effort at a priority scoring system based on the factors above.

Without the BAT stepping up to construct the proposed broadband network, it is doubtful the project will ever happen as the larger carriers are focused on the more populated metropolitan areas rather than rural America.

Funding Opportunities

FUNDING OPTIONS RESEARCH

Multiple funding sources were investigated as part of this study including low interest loans, grants and other funding mechanisms. The funding sources are each unique in their applicant eligibility requirements, eligible purposes and terms. Below is a summary of the various funding agencies and programs available to the Okanogan County/Colville Confederated Tribes Broadband Action Team (BAT) for the deployment of the proposed broadband network.

Also attached is a ranking and recommendation of different funding opportunities for each of the 18 service areas. In some cases, more than one funding opportunity may apply or even be required to fulfill the complete buildout of an area.

A study was conducted utilizing the Rural Utilities Service Broadband Eligibility Map. With the exception of the BIP award to the Okanogan PUD, the only existing RUS borrower is Skyline Telecom Company, for a small area south of Oroville.

Funding Agency:

Rural Utilities Service – United States Department of Agriculture (USDA)

Programs:

Rural Broadband Loan Program

Telecommunications Infrastructure Loan Program

Community Connect Grant Program

ReConnect Loan & Grant Program

Distance Learning Telemedicine Grant Program

Electric Loan Program

Rural Broadband Access Loan Program

- Low interest loan program
- This program is an annual program. Applications can be submitted at any time and will be evaluated and reviewed by RUS on a first come first serve basis. However, at this time, the program is on hold pending funding. Some of the requirements and eligibility bullet items below are therefore based on prior funding periods and certain program changes may be presented under the next round of funding.
- Single applications can range up to \$20,000,000 and cover multiple service areas.
- Amortization Period is based on the composite economic life of the facilities being financed plus 3 years. One year deferred principle payments.
- Interest rates are set on the treasury rate and referred to as “cost-of-money” loans and set at the time of each advance. Also available are direct 4% loans or a combination of the two.
- The applicant must also be able to demonstrate a 10% existing equity on their financials or additional cash support. The applicant must also show cash support for the sum of any years reflecting a negative cash balance over the five year forecast. For start-up companies or companies without two years of historical positive cash flow, only 50% of the revenues will be used to determine the additional cash support required.
- RUS also requires the first lien on all applicant assets and revenue. The first lien can be shared with other lenders.
- General eligibility requirements are as follows:
 - o Applicant
 - For profit or non-profit organization and must be either an LLC, corporation, cooperative organization, federally recognized Indian tribe or tribal organization, or a state or local government or governmental agency
 - o Service Areas
 - The proposed service areas must be rural by definition with a population of less than 20,000.
 - At least 15% of the households are “unserved” meaning they have no access to broadband service and no more than two service providers anywhere in the proposed service areas.

- Incumbent broadband providers are those offering service at a 25Mbps download and 3Mbps upload speeds.
 - The service area must not overlap with an existing RUS borrower or grantee or pending applicant
- o Eligible Purposes
 - Facilities to provide broadband service at the lending speed of 25Mbps download and 3Mbps upload.
 - Capital leases of up to three years for facilities to provide service at the broadband lending speed
 - Pre-loan expenses of up to 5% of the total loan
 - Acquisitions limited to 50% of the total loan amount
- o Ineligible Purposes
 - Operating Expenses
 - Any cost incurred prior to the application being deemed complete other than “pre-loan” expenses
 - Acquisition of stock or facilities of an affiliate
 - Vehicles not for construction
 - Facilities leased under an operating lease
 - In general, CPE equipment not owned by the applicant
- The Broadband Loan program is one option for funding the construction of a broadband network for the BAT. The program can fund 100% of the network, pre and post grant engineering efforts, customer premise equipment as well as construction vehicles and equipment and allow for a long term amortization period. The downside to this program is the difficulty for a start-up company and the additional cash support required depending on who is determined to be the actual applicant. The regulations above are also based on previous fiscal years and are subject to change. Future funding announcements are pending.

Telecommunications Infrastructure Loan Program

- Low interest loan program
- This program is an annual program. Applications can be submitted at any time and will be evaluated and reviewed by RUS on a first come first serve basis.
- Minimum loan amount is \$50,000
- Amortization Period is typically based on the composite economic life of the facilities plus three years. Generally principle payments begin two years after the date of the note.
- Interest rates are set based on the time of loan and are all fixed rates
 - o Cost of money loans based on the Current Cost of money to the Federal Government at the time of each draw and is based on the Federal Treasury Rate
 - o Hardship loans are provided at a fixed rate of 5%.
 - o Guaranteed Loans for applicants who request an RUS loan guarantee. The rate is agreed upon by the borrower and the lender.
- The applicant must demonstrate to RUS it has sufficient assets to support and secure the loan.
- RUS also requires the first lien on all applicant assets and revenue. The first lien can be shared with other lenders.
- General eligibility requirements are as follows:
 - o Applicant
 - Entities providing, or who may hereafter provide, telephone service in rural areas;
 - Public bodies providing telephone service in rural areas as of October 28, 1949; and
 - Cooperative, nonprofit, limited dividend or mutual associations.
 - Must have sufficient authority to carry out the purposes of the RE Act; and
 - Must be incorporated or a limited liability company.

- The applicant if in a state that regulates telecommunications services, must obtain a certificate of convenience and necessity from the state (as part of RUS' non-duplication policy)

- o Purposes

- Improvements
- Expansions
- Construction
- Acquisitions (in certain cases)
- Refinancing (in certain cases)
- Pre and post-loan engineering

- Ineligible purposes

- o Duplication of Telecommunications Services
- o Video equipment and services
- o Used or refurbished equipment

- SUTA provisions would apply with the opportunity to serve tribal lands.

- The Infrastructure loan program is the most common funding source for rural Incumbent Local Exchange Carriers. As with all RUS funding programs, this provides for a defense mechanism in that RUS will not loan to more than one borrower in a single service area. This program will fund 100% of the network and unlike the Broadband Loan program, no additional credit support would be required. However, the applicant is required to possess a Certificate of Convenience and Necessity from the State to serve the proposed funded service areas. It would be a difficult task for the Okanogan/Colville BAT to acquire the Incumbent Local Exchange Carrier (ILEC) status and become the regulated service provider but this may be an opportunity for the Colville Tribes territory. ACRS assisted more than one tribal nation with acquiring this status and taken over as the regulated ILEC telephone provider and acquiring and upgrading the existing facilities from the existing ILEC.

Community Connect Grant Program

- Competitive grant program design for low income, low populated areas void of any existing broadband service. The Community Connect Grant program will fund a single Proposed Funding Service Area (PFSA) per application. The PFSA must be a contiguous area that may encompass several communities.
- This program is an annual program. Applications are only accepted once a year with a specific deadline typically 60 days after the Notice of Funds Availability. Fiscal year 2021 was just announced with applications due December 23, 2021.
- The annual fiscal year budget in most recent years has been around \$25 million with the average size application around \$750,000. Applications are limited to \$3,000,000 and one award per applicant per fiscal year.
- Matching requirements are a minimum of 15% of the total budget. The match must be in cash.
- Scoring is based on a total of 100 possible points. The scoring criteria are based on:
 - o Challenges within a PFSA, including economic, educational, health and public safety issues, (50 points)
 - o Local participation of the proposed service area residents and businesses, (40 points)
 - o Management experience (10 points)
 - o Other considerations in making a decision include, but are not limited to, persistent poverty, out-migration, rurality of the PFSA, speeds offered, and a high rate of disability among the residents.
- General eligibility requirements are as follows:
 - o Applicant
 - Must be a legally organized incorporated organization, Indian Tribe or Tribal organization, state or local unit of the government, cooperative, private organization or a limited liability company.
 - The applicant must have the legal authority to own and operate a broadband system.
 - The applicant may NOT be an individual or partnership.
 - The applicant must operate a community center for residents' access to broadband for a period of 2 years.
 - o Purposes

- The grant requires free broadband service to all “Critical Community Facilities” such as police, fire, schools, hospitals, etc. for at least two years.
 - o Existing broadband under this program is defined as 10Mbps down/1Mbps up with the minimum grant speed by the recipient being 25/3 Mbps. One change to this year’s program is the exclusion of mobile/cellular service as existing service.
- Ineligible purposes
 - o Duplication of existing broadband service
 - o Facilities to provide local exchange telecommunications services
 - o Pre-grant and application preparation costs
- The Community Connect Grant Program is for a specific target area. The program will only fund one PFSA per application and to be successful, the application must show economic, educational, health and public safety needs. The other major hurdle is the absence of any type of existing broadband service. This is an excellent program but the challenge is locating eligible service areas.

Broadband ReConnect Program

- The ReConnect program is a competitive loan and grant program that provides funds for the cost of construction, improvement, or acquisition of facilities and equipment to provide broadband service in eligible rural areas.
- Loan or grant, or a combination loan/grant application are accepted during the window of opportunity. The 2020 window has closed, and there is not yet an announcement for the next funding window.
- Funding Limits
 - **100 Percent Grant.**
Up to \$200,000,000 is expected for grants. The maximum amount that can be requested in an application is \$25,000,000.
 - **50 Percent Loan / 50 Percent Grant.**
Up to \$200,000,000 is expected for loan/grant combinations. The maximum amount that can be requested in an application is \$25,000,000 for the loan and \$25,000,000 for the grant. Loan and grant amounts will always be equal.
 - **100 Percent Loan.**
Up to \$200,000,000 is expected for loans. The maximum amount that can be requested in an application is \$50,000,000.
- General Eligibility Requirements:
 - Cooperatives, non-profits, or mutual associations
 - For-profit corporations or limited liability companies
 - States, local governments, or any agency, subdivision, instrumentality, or political subdivision thereof
 - A territory or possession of the United States
 - An Indian tribe (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450b)).
- Eligible Funding Purposes:
 - To fund the construction or improvement of buildings, land, and other facilities that are required to provide broadband service.
 - To fund reasonable pre-application expenses.

- o To fund the acquisition and improvement of an existing system that is currently providing insufficient broadband service (100 percent loan request only)
- o To fund terrestrial-based facilities that support the provision of satellite broadband service.

Distance Learning Telemedicine (DLT) Grant Program

- Competitive grant program for the specific purpose of funding equipment for telemedicine and distance learning networks. Loan and combination loan/grants have also been available in previous years. However, the availability of grant vs. loan dollars has varied over the years. In recent years only the grant program is available.
- This grant program is an annual program. Applications are only accepted once a year with a specific deadline typically 60 days after the Notice of Funds Availability. Announcement of the program is typically sometime in the 1st or 2nd quarter but this also varies from year to year. The loan programs and combination loan/grants are accepted year round.
- The budget varies from year to year. Grant applications can range from \$50,000 to \$500,000.
- Matching requirements are a minimum of 15% of the total budget. Matching can be any eligible grant purpose and met through cash or in-kind support.
- With the DLT program, the higher the matching, the higher the score.
- General eligibility requirements are as follows:
 - o Applicant
 - Must be a legally organized incorporated organization, Indian Tribe or Tribal organization, state or local unit of the government, cooperative, private organization or a limited liability company.
 - The applicant must have the legal authority to own and operate a broadband system.
 - The applicant may NOT be an individual or partnership.
 - o Purposes
 - **Purposes Eligible for 100% Grant**
 - Acquisition of eligible capital assets:
 - o Interactive video equipment
 - o Audio and video equipment
 - o Terminal equipment
 - o Data terminal equipment
 - o Inside wiring
 - o Computer hardware and software
 - o Computer network components
 - o Other facilities that further DLT services

- Acquisition of instructional programming that is a capital asset
 - Acquisition of technical assistance & instruction for using eligible equipment
 - 10% of the grant amount may be used for the construction of the broadband infrastructure.
- Ineligible purposes
 - o Operating expenses for the grant program.
 - o The grant program will not fund the bandwidth or telecommunications services for the delivery of the distance learning and telemedicine content.
 - o Pre-grant and application preparation costs
- The DLT program is ideal for funding equipment required for schools and hospitals or medical clinics. The program is limited on what it will fund but for established facilities in need of these types of services or equipment for these services, this program can be an excellent solution.

Program:**Other USDA Programs****SUTA – substantially Underserved Trust Areas**

- The SUTA program is not a standalone program but more of a proposed rule within the USDA Rural Development that could affect the qualification and scoring of the programs above and starting with the 2021 fiscal year, this includes the Community Connect program. The ruling is focused on applications proposing to serve Trust lands.
- Examples of some impacts on the existing programs are potentially waiving the non-duplication rule of the Rural Utilities Service and eliminating or reducing the matching and cash support requirements.
- Applications filed under SUTA guidelines will also be giving first priority over other applications during the review process.

Community Facilities Loan & Grant

- This is another program under the USDA Rural Development for the funding of constructing anchor institutions.
- The program is for non-profit organizations, municipalities and tribal governments.
- The program will also pay for some of the broadband connections and some public safety related equipment.
- Scoring for grants are partially based on low income and rural communities.

Funding Agency:

Department of the Interior - Bureau of Indian Affairs

Programs:**BIA Loan Guarantee Fund**

- Bureau of Indian Affairs (BIA) provides guaranteed/insured loans to Federally Recognized Indian Tribal Governments, Native American Organizations, and individual American Indians in obtaining financing from private sources to promote business development initiatives on or near Federally Recognized Indian Reservations.
- The financial assistance must be used on or near an Indian Reservation.
- This program has been used in the past in conjunction with obtaining a long term Infrastructure loan from the Rural Utilities Service.
- Economic enterprises must demonstrate a reasonable prospect for repayment, must be organized for profit, and be at least 51% Indian owned and actively managed.
- Project must provide economic development to a federally recognized Indian reservation.
- Maximum percentage of guaranty is 90% of unpaid principal and interest. Borrower must have 20% equity in business being financed. Loan guarantees are limited 30-year terms.
- Range of Financial Assistance: For individuals and tribal enterprises, \$2,500 to \$500,000. For Federally Recognized Tribal Governments and Native American Organizations, \$10,000 to \$7 million.
- Applications for loan guarantees should be submitted by the lender at the local Bureau of Indian Affairs Agency or Tribal Loan Administration Office. Lenders should contact the local office for information on documentation needed to complete an application.
- Action approving or disapproving loans is taken at various levels pursuant to delegated authority. The Bureau of Indian Affairs Regional or Field Office or Tribal Loan Administration Office notifies applicants of action taken on applications within 15 to 30 days.

Miscellaneous BIA Grant Programs

There are multiple BIA grant programs available to Tribes, many of which could potential be combined in an effort to fund portions of the proposed broadband network. Below is a brief summary of several of these programs which should be investigated further and pursued where possible upon implementation of the network.

Aid to Tribal Government (15.020) – This program is design to support general tribal government operations, maintain up to date tribal enrollment, tribal elections, etc.

Indian Law Enforcement (15.030) – This program provides funding opportunities to tribal governments to operate police department and detention facilities. The program covers the costs associated with salaries and related expenses of officers and dispatchers among other related positions.

Funding Agency:

Federal Communications Commission (FCC)

Programs:

The Federal Communications Commission (FCC), as directed by Congress and with the help of the Universal Service Administrative Company (USAC), administers the federal Universal Service Fund (USF).

The federal USF pays for four programs. They are:

- **Lifeline/Link-Up.** This program provides discounts on monthly service and initial telephone installation or activation fees for primary residences to income-eligible consumers.
- **High-Cost.** This program ensures that consumers in all regions of the nation have access to telecommunications services at rates that are affordable and reasonably comparable to those in urban areas.
- **Schools and Libraries.** This program makes discounts available to eligible schools and libraries for eligible telecommunications services, Internet access and internal connections so that schools and libraries may have access to affordable telecommunications and information services.
- **Rural Health Care.** This program helps link health care providers located in rural areas to urban medical centers so that patients living in rural America will have access to the same advanced diagnostic and other medical services that are enjoyed in urban communities.

The FCC recently voted unanimously to reform the USF fund. The fund recently provided for the Connect America Fund (CAF Auction) which subsidized carriers for the deployment of broadband services rather than the traditional USF fund focusing on traditional telephone service

As part of the USF reform to the Connect America Fund, the FCC conducted Rural Broadband Experiments in 2015 and more recently completed the CAF II auction.

The program essentially offers support to rural broadband service providers in price cap carrier areas such as Windstream and AT&T where broadband is not available and where the price cap carriers have declined the support to upgrade their rural networks. The funds were available through a reverse auction type arrangement and are structured by census blocks from a map generated largely on FCC 477 reporting. The federal support is for 10 years to help subsidize serving rural areas and is not intended to be grant money to construct the entire network. The support can in some areas however come to \$50 per household per month in additional revenues.

One requirement from the 2015 experimental round was acquiring eligible telecommunications carrier status. Under the experimental round, the ETC designation could be obtained subsequent to being awarded the funding.

Rural Digital Opportunity Fund (RDOF)

The Rural Digital Opportunity Fund is the FCC's next step in bridging the digital divide to efficiently fund the deployment of broadband networks in rural America and is essentially the next round of a revamped CAF auction. Through a two-phase reverse auction mechanism, the FCC will direct up to \$20.4 billion over ten years to finance up to gigabit speed broadband networks in unserved rural areas, connecting millions of American homes and businesses to digital opportunity.

The RDOF Phase I auction short forms application deadline has passed and the FCC, as of the time of this report, is currently working to approve all applicants for participation in the auction. The auction is scheduled to begin on October 29, 2020 and will target over six million homes and businesses in census blocks that are entirely unserved by voice and broadband with speeds of at least 25/3 Mbps. Phase II will cover locations in census blocks that are partially served, as well as locations not funded in Phase I.

5G Fund for Rural America

The Federal Communications Commission has adopted rules creating the 5G Fund for Rural America, which will distribute up to \$9 billion over the next decade to bring 5G wireless broadband connectivity to rural America. 5G represents the latest advance in mobile wireless technology, promising increased speeds, reduced latency, and better security than 4G LTE networks. The 5G Fund will use multi-round reverse auctions in two phases to target support from the Commission's Universal Service Fund to eligible areas based upon the improved mobile broadband coverage data gathered in the Commission's Digital Opportunity Data Collection proceeding. Establishing the 5G Fund further secures United States leadership in 5G and will close the digital divide and bring economic opportunities to rural America.

Phase I of the 5G Fund will target up to \$8 billion of support nationwide to areas lacking unsubsidized 4G LTE or 5G mobile broadband, with \$680 million specifically set aside for bidders offering to serve Tribal lands. To determine eligible areas, the auction will use granular, precise mobile broadband coverage data developed in the Digital Opportunity Data Collection proceeding, allowing the Commission to more efficiently target funding to areas of the country where support is most needed, while ensuring support is spent as efficiently as possible. Phase II will provide at least an additional \$1 billion, along with any unawarded funds from Phase I, to specifically target the deployment of technologically innovative 5G networks that facilitate precision agriculture.

STATE FUNDING OPPORTUNITIES:

Washington State Dept. of Commerce

CERB Rural Broadband Program

CERB provides low-interest loan/grant packages to local governments and federally-recognized Indian tribes, financing the cost to build infrastructure to provide high-speed, open-access broadband service, to rural underserved communities, for the purpose of community economic development. CERB offers loans at \$2 million maximum per project. Grants are available up to 50% of the total award, determined by the underwriting process and debt service coverage ratio (DSCR). Applicants must provide a cash match of 25% of the total project cost and demonstrate feasibility with a supporting study. Interest rates vary from 1 to 3%, and the term is up to 20 years.

Eligible Activities

Eligible projects are those that encourage, foster, develop, and improve broadband within the state in order to:

- Drive job creation, promote innovation, and expand markets for local businesses; or
- Serve the ongoing and growing needs of local education systems, health care systems, public safety systems, industries and businesses, governmental operations, and citizens; and
- Improve accessibility for underserved communities and populations.

Ineligible Activities

CERB may not finance projects which:

- Result in retail development
- Facilitate gambling
- Displace jobs from one part of the state to another
- Are outside the applicant's jurisdiction
- Are for equipment which would enable a public entity to provide retail telecommunications services or services that the entity is not authorized by statute to provide.
- Are for the deployment of publicly-owned telecommunication network infrastructure ("backbone") solely for the sake of creating competitive, publicly-owned telecommunication network infrastructure.

<https://www.commerce.wa.gov/building-infrastructure/community-economic-revitalization-board/rural-broadband/>

Washington State Public Works Board

The Washington State Public Works Board has funds available for low-interest loans and grants to bring broadband to unserved Washington communities for broadband infrastructure construction projects.

Cities, towns, counties, public port districts, special purpose districts, quasi-municipal corporations, tribes, nonprofit organizations, cooperative associations, limited liability corporations organized for the purpose of expanding broadband access, and incorporated businesses or partnerships are eligible to apply.

State law (RCW 43.155.160 (5) (o)) requires applicants to contact local Internet service providers (ISPs) near the proposed project area at least six weeks prior to submitting an application for funding. Applicants must request the ISP's plan to upgrade broadband service in the project area to speeds that meet or exceed the state's definition of broadband service, within the time frame of the proposed project. Applicants must submit documentation of this interaction with their application.

<https://www.commerce.wa.gov/building-infrastructure/pwb-broadband/>

OTHER FEDERAL OPPORTUNITIES:

Dept. of Homeland Security

Tribal Homeland Security Grant Program (THSGP)

THSGP provides funding directly to eligible tribes to strengthen their capacities to prevent, prepare for, protect against, and respond to potential terrorist attacks. There are three areas that are of the most concern: enhancing cybersecurity, enhancing the protection of soft targets/crowded places and addressing emerging threats such as transnational criminal organizations, weapons of mass destruction and unmanned aerial systems.

There are several enduring security needs that are part of a comprehensive approach to securing communities, and are labeled as priorities by this funding program:

1. Effective planning
2. Training and awareness campaigns
3. Equipment and capital projects
4. Exercises

Addressing any or all of these increases an applicant's chance of securing a grant under this funding program.

<https://www.fema.gov/media-collection/tribal-homeland-security-grant>

EDA Public Works

Economic Adjustment Assistance Programs including CARES Act Funding

Under this NOFO, EDA solicits applications from applicants in order to provide investments that support construction, non-construction, planning, technical assistance, and revolving loan fund projects under EDA's Public Works program and EAA program (which includes Assistance to Coal Communities and Nuclear Closure Communities). Grants and cooperative agreements made under these programs are designed to leverage existing regional assets and support the implementation of economic development strategies that advance new ideas and creative approaches to advance economic prosperity in distressed communities, including those negatively impacted by changes to the coal economy and nuclear power plant closures.

There are no submission deadlines under this opportunity. Applications will be accepted on an ongoing basis until the publication of a new PWEAA NOFO.

Eligible Applicants

County governments

Nonprofits that do not have a 501(c)(3) status with the IRS, other than institutions of higher education

Special district governments
Native American tribal governments (Federally recognized)
Public and State controlled institutions of higher education
Nonprofits having a 501(c)(3) status with the IRS, other than institutions of higher education
City or township governments
State governments
Private institutions of higher education

Award Ceiling: \$30,000,000

Award Floor: \$100,000

<https://www.grants.gov/web/grants/view-opportunity.html?oppld=321695>

Partnerships & Private Investors

Another option is to partner with either private investors or with existing service providers. The advantage of partnering with an existing provider can be numerous as the overhead, expertise and many other challenges can be avoided while still benefiting from the branding of the product and sharing in the revenues and profits.

In this case, the Nespelem Valley Electric Cooperative serving the Colville tribes territories has already expressed an interest in being a partner in the deployment of broadband services. One option is, as an existing RUS Borrower under the Electric program, to be the primary borrower for a broadband loan. Other option is a joint venture where the electric cooperative offers free pole attachments in exchange for either dark fiber, broadband and/or a portion of the revenues.

Service Area Priorities

**Okanogan-Colville Broadband
Service Area Prioritization**

Service Area	Existing Service Providers	Prioritization Score			Total Composite Score
		Funding Opportunities/ Lack of Service	Subscribers/ Benefits	Cost/Required Investment	
Aeneas	1	2	10	1	13
Belvedere-Rebecca/McGinnis Lake	0	10	7	9	26
Brewster	2	2	8	5	15
Conconully	1	2	1	5	8
Coulee Dam	2	2	9	7	18
Disautel	1	5	7	7	19
East Omak	3	2	7	5	14
Elmer City	2	2	7	7	16
Harmony Heights	3	2	3	6	11
Kartar	1	2	3	5	10
Knob Hill	2	2	8	3	13
Malott	3	2	6	6	14
Nespelem	0	10	9	6	25
Omak Flats/N Omak	2	2	8	3	13
Oroville	3	2	1	2	5
Pateros	2	2	7	6	15
S. Pine Creek Rd.	2	2	3	3	8
Salmon Creek Rd.	1	2	7	4	13

NOTES:

Scoring System 1-10, 10 being highest priority

Broadband Needs/Issues Identified

OKANOGAN COUNTY BROADBAND ISSUES/PROBLEMS/SOLUTIONS

Background on Existing Service

The Okanogan County PUD currently offers broadband to the communities from the Canadian border to Pateros and from Pateros to the Methow and from the Methow back central county. They also have service into Pine Creek, Poor Man Creek, Palmer Lake, and Loomis, all school districts and hospitals. Every mile and half they have fiber access node appearances up Highway 97 and over to the Methow. The PUD desires to extend fiber to Chesaw and Omak Mountain.

Ron Gadeberg stated that the PUD currently has about 450 direct fiber connections and 2,500 wireless connections. Tim Andrist with NCIData stated that they have 80 towers and get a couple of inquiries a week, but the cost is what currently prevents people from signing up.

Needs Identified in BAT Meetings

Below are a few highlights and comments from some of the BAT meetings.

David Grooms stated that fiber is critical to US Electro Dynamics. He also stated that they are not interested in 5G, but CBand and KA Band.

Scott Graham stated that the hospitals need more broadband to meet the needs of patients and also the requirement of the government. They are going to see more robotics and want to be able to access 5G.

Brett Reiley with Wenatchee Valley College stated that they need broadband for all students to access. Most students in Omak are highly grant dependent so most do not even have access to broadband at home.

How broadband might be used to improve emergency communication systems.

- Burn ban regulations
- Implantation through internet and social media
- Dependent on internet for government regulations, without it you are impaired

Okanogan PUD needs:

- Last mile opportunity grants
- Connection to home/business
- Redundancy/Resiliency's and bolstering within county middle mile projects

Local Business:

- Educational Services/Libraries: Internal is good, 33-50% of kids do not have access to internet
- There is a lot more we can do if we/students had access-livability
- Apprenticeship opportunities, building skills, the tools are there we just have to be able to have the bandwidth to access
- Technology-educational opportunities that will need to happen if people have it
- K-12 career development and geography is a big issue virtual reality could be used. Interactive websites
- Infrastructure-lay fiber (synergy with county and construction projects)
- Medical Services: Fiber run from Tonasket to Omak and importance of redundancy. Telemedicine and recruiting new doctors.

Tribal needs:

- They currently have limited broadband and maps, they want to get off of casinos network and get the Government Center on its own network.
- Crossing bridges are a challenge
- Challenges with the soil and ground while using the micro trencher.
- There is a gap between Paschal Sherman Indian School and Nespelem that is a 20 mile stretch that is without fiber on Disautel Pass.

City/County/Tribe:

- Public Safety-radio
- Data for GPS locations – large incidents have GPS requirements
- Vehicles
- Video from 911 network, fire service

Medical Services:

- 3 Rivers-bandwidth and redundancy, expand and offer telehealth with end user access
- Most patients have issues with accessing their records due to lack of wireless and broadband access
- Telemedicine. Employees who live far out cannot connect due to their lack of Internet capacity

Needs Identified in Service Provider Surveys

As part of our outreach and research of the existing services and network capabilities vs. the needs of the area, individual interviews were conducted with several of the existing service providers who utilize the PUD network. Below is a summary of some their comments with many of these being a common theme. The items below should provide value to the PUD and Colville Tribes and offer insight as to a direction and priority for network upgrades and expansions and other ways to improve the existing service.

- Gaps in the service areas
- County regulations too strict on towers and even for shorter towers and tower colocations and even colocations on grain elevators
- No ability to expand on the tribal areas due to tribal regulation 4-22 and the tribal fees related to towers and tower colocations
- Employment requirements and lease land are obstacles
- Foliage is an issue with the wireless technology
- In the wireless areas: biggest problem is the congestion of the wireless spectrum
- PUD only goes up to around 20 Mbps due to congestion
- Other competitors with their own network offer higher speeds and therefore it is hard to compete
- Would like to see more fiber to the existing towers
- Very limited last mile FTTH facilities
- Would be great if PUD extended their FTTH network
- High cost of bandwidth and data usage and can only offer 100 Mbps
- Cost is too high to extend fiber to a house off of the exiting mainline fiber and for the customer install
- Very little profit after paying the PUD fees

Needs Identified in Customer Surveys

A survey conducted via Survey Monkey elicited a number of responses regarding the biggest problems, needs, issues with broadband in the area. Respondents came from all over the area, and represent many industries. Over 60% checked "other" service provider, indicating that over 60% of the area residents do not have access to local service providers. When asked is your data service reliable, 40.3% said yes, the remainder (59.7%) said either no (37.31%) or had a negative response to their service reliability.

Most respondents (48.48%) were happy with the quality of customer service, 21% were neutral, and 30.31% responded negatively about the quality of customer service.

The survey offered an opportunity for respondents to comment about their current services, to share any issues they have or gaps they see in the current system/services and to state their personal goals for the planning study.

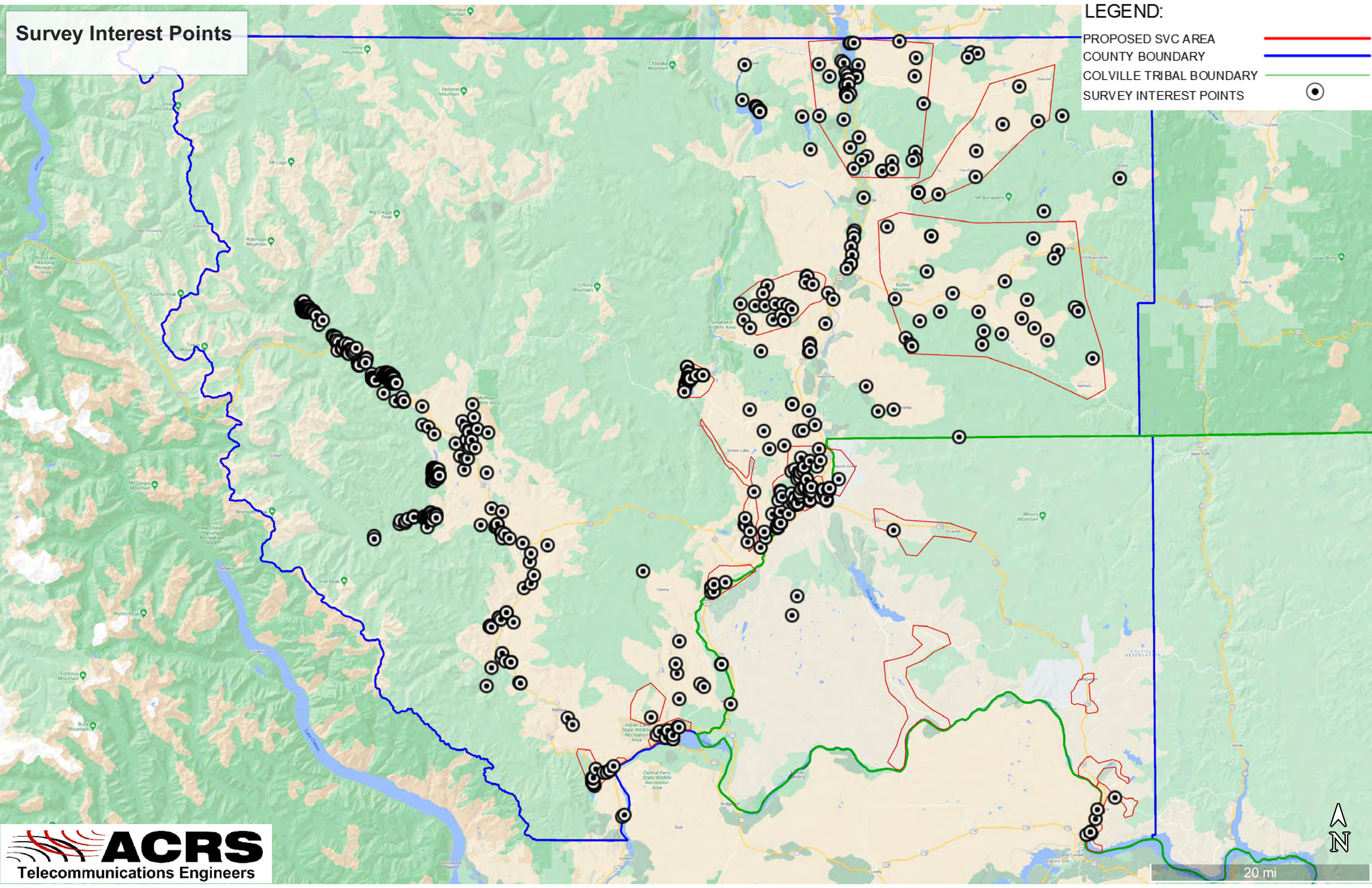
The survey responses and a map showing where the respondents are from are attached to this section as an exhibit.

Survey Responses

Survey Interest Points

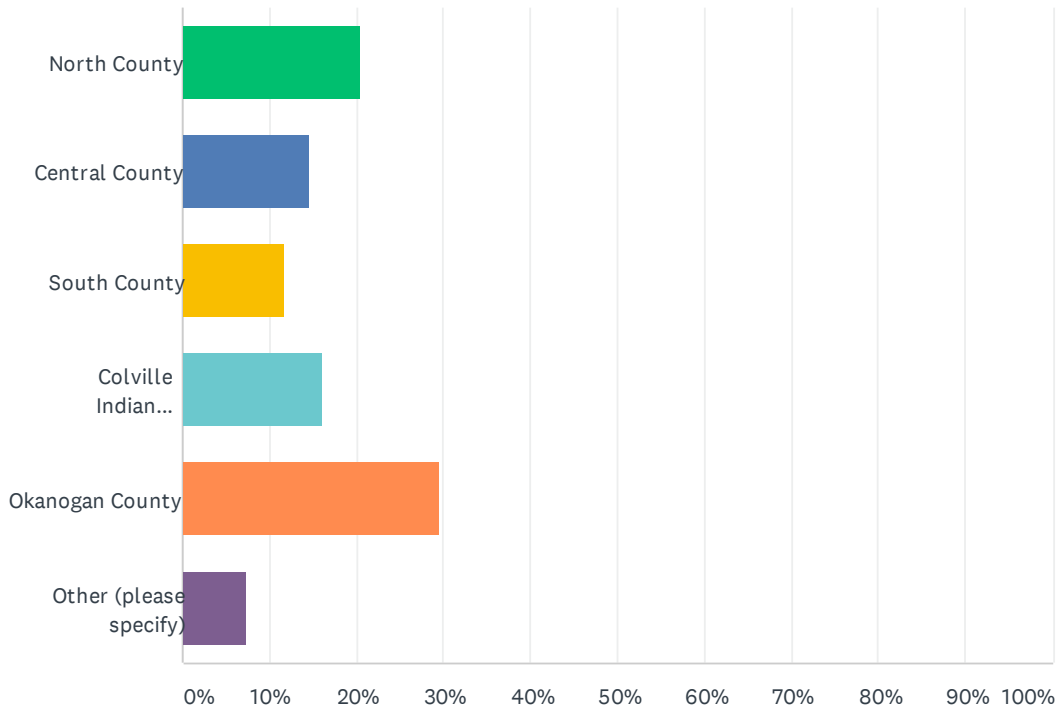
LEGEND:

- PROPOSED SVC AREA
- COUNTY BOUNDARY
- COLVILLE TRIBAL BOUNDARY
- SURVEY INTEREST POINTS



Q2 What is your service area?

Answered: 68 Skipped: 0

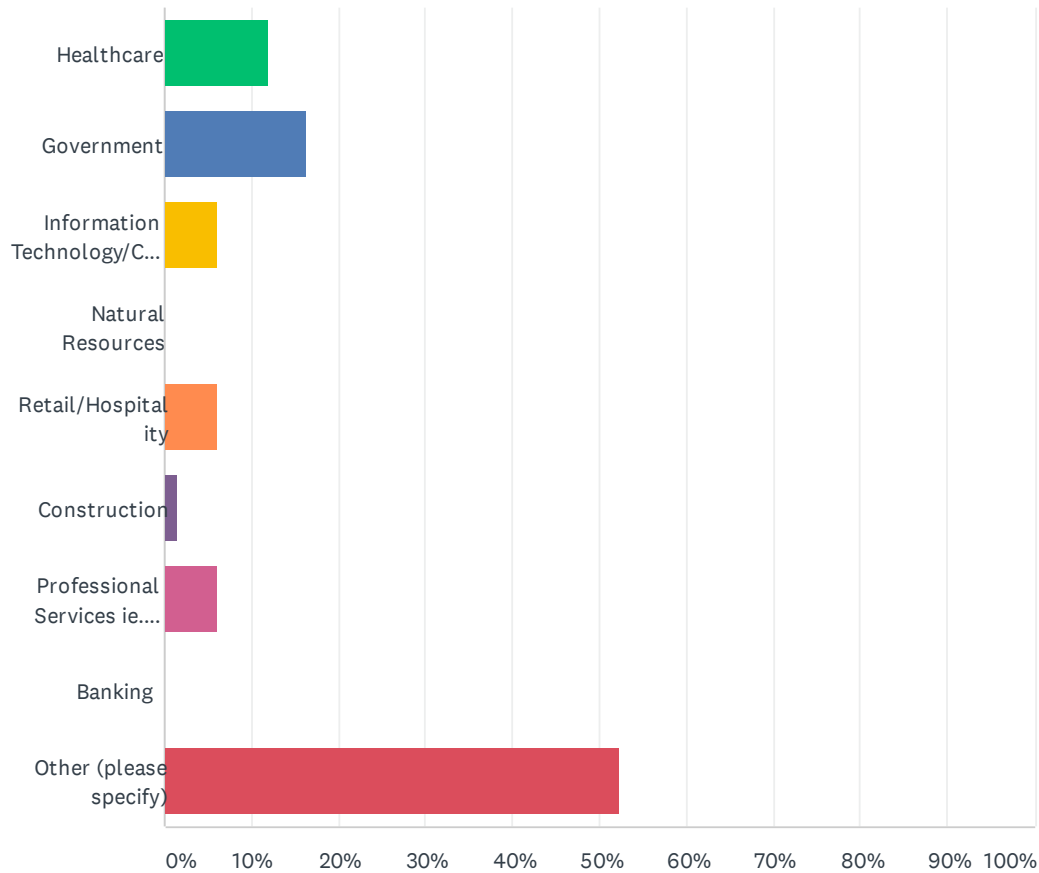


ANSWER CHOICES	RESPONSES	
North County	20.59%	14
Central County	14.71%	10
South County	11.76%	8
Colville Indian Reservation/Nesp/Elmer City/Coulee Dam	16.18%	11
Okanogan County	29.41%	20
Other (please specify)	7.35%	5
TOTAL		68

#	OTHER (PLEASE SPECIFY)	DATE
1	Riverside	5/14/2020 4:54 PM
2	molson-chesaw highlands	5/10/2020 7:35 PM
3	Grant co / Douglas co /ok	4/22/2020 11:24 AM
4	Winthrop-Twisp	4/7/2020 3:23 PM
5	Methow Valley	4/7/2020 2:39 PM

Q3 What industry do you represent?

Answered: 67 Skipped: 1

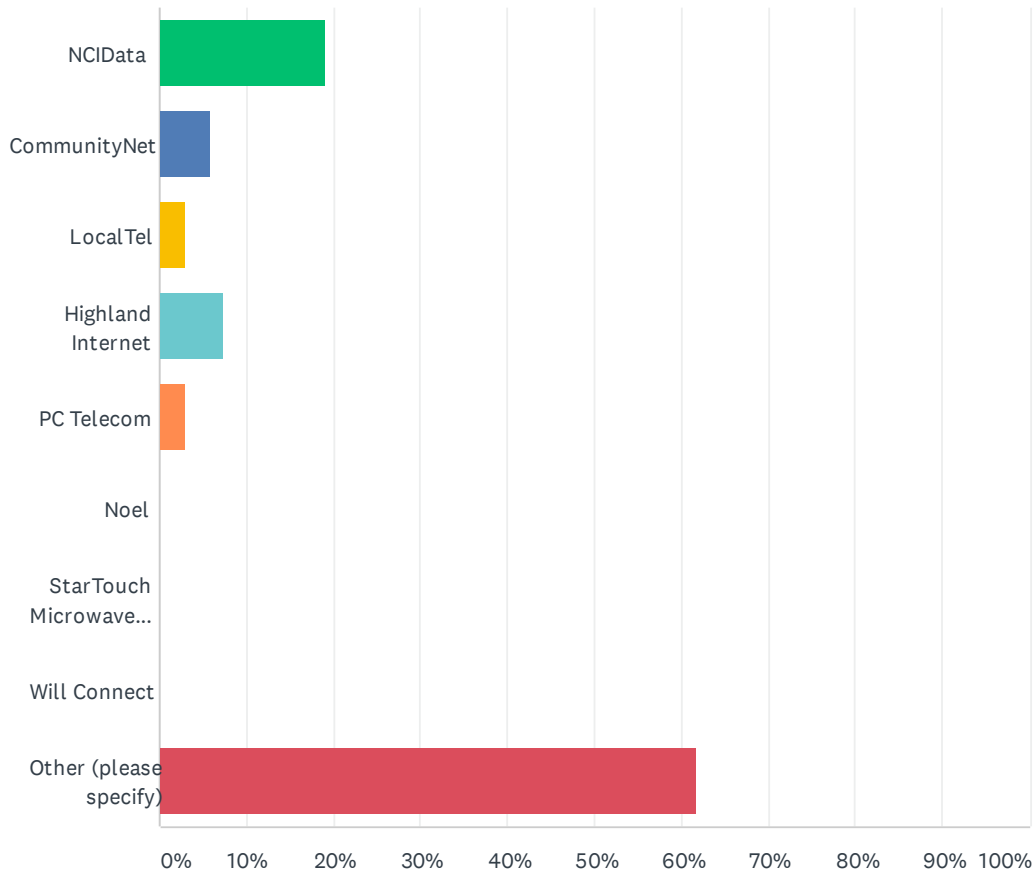


ANSWER CHOICES	RESPONSES	
Healthcare	11.94%	8
Government	16.42%	11
Information Technology/Communications	5.97%	4
Natural Resources	0.00%	0
Retail/Hospitality	5.97%	4
Construction	1.49%	1
Professional Services ie. Accountant, Lawyer, Insurance Agent, Financial Advisor	5.97%	4
Banking	0.00%	0
Other (please specify)	52.24%	35
TOTAL		67

#	OTHER (PLEASE SPECIFY)	DATE
1	Home	5/20/2020 6:32 PM
2	none	5/18/2020 6:04 AM
3	Family Farm	5/15/2020 3:55 AM
4	cultural resource management	5/14/2020 5:31 PM
5	Retired	5/12/2020 5:12 PM
6	just a disabled-retired person	5/10/2020 7:35 PM
7	Non-Profit Organization	5/2/2020 7:57 PM
8	Personal and Farm	4/28/2020 5:51 PM
9	retired Boeing Quality Inspector	4/27/2020 8:45 AM
10	Food services	4/26/2020 2:35 PM
11	Education	4/24/2020 9:01 AM
12	Tourism	4/24/2020 8:47 AM
13	Retired	4/24/2020 1:58 AM
14	Volunteer Firefighter	4/23/2020 3:59 PM
15	Retired	4/23/2020 9:41 AM
16	Cannabis	4/23/2020 7:32 AM
17	Fishing	4/22/2020 2:55 PM
18	real estate	4/22/2020 12:02 PM
19	Museum	4/22/2020 11:24 AM
20	Education	4/21/2020 1:09 AM
21	Federal Vocational Rehabilitation Program	4/18/2020 8:20 PM
22	Agriculture	4/11/2020 12:16 PM
23	Agriculture	4/8/2020 6:07 AM
24	Retired	4/7/2020 3:48 PM
25	I work from home	4/7/2020 3:23 PM
26	Retired Construction	4/7/2020 2:39 PM
27	Church: Religious organization	4/7/2020 1:51 PM
28	None, retired Firefighter	4/6/2020 5:24 PM
29	Okanogan County Fire Dist 2	4/6/2020 1:08 PM
30	farming	4/6/2020 12:16 PM
31	Ranching	4/6/2020 11:41 AM
32	Ag	4/6/2020 11:30 AM
33	Education	4/6/2020 9:56 AM
34	K-12 Education	4/3/2020 2:59 PM
35	non-profit community resource center	4/2/2020 2:19 PM

Q4 Who is your existing Internet Provider at home?

Answered: 68 Skipped: 0



ANSWER CHOICES	RESPONSES	
NCIData	19.12%	13
CommunityNet	5.88%	4
LocalTel	2.94%	2
Highland Internet	7.35%	5
PC Telecom	2.94%	2
Noel	0.00%	0
StarTouch Microwave Communication	0.00%	0
Will Connect	0.00%	0
Other (please specify)	61.76%	42
TOTAL		68

#	OTHER (PLEASE SPECIFY)	DATE
1	Using Cellular Data (Verizon)	5/20/2020 6:32 PM
2	hughes net	5/19/2020 8:24 AM
3	Charter	5/18/2020 6:04 AM
4	hughes net	5/14/2020 5:31 PM
5	cellular	5/14/2020 4:58 PM
6	Charter Spectrum	5/14/2020 4:57 PM
7	CenturyLink	5/12/2020 5:12 PM
8	century link	5/11/2020 2:28 PM
9	Viasat (formerly Exede and WildBlue) satellite	5/10/2020 7:35 PM
10	HughesNet	5/8/2020 10:26 AM
11	HughesNet	5/2/2020 7:57 PM
12	CenturyLink	4/28/2020 7:19 PM
13	spectrum	4/28/2020 12:57 PM
14	Centurylink	4/24/2020 9:01 AM
15	CenturyLink	4/24/2020 8:53 AM
16	Frontier	4/24/2020 8:47 AM
17	None	4/24/2020 8:04 AM
18	Verizon	4/24/2020 7:44 AM
19	HughesNet	4/23/2020 3:48 PM
20	Skyline Telecom	4/23/2020 9:41 AM
21	Century Link	4/23/2020 8:28 AM
22	Hughes.net	4/22/2020 7:30 PM
23	Frontier	4/22/2020 2:55 PM
24	Frontier Communications	4/22/2020 1:23 PM
25	verizon	4/22/2020 12:19 PM
26	Frontier	4/22/2020 11:56 AM
27	Verizon but am moving to NCIData	4/22/2020 11:55 AM
28	Ifiber	4/22/2020 11:24 AM
29	Excede Wildblie	4/21/2020 1:09 AM
30	Hughesnet	4/18/2020 8:20 PM
31	Hughes Net	4/11/2020 12:16 PM
32	Century Link	4/7/2020 3:23 PM
33	Methownet	4/7/2020 2:39 PM
34	Methownet	4/7/2020 1:53 PM
35	Methownet	4/7/2020 1:51 PM
36	Hughes Net - NO cell service where I live (near Molson)	4/6/2020 5:24 PM
37	Verizon Jetpack	4/6/2020 1:08 PM

38	HughesNet	4/6/2020 12:16 PM
39	None	4/6/2020 11:30 AM
40	Hughes Net	4/3/2020 8:07 AM
41	Spectrum now, was NCIData.	4/2/2020 3:09 PM
42	none	4/2/2020 2:12 PM

Q5 What are your existing Service Plan & Speeds at home:

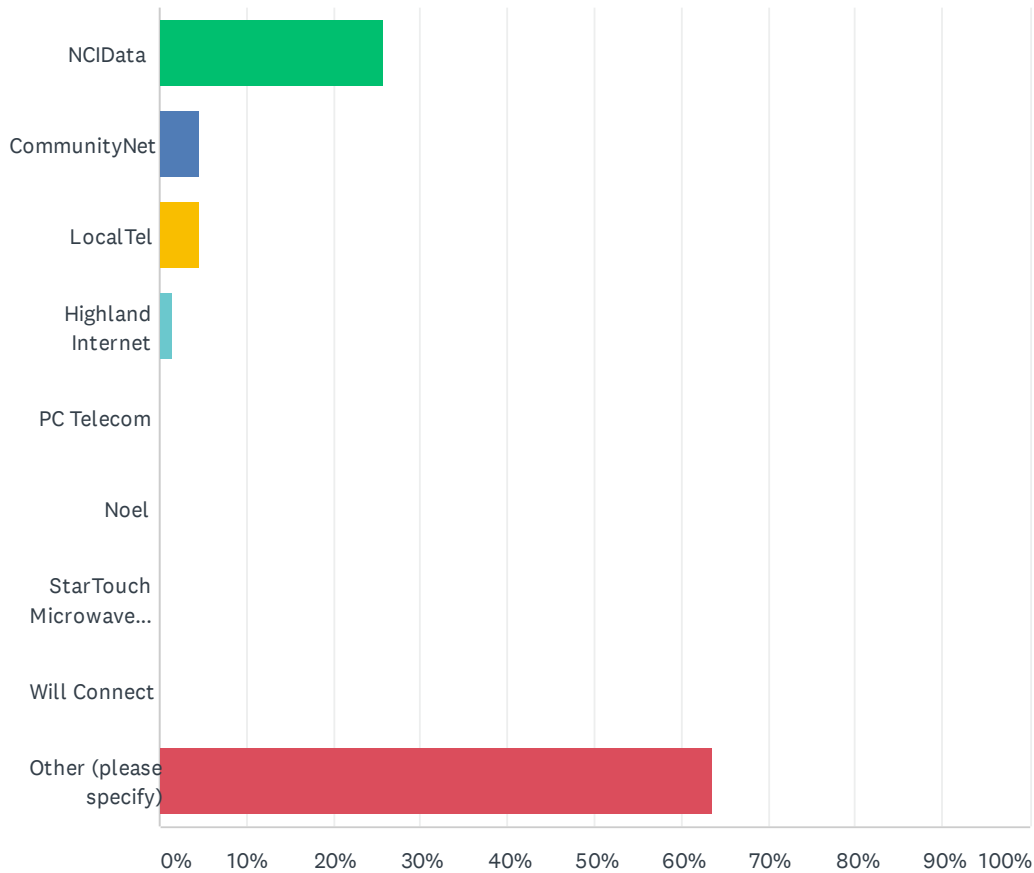
Answered: 68 Skipped: 0

#	RESPONSES	DATE
1	ZERO	5/20/2020 6:32 PM
2	1.28 down 012 up	5/19/2020 8:24 AM
3	100 meg 69.99 per month	5/18/2020 6:04 AM
4	Varies	5/15/2020 3:55 AM
5	10 Mbps download 2 Mbps upload	5/14/2020 6:01 PM
6	20 gb a month, not sure of speed (it is slow)	5/14/2020 5:31 PM
7	less than 1mb	5/14/2020 4:58 PM
8	\$45/mo, 100mbs	5/14/2020 4:57 PM
9	20mbs (advertised) usually very slow	5/14/2020 4:54 PM
10	20 mps	5/14/2020 3:36 PM
11	unknown	5/12/2020 5:12 PM
12	idk	5/11/2020 2:28 PM
13	Was contracted at 5-12 Mbps download speed, but often runs at just 800 Kbps - 4 Mbps. Only 10gig of data per month for \$60	5/10/2020 7:35 PM
14	25 download less than 5 upload	5/8/2020 10:26 AM
15	What it is rated at and what it actually is are quite different	5/2/2020 7:57 PM
16	Century Link Speeds up to 3 mbps ~\$65.00 per month I think I need to find a new provider!!	4/28/2020 7:19 PM
17	4-5 Mps	4/28/2020 5:51 PM
18	400mbps down 100mbps up	4/28/2020 12:57 PM
19	Up to 5 but rarely over 2 or 2.5	4/27/2020 8:45 AM
20	7mb	4/26/2020 2:35 PM
21	slow	4/24/2020 9:01 AM
22	10	4/24/2020 8:53 AM
23	Residential - dsl 6 mg ?	4/24/2020 8:47 AM
24	None	4/24/2020 8:04 AM
25	I have to run off my cell phone service... I was with HughesNet but there service is to slow	4/24/2020 7:44 AM
26	5MB	4/24/2020 7:12 AM
27	Ask them.	4/24/2020 7:06 AM
28	Don't know	4/24/2020 1:58 AM
29	Unlimited	4/23/2020 3:59 PM
30	\$100 plus per month Slow up and down	4/23/2020 3:48 PM
31	15Mbps downtown, 3 Mbps upload	4/23/2020 9:41 AM
32	12 Mbps at \$45/month. Quality varies	4/23/2020 8:28 AM
33	Spectrum	4/23/2020 7:32 AM
34	I don't know. Whatever they let me have	4/23/2020 5:57 AM
35	\$70 month unlimited Speeds terrible Service unreliable	4/22/2020 7:30 PM
36	100/100 unlimited fiber.	4/22/2020 4:51 PM
37	slow	4/22/2020 2:55 PM

38	Fast	4/22/2020 1:23 PM
39	terrible	4/22/2020 12:19 PM
40	? slow	4/22/2020 12:02 PM
41	6 Mbps, we get less on a regular basis	4/22/2020 11:56 AM
42	Will be 10 megs but is currently apx 5	4/22/2020 11:55 AM
43	100mb	4/22/2020 11:26 AM
44	Na	4/22/2020 11:24 AM
45	7-10 Mbps? Wireless	4/22/2020 10:42 AM
46	50gb	4/21/2020 1:09 AM
47	Second package / Speed is slow	4/18/2020 8:20 PM
48	14 gig, up to 3meg. in reality only 250kb	4/11/2020 12:16 PM
49	Wireless 7 mps	4/8/2020 6:07 AM
50	\$48.00 a month and good speed	4/7/2020 3:48 PM
51	0.64mbps downloads and upload is 0.18 mbps. Not what we are paying for.	4/7/2020 3:23 PM
52	?	4/7/2020 2:39 PM
53	Terrible vs. Slow as hell	4/7/2020 1:53 PM
54	Wireless 7MB	4/7/2020 1:51 PM
55	Pay monthly for Hughes Net and have somewhat limited bandwidth. Not sure of the speed. Better than dial-up.	4/6/2020 5:24 PM
56	5/1.5 mbps	4/6/2020 3:31 PM
57	Not sure	4/6/2020 1:08 PM
58	30GB service. Speeds normally <20mbps	4/6/2020 12:16 PM
59	40	4/6/2020 11:41 AM
60	Na	4/6/2020 11:30 AM
61	I normally use a 3 speed WIFI for around \$130 every three months. Due to COVID-19, I had to upgrade to a 7 speed WIFI for an extra \$20 per month, in order to be able to participate in zooms and other web-based meetings/webinars.	4/6/2020 9:56 AM
62	Community Net's biggest residential plan	4/6/2020 7:56 AM
63	35 meg	4/3/2020 2:59 PM
64	30 GB, \$99.99, 25mbps	4/3/2020 8:07 AM
65	7/2	4/2/2020 3:09 PM
66	idk	4/2/2020 2:19 PM
67	don't have	4/2/2020 2:12 PM
68	7Mb download, 3upload.	4/2/2020 1:59 PM

Q6 Who is your existing Internet Provider at work?

Answered: 66 Skipped: 2



ANSWER CHOICES	RESPONSES	
NCIData	25.76%	17
CommunityNet	4.55%	3
LocalTel	4.55%	3
Highland Internet	1.52%	1
PC Telecom	0.00%	0
Noel	0.00%	0
StarTouch Microwave Communication	0.00%	0
Will Connect	0.00%	0
Other (please specify)	63.64%	42
TOTAL		66

#	OTHER (PLEASE SPECIFY)	DATE
1	Retired	5/20/2020 6:32 PM
2	Wash. state	5/19/2020 8:24 AM
3	charter	5/18/2020 6:04 AM
4	hughes net, i work from home	5/14/2020 5:31 PM
5	at&t	5/14/2020 4:58 PM
6	PUD Fiber	5/14/2020 4:57 PM
7	Spectrum	5/14/2020 4:54 PM
8	N/A - retired	5/12/2020 5:12 PM
9	frontier	5/11/2020 2:28 PM
10	do not work	5/10/2020 7:35 PM
11	HughesNet	5/8/2020 10:26 AM
12	HughesNet	5/2/2020 7:57 PM
13	Century Link	4/28/2020 7:19 PM
14	iFiber	4/28/2020 12:57 PM
15	Don't know	4/26/2020 2:35 PM
16	Centurylink	4/24/2020 9:01 AM
17	Centurylink	4/24/2020 8:53 AM
18	frontier	4/24/2020 8:47 AM
19	None	4/24/2020 8:04 AM
20	Colville Tribes	4/24/2020 7:44 AM
21	CCT IT	4/23/2020 3:48 PM
22	NA	4/23/2020 9:41 AM
23	GCI Corp	4/23/2020 8:28 AM
24	frontier	4/22/2020 12:02 PM
25	K-20 Educational Network	4/22/2020 11:55 AM
26	Ifiber	4/22/2020 11:24 AM
27	I don't know	4/21/2020 1:09 AM
28	Colville Tribe	4/18/2020 8:20 PM
29	Hughes Net	4/11/2020 12:16 PM
30	Retired	4/7/2020 3:48 PM
31	Na	4/7/2020 3:23 PM
32	N/A	4/7/2020 2:39 PM
33	Methownet	4/7/2020 1:53 PM
34	Methownet	4/7/2020 1:51 PM
35	Don't work.	4/6/2020 5:24 PM
36	Verizon	4/6/2020 1:08 PM
37	same	4/6/2020 12:16 PM

38	Retired	4/6/2020 11:30 AM
39	I don't know	4/6/2020 9:56 AM
40	Okanogan PUD	4/3/2020 2:59 PM
41	iFiber	4/3/2020 8:07 AM
42	GCI	4/2/2020 2:12 PM

Q7 What is your existing Service Plans & Speeds at home:

Answered: 62 Skipped: 6

#	RESPONSES	DATE
1	ZERO	5/20/2020 6:32 PM
2	100mb 69.99 per month	5/18/2020 6:04 AM
3	Varies	5/15/2020 3:55 AM
4	20 gb, i am not sure of the speed (it is slow)	5/14/2020 5:31 PM
5	less than 1mb	5/14/2020 4:58 PM
6	Fiber	5/14/2020 4:57 PM
7	20 mbs	5/14/2020 4:54 PM
8	Slow	5/14/2020 3:36 PM
9	unknown	5/12/2020 5:12 PM
10	idk	5/11/2020 2:28 PM
11	See answer 5!	5/10/2020 7:35 PM
12	same	5/8/2020 10:26 AM
13	Same as above, in addition the service is metered and costs are astronomical	5/2/2020 7:57 PM
14	Century Link Speeds up to 3 mbps ~\$65.00 per month	4/28/2020 7:19 PM
15	See question 5	4/28/2020 5:51 PM
16	400mbps down 100mbps up	4/28/2020 12:57 PM
17	Up to 5 but rarely see more than 2 or 2.5	4/27/2020 8:45 AM
18	7mb	4/26/2020 2:35 PM
19	slow	4/24/2020 9:01 AM
20	10	4/24/2020 8:53 AM
21	residential dsl 6mg	4/24/2020 8:47 AM
22	None	4/24/2020 8:04 AM
23	None... disconnected HughesNet as they were to slow	4/24/2020 7:44 AM
24	5 mb	4/24/2020 7:12 AM
25	Ask them.	4/24/2020 7:06 AM
26	Unsure	4/24/2020 1:58 AM
27	6.5	4/23/2020 3:59 PM
28	Slower than slow And lots of money per month	4/23/2020 3:48 PM
29	At work you mean? GCI Corp - 100 Mbps at \$1200/month LocalTel SkiFi - 300 Mbps at \$300/month	4/23/2020 8:28 AM
30	Spectrum	4/23/2020 7:32 AM
31	I have a home office. I don't know what we have	4/23/2020 5:57 AM
32	Hughes net Slow speeds Unreliable service	4/22/2020 7:30 PM
33	100/100 unlimited fiber.	4/22/2020 4:51 PM
34	Fast	4/22/2020 1:23 PM
35	slow	4/22/2020 12:02 PM
36	This should say "at work". 90+ Mbps	4/22/2020 11:56 AM
37	5 mps	4/22/2020 11:55 AM

38	100mb	4/22/2020 11:26 AM
39	Don't know	4/22/2020 11:24 AM
40	90+ Mbps? Fiber optic	4/22/2020 10:42 AM
41	I don't know	4/21/2020 1:09 AM
42	Hughesnet 10	4/18/2020 8:20 PM
43	Same as at work	4/11/2020 12:16 PM
44	Wireless 7 mps	4/8/2020 6:07 AM
45	\$48.00 and good	4/7/2020 3:48 PM
46	downloads 0.64mbps and upload is 0.18 mbps- not what we are paying for	4/7/2020 3:23 PM
47	?	4/7/2020 2:39 PM
48	2 gps	4/7/2020 1:53 PM
49	Wireless 5MB	4/7/2020 1:51 PM
50	See #5	4/6/2020 5:24 PM
51	5/1.5 mbps	4/6/2020 3:31 PM
52	Not sure	4/6/2020 1:08 PM
53	30GB service. Speeds normally <20MBPS.	4/6/2020 12:16 PM
54	40	4/6/2020 11:41 AM
55	NA	4/6/2020 11:30 AM
56	See answer to #5	4/6/2020 9:56 AM
57	At Work? We have fiber	4/6/2020 7:56 AM
58	Unknown	4/3/2020 2:59 PM
59	7down/2up	4/2/2020 3:09 PM
60	idk	4/2/2020 2:19 PM
61	none, no cell either	4/2/2020 2:12 PM
62	100Mb Down and upload for county campus	4/2/2020 1:59 PM

Q8 What is your primary use of Data services today?

Answered: 66 Skipped: 2

#	RESPONSES	DATE
1	News, Netflix, shopping	5/20/2020 6:32 PM
2	Video streaming	5/18/2020 6:04 AM
3	Communications, school, work	5/15/2020 3:55 AM
4	Entertainment and gaming	5/14/2020 6:01 PM
5	work	5/14/2020 5:31 PM
6	streaming, and web usage	5/14/2020 4:58 PM
7	Social media, content streaming	5/14/2020 4:57 PM
8	Internet and streaming	5/14/2020 4:54 PM
9	?	5/14/2020 3:36 PM
10	internet	5/12/2020 5:12 PM
11	work related	5/11/2020 2:28 PM
12	Checking email and online shopping-- that is all it can be for, any media or video conferencing would use up monthly data in a day	5/10/2020 7:35 PM
13	I work from home full time as a software engineer.	5/8/2020 10:26 AM
14	Accessing and reviewing documents and data. Communication with stakeholders and consultants. Keeping up to date, may involve training conferences or videos. Email, text, voice.	5/2/2020 7:57 PM
15	Home based virtual accounting business	4/28/2020 7:19 PM
16	Business, Finance, Medical, Entertainment, News	4/28/2020 5:51 PM
17	streaming video	4/28/2020 12:57 PM
18	facebook, email and some surfing	4/27/2020 8:45 AM
19	Entertainment	4/26/2020 2:35 PM
20	Business	4/24/2020 8:53 AM
21	computer tv streaming	4/24/2020 8:47 AM
22	Cell phone Cell data	4/24/2020 8:04 AM
23	Social media	4/24/2020 7:44 AM
24	streaming video, email	4/24/2020 7:12 AM
25	Work related always.	4/24/2020 7:06 AM
26	Internet	4/24/2020 1:58 AM
27	Phone and internet	4/23/2020 3:59 PM
28	Shopping Work Surfing the web	4/23/2020 3:48 PM
29	Internet, streaming	4/23/2020 9:41 AM
30	Work from home	4/23/2020 8:28 AM
31	Internet	4/23/2020 7:32 AM
32	Work research	4/23/2020 5:57 AM
33	News	4/22/2020 7:30 PM
34	Recently, telehealth video conferencing.	4/22/2020 4:51 PM
35	apps	4/22/2020 2:55 PM
36	Business	4/22/2020 1:23 PM

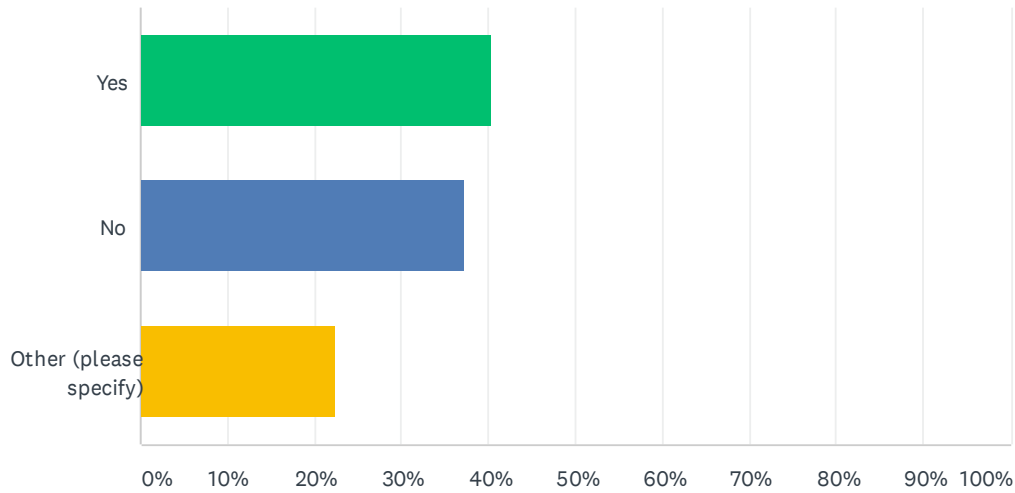
Okanogan County and CCT BAT Data Request Survey

SurveyMonkey

37	remote access to work servers, web based portals	4/22/2020 12:19 PM
38	internet	4/22/2020 12:02 PM
39	Work related at work. Kids, internet at home.	4/22/2020 11:56 AM
40	email, internet use, and streaming	4/22/2020 11:55 AM
41	Business	4/22/2020 11:26 AM
42	Home	4/22/2020 11:24 AM
43	Email, webinars, social media	4/22/2020 10:42 AM
44	Video and zoom conferencing and google suite for work	4/21/2020 1:09 AM
45	Work at home	4/18/2020 8:20 PM
46	Basic communication to run a business	4/11/2020 12:16 PM
47	Everything on the Internet.	4/8/2020 6:07 AM
48	Stay connected	4/7/2020 3:48 PM
49	work, tele conferencing, corporate portal access, streaming	4/7/2020 3:23 PM
50	Video on smart TV	4/7/2020 2:39 PM
51	Search engine / video streaming	4/7/2020 1:53 PM
52	Internet: livestream and conference audio/video calls	4/7/2020 1:51 PM
53	E-mail, web surfing, shopping	4/6/2020 5:24 PM
54	Cloud accounting, website access for sales, strategy, advertising	4/6/2020 3:31 PM
55	Business and contact	4/6/2020 1:08 PM
56	Internet	4/6/2020 12:16 PM
57	general office use	4/6/2020 11:41 AM
58	Tax prep & streaming	4/6/2020 11:30 AM
59	Due to COVID-19 and having to work from home, I currently need to be able to do everything at home that I once did at work. Prior to having to work from home, I would primarily use data to facebook, check emails and listen to Sirius XM music through my Alexa.	4/6/2020 9:56 AM
60	Home - TV & Data Work - Data, email, some video training and remote meetings	4/6/2020 7:56 AM
61	Business operations, K-12 instruction, internal agency communication.	4/3/2020 2:59 PM
62	Email, School, Social Media, Streaming	4/3/2020 8:07 AM
63	personnally, primary use is TV, Internet, and gaming.	4/2/2020 3:09 PM
64	internet information and Zoom meetings	4/2/2020 2:19 PM
65	work	4/2/2020 2:12 PM
66	Not sure what this means.	4/2/2020 1:59 PM

Q9 Is your data services reliable?

Answered: 67 Skipped: 1

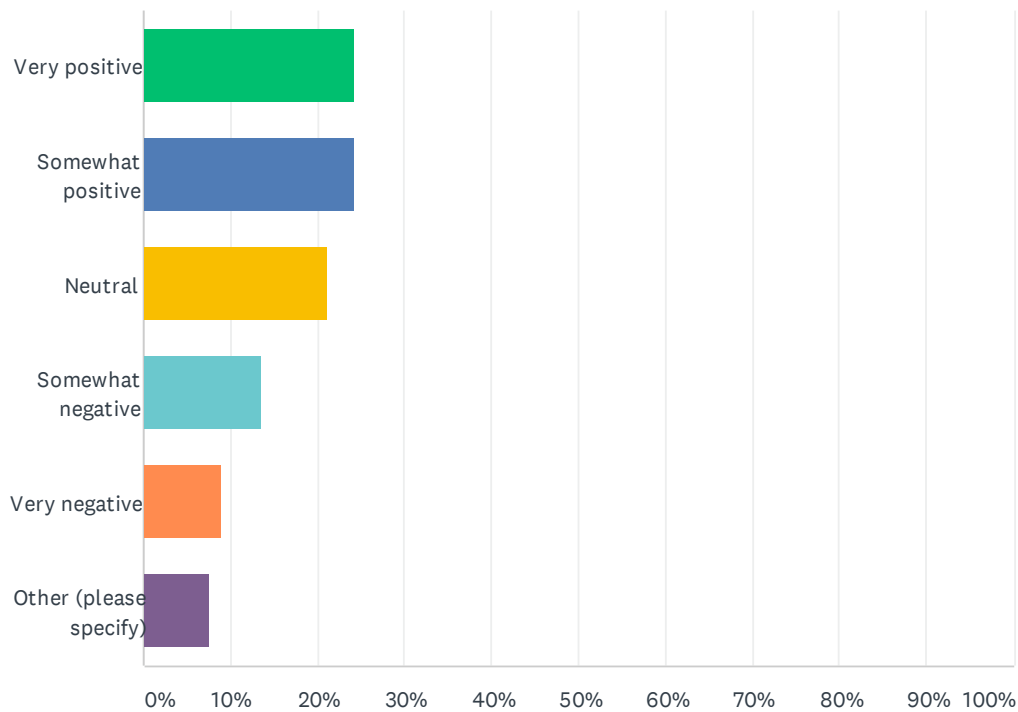


ANSWER CHOICES	RESPONSES	
Yes	40.30%	27
No	37.31%	25
Other (please specify)	22.39%	15
TOTAL		67

#	OTHER (PLEASE SPECIFY)	DATE
1	Marijuana farm are suck up most of the Data	5/14/2020 3:36 PM
2	sporadic - very slow speeds	5/12/2020 5:12 PM
3	It is so slow and so limited that we are unable to do many basic tasks	5/2/2020 7:57 PM
4	usually, but bogs down on ocassion	4/24/2020 7:12 AM
5	Slow but mostly there.	4/23/2020 5:57 AM
6	No, we have backup connections because of unreliability.	4/22/2020 4:51 PM
7	Yes, with fiber at work. No with service at home.	4/22/2020 11:56 AM
8	reliable but slow	4/11/2020 12:16 PM
9	Better than 95% uptime.	4/8/2020 6:07 AM
10	I have to rely on relay antennae on neighbors house.	4/7/2020 3:48 PM
11	Yes, until we exhaust our allotment of bandwidth.	4/6/2020 5:24 PM
12	Mostly ok Problems occasionally	4/6/2020 1:08 PM
13	None	4/6/2020 11:30 AM
14	Data use is capped within three days maximum with very slow speeds	4/3/2020 8:07 AM
15	NCI Data was not reliable. Spectrum appears to be more reliable but they are not wireless.	4/2/2020 3:09 PM

Q10 Overall, how would you rate the quality of the customer service of your provider?

Answered: 66 Skipped: 2



ANSWER CHOICES	RESPONSES	
Very positive	24.24%	16
Somewhat positive	24.24%	16
Neutral	21.21%	14
Somewhat negative	13.64%	9
Very negative	9.09%	6
Other (please specify)	7.58%	5
TOTAL		66

#	OTHER (PLEASE SPECIFY)	DATE
1	Customer service is fine, but the actual internet service is terrible. It is limited, we are currently on a plan that provide 30 gigabytes of daytime usage per month. I can't think of many people who could function with that limitation	5/2/2020 7:57 PM
2	None	4/24/2020 8:04 AM
3	No help only there for money	4/23/2020 3:48 PM
4	NA	4/6/2020 11:30 AM
5	I've only been with Spectrum about a month, too soon to say.	4/2/2020 3:09 PM

Q11 Please add any other comments that you may have about your current services.

Answered: 50 Skipped: 18

#	RESPONSES	DATE
1	they tend to go off and on randomly through out the day	5/18/2020 6:04 AM
2	Would like faster speed and more bandwidth, would really prefer fibre	5/15/2020 3:55 AM
3	i only utilize their service because i have no other choice	5/14/2020 5:31 PM
4	spotty at best	5/14/2020 4:58 PM
5	I'm lucky to live in town and get great, fast service.	5/14/2020 4:57 PM
6	I will be switching to SpaceX Starlink when it becomes available	5/14/2020 4:54 PM
7	Would like to see direct fiber to homes	5/14/2020 3:36 PM
8	higher speed internet services not available through CenturyLink at my residence	5/12/2020 5:12 PM
9	Satellite is the only option at my location. Would love to have another option.	5/8/2020 10:26 AM
10	We have only one choice, there are no options for us to get internet other than through satellite at this time. We investigated bring fiber to within a mile and half of our location and the vendors came back with a 60,000 price tag	5/2/2020 7:57 PM
11	After researching for your questions, I need to look into a different internet provider!	4/28/2020 7:19 PM
12	Would like more speed. The PUD put in fiber but stopped just beyond range of 4 homes. New equipment may help for existing wireless? The provider needs a good business reason, possible a government grant?	4/28/2020 5:51 PM
13	.	4/27/2020 8:45 AM
14	Sometimes good	4/26/2020 2:35 PM
15	Need faster service at seasonal pricing	4/24/2020 8:53 AM
16	We need High Speed Fiber Optic Internet Service in our Rural area !!	4/24/2020 8:47 AM
17	No good internet service in this area n we need it	4/24/2020 8:04 AM
18	The Colville Reservation needs better internet service... Currently people have to use there cell data or go through HughesNet which is expensive and very slow...	4/24/2020 7:44 AM
19	We tried to get PUD interested in our area in 2001. No way they said they were in the electric business, so we went with Swiftsteam. More and more people are coming and hooking up. The equipment suffered extreme weather... wind, hail, summer heat, snow. There are problems and it is expensive. But we have it in a rural location.	4/24/2020 7:06 AM
20	No other comments	4/24/2020 1:58 AM
21	If the tv is on streaming everything else in the house is lagging	4/23/2020 3:59 PM
22	Sad at best	4/23/2020 3:48 PM
23	I am very frustrated with NoaNet's regular outages (seem to have gotten better, but trust in their network is low). GCI Corp uses their fiber backbone.	4/23/2020 8:28 AM
24	N:a	4/23/2020 7:32 AM
25	Better than dialup. It's what there is.	4/23/2020 5:57 AM
26	I live in Wenatchee (Douglas County) and use LocalTel, my service is near perfect. In Okanogan, Family Health Centers has to have backup connections at each of 11 locations because the service isn't reliable.	4/22/2020 4:51 PM
27	I have a very high limit plan, but run out and I'm put on "slow" status by the third week of the month. I pay \$300 a month!!!	4/22/2020 12:19 PM
28	download speeds are more lower than upload speeds	4/22/2020 12:02 PM
29	It would be nice if fiber were at least reasonable to install at home. I'm within a couple blocks of a hub, and Okanogan PUD estimated \$10,000-\$15,000 to get fiber to my home. Fiber through	4/22/2020 11:56 AM

	Frontier runs underground within a few feet of my property line, but I'm told I cannot get fiber from Frontier that way.	
30	none	4/22/2020 11:26 AM
31	My service been great. Go 30 yr	4/22/2020 11:24 AM
32	I would prefer to have fiber at home but it is not available (unless I want to pay tens of thousands of dollars) to me even though I live in the City of Okanogan.	4/22/2020 10:42 AM
33	Wish could down load more data	4/18/2020 8:20 PM
34	It's not adequate	4/11/2020 12:16 PM
35	N.A.	4/8/2020 6:07 AM
36	We are not getting the speeds we are paying for. Our line has 36 households on it and is overloaded. New construction cannot even get phone service to an area where there is not cell phone service.	4/7/2020 3:23 PM
37	Only reliably erratic, on and off all day long!	4/7/2020 2:39 PM
38	The providers staff are great. But wireless service is sketchy here depending on weather, fires, and the number of people who need internet with only wireless available to some.	4/7/2020 1:51 PM
39	Wish there were more options.	4/6/2020 5:24 PM
40	Service is generally good, could be faster, but occasionally fails badly (perhaps once a month for several days). Seems to be worse on my Apple devices and on Safari.	4/6/2020 3:31 PM
41	Could be better	4/6/2020 1:08 PM
42	HughesNet limits download data. Speeds drop considerably during peak usage. Many times to KBPS!	4/6/2020 12:16 PM
43	Not affordable out here for below poverty line	4/6/2020 11:30 AM
44	My current WIFI at home is as reliable as it can be, with me refusing to spend any more money on it. The customer service from the guys at the shop is fantastic!	4/6/2020 9:56 AM
45	Service at work and home is generally reliable. However, it seems we have bad weeks where there is limited service.	4/6/2020 7:56 AM
46	For business services there are approximately 500 households without connectivity that places students in a position where they cannot access instruction from home.	4/3/2020 2:59 PM
47	current internet service is very expensive at home, with very slow download and very minimal use for the price	4/3/2020 8:07 AM
48	I had to change to Spectrum from NCI Data because of poor connections, and company's inconsistent upload and download speeds.	4/2/2020 3:09 PM
49	fiber-optic at work is flawless, wireless at home is variable, but usually quite good. All problems at home occur on the weekend, of course.	4/2/2020 2:19 PM
50	no cell phone towers nearby, no wireless service in the area, landline too far for DSL, 7 other households nearby are in the same situation, only satellite internet available	4/2/2020 2:12 PM

Q12 Please share any issues or gaps that you currently see in the Okanogan County Broadband system/services.

Answered: 54 Skipped: 14

#	RESPONSES	DATE
1	reservation has slow internet (Hughes net is bad and expensive)	5/19/2020 8:24 AM
2	We need fibre and more access	5/15/2020 3:55 AM
3	Wired internet is only available if you live very close to the main highway or critical infrastructure	5/14/2020 6:01 PM
4	not offered at my address	5/14/2020 4:58 PM
5	Population is too spread out to reliably cover everyone.	5/14/2020 4:57 PM
6	Good high speed internet needed	5/14/2020 4:54 PM
7	Too many marijuana farm and they suck up data speeds when they are down load their security videos to the state. All marijuana farm should be hooked up to fiber.	5/14/2020 3:36 PM
8	broadban services to residences not available in Nespelem	5/12/2020 5:12 PM
9	does not provide service in my area	5/8/2020 10:26 AM
10	I spent my career bringing the fiber optic network to our school district as the Tech Director for Tonasket School District. I'm very proud of that accomplishment but in general I see the rural areas of our county left behind.	5/2/2020 7:57 PM
11	I am big on redundant systems. I would like to see a local internet option that does not rely on cables of any kind - i.e., satellite internet. Everything offered locally at this time is cable based in some manner and subject to	4/28/2020 7:19 PM
12	We do not have broadband, currently defined by the FCC as 25 mps download. The PUD refuses to talk to us or answer email.	4/28/2020 5:51 PM
13	other than coulee dam and the omak area there is a real lack of broadband speed internet on the reservation.	4/28/2020 12:57 PM
14	.	4/27/2020 8:45 AM
15	At times everything slows down	4/26/2020 2:35 PM
16	Don't service my area even tho I'm am on hwy 7	4/24/2020 8:53 AM
17	We need Fiber Optic and services more than 6 mg we need 25 mg service	4/24/2020 8:47 AM
18	Not available in this area	4/24/2020 8:04 AM
19	The Reservation has no quality service	4/24/2020 7:44 AM
20	Distances and terrain cause huge challenges and expenses. Weather causes more. Now we have to prevent stealing and vandalism.	4/24/2020 7:06 AM
21	None	4/24/2020 1:58 AM
22	There has to be a better service or we need a cell tower so we can have phones with reliable connectivity. The fire radios are very unreliable due to our proximity to Canada so many times we are disconnected from dispatch and each other.	4/23/2020 3:59 PM
23	I'm sure it won't come to the reservation. Using the reservation only to get a higher ranking for funding	4/23/2020 3:48 PM
24	We need to have options for speeds greater than 100 Mbps in the county. I had to pay for installing a small tower on top of an apple shed to bounce the Local Tel SkiFi signal up to the hospital as they are the only ones offering those speeds and we are at the very limits of its range.	4/23/2020 8:28 AM
25	N/a	4/23/2020 7:32 AM
26	I can tell when kids get out of school because the internet gets worse. Right now it is affecting things all day long because kids are home and home schooling, using streaming services, etc which really slows things up	4/23/2020 5:57 AM
27	About 3 different times our Internet based phone service, RingCentral, has had serious problems. The problems can persist for a week and then go away for months. We currently	4/22/2020 4:51 PM

	have all our sites using their Charter/Spectrum or DSL backup connections because the RingCentral phone service is cutting out constantly on the fiber connection.	
28	access to "hard" internet access. I only have a verizon card	4/22/2020 12:19 PM
29	not being able to get the service	4/22/2020 12:02 PM
30	It would be nice if fiber were at least reasonable to install at home. I'm within a couple blocks of a hub, and Okanogan PUD estimated \$10,000-\$15,000 to get fiber to my home. Fiber through Frontier runs underground within a few feet of my property line, but I'm told I cannot get fiber from Frontier that way.	4/22/2020 11:56 AM
31	It would be really nice to have easier access to fiber.	4/22/2020 11:55 AM
32	The Okanogan County PUD has fiber in places but very few have the financial ability to connect. We need to help connect this service.	4/22/2020 11:26 AM
33	Fiber optic needs to be spread further in the county. Wireless has too many problems when many people are connecting or during heavy smoke from wildfires.	4/22/2020 10:42 AM
34	There is not affordable internet service in Nespelem. It costs a lot and there are state limits that create an unstable connection for work use	4/21/2020 1:09 AM
35	N/A	4/18/2020 8:20 PM
36	The county may provide broadband access but it has to go through a private provider to be accessed by the customer, and if there isn't enough customer density private providers don't find it feasible to provide infrastructure and service.	4/11/2020 12:16 PM
37	N.A.	4/8/2020 6:07 AM
38	Broadband should be a utility and provide fair and equal service minimums to all residence for emergencies, student education, tele-medical conferencing, and business from home. Some residence's students cannot even do their school work from home.	4/7/2020 3:23 PM
39	?	4/7/2020 2:39 PM
40	My cell phone with throttled data goes way faster	4/7/2020 1:53 PM
41	We need more wired broadband in rural areas	4/7/2020 1:51 PM
42	The highlands.	4/6/2020 5:24 PM
43	General dependability	4/6/2020 3:31 PM
44	Many dead spots	4/6/2020 1:08 PM
45	We need reliable high speed service bandwidth.	4/6/2020 12:16 PM
46	Rural	4/6/2020 11:30 AM
47	Limited WIFI access in both my offices (in Okanogan and Nespelem). Limited WIFI at my house unless I want to pay a lot more. PC NutHut is the only provider I can use due to line of sight issues for other providers. So, I'm stuck paying what I do with no other options to hunt for a better deal.	4/6/2020 9:56 AM
48	No fiber available on Reservation north of Brewster on US97.	4/6/2020 7:56 AM
49	Numerous "dead areas" where there is no connectivity at all.	4/3/2020 2:59 PM
50	Nespelem area is not provided any fiber to home or for that matter a reliable wireless network in the area	4/3/2020 8:07 AM
51	Fiber is too expensive. Only the rich can afford good WiFi service. The rest have to live with the frustration of inconsistent connections and crabby service providers who want you off their system for complaining, streaming TV, or gaming.	4/2/2020 3:09 PM
52	instability of weekend wireless service	4/2/2020 2:19 PM
53	only one fiber-optic run from Omak north. Expansion of geographical area coverage will be limited by bandwidth and availability of that single fiber-optic provider.	4/2/2020 2:12 PM
54	Coverage and bandwidth outside of town, just a couple miles outside of town.	4/2/2020 1:59 PM

Q13 What are your personal Goals/Needs for the BAT Planning Study?

Answered: 52 Skipped: 16

#	RESPONSES	DATE
1	Finish the fiber line over SR 155 and add connection points	5/19/2020 8:24 AM
2	Education, business, communications	5/15/2020 3:55 AM
3	Higher speed/wired internet availability	5/14/2020 6:01 PM
4	improve internet options for those that live out of town	5/14/2020 5:31 PM
5	exploring expansion of the current system to provide to remote and areas not covered now	5/14/2020 4:58 PM
6	None	5/14/2020 4:57 PM
7	Faster internet	5/14/2020 4:54 PM
8	Direct fiber to residences. And bring more fiber for data farms	5/14/2020 3:36 PM
9	See if there is a possibility of getting higher speed internet services in the Nespelem area	5/12/2020 5:12 PM
10	would like more service options in my area	5/8/2020 10:26 AM
11	I would like to play a role in bringing broadband to underserved households and businesses. I feel I have a compelling story to tell.	5/2/2020 7:57 PM
12	I would like to be able to access reliable and affordable high speed internet to run my business. The current stay at home order has decreased the reliability of my DSL.	4/28/2020 7:19 PM
13	Help to get my neighbors and us Broadband.	4/28/2020 5:51 PM
14	to get broadband internet to the nespelem district as well as the smaller towns of belvedere, elmer city and desautel areas.	4/28/2020 12:57 PM
15	.	4/27/2020 8:45 AM
16	Faster speeds and lest slowdowns	4/26/2020 2:35 PM
17	Extend fiber accessibility to this area on hwy 7	4/24/2020 8:53 AM
18	Fiber Optic Cable for internet	4/24/2020 8:47 AM
19	Coverage	4/24/2020 7:44 AM
20	To be heard. Put a map with info in local papers. Don't encumber my electric bill with internet costs, we went with Swiftstream when PUD said no. Keep putting stories in papers. We do not use computers much -- we work with people and farm and ranch. Like many others. But when we need our service we have to use it. Government wants reports, other businesses send emails, guests want information..	4/24/2020 7:06 AM
21	Unsure	4/24/2020 1:58 AM
22	Would be nice to get high speed internet to the reservation as well	4/23/2020 3:48 PM
23	N/a	4/23/2020 7:32 AM
24	Stronger signal, maybe faster speed, and especially that doesn't drop/stop	4/23/2020 5:57 AM
25	Better reliability.	4/22/2020 4:51 PM
26	faster more reliable internet	4/22/2020 2:55 PM
27	access to reliable fast internet connectivity for work	4/22/2020 12:19 PM
28	Again, I would love to see the availability of fiber to every home within City limits at more reasonable cost.	4/22/2020 11:56 AM
29	The Okanogan County PUD has fiber in places but very few have the financial ability to connect. We need to help connect this service.	4/22/2020 11:26 AM
30	Dependable	4/22/2020 11:24 AM
31	Significant expansion of fiber optic availability to residences	4/22/2020 10:42 AM
32	To have affordable unlimited internet service.	4/21/2020 1:09 AM

33	Get faster internet service	4/18/2020 8:20 PM
34	See some actual improvement in level of service	4/11/2020 12:16 PM
35	N.A.	4/8/2020 6:07 AM
36	Equal Internet bandwidth and infrastructure for all residence	4/7/2020 3:23 PM
37	Increased capacity, reliably operating	4/7/2020 2:39 PM
38	Better coverage / bandwidth for the valley	4/7/2020 1:53 PM
39	Not sure at this time.	4/7/2020 1:51 PM
40	None. Maybe better selections in the future.	4/6/2020 5:24 PM
41	More reliable service, faster speeds	4/6/2020 3:31 PM
42	Hoping for the best	4/6/2020 1:08 PM
43	?	4/6/2020 12:16 PM
44	Internet at reasonable low cost	4/6/2020 11:30 AM
45	Better access to WIFI throughout the county.	4/6/2020 9:56 AM
46	I think this pandemic is a real good example on why reliable internet and phone service is critical. Rural populations should be able to fully access work and school from home.	4/6/2020 7:56 AM
47	Assist in developing comprehensive connectivity across our county.	4/3/2020 2:59 PM
48	For every household to at least have the option to purchase reliable inexpensive internet service for educational, health, economic and safety purposes	4/3/2020 8:07 AM
49	Consistent connections, speeds consistent with what we are paying for.	4/2/2020 3:09 PM
50	help any way I can	4/2/2020 2:19 PM
51	Redundancy of fiber-optic services north of Omak to the Canadian border. Install new internet wireless towers and cell phone towers to areas with no coverage.	4/2/2020 2:12 PM
52	ID sites that need to be built up for public safety radio communications (for Tribe and Co) and site also be used to deliver broadband service to an unserved portion of the CCT reservation.	4/2/2020 1:59 PM

Q14 What can you or your business/organization contribute to this study?

Answered: 42 Skipped: 26

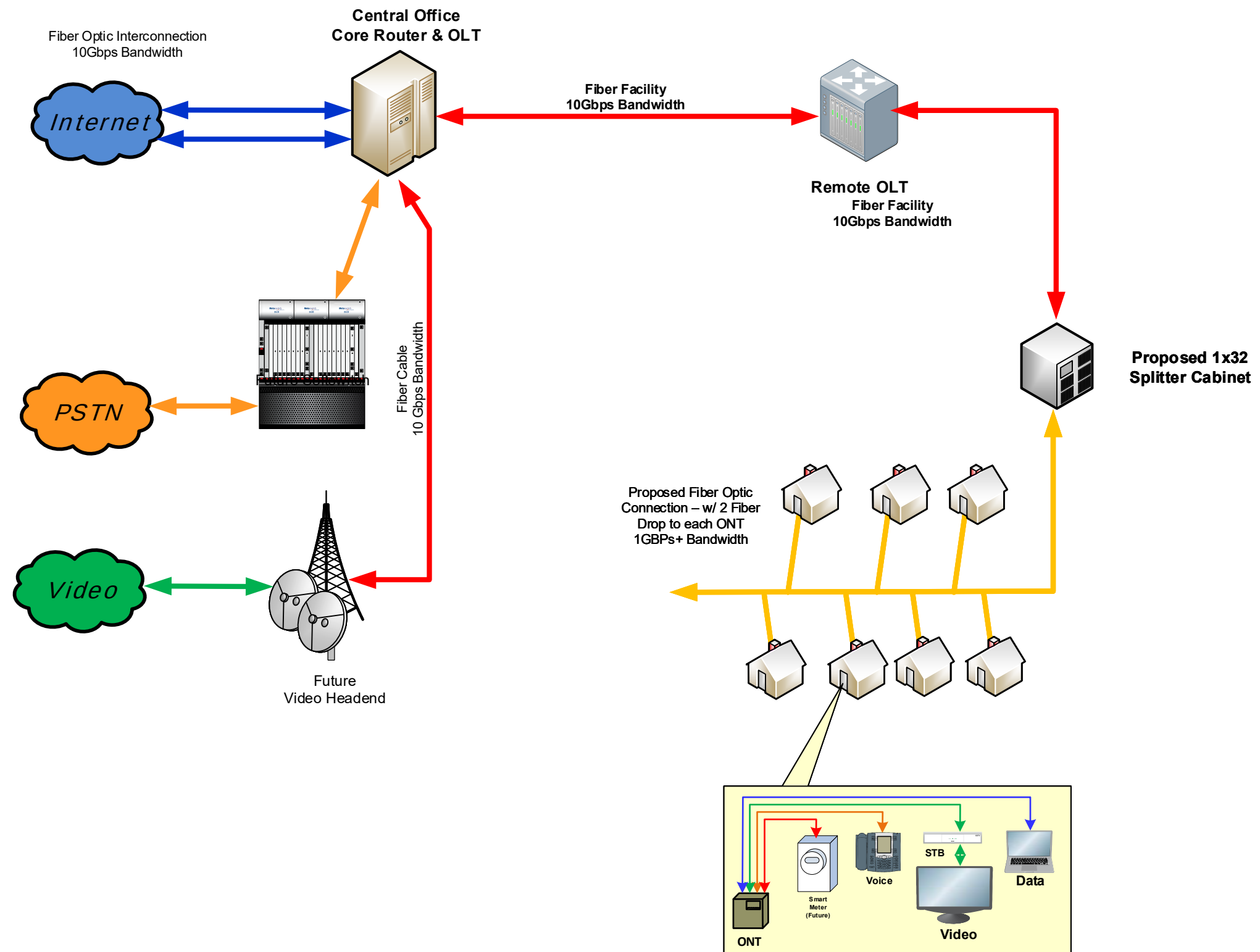
#	RESPONSES	DATE
1	We're open. Just ask	5/15/2020 3:55 AM
2	knowledge and experience	5/14/2020 4:58 PM
3	We are already involved	5/14/2020 4:57 PM
4	?	5/14/2020 4:54 PM
5	nothing	5/12/2020 5:12 PM
6	Unsure if the person who linked me to this survey was right to do so. All I can contribute is my experience as a person stuck in a remote area with only a landline and satellite tv and internet dishes possible. No cellular or broadband sightline available, and spending more money from my meager pension check for archaic service than people in cities spend for 100x the speeds and unlimited data. Rural people's payments subsidize the innovations in the valley-- it should be the other way around!	5/10/2020 7:35 PM
7	not sure	5/8/2020 10:26 AM
8	Time, information, contacts	5/2/2020 7:57 PM
9	I would be happy to discuss my thoughts about how to improve the local economy and lure our young people back to the county after they get college educations. Millennial's and Gen Z populations are more tech savvy and lean toward freelance work. If this area had the internet infrastructure in place, that would be a good step towards exploring this possibility.	4/28/2020 7:19 PM
10	Technical help.	4/28/2020 5:51 PM
11	technical expertise as well as a connection to the FCC. I currently sit on the Native Nations Communications Task Force.	4/28/2020 12:57 PM
12	.	4/27/2020 8:45 AM
13	whatever you like	4/24/2020 8:47 AM
14	Surveys	4/24/2020 7:44 AM
15	If you want more information call me. I am also a member of many organizations. We have 4 businesses and are very busy.	4/24/2020 7:06 AM
16	Nothing at this time	4/24/2020 1:58 AM
17	Information	4/23/2020 3:59 PM
18	I'm not a business	4/23/2020 3:48 PM
19	N/a	4/23/2020 7:32 AM
20	I have no idea	4/23/2020 5:57 AM
21	We have 12 locations with fiber connections from NCI Datacom, 11 in Okanogan County and 1 in Douglas County (Bridgeport).	4/22/2020 4:51 PM
22	information	4/22/2020 12:19 PM
23	Keller Williams Realty-NCW	4/22/2020 12:02 PM
24	Partnership in a project for Rural Broadband through Commerce.	4/22/2020 11:56 AM
25	The City of Brewster would like to apply for a grant to connect the City Residents to fiber.	4/22/2020 11:26 AM
26	Not sure.	4/22/2020 10:42 AM
27	I am unsure	4/21/2020 1:09 AM
28	Nothing just my input	4/18/2020 8:20 PM
29	Just what you asked for, provide information.	4/11/2020 12:16 PM
30	N.A.	4/8/2020 6:07 AM
31	Personal struggles with the current services offered.	4/7/2020 3:23 PM

32	?	4/7/2020 2:39 PM
33	Not much other than we need this project to succeed	4/7/2020 1:51 PM
34	Unknown	4/6/2020 3:31 PM
35	unknown	4/6/2020 1:08 PM
36	Complaints about HughesNet.	4/6/2020 12:16 PM
37	Nothing	4/6/2020 11:30 AM
38	WSU Extension can provide the outreach necessary to encourage people to complete the current survey. We can reach out to the agriculture audience that may be more difficult to reach.	4/6/2020 9:56 AM
39	We can provide a detailed analysis of our daily network demand and internet usage.	4/3/2020 2:59 PM
40	If internet were available and reliable throughout the county, more business opportunities could be realized in the more rural areas. Bringing broadband to the county is just the beginning stage of building the needed infrastructure to support expanded business technologies.	4/2/2020 3:09 PM
41	feedback and survey data on fiber-optic service	4/2/2020 2:19 PM
42	Wire/wireless technical expertise	4/2/2020 2:12 PM

List of Participants

Name	Organization	Email
Scott Graham	3 Rivers Hospital	sgraham@trhospital.net
Mike Mauk	Brewster Chamber	brewsterwachamber@gmail.com
Misty Ruiz	City of Brewster Clerk	'Misty Ruiz' <Misty.Ruiz@brewsterwa.us>
Todd McDaniel	City of Omak	Todd McDaniel' <admin@omakcity.com>
Jason Palmer	Colville Tribe IT	Jason Palmer (IT) <Jason.Palmer.ITD@colvilletribes.com>
Tiffany Circle	Colville Tribe IT	Tiffany Circle (IT) <Tiffany.Circle.ITD@colvilletribes.com>
Matthew Pleasants	Colville Tribe Planning	Matthew Pleasants (PLN) <Matthew.Pleasants.PLN@colvilletribes.com>
Lael Duncan	Community Action Council	Lael Duncan' <LaelD@occac.com>
Janet Warner	Conconully Chamber	'Janet Warner' <janet.warner@mail.com>
Crystal Gage	Confluence Health	
Ernie Rasmussen	Dept of Commerce	Rasmussen, Ernest (COM) <ernie.rasmussen@commerce.wa.gov>
Kevin Diefenbach	Don Kruse Electric-Business	'KEVIN Diefenbach' <kevind@dkeinc.net>
Jesus Hernandez	Family Health Center	'Jesus Hernandez' <jhernandez@fhc.us>
Peggy Nevsimal	Grand Coulee Dam Chamber	Peggy Nevsimal' <peggy@grandcouleedam.org>
Sam Martin	Mayor of Conconully	Conconully Mayor <smartin@townofconconully.com>
Bob Poch	Mayor of Coulee Dam	Coulee Dam Mayor <cdmayor@couleedam.org>
Jesse Tillman	Mayor of Elmer City	Elmer City Mayor <mayorelmercitey@gmail.com>
Jon Neal	Mayor of Oroville	Jon R. Neal' <nealsauto@gdicom.net>
Carlene Anders	Mayor of Pateros	Carlene Anders <paterosmayor@outlook.com>
Jason Hubbard	Mayor of Riverside	Jason Hubbard' <jason.rh55@gmail.com>
Dennis Brown	Mayor of Tonasket	Dennis Brown' <tonasket@nvinet.com>
Allan Fisher	Mid Valley Hospital	Allan Fisher' <MVHCEO@mvhealth.org>
John Andrist	NCIDATA	John Andrist' <jandrist@ncidata.com>
Tim Andrist	NCIDATA	
Aaron Kester	North Valley Hospital	Aaron Kester' <aaronkester@nvhospital.org>
Mike Oberg	North Valley Hospital	Michael Oberg <michaeloberg@nvhospital.org>
Carlos Antuna	North Valley Hospital	Carlos Antuna <CarlosAntuna@nvhospital.org>
Chris Branch	Ok County Commissioner	Chris Branch' <cbranch@co.okanogan.wa.us>
Jim DeTro	Ok County Commissioner	Jim DeTro <jdetro@co.okanogan.wa.us>
Karen Beatty	Ok County Communications	
Maurice Goodall	OK Emergency Management	Maurice Goodall' <mgoodall@co.okanogan.wa.us>
John MacDonald	OK PUD	John MacDonald' <JohnM@okpud.org>
Ron Gadeberg	OK PUD	Ron Gadeberg' <RonG@okpud.org>
Scott Vejraska	OK PUD	Scott Vejraska' <ScottV@okpud.org>
Mike Worden	Ok Sheriffs Office	Mike Worden' <mworden@co.okanogan.wa.us>
Bess Derting	Okanogan Chamber	okanoganchamber@gmail.com
Erik Swanson	Omak Superintedent K-12	Erik Swanson' <eswanson@omaksd.org>
Maria Lassila	Omak/Mirage Theater Business	Maria Lassila, Omak & Mirage Theaters' <maria@omakmirage.com>
Karen Frisbie	Oroville Chamber	Karen Frisbie <orovillechamber@orovillewashington.com>
Gene Dowers	Pateros Resource Center	Gene Dowers' <gdowers@crpcb.org>
Bill Swayze	RSP	info@communitynet.org
George Peterson	RSP	admin@pcnuthut.com
Dena Byl	Silver Sage Spa Business Owner	denab@communitynet.org
Marilou Kriner	Tonasket Chamber	Tonasket Chamber' <chameroftonasket@gmail.com>
Sharma Dickinson	Town of Riverside Clerk	'Sharma Dickinson' <riversidetownhall@live.com>
Jim Veeder	USEI-Owner	JimVeeder' <jimveeder@aol.com>
David Grooms	USEI-Private Business	David Grooms' <dgrooms@usei-teleport.com>
Stacy Luckensmeyer	Wenatchee Valley College	Stacy' <SLuckensmeyer@wvc.edu>
Kayla Wells-Moses	WSU Cooperative	Wells-Moses, Kayla Marie <kayla.wells@wsu.edu>
(New Person)		'Omak Chamber' <omakchamber@gmail.com>
(New Person)		Jon Wyss <jonw@gebbbersfarms.com>
Roni Holder-Diefenbach	Economic Alliance	rholderdiefenbach@economic-alliance.com
Lanie Johns	Okanogan County	ljohns@co.okanogan.wa.us

Conceptual Plan



PREPARED FOR:



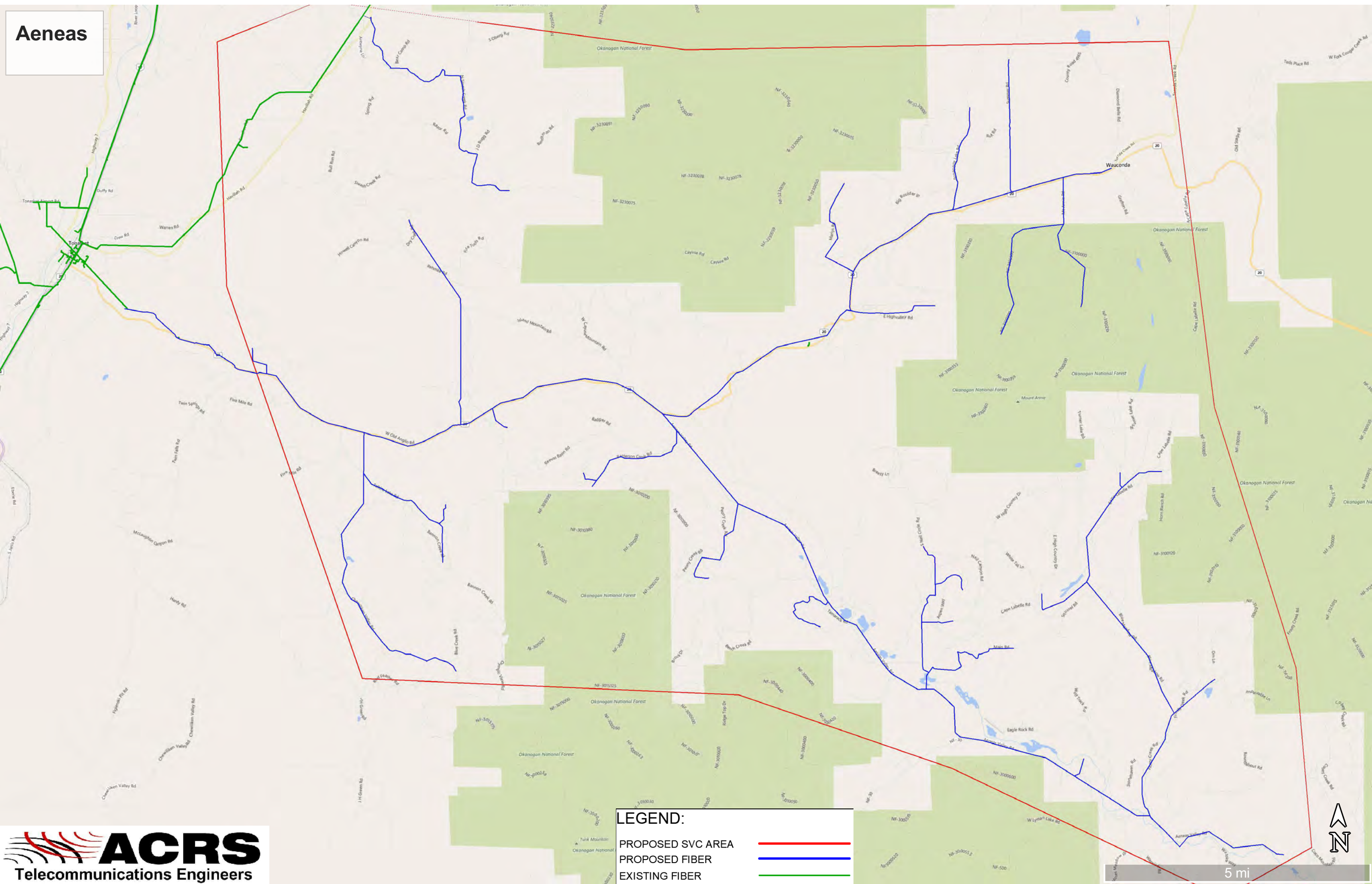
PROJECT:

Typical FTTH Deployment

SHEET:

1 OF 1

Aeneas



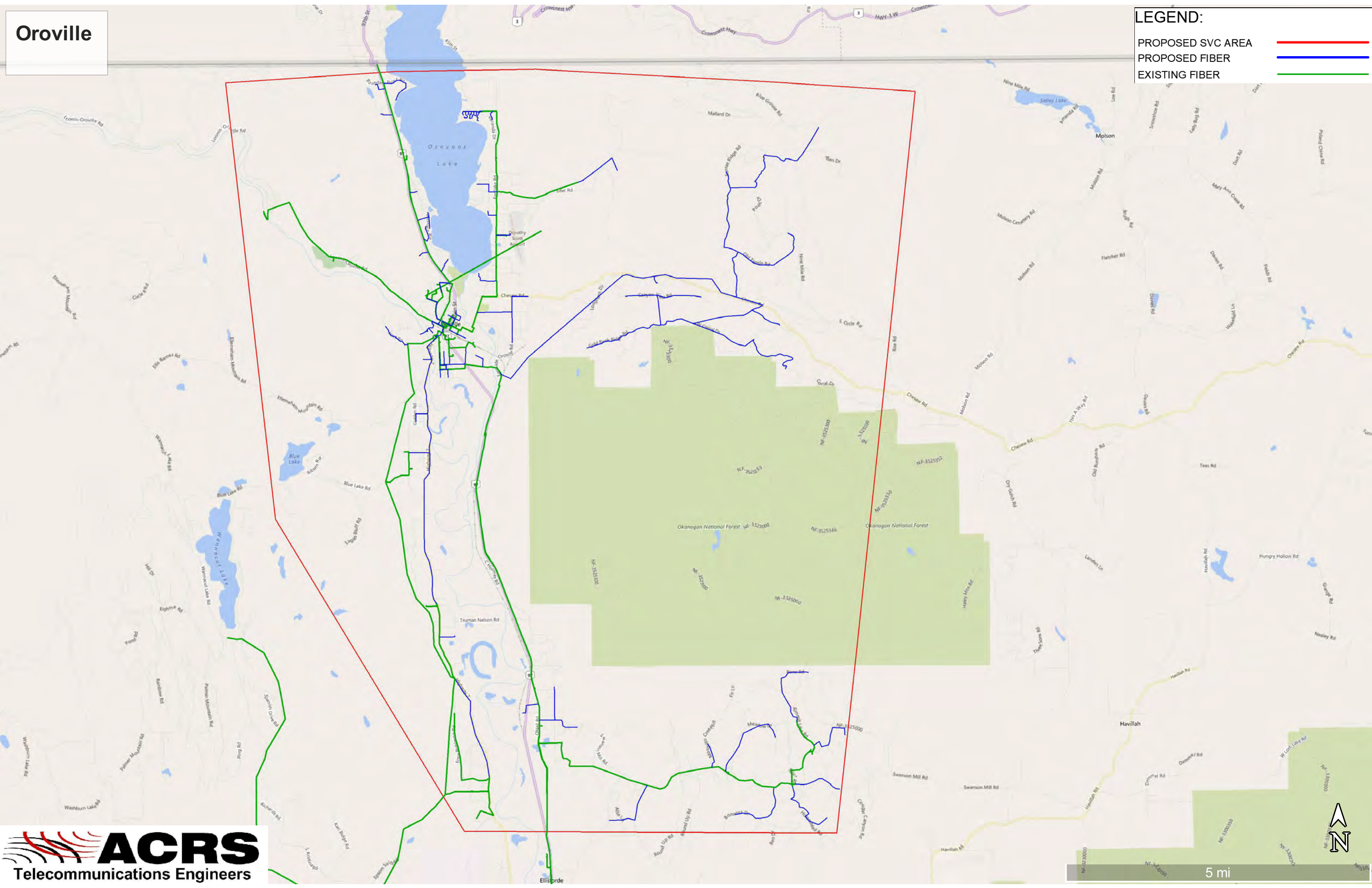
Oroville

LEGEND:

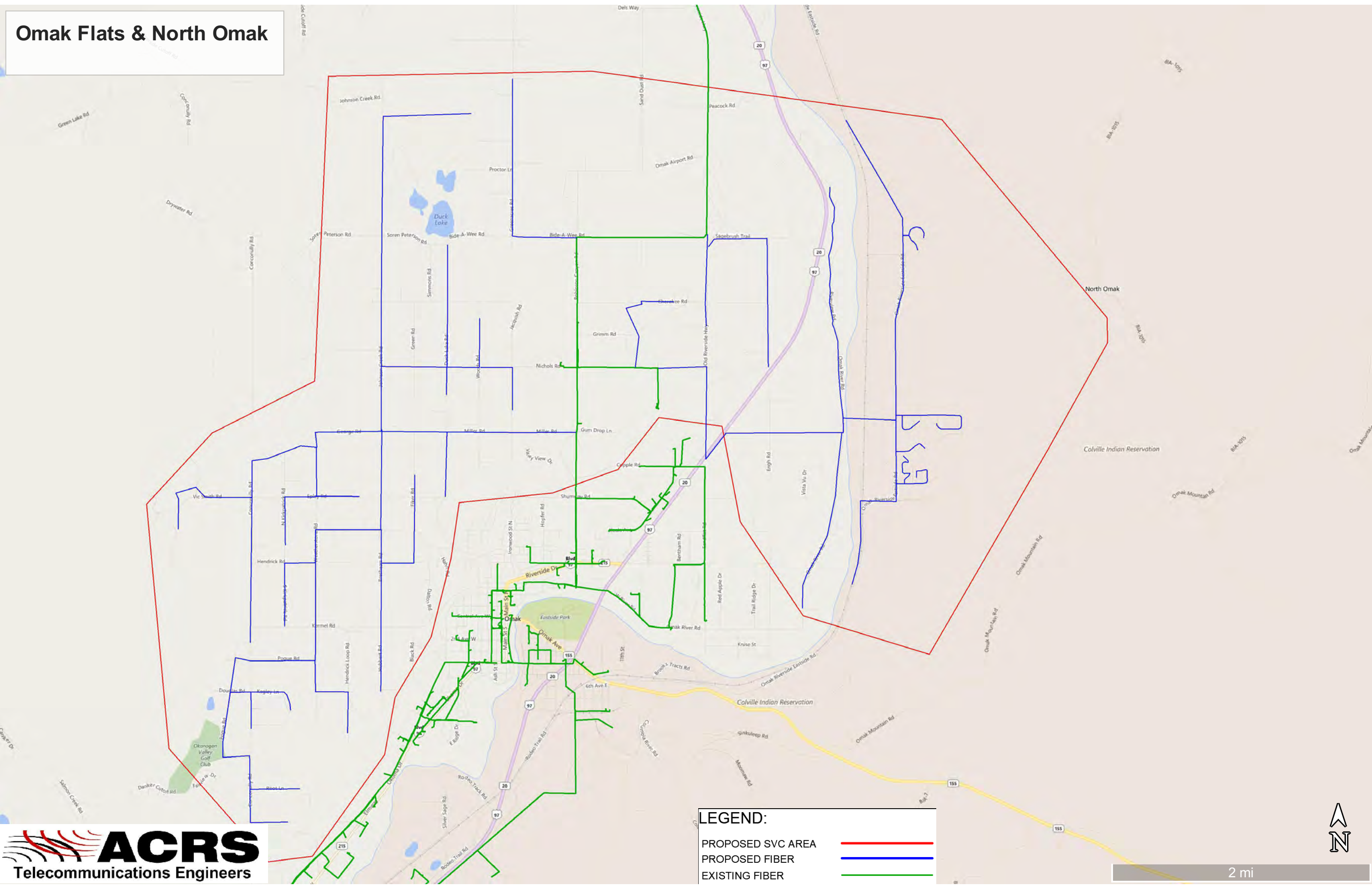
PROPOSED SVC AREA

PROPOSED FIBER

EXISTING FIBER



Omak Flats & North Omak



LEGEND:

PROPOSED SVC AREA	
PROPOSED FIBER	
EXISTING FIBER	



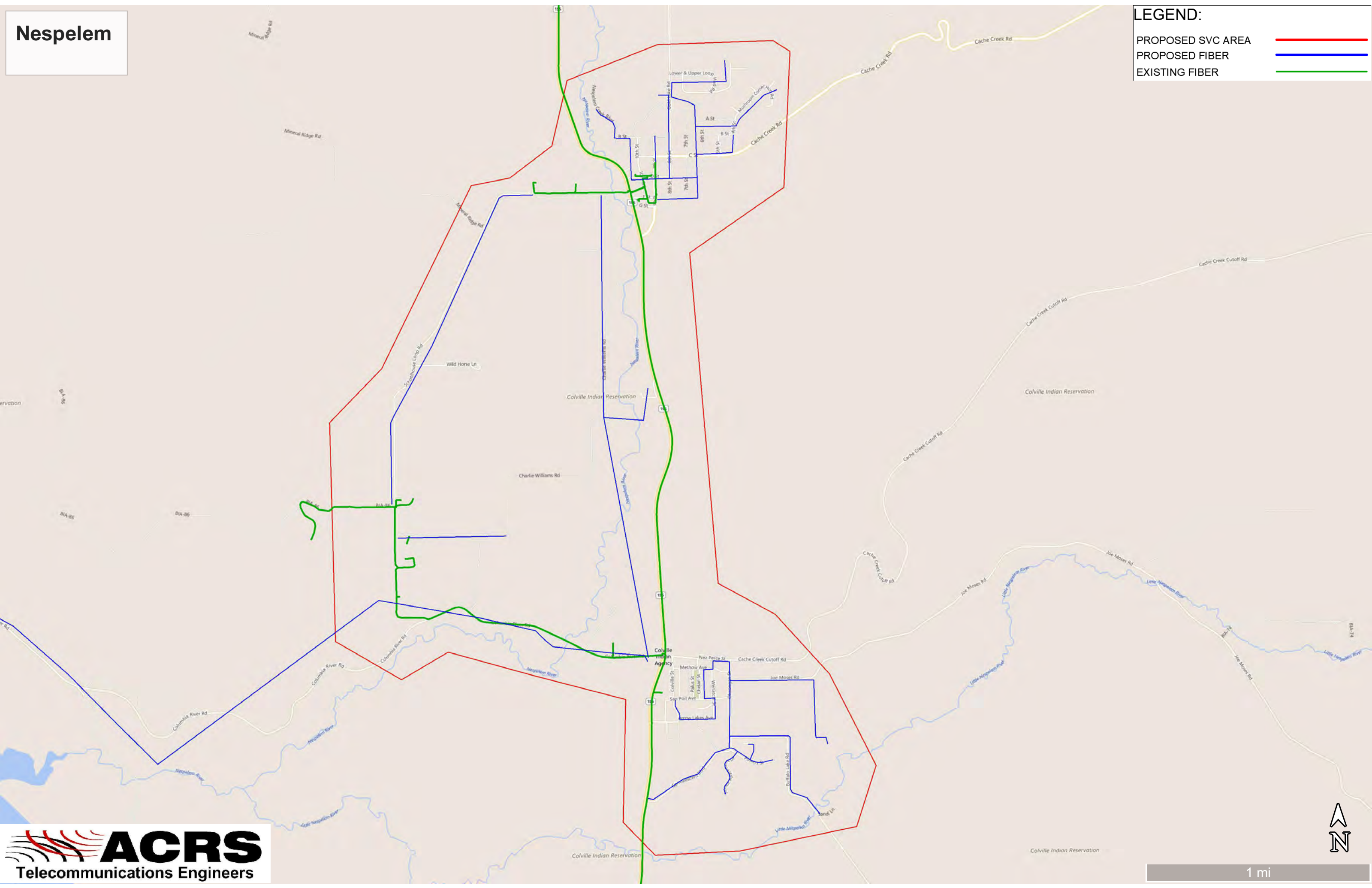
Nespelem

LEGEND:

PROPOSED SVC AREA

PROPOSED FIBER

EXISTING FIBER

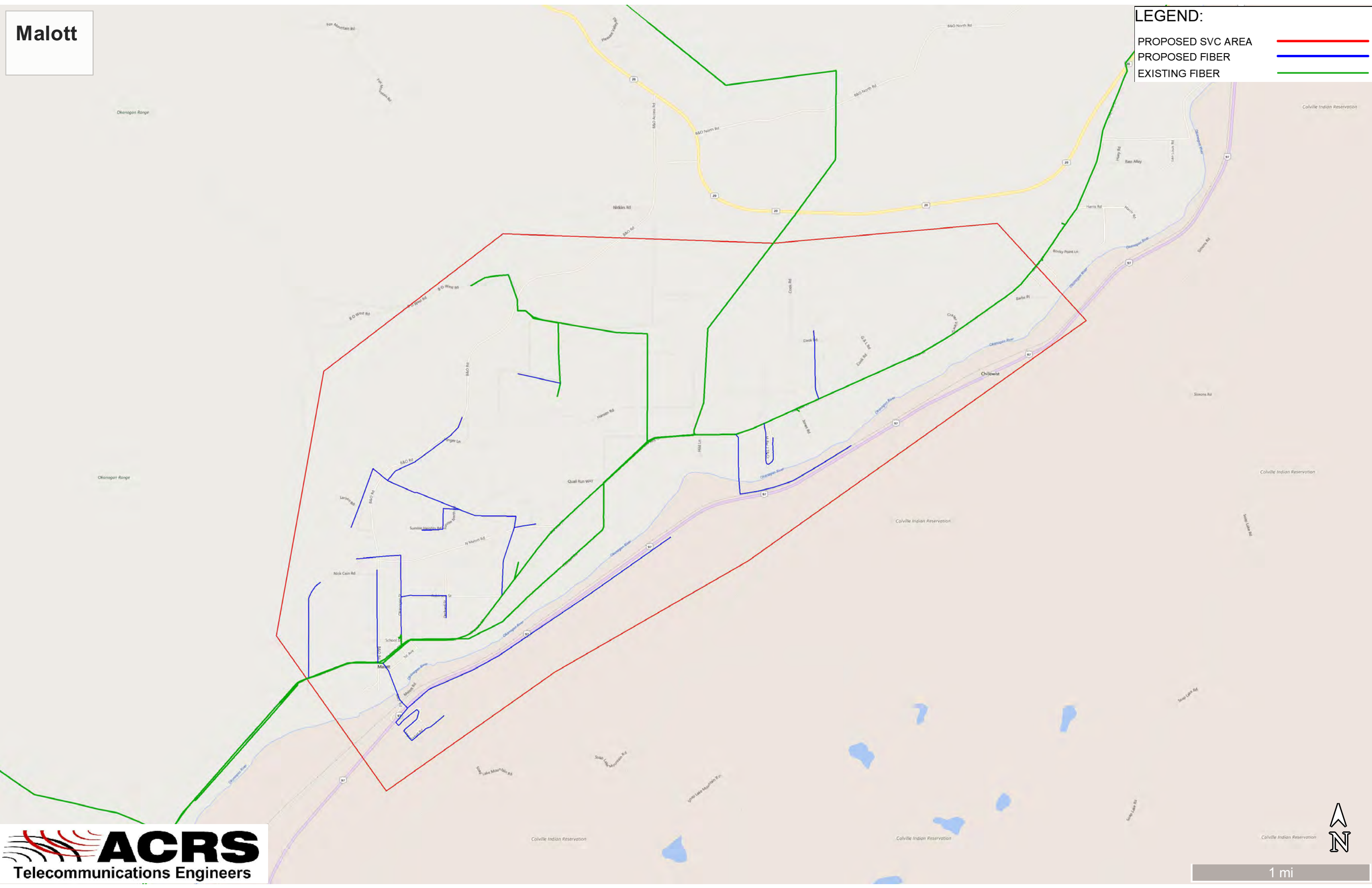


LEGEND:

PROPOSED SVC AREA

PROPOSED FIBER

EXISTING FIBER



Knob Hill

LEGEND:

- PROPOSED SVC AREA
- PROPOSED FIBER
- EXISTING FIBER

ACRS
Telecommunications Engineers

5 mi

Knob Hill

LEGEND:
PROPOSED SVC AREA (Red outline)
PROPOSED FIBER (Blue line)
EXISTING FIBER (Green line)

The map displays the Knob Hill area, including Okanogan National Forest, Bodie, and Havillah. It shows proposed and existing fiber routes, along with various roads and landmarks. The proposed fiber routes are shown in blue, and existing fiber routes are shown in green. The proposed service area is outlined in red. The map includes a scale bar (5 mi) and a north arrow.

ACRS
Telecommunications Engineers

Knob Hill

LEGEND:
PROPOSED SVC AREA (Red outline)
PROPOSED FIBER (Blue line)
EXISTING FIBER (Green line)

The map displays the Knob Hill area, including Okanogan National Forest, Bodie, and Havillah. It shows proposed service areas (red outline), proposed fiber routes (blue line), and existing fiber routes (green line). The map includes a scale bar (5 mi) and a north arrow.

ACRS
Telecommunications Engineers

Knob Hill

LEGEND:

- PROPOSED SVC AREA
- PROPOSED FIBER
- EXISTING FIBER

ACRS
Telecommunications Engineers

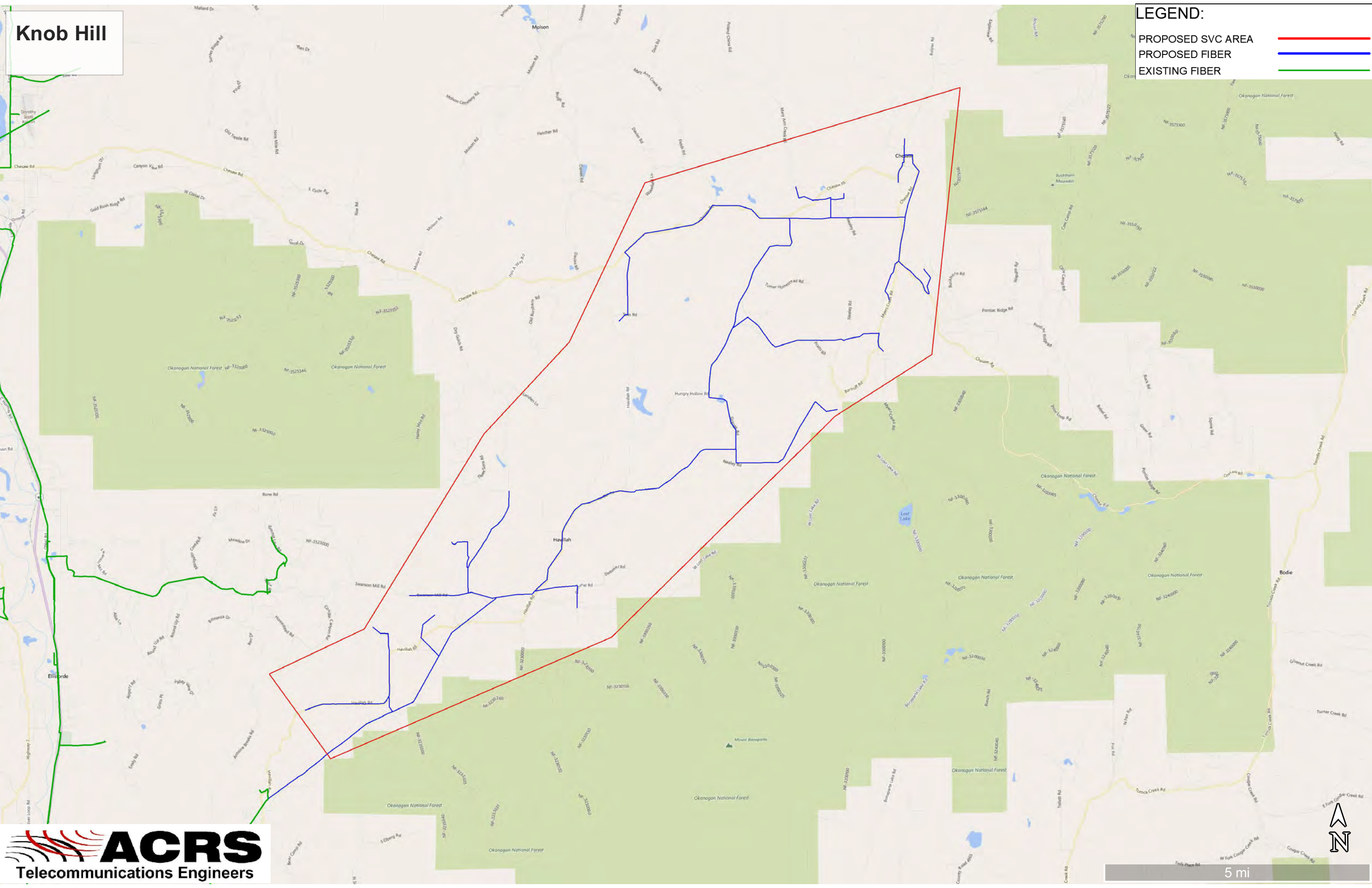
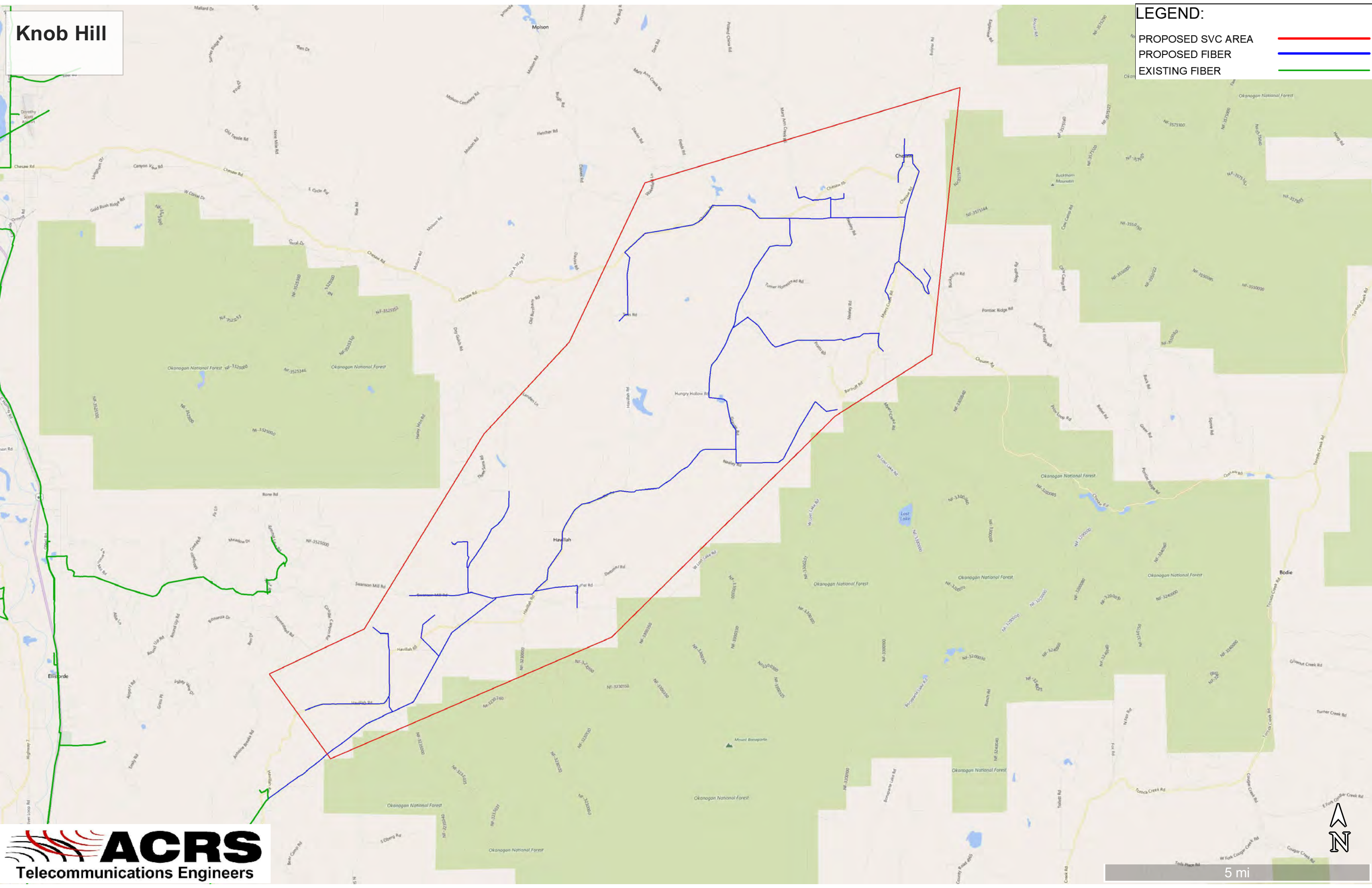
5 mi

Knob Hill

LEGEND:
PROPOSED SVC AREA (Red outline)
PROPOSED FIBER (Blue line)
EXISTING FIBER (Green line)

The map displays the Knob Hill area, including Okanogan National Forest, Bodie, and Havillah. It shows proposed service areas (red outline) and fiber routes (blue and green lines). The map includes a scale bar (5 mi) and a north arrow.

ACRS
Telecommunications Engineers



Knob Hill

LEGEND:
PROPOSED SVC AREA (Red outline)
PROPOSED FIBER (Blue line)
EXISTING FIBER (Green line)

The map displays the Knob Hill area, including Okanogan National Forest, Bodie, and Havillah. It shows proposed service areas (red outline) and fiber routes (blue and green lines). The map includes a scale bar (5 mi) and a north arrow.

ACRS
Telecommunications Engineers

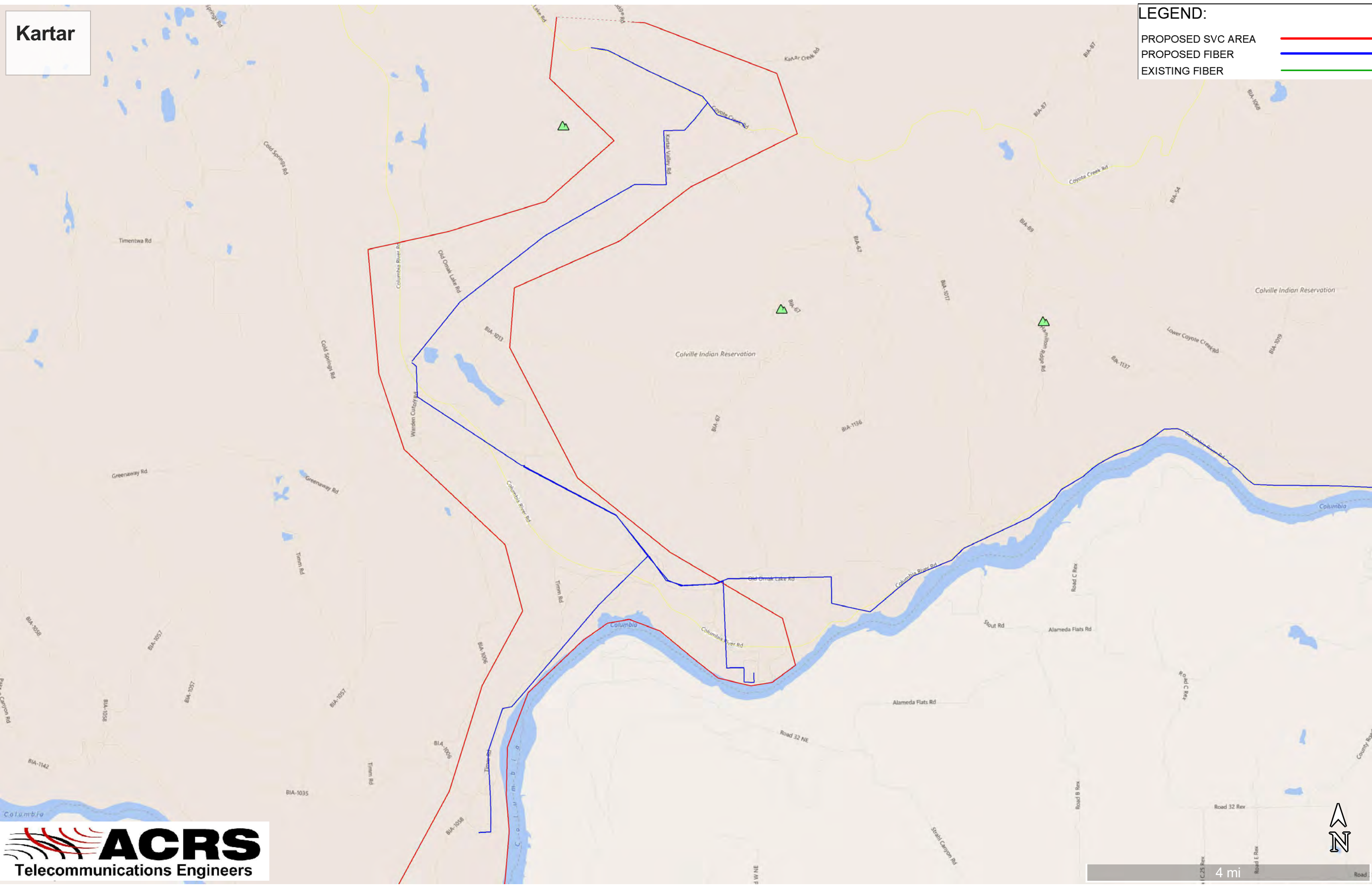
Kartar

LEGEND:

PROPOSED SVC AREA

PROPOSED FIBER

EXISTING FIBER



Harmony Heights

LEGEND:

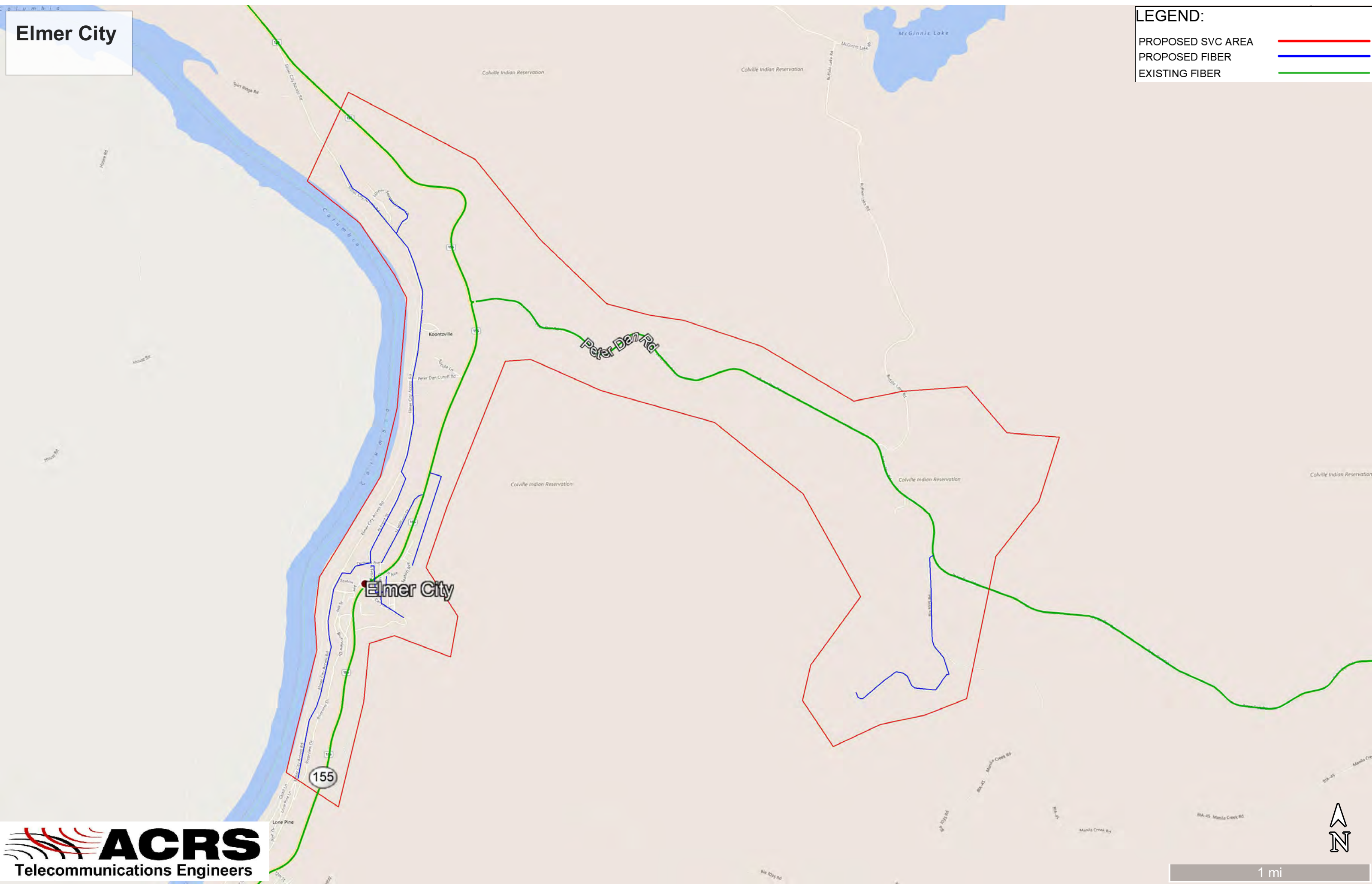
PROPOSED SVC AREA

PROPOSED FIBER

EXISTING FIBER



1 mi



Elmer City

LEGEND:

PROPOSED SVC AREA	
PROPOSED FIBER	
EXISTING FIBER	



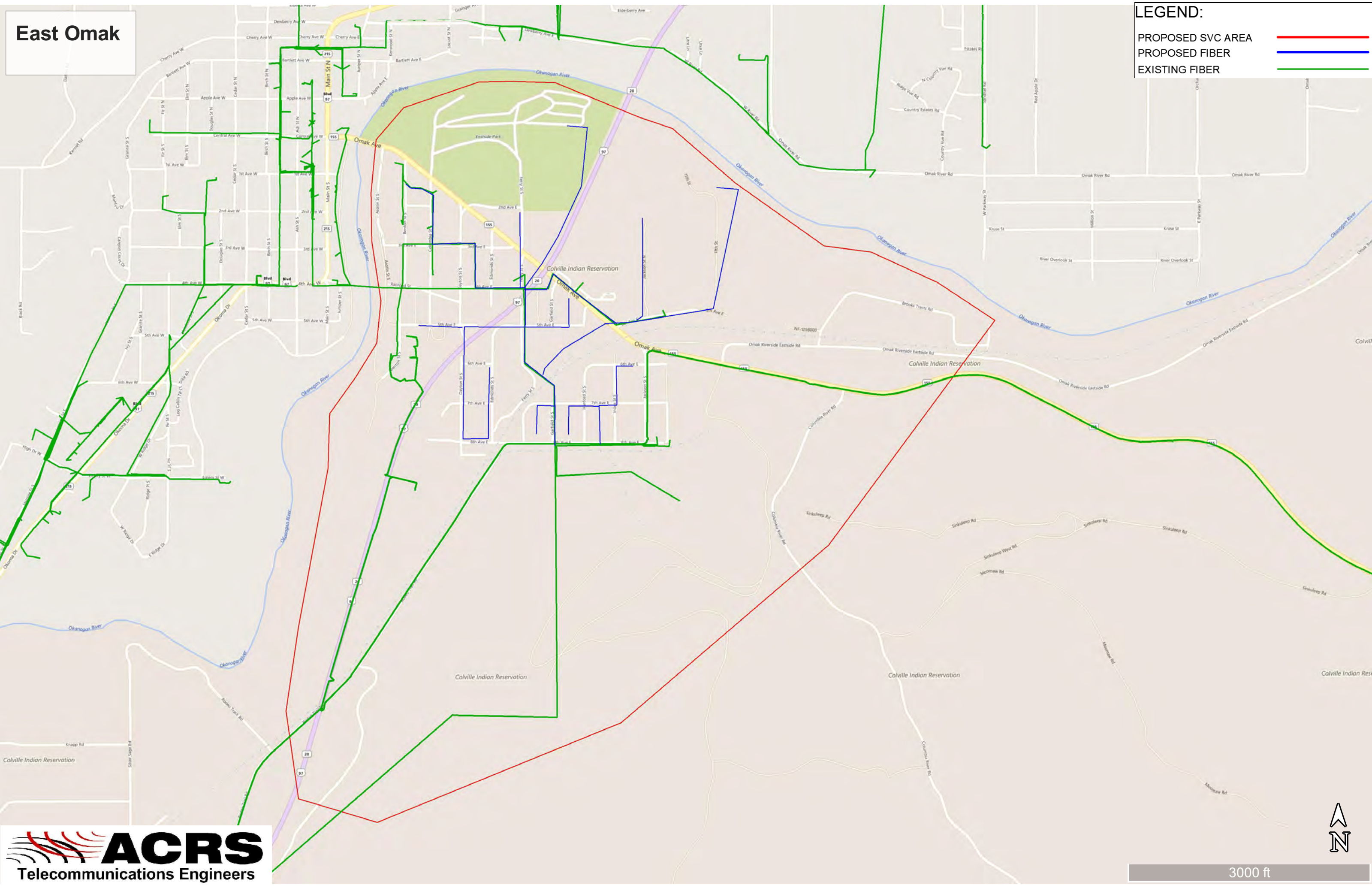
East Omak

LEGEND:

PROPOSED SVC AREA

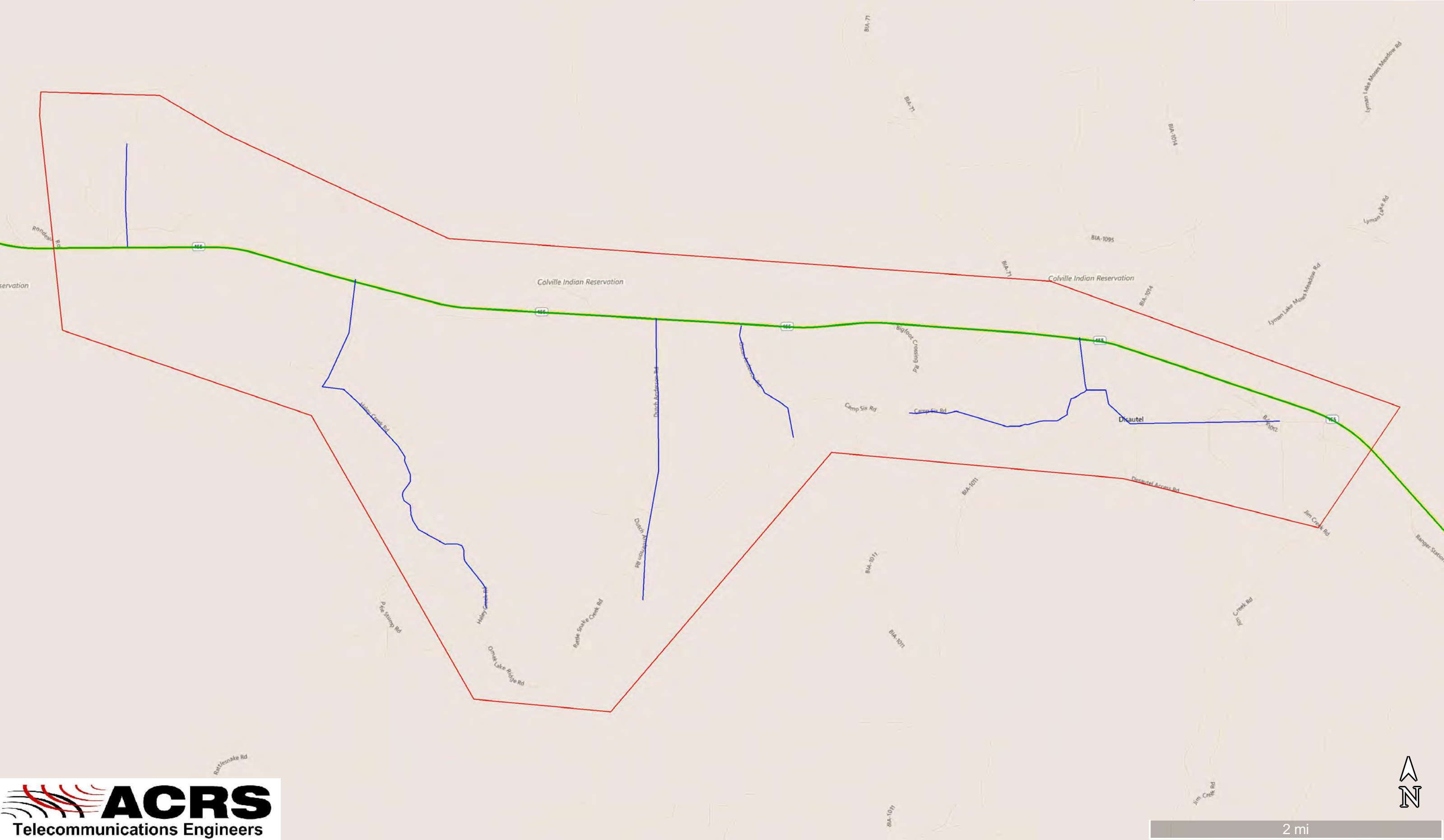
PROPOSED FIBER

EXISTING FIBER



LEGEND:

PROPOSED SVC AREA	
PROPOSED FIBER	
EXISTING FIBER	



Coulee Dam

LEGEND:

PROPOSED SVC AREA

PROPOSED FIBER

EXISTING FIBER



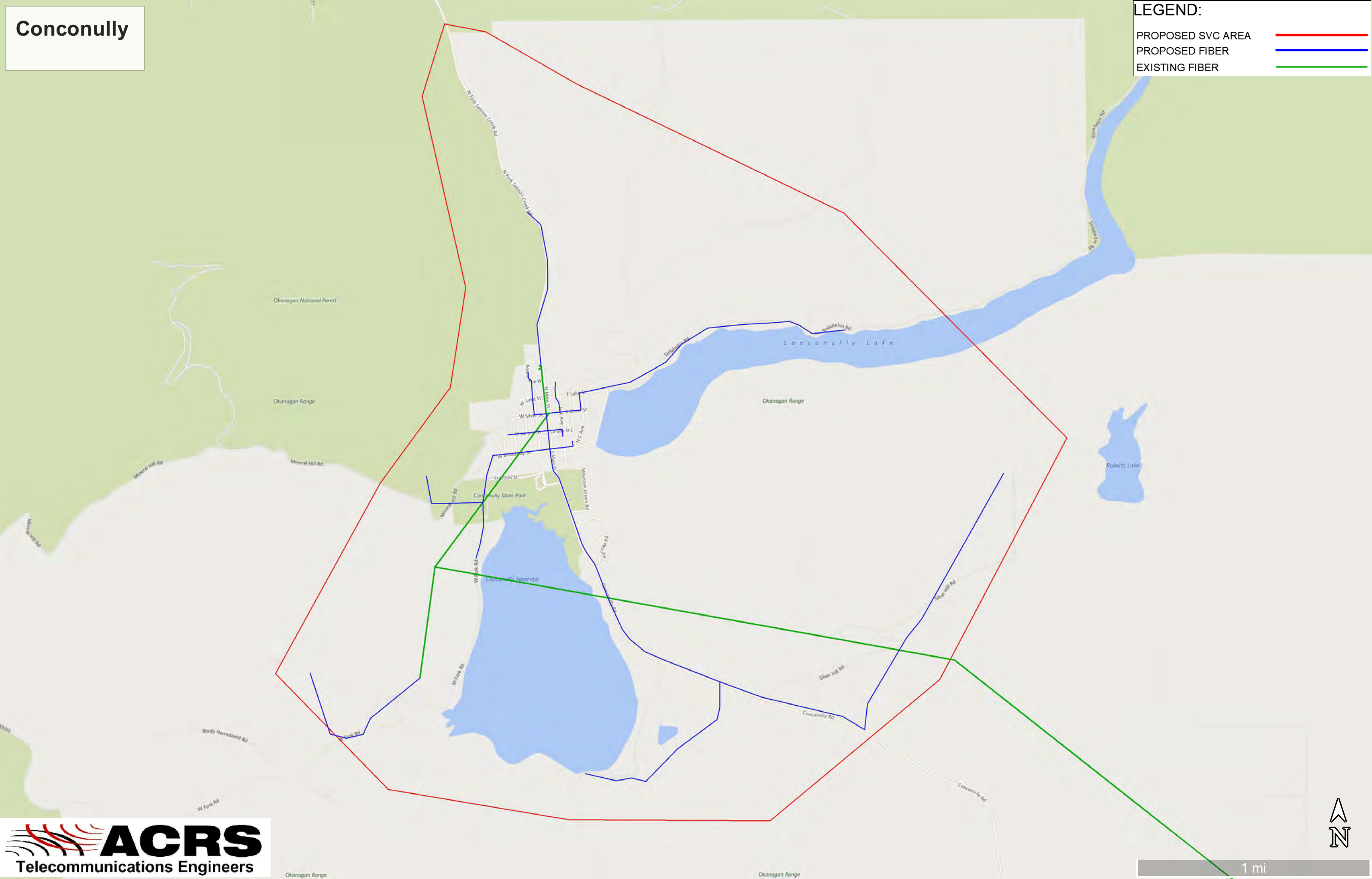
Conconully

LEGEND:

PROPOSED SVC AREA

PROPOSED FIBER

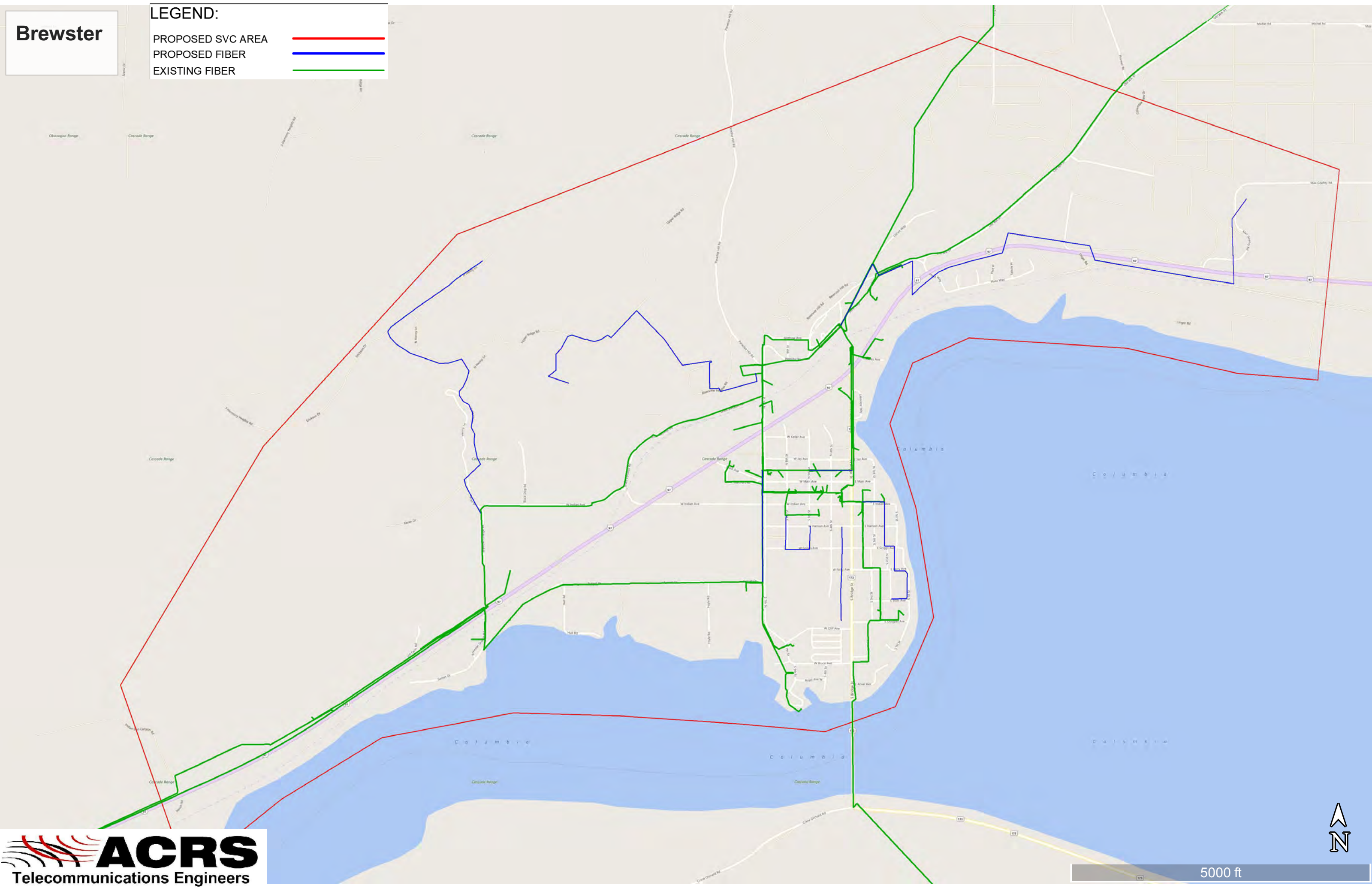
EXISTING FIBER



Brewster

LEGEND:

PROPOSED SVC AREA	
PROPOSED FIBER	
EXISTING FIBER	



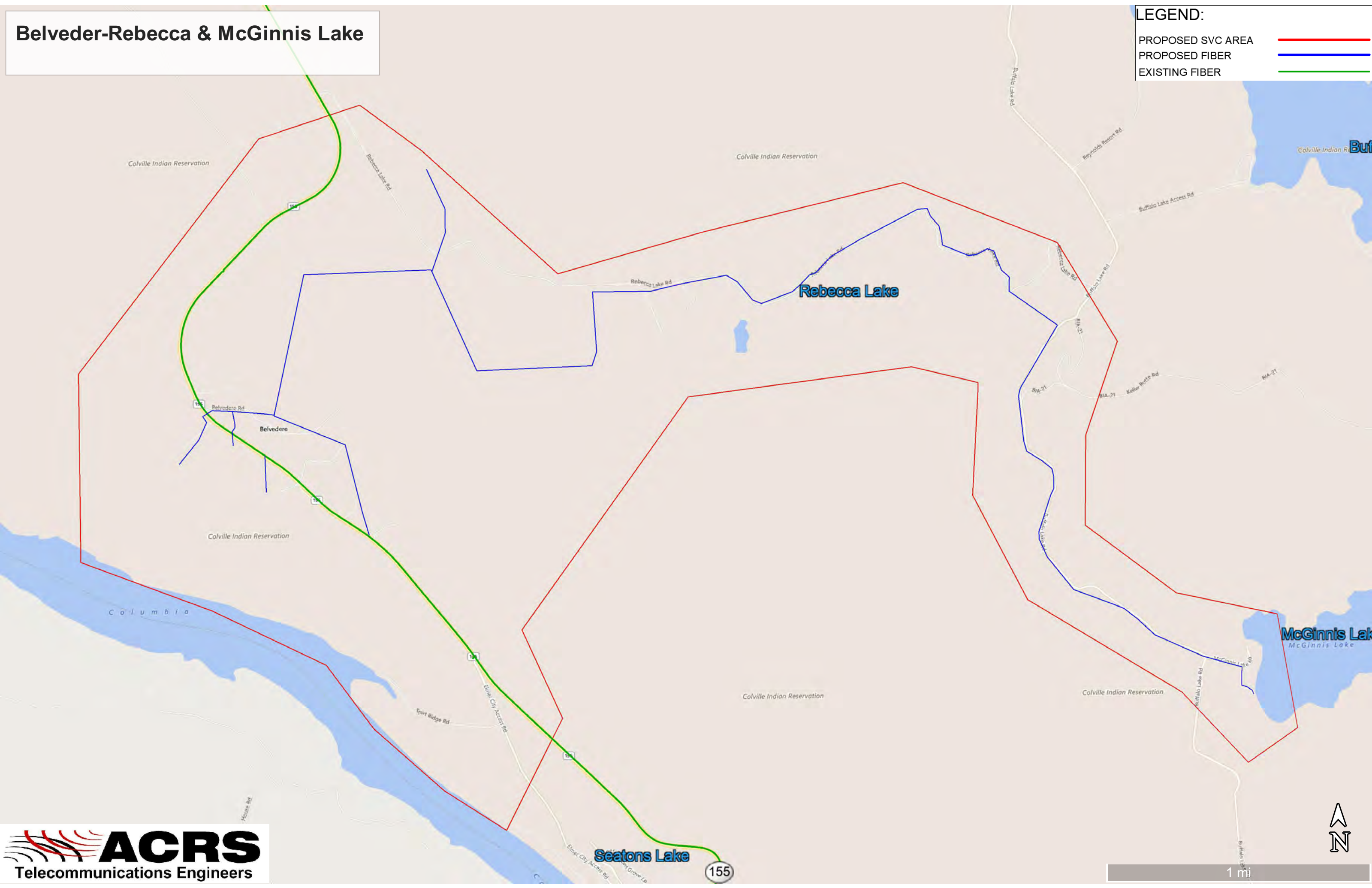
Belveder-Rebecca & McGinnis Lake

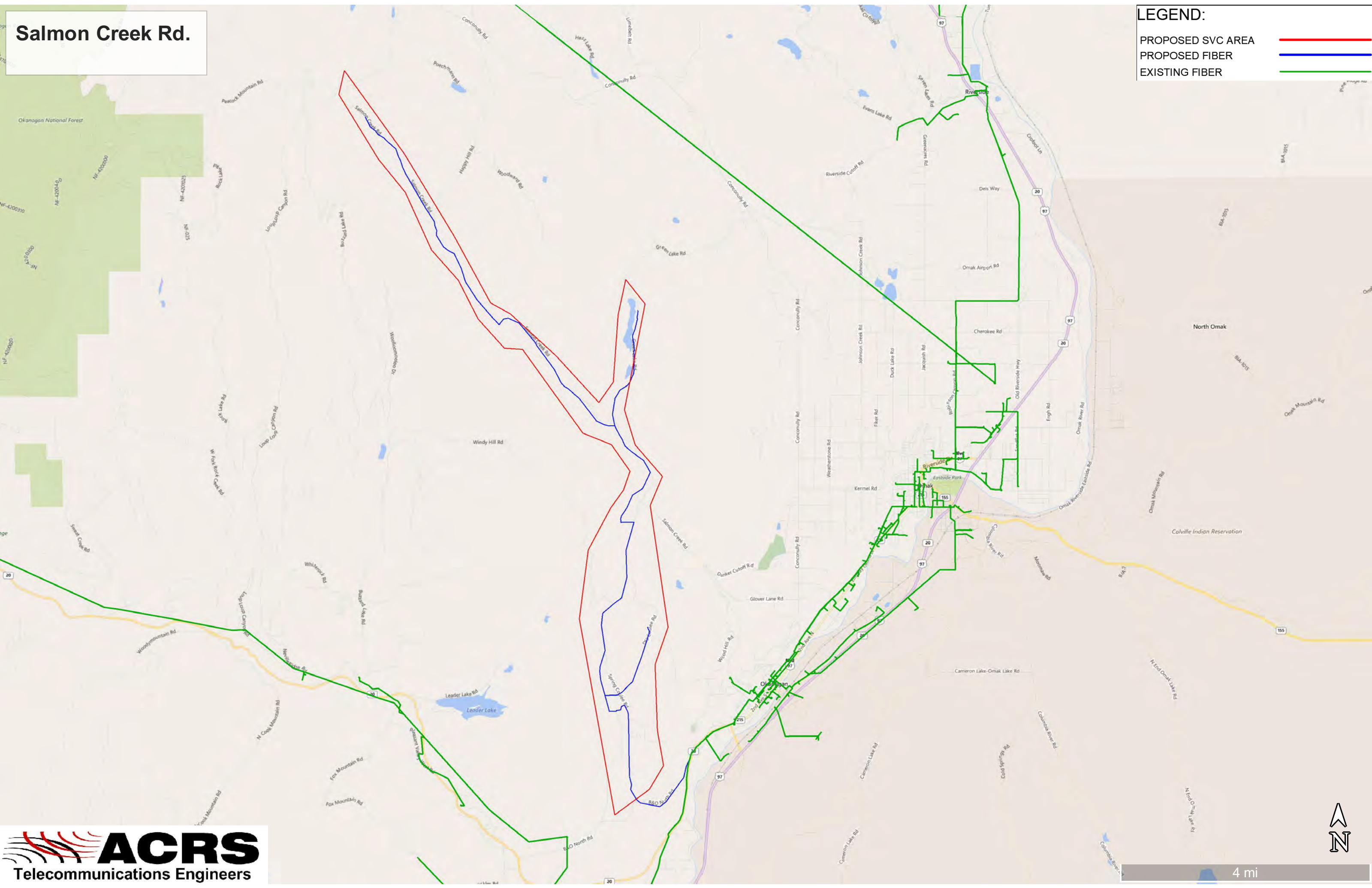
LEGEND:

PROPOSED SVC AREA

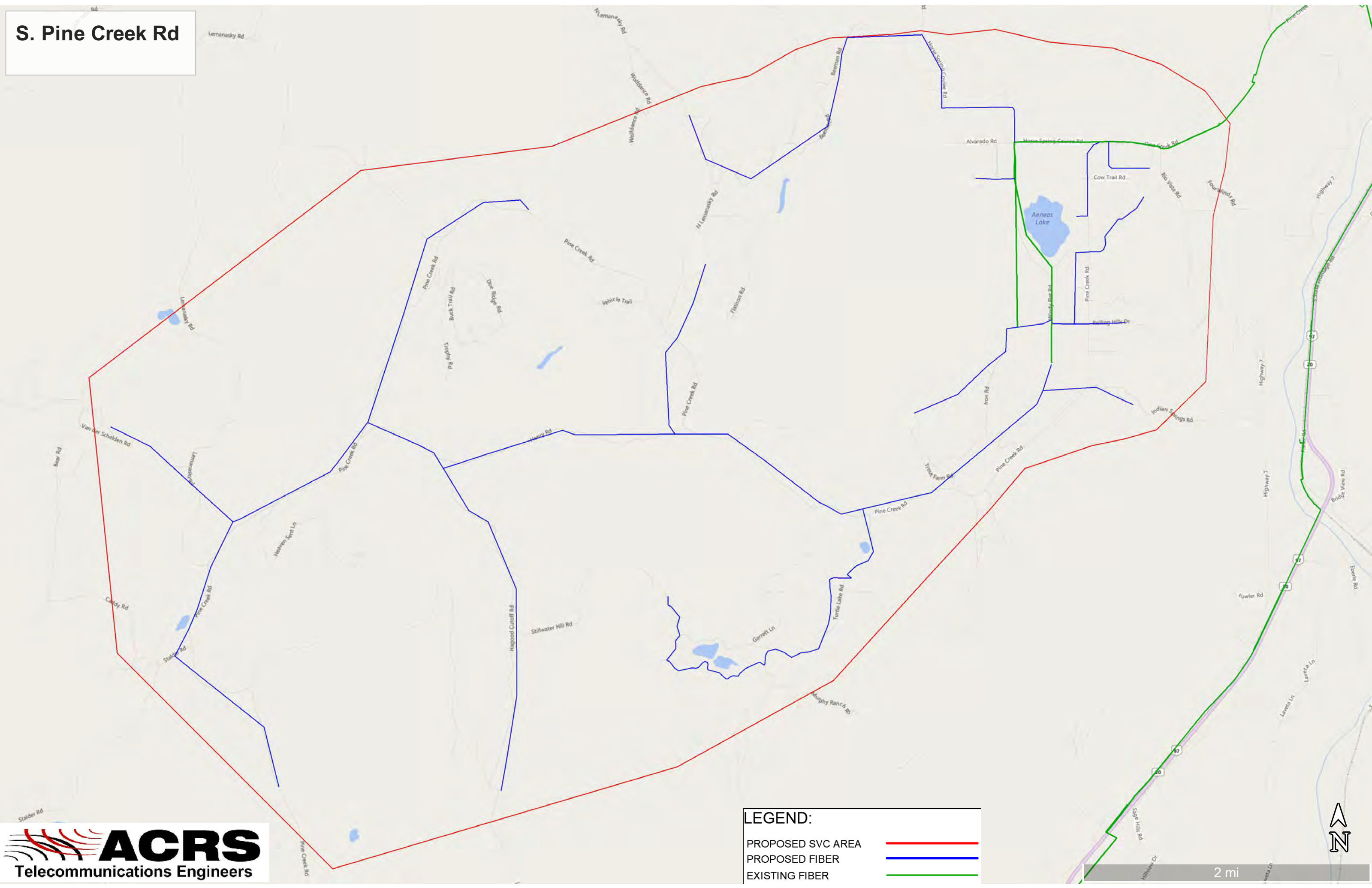
PROPOSED FIBER

EXISTING FIBER





S. Pine Creek Rd

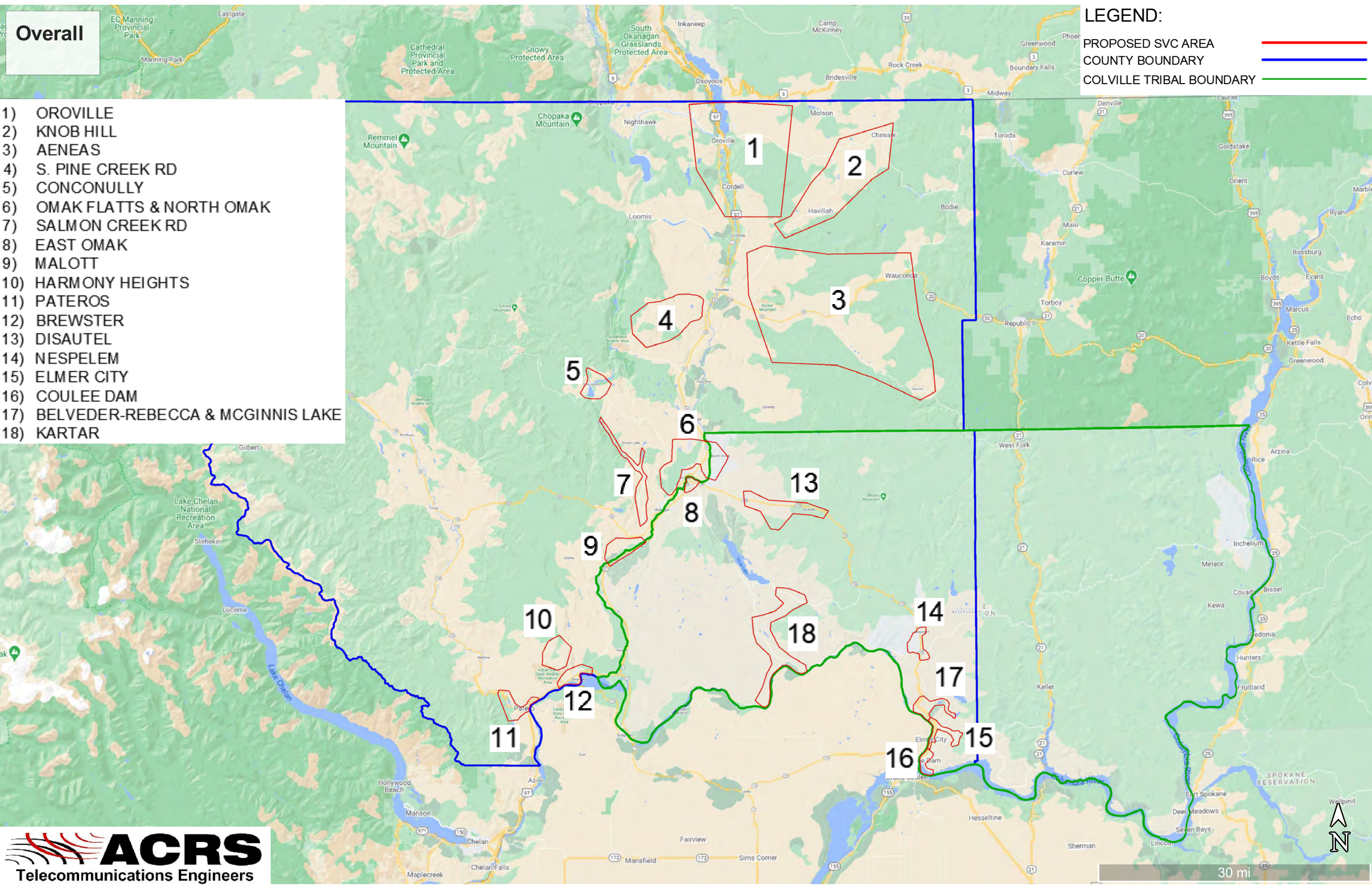


Pateros

LEGEND:

PROPOSED SVC AREA	
PROPOSED FIBER	
EXISTING FIBER	





- Overall**
- 1) OROVILLE
 - 2) KNOB HILL
 - 3) AENEAS
 - 4) S. PINE CREEK RD
 - 5) CONCONULLY
 - 6) OMAK FLATTS & NORTH OMAK
 - 7) SALMON CREEK RD
 - 8) EAST OMAK
 - 9) MALOTT
 - 10) HARMONY HEIGHTS
 - 11) PATEROS
 - 12) BREWSTER
 - 13) DISAUTEL
 - 14) NESPELEM
 - 15) ELMER CITY
 - 16) COULEE DAM
 - 17) BELVEDER-REBECCA & MCGINNIS LAKE
 - 18) KARTAR

Cost Estimates

OKANOGAN-COLVILLE COST ESTIMATE

			Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		Service Area					
			Unit Cost		Aeneas PUD		Belvader-Rebecca & McGinniss Lake Colville		Brewster PUD		Coconully PUD		Coulee Dam Colville		Disautel Colville		East Omak Colville		Elmer City Colville		Harmony Heights PUD	
			QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST		
NETWORK AND ACCESS EQUIPMENT																						
Routing	Core Router	\$ 450,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Transport	Microwave Backhaul	\$ 55,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	DWDM Optical Transport	\$ 90,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Access / Network Distribution	OLT - Optical Line Terminals	\$ 75,000.00	2.00	\$ 150,000.00	-	\$ -	1.00	\$ 75,000.00	1.00	\$ 75,000.00	-	\$ -	1.00	\$ 75,000.00	1.00	\$ 75,000.00	1.00	\$ 75,000.00	-	\$ -	-	\$ -
	Wireless Access Point	\$ 32,500.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Fiber Patch Panels, Splitters & Jumpers	Rack with patch panels, splitters & jumpers	\$ 50,000.00	2.00	\$ 100,000.00	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
OUTSIDE PLANT																						
Cables	Aerial Cable (Distribution)	\$ 30,000.00	70.00	\$ 2,100,000.00	5.00	\$ 150,000.00	7.00	\$ 210,000.00	11.00	\$ 330,000.00	4.00	\$ 120,000.00	6.00	\$ 180,000.00	5.00	\$ 150,000.00	4.00	\$ 120,000.00	9.00	\$ 270,000.00		
	Buried Cable (Distribution)	\$ 65,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	3.25	\$ 65,000.00
	Fiber Backhaul	\$ 20,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	13.75	\$ 275,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Make Ready	144 & 288 PON Cabinets & Splitters	\$ 12,500.00	4	\$ 50,000.00	1	\$ 12,500.00	3	\$ 37,500.00	-	\$ -	2	\$ 25,000.00	1	\$ 12,500.00	1	\$ 12,500.00	1	\$ 12,500.00	1	\$ 12,500.00	1	\$ 12,500.00
	Cable Relocations	\$ 200.00	280.00	\$ 56,000.00	20.00	\$ 4,000.00	28.00	\$ 5,600.00	44.00	\$ 8,800.00	16.00	\$ 3,200.00	24.00	\$ 4,800.00	20.00	\$ 4,000.00	16.00	\$ 3,200.00	36.00	\$ 7,200.00		
	Pole Replacements	\$ 3,500.00	1,450.00	\$ 5,075,000.00	5.00	\$ 17,500.00	133.00	\$ 465,500.00	179.00	\$ 626,500.00	4.00	\$ 14,000.00	6.00	\$ 21,000.00	5.00	\$ 17,500.00	4.00	\$ 14,000.00	113.00	\$ 395,500.00		
Drop Cable	Aerial Drops - ave. 200'	\$ 350.00	269	\$ 94,150.00	42	\$ 14,700.00	233	\$ 81,550.00	-	\$ -	152	\$ 53,200.00	54	\$ 18,900.00	76	\$ 26,600.00	55	\$ 19,250.00	14	\$ 4,900.00		
	Buried Drops - ave. 200'	\$ 1,200.00	145	\$ 174,000.00	23	\$ 27,600.00	125	\$ 150,000.00	-	\$ -	82	\$ 98,400.00	29	\$ 34,800.00	41	\$ 49,200.00	30	\$ 36,000.00	8	\$ 9,600.00		
Smart Grid																						
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
LAND, BUILDINGS & TOWERS																						
New Building Construction		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Pre-Fab Huts	Pre-fab hut, power, HVAC	\$ 50,000.00	2.00	\$ 100,000.00	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	-	\$ -	-	\$ -
	Land for Huts	\$ 10,000.00	2.00	\$ 20,000.00	-	\$ -	1.00	\$ 10,000.00	1.00	\$ 10,000.00	-	\$ -	1.00	\$ 10,000.00	-	\$ -	1.00	\$ 10,000.00	-	\$ -	-	\$ -
Building Improvements & Renovation		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Towers	190' Self-Support Tower	\$ 80,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Soil Testino, site prep, grounding & fencing	\$ 25,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
CUSTOMER PREMISE EQUIPMENT																						
ONTs & Wireless CPE	Indoor ONT	\$ 450.00	414.00	\$ 186,300.00	65.00	\$ 29,250.00	358.00	\$ 161,100.00	-	\$ -	234.00	\$ 105,300.00	83.00	\$ 37,350.00	117.00	\$ 52,650.00	85.00	\$ 38,250.00	22.00	\$ 9,900.00		
	Wireless CPE	\$ 775.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
BILLING AND OPERATIONAL SUPPORT SYSTEMS																						
Billing Support Systems	Accounting & Billing Software & Fiber Mapping	\$ 750,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Customer Care Systems		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other Support		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
OPERATING EQUIPMENT																						
Vehicles	Installation-Maint Vehicles-Geek Squad Van	\$ 30,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Manager vehicle	\$ 58,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other Equipment/ Furniture	Bucket Truck Versalift - Ford F550	\$ 145,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	NOC - CSR Furniture	\$ 2,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	NOC - CSR Computers	\$ 2,500.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other	Technician Tools/Fusion Splicer & Test Gear	\$ 40,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
PROFESSIONAL SERVICES																						
Engineering Design	FTTx System Engineering	\$ -	-	\$ 989,894	-	\$ 28,288	-	\$ 141,894	-	\$ 178,163	-	\$ 39,225	-	\$ 57,125	-	\$ 192,288	-	\$ 48,744	-	\$ 95,588		
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Project Management		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Consulting		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Total Cost				\$ 9,095,344.00		\$ 283,838.00		\$ 1,438,144.00		\$ 1,603,463.00		\$ 458,325.00		\$ 551,475.00		\$ 1,783,238.00		\$ 476,944.00		\$ 870,188.00		
				Aeneas		Belveder-Rebecca & McG		Brewster		Coconully		Coulee Dam		Disautel		East Omak		Elmer City		Harmony Heights		

OKANOGAN-COLVILLE COST ESTIMATE

		Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		Total	
		Kartar Colville		Knob Hill		Malott		Nespelem Colville		Omak Flats & North Omak		Oroville		Pateros		S. Pine Creek Rd. PUD		Salmon Creek Rd. PUD		Costs	
		QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST		
NETWORK AND ACCESS EQUIPMENT																					
Routing	Core Router	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Transport	Microwave Backhaul	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	DWDM Optical Transport	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Access / Network Distribution	OLT - Optical Line Terminals	1.00	\$ 75,000.00	1.00	\$ 75,000.00	1.00	\$ 75,000.00	1.00	\$ 75,000.00	\$ -	\$ -	1.00	\$ 75,000.00	-	\$ -	1.00	\$ 75,000.00	1.00	\$ 75,000.00		1,050,000
	Wireless Access Point	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Fiber Patch Panels, Splitters & Jumpers	Rack with patch panels, splitters & jumpers	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00		700,000
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
OUTSIDE PLANT																					
Cables	Aerial Cable (Distribution)	23.00	\$ 690,000.00	42.00	\$ 1,260,000.00	7.00	\$ 210,000.00	7.00	\$ 210,000.00	30.00	\$ 900,000.00	50.00	\$ 1,500,000.00	8.00	\$ 240,000.00	29.00	\$ 870,000.00	13.00	\$ 390,000.00		9,900,000
	Buried Cable (Distribution)	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Make Ready	Fiber Backhaul	15.50	\$ 310,000.00	2.50	\$ 50,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	1.50	\$ 30,000.00		730,000
	144 & 288 PON Cabinets & Splitters	1	\$ 12,500.00	2	\$ 25,000.00	1	\$ 12,500.00	2	\$ 25,000.00	3	\$ 37,500.00	5	\$ 62,500.00	1	\$ 12,500.00	-	\$ -	1	\$ 12,500.00		412,500
	Cable Relocations	92.00	\$ 18,400.00	168.00	\$ 33,600.00	28.00	\$ 5,600.00	28.00	\$ 5,600.00	120.00	\$ 24,000.00	200.00	\$ 40,000.00	32.00	\$ 6,400.00	116.00	\$ 23,200.00	52.00	\$ 10,400.00		1,380,000
	Pole Replacements	23.00	\$ 80,500.00	810.00	\$ 2,835,000.00	148.00	\$ 518,000.00	7.00	\$ 24,500.00	628.00	\$ 2,198,000.00	1,016.00	\$ 3,556,000.00	134.00	\$ 469,000.00	478.00	\$ 1,673,000.00	270.00	\$ 945,000.00		18,945,500
Drop Cable	Aerial Drops - ave. 200'	10	\$ 3,500.00	113	\$ 39,550.00	62	\$ 21,700.00	161	\$ 56,350.00	235	\$ 82,250.00	373	\$ 130,550.00	88	\$ 30,800.00	20	\$ 7,000.00	52	\$ 18,200.00		703,150
	Buried Drops - ave. 200'	5	\$ 6,000.00	61	\$ 73,200.00	34	\$ 40,800.00	86	\$ 103,200.00	126	\$ 151,200.00	201	\$ 241,200.00	48	\$ 57,600.00	11	\$ 13,200.00	28	\$ 33,600.00		1,299,600
Smart Grid																					
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
LAND, BUILDINGS & TOWERS																					
New Building Construction		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Pre-Fab Huts	Pre-fab hut, power, HVAC	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00		650,000
	Land for Huts	1.00	\$ 10,000.00	1.00	\$ 10,000.00	1.00	\$ 10,000.00	1.00	\$ 10,000.00	-	\$ -	1.00	\$ 10,000.00	-	\$ -	1.00	\$ 10,000.00	1.00	\$ 10,000.00		130,000
Building Improvements & Renovation		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Towers	190' Self-Support Tower	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Soil Testing, site prep, grounding & fencing	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
CUSTOMER PREMISE EQUIPMENT																					
ONTs & Wireless CPE	Indoor ONT	15.00	\$ 6,750.00	174.00	\$ 78,300.00	96.00	\$ 43,200.00	247.00	\$ 111,150.00	361.00	\$ 162,450.00	574.00	\$ 258,300.00	136.00	\$ 61,200.00	31.00	\$ 13,950.00	80.00	\$ 36,000.00		1,391,400
	Wireless CPE	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
BILLING AND OPERATIONAL SUPPORT SYSTEMS																					
Billing Support Systems	Accounting & Billing Software & Fiber Mapping	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Customer Care Systems		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other Support		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
OPERATING EQUIPMENT																					
Vehicles	Installation-Maint Vehicles-Geek Squad Van	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Manager vehicle	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other Equipment/ Furniture	Bucket Truck Versalift - Ford F550	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	NOC - CSR Furniture	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other	NOC - CSR Computers	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Technician Tools/Fusion Splicer & Test Gear	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
PROFESSIONAL SERVICES																					
Engineering Design	FTTx System Engineering	-	\$ 163,238	-	\$ 562,669	-	\$ 124,200	-	\$ 76,206	-	\$ 424,119	-	\$ 714,406	-	\$ 102,038	-	\$ 346,425	-	\$ 203,088		4,487,598
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Project Management		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Consulting		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Total Cost			\$ 1,475,888.00		\$ 5,142,319.00		\$ 1,161,000.00		\$ 797,006.00		\$ 3,979,519.00		\$ 6,687,956.00		\$ 979,538.00		\$ 3,131,775.00		\$ 1,863,788.00		\$ 41,779,748.00
		Is	Kartar		Knob Hill		Malott		Nespelem		Omak Flats & North Omak		Oroville		Pateros		S. Pine Creek Rd.		Salmon Creek Rd.		

OKANOGAN PUD ONLY - COST ESTIMATE

		Unit Cost	Service Area		Service Area		Service Area		Service Area		Service Area		Service Area	
			Aeneas PUD		Brewster PUD		Conconully PUD		East Omak Colville Lands - PUD svc		Harmony Heights PUD		Knob Hill PUD	
			QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST
NETWORK AND ACCESS EQUIPMENT														
Routing	Core Router	\$ 450,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Transport	Microwave Backhaul	\$ 55,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	DWDM Optical Transport	\$ 90,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Access / Network Distribution	OLT - Optical Line Terminals	\$ 75,000.00	2.00	\$ 150,000.00	1.00	\$ 75,000.00	1.00	\$ 75,000.00	1.00	\$ 75,000.00	-	\$ -	1.00	\$ 75,000.00
Fiber Patch Panels, Splitters & Jumpers	Wireless Access Point	\$ 32,500.00		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Rack with patch panels, splitters & jumpers	\$ 50,000.00	2.00	\$ 100,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
OUTSIDE PLANT														
Cables	Aerial Cable (Distribution)	\$ 30,000.00	70.00	\$ 2,100,000.00	7.00	\$ 210,000.00	11.00	\$ 330,000.00	5.00	\$ 150,000.00	9.00	\$ 270,000.00	42.00	\$ 1,260,000.00
	Buried Cable (Distribution)	\$ 65,000.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
	Fiber Backhaul	\$ 20,000.00		\$ -		\$ -	13.75	\$ 275,000.00		\$ -	3.25	\$ 65,000.00	2.50	\$ 50,000.00
Make Ready	144 & 288 PON Cabinets & Splitters	\$ 12,500.00	4	\$ 50,000.00	3	\$ 37,500.00		\$ -	1	\$ 50,000.00	1	\$ 12,500.00	2	\$ 25,000.00
	Cable Relocations	\$ 200.00	280.00	\$ 56,000.00	28.00	\$ 5,600.00	44.00	\$ 8,800.00	20.00	\$ 1,120,000.00	36.00	\$ 7,200.00	168.00	\$ 33,600.00
	Pole Replacements	\$ 3,500.00	1,450.00	\$ 5,075,000.00	133.00	\$ 465,500.00	179.00	\$ 626,500.00	5.00	\$ 17,500.00	113.00	\$ 395,500.00	810.00	\$ 2,835,000.00
Drop Cable	Aerial Drops - ave. 200'	\$ 350.00	269	\$ 94,150.00	233	\$ 81,550.00	-	\$ -	76	\$ 26,600.00	14	\$ 4,900.00	113	\$ 39,550.00
	Buried Drops - ave. 200'	\$ 1,200.00	145	\$ 174,000.00	125	\$ 150,000.00	-	\$ -	41	\$ 49,200.00	8	\$ 9,600.00	61	\$ 73,200.00
Smart Grid														
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
LAND, BUILDINGS & TOWERS														
New Building Construction		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Pre-Fab Huts	Pre-fab hut, power, HVAC	\$ 50,000.00	2.00	\$ 100,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ -	-	\$ -	1.00	\$ 50,000.00
	Land for Huts	\$ 10,000.00	2.00	\$ 20,000.00	1.00	\$ 10,000.00	1.00	\$ 10,000.00	-	\$ -	-	\$ -	1.00	\$ 10,000.00
Building Improvements & Renovation		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Towers	190' Self-Support Tower	\$ 80,000.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
	Soil Testing, site prep, grounding & fencing	\$ 25,000.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
CUSTOMER PREMISE EQUIPMENT														
ONTs & Wireless CPE	Indoor ONT	\$ 450.00	414.00	\$ 186,300.00	358.00	\$ 161,100.00		\$ -	117.00	\$ 52,650.00	22.00	\$ 9,900.00	174.00	\$ 78,300.00
	Wireless CPE	\$ 775.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
BILLING AND OPERATIONAL SUPPORT SYSTEMS														
Billing Support Systems	Accounting & Billing Software & Fiber Mapping	\$ 750,000.00	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Customer Care Systems		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Other Support		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
OPERATING EQUIPMENT														
Vehicles	Installation-Maint Vehicles-Geek Squad Van	\$ 30,000.00	-	\$ -		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Manager vehicle	\$ 58,000.00	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
	Bucket Truck Versalift - Ford F550	\$ 145,000.00	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Other Equipment/ Furniture	NOC - CSR Furniture	\$ 2,000.00	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
	NOC - CSR Computers	\$ 2,500.00	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Other		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
	Technician Tools/Fusion Splicer & Test Gear	\$ 40,000.00	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
PROFESSIONAL SERVICES														
Engineering Design	FTTx System Engineering	\$ -	-	\$ 989,894	-	\$ 141,894	-	\$ 178,163	-	\$ 192,288	-	\$ 95,588	-	\$ 562,669
Project Management		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Consulting		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Other		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
		\$ -	-	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Total Cost				\$ 9,095,344.00		\$ 1,438,144.00		\$ 1,603,463.00		\$ 1,783,238.00		\$ 870,188.00		\$ 5,142,319.00
				Aeneas		Brewster		Conconully		East Omak		Harmony Heights		Knob Hill

OKANOGAN PUD ONLY - COST ESTIMATE

		Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		Total	
		Malott		Omak Flats & North Omak		Oroville		Pateros		S. Pine Creek Rd.		Salmon Creek Rd.		Costs	
		90% PUD / 10% Colville	20% Colville/ 80% PUD												
		QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST		
NETWORK AND ACCESS EQUIPMENT															
Routing	Core Router	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Transport	Microwave Backhaul	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	DWDM Optical Transport	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	OLT - Optical Line Terminals	1.00	\$ 75,000.00	-	\$ -	1.00	\$ 75,000.00	-	\$ -	1.00	\$ 75,000.00	1.00	\$ 75,000.00	-	\$ -
Access / Network Distribution		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Wireless Access Point	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Fiber Patch Panels, Splitters & Jumpers	Rack with patch panels, splitters & jumpers	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
OUTSIDE PLANT															
Cables	Aerial Cable (Distribution)	7.00	\$ 210,000.00	30.00	\$ 900,000.00	50.00	\$ 1,500,000.00	8.00	\$ 240,000.00	29.00	\$ 870,000.00	13.00	\$ 390,000.00	-	\$ 8,430,000
	Buried Cable (Distribution)	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Fiber Backhaul	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	1.50	\$ 30,000.00	-	\$ 420,000
	144 & 288 PON Cabinets & Splitters	1	\$ 12,500.00	3	\$ 37,500.00	-	\$ -	1	\$ 12,500.00	-	\$ -	1	\$ 12,500.00	-	\$ 250,000
Make Ready	Cable Relocations	28.00	\$ 5,600.00	120.00	\$ 24,000.00	200.00	\$ 40,000.00	32.00	\$ 6,400.00	116.00	\$ 23,200.00	52.00	\$ 10,400.00	-	\$ 1,340,800
	Pole Replacements	148.00	\$ 518,000.00	628.00	\$ 2,198,000.00	1,016.00	\$ 3,556,000.00	134.00	\$ 469,000.00	478.00	\$ 1,673,000.00	270.00	\$ 945,000.00	-	\$ 18,774,000
	Aerial Drops - ave. 200'	62	\$ 21,700.00	235	\$ 82,250.00	-	\$ -	88	\$ 30,800.00	20	\$ 7,000.00	52	\$ 18,200.00	-	\$ 406,700
Drop Cable	Buried Drops - ave. 200'	34	\$ 40,800.00	126	\$ 151,200.00	-	\$ -	48	\$ 57,600.00	11	\$ 13,200.00	28	\$ 33,600.00	-	\$ 752,400
Smart Grid															
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
LAND, BUILDINGS & TOWERS															
New Building Construction		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Pre-Fab Huts	Pre-fab hut, power, HVAC	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	-	\$ 450,000
	Land for Huts	1.00	\$ 10,000.00	-	\$ -	1.00	\$ 10,000.00	-	\$ -	1.00	\$ 10,000.00	1.00	\$ 10,000.00	-	\$ 90,000
Building Improvements & Renovation		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Towers	190' Self-Support Tower	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Soil Testing, site prep, grounding & fencing	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
CUSTOMER PREMISE EQUIPMENT															
ONTs & Wireless CPE	Indoor ONT	96.00	\$ 43,200.00	361.00	\$ 162,450.00	-	\$ -	136.00	\$ 61,200.00	31.00	\$ 13,950.00	80.00	\$ 36,000.00	-	\$ 805,050
	Wireless CPE	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
BILLING AND OPERATIONAL SUPPORT SYSTEMS															
Billing Support Systems	Accounting & Billing Software & Fiber Mapping	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Customer Care Systems		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other Support		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
OPERATING EQUIPMENT															
Vehicles	Installation-Maint Vehicles-Geek Squad Van	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Manager vehicle	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Bucket Truck Versalift - Ford F550	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other Equipment/ Furniture	NOC - CSR Furniture	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	NOC - CSR Computers	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other	Technician Tools/Fusion Splicer & Test Gear	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
PROFESSIONAL SERVICES															
Engineering Design	FTTx System Engineering	-	\$ 124,200	-	\$ 424,119	-	\$ 660,125	-	\$ 102,038	-	\$ 346,425	-	\$ 203,088	-	\$ 4,020,491
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Project Management		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Consulting		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Other		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Total Cost			\$ 1,161,000.00		\$ 3,979,519.00		\$ 5,941,125.00		\$ 979,538.00		\$ 3,131,775.00		\$ 1,863,788.00		\$ 36,989,441.00
			Malott		Omak Flats & North Omak		Oroville		Pateros		S. Pine Creek Rd.		Salmon Creek Rd.		

Okanogan PUD only less Conconully-Oroville															
		Unit Cost	Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		
			Aeneas		Brewster		Coconully		East Omak		Harmony Heights		Knob Hill		
			PUD		PUD		PUD		Colville Lands - PUD svc		PUD		PUD		
			QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	
NETWORK AND ACCESS EQUIPMENT															
Routing	Core Router	\$ 450,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Transport	Microwave Backhaul	\$ 55,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
	DWDM Optical Transport	\$ 90,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Access / Network Distribution	OLT - Optical Line Terminals	\$ 75,000.00	2.00	\$ 150,000.00	1.00	\$ 75,000.00	-	\$ -	1.00	\$ 75,000.00	-	\$ -	1.00	\$ 75,000.00	
	Wireless Access Point	\$ 32,500.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Fiber Patch Panels, Splitters & Jumpers	Rack with patch panels, splitters & jumpers	\$ 50,000.00	2.00	\$ 100,000.00	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	-	\$ -	1.00	\$ 50,000.00	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
OUTSIDE PLANT															
Cables	Aerial Cable (Distribution)	\$ 30,000.00	70.00	\$ 2,100,000.00	7.00	\$ 210,000.00	-	\$ -	5.00	\$ 150,000.00	9.00	\$ 270,000.00	42.00	\$ 1,260,000.00	
	Buried Cable (Distribution)	\$ 65,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
	Fiber Backhaul	\$ 20,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	3.25	\$ 65,000.00	2.50	\$ 50,000.00	
	144 & 288 PON Cabinets & Splitters	\$ 12,500.00	4	\$ 50,000.00	3	\$ 37,500.00	-	\$ -	1	\$ 50,000.00	1	\$ 12,500.00	2	\$ 25,000.00	
Make Ready	Cable Relocations	\$ 200.00	280.00	\$ 56,000.00	28.00	\$ 5,600.00	-	\$ -	20.00	\$ 1,120,000.00	36.00	\$ 7,200.00	168.00	\$ 33,600.00	
	Pole Replacements	\$ 3,500.00	1,450.00	\$ 5,075,000.00	133.00	\$ 465,500.00	-	\$ -	5.00	\$ 17,500.00	113.00	\$ 395,500.00	810.00	\$ 2,835,000.00	
	Aerial Drops - ave. 200'	\$ 350.00	269	\$ 94,150.00	233	\$ 81,550.00	-	\$ -	76	\$ 26,600.00	14	\$ 4,900.00	113	\$ 39,550.00	
Drop Cable	Buried Drops - ave. 200'	\$ 1,200.00	145	\$ 174,000.00	125	\$ 150,000.00	-	\$ -	41	\$ 49,200.00	8	\$ 9,600.00	61	\$ 73,200.00	
Smart Grid															
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
LAND, BUILDINGS & TOWERS															
New Building Construction		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Pre-Fab Huts	Pre-fab hut, power, HVAC	\$ 50,000.00	2.00	\$ 100,000.00	1.00	\$ 50,000.00	-	\$ -	-	\$ -	-	\$ -	1.00	\$ 50,000.00	
	Land for Huts	\$ 10,000.00	2.00	\$ 20,000.00	1.00	\$ 10,000.00	-	\$ -	-	\$ -	-	\$ -	1.00	\$ 10,000.00	
Building Improvements & Renovation		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Towers	190' Self-Support Tower	\$ 80,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
	Soil Testing, site prep, grounding & fencing	\$ 25,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
CUSTOMER PREMISE EQUIPMENT															
ONTs & Wireless CPE	Indoor ONT	\$ 450.00	414.00	\$ 186,300.00	358.00	\$ 161,100.00	-	\$ -	117.00	\$ 52,650.00	22.00	\$ 9,900.00	174.00	\$ 78,300.00	
	Wireless CPE	\$ 775.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
BILLING AND OPERATIONAL SUPPORT SYSTEMS															
Billing Support Systems	Accounting & Billing Software & Fiber Mapping	\$ 750,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Customer Care Systems		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Other Support		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
OPERATING EQUIPMENT															
Vehicles	Installation-Maint Vehicles-Geek Squad Van	\$ 30,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
	Manager vehicle	\$ 58,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
	Bucket Truck Versalift - Ford F550	\$ 145,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Other Equipment/ Furniture	NOC - CSR Furniture	\$ 2,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
	NOC - CSR Computers	\$ 2,500.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Other	Technician Tools/Fusion Splicer & Test Gear	\$ 40,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
PROFESSIONAL SERVICES															
Engineering Design	FTTx System Engineering	\$ -	-	\$ 989,894	-	\$ 141,894	-	\$ -	-	\$ 192,288	-	\$ 95,588	-	\$ 562,669	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Project Management		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Consulting		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Other		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Total Cost				\$ 9,095,344.00		\$ 1,438,144.00		\$ -		\$ 1,783,238.00		\$ 870,188.00		\$ 5,142,319.00	
				Aeneas		Brewster		Coconully		East Omak		Harmony Heights		Knob Hill	

Okanogan PUD only less Conconully-Oroville														
		Service Area		Service Area		Service Area		Service Area		Service Area		Service Area		Total
		Malott		Omak Flats & North Omak		Oroville PUD		Pateros PUD		S. Pine Creek Rd. PUD		Salmon Creek Rd. PUD		Costs
		90% PUD / 10% Colville		20% Colville/ 80% PUD		QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	
NETWORK AND ACCESS EQUIPMENT														
Routing	Core Router	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Transport		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
	Microwave Backhaul	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Access / Network Distribution	DWDM Optical Transport	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
	OLT - Optical Line Terminals	1.00	\$ 75,000.00	-	\$ -	-	\$ -	-	\$ -	1.00	\$ 75,000.00	1.00	\$ 75,000.00	600,000
Fiber Patch Panels, Splitters & Jumpers		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
	Wireless Access Point	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
	Rack with patch panels, splitters & jumpers	1.00	\$ 50,000.00	-	\$ -	-	\$ -	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	400,000
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
OUTSIDE PLANT														
Cables	Aerial Cable (Distribution)	7.00	\$ 210,000.00	30.00	\$ 900,000.00	-	\$ -	8.00	\$ 240,000.00	29.00	\$ 870,000.00	13.00	\$ 390,000.00	\$ 6,600,000
	Buried Cable (Distribution)		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
	Fiber Backhaul		\$ -		\$ -		\$ -		\$ -		\$ -	1.50	\$ 30,000.00	\$ 145,000
	144 & 288 PON Cabinets & Splitters	1	\$ 12,500.00	3	\$ 37,500.00	-	\$ -	1	\$ 12,500.00	-	\$ -	1	\$ 12,500.00	\$ 250,000
Make Ready	Cable Relocations	28.00	\$ 5,600.00	120.00	\$ 24,000.00	-	\$ -	32.00	\$ 6,400.00	116.00	\$ 23,200.00	52.00	\$ 10,400.00	\$ 1,292,000
	Pole Replacements	148.00	\$ 518,000.00	628.00	\$ 2,198,000.00	-	\$ -	134.00	\$ 469,000.00	478.00	\$ 1,673,000.00	270.00	\$ 945,000.00	\$ 14,591,500
Drop Cable	Aerial Drops - ave. 200'	62	\$ 21,700.00	235	\$ 82,250.00	-	\$ -	88	\$ 30,800.00	20	\$ 7,000.00	52	\$ 18,200.00	\$ 406,700
	Buried Drops - ave. 200'	34	\$ 40,800.00	126	\$ 151,200.00	-	\$ -	48	\$ 57,600.00	11	\$ 13,200.00	28	\$ 33,600.00	\$ 752,400
Smart Grid														
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
LAND, BUILDINGS & TOWERS														
New Building Construction			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Pre-Fab Huts			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
	Pre-fab hut, power, HVAC	1.00	\$ 50,000.00	-	\$ -	-	\$ -	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	\$ 350,000
Building Improvements & Renovation	Land for Huts	1.00	\$ 10,000.00	-	\$ -	-	\$ -	-	\$ -	1.00	\$ 10,000.00	1.00	\$ 10,000.00	\$ 70,000
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Towers			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
	190' Self-Support Tower		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
	Soil Testing, site prep, grounding & fencing		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
CUSTOMER PREMISE EQUIPMENT														
ONTs & Wireless CPE	Indoor ONT	96.00	\$ 43,200.00	361.00	\$ 162,450.00	-	\$ -	136.00	\$ 61,200.00	31.00	\$ 13,950.00	80.00	\$ 36,000.00	\$ 805,050
	Wireless CPE		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
BILLING AND OPERATIONAL SUPPORT SYSTEMS														
Billing Support Systems	Accounting & Billing Software & Fiber Mapping		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Customer Care Systems			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Other Support			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
			\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
OPERATING EQUIPMENT														
Vehicles	Installation-Maint Vehicles-Geek Squad Van	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
	Manager vehicle	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Other Equipment/ Furniture	Bucket Truck Versalift - Ford F550	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
	NOC - CSR Furniture	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Other	NOC - CSR Computers	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
	Technician Tools/Fusion Splicer & Test Gear	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
PROFESSIONAL SERVICES														
Engineering Design	FTTx System Engineering	-	\$ 124,200	-	\$ 424,119	-	\$ -	-	\$ 102,038	-	\$ 346,425	-	\$ 203,088	\$ 3,182,203
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Project Management		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Consulting		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Other		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
		-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -
Total Cost			\$ 1,161,000.00		\$ 3,979,519.00		\$ -		\$ 979,538.00		\$ 3,131,775.00		\$ 1,863,788.00	\$ 29,444,853.00
			Malott		Omak Flats & North Omak		Oroville		Pateros		S. Pine Creek Rd.		Salmon Creek Rd.	

COLVILLE ONLY COST ESTIMATE

		Unit Cost	Service Area Belveder-Rebecca & McGinniss Lake Colville		Service Area Coulee Dam Colville		Service Area Disautel Colville		Service Area Elmer City Colville		Service Area Kartar Colville		Service Area Nespelem Colville		Total	
															Costs	
			QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST	QNTY	COST		
NETWORK AND ACCESS EQUIPMENT																
Routing	Core Router	\$ 450,000.00	-	\$ -	-	\$ -	-	\$ -	1.00	\$ 450,000.00	-	\$ -	-	\$ -	\$ 450,000.00	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Transport	Microwave Backhaul	\$ 55,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
	DWDM Optical Transport	\$ 90,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Access / Network Distribution	OLT - Optical Line Terminals	\$ 75,000.00	-	\$ -	-	\$ -	1.00	\$ 75,000.00	1.00	\$ 75,000.00	1.00	\$ 75,000.00	1.00	\$ 75,000.00	\$ 300,000.00	
	Wireless Access Point	\$ 32,500.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Fiber Patch Panels, Splitters & Jumpers	Rack with patch panels, splitters & jumpers	\$ 50,000.00	-	\$ -	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	\$ 200,000.00	
		\$ -	\$ -	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
OUTSIDE PLANT																
Cables	Aerial Cable (Distribution)	\$ 30,000.00	5.00	\$ 150,000.00	4.00	\$ 120,000.00	6.00	\$ 180,000.00	4.00	\$ 120,000.00	23.00	\$ 690,000.00	7.00	\$ 210,000.00	\$ 1,470,000.00	
	Buried Cable (Distribution)	\$ 65,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
	Fiber Backhaul	\$ 20,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	15.50	\$ 310,000.00	-	\$ -	\$ 310,000.00	
	144 & 288 PON Cabinets & Splitters	\$ 12,500.00	1	\$ 12,500.00	2	\$ 25,000.00	1	\$ 12,500.00	1	\$ 12,500.00	1	\$ 12,500.00	2	\$ 25,000.00	\$ 100,000.00	
Make Ready	Cable Relocations	\$ 200.00	20.00	\$ 4,000.00	16.00	\$ 3,200.00	24.00	\$ 4,800.00	16.00	\$ 3,200.00	92.00	\$ 18,400.00	28.00	\$ 5,600.00	\$ 39,200.00	
	Pole Replacements	\$ 3,500.00	5.00	\$ 17,500.00	4.00	\$ 14,000.00	6.00	\$ 21,000.00	4.00	\$ 14,000.00	23.00	\$ 80,500.00	7.00	\$ 24,500.00	\$ 171,500.00	
Drop Cable	Aerial Drops - ave. 200'	\$ 350.00	42	\$ 14,700.00	152	\$ 53,200.00	54	\$ 18,900.00	55	\$ 19,250.00	10	\$ 3,500.00	161	\$ 56,350.00	\$ 165,900.00	
	Buried Drops - ave. 200'	\$ 1,200.00	23	\$ 27,600.00	82	\$ 98,400.00	29	\$ 34,800.00	30	\$ 36,000.00	5	\$ 6,000.00	86	\$ 103,200.00	\$ 306,000.00	
Smart Grid																
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
LAND, BUILDINGS & TOWERS																
New Building Construction		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Pre-Fab Huts	Pre-fab hut, power, HVAC	\$ 50,000.00	-	\$ -	-	\$ -	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	1.00	\$ 50,000.00	\$ 200,000.00	
	Land for Huts	\$ 10,000.00	-	\$ -	-	\$ -	1.00	\$ 10,000.00	1.00	\$ 10,000.00	1.00	\$ 10,000.00	1.00	\$ 10,000.00	\$ 40,000.00	
Building Improvements & Renovation		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Towers	190' Self-Support Tower	\$ 80,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
	Soil Testing, site prep, grounding & fencing	\$ 25,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
CUSTOMER PREMISE EQUIPMENT																
ONTs & Wireless CPE	Indoor ONT	\$ 450.00	65.00	\$ 29,250.00	234.00	\$ 105,300.00	83.00	\$ 37,350.00	85.00	\$ 38,250.00	15.00	\$ 6,750.00	247.00	\$ 111,150.00	\$ 328,050.00	
	Wireless CPE	\$ 775.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
BILLING AND OPERATIONAL SUPPORT SYSTEMS																
Billing Support Systems	Accounting & Billing Software & Fiber Mapping	\$ 750,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Customer Care Systems		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Other Support		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
OPERATING EQUIPMENT																
Vehicles	Installation-Maint Vehicles-Geek Squad Van	\$ 30,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
	Manager vehicle	\$ 58,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
	Bucket Truck Versalift - Ford F550	\$ 145,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Other Equipment/ Furniture	NOC - CSR Furniture	\$ 2,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
	NOC - CSR Computers	\$ 2,500.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Other		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
	Technician Tools/Fusion Splicer & Test Gear	\$ 40,000.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
PROFESSIONAL SERVICES																
Engineering Design	FTTx System Engineering	\$ -	-	\$ 28,288	-	\$ 39,225	-	\$ 57,125	-	\$ 104,994	-	\$ 163,238	-	\$ 76,206	\$ 469,076	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Project Management		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Consulting		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Other		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
		\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	\$ -	
Total Cost				\$ 283,838.00		\$ 458,325.00		\$ 551,475.00		\$ 983,194.00		\$ 1,475,888.00		\$ 797,006.00	\$ 4,549,726.00	
				Belveder-Rebecca & McGinniss Lake		Coulee Dam		Disautel		Elmer City		Kartar		Nespelem		

Market Analysis & Subscriber Forecast



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



MARKET ANALYSIS & SUBSCRIBER FORECAST

The following is a summary of the results of all demographic data research conducted for the proposed service areas and the research of the Okanogan County/Colville Confederated Tribes Broadband Action Team (BAT) competition, i.e. the existing broadband service providers. This research was used to develop the following Market Analysis and Subscriber Forecast.

Demographic Research Data

Multiple sources of data were used to compile variables for developing the subscriber penetration rates for each service area. One data source is the publicly available American Fact Finder website which is a product of the US Census Bureau using the most recent 5-year Census estimates from 2013-2017 and the 2010 Census. Data related to age, income, household size and commute time to work were all obtained from the census data. Copies of this U.S. Census Bureau data is included in the Feasibility Study exhibits.

Demographic Variables

The following is a list of the variables or factors used in the formula to develop the forecasted subscriber take rate. The tables are used with the research data described above for selecting unique factors for each service area.

For areas not listed as a Census Designated Place, default values are also included in the tables below.

Age Factor
(National Median Age 37.6)

Median Age	Factor
< 40	1.1
40-65	1.0
> 65	0.9
Non CDP	1.0



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



Income

(National Average Families Below Poverty Level 11.3%)

Families Below Poverty Level	Factor
< 5%	1.2
5 – 15%	1.1
15 – 20%	1.0
20 – 30%	0.9
>30%	0.8
Non CDP	1.0

Average Household Size

(National Average 2.65)

Average Size	Factor
< 1.9	0.9
1.9 – 2.5	1.0
> 2.5	1.1
Non CDP	1.0

Mean Travel Time to Work

(National Average 25.9 Minutes)

Mean Time	Factor
< 20	1.0
20-45	1.1
>45	1.15
Non CDP	1.1



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



Competition

The number of existing providers or more accurately the number of service provider types such as cable operators using cable modem technology, landline telephone operators offering Digital Subscriber Line service or Fiber-to-the-Home service, and fixed wireless operators is used to obtain a Competition factor. Although multiple fixed wireless companies may claim to offer service in an area, these were only counted once for the purpose of a Competition factor. Mobile wireless or cellular carriers and satellite carriers were not considered in this calculation as the use of such technologies for in-home or business data needs is rare.

The total number of existing service providers, as discussed within the Narrative & Executive Summary was taken from a combination of knowledge of the area and those registered in the National Broadband Map published by the FCC. A copy of the results from the National Broadband Map and all existing service provider offerings is attached. This research on existing service providers was not only used for developing the BAT forecasted penetration rate into each service area but could aid in the development of future proposed service plans. Additionally, a spreadsheet of all existing providers with their speeds, tiers of service and rates is attached as an exhibit to this section.

The competition factor used in the penetration rate formula is taken from the table below.

Broadband Competition

Competitors	Factor
None	1.0
One Service Provider	0.75
Two Service Providers	0.66
Three Service Providers	0.5

Statewide Penetration

In addition to demographic data from the U.S. Census Bureau website and the competition factor, the final factor in developing the penetration rate is the overall statewide internet usage. This percentage of use was obtained from a national report and indicates the Washington statewide penetration rate to be 72%. A copy of this report may be viewed under in the exhibits.



Okanogan County/Colville Confederated Tribes
Broadband Action Team
Expansion of Broadband Internet



Forecasted Penetration Rates

The forecasted penetration rates are based upon all factors discussed above and are ultimately used in the subscriber forecast. A formula was developed using each of these factors to result in a more scientific methodology rather than pure conjecture or relying solely on national or local statistics. In addition, a second subscriber forecast was generated to account for existing subscribers with the Okanogan PUD. The results show the potential subscribers to be gained with the proposed upgrades. This additional subscriber forecast is attached as an exhibit in this section.

The formula used for developing the local penetration rates for each service area is as follows:

$$\text{Age} \times \text{Income} \times \text{Household Size} \times \text{Commute Time} \times \text{Competition} \times \text{State Penetration Rate} = \text{Local Penetration Rate}$$

Households Passed & Businesses

To develop an actual subscriber forecast, an accurate count of the number of households passed and businesses is also required. To obtain a count of the actual households passed, the USDA Rural Utilities Service Broadband Mapping Tool was utilized, which extrapolates from the most recent Census data. A copy of each service area report is attached to this report. The business data is based on internet research, county and chambers of commerce websites and local knowledge of the area.

Subscriber Forecast

The ultimate subscriber forecast and formula is based upon a local penetration rate for each service area and the number of residential and business establishments.

The formula is as follows:

$$\text{Local Penetration Rate} \times \text{Households Passed \& Businesses} = \text{Subscriber Forecast}$$

We have conservatively estimated the final subscriber forecast for the BAT with an overall average take rate of 48.9% for all residences and 62% for all businesses. The take rates vary from service area to service area depending on all of the factors above.

A copy of the actual subscriber projections and calculations can be viewed in the attached.

Subscriber Forecast

Okanogan-Colville Subscriber Projections Census Data

Service Area	COUNTY	STATE	Median Age	Poverty Level	HH Size	Commute Time	Population	# of Businesses	Total HHP	#-Type of Service Providers
Aeneas	Okanogan	WA	37.9	17.0	2.31	17.5	1,601	5	713	1
Belvedere-Rebecca/McGinnis Lake	Okanogan	WA	37.9	17.0	2.31	17.5	189	2	80	0
Brewster CDP	Okanogan	WA	24.9	17.6	3.05	14.6	2,870	25	855	2
Conconully CDP	Okanogan	WA	59.6	11.3	1.5	31.3	271	9	131	2
Coulee Dam CDP	Okanogan	WA	40.5	14.5	2.26	17.3	1,032	9	436	2
Disautel CDP	Okanogan	WA	38.8	21.3	2.58	20.4	391	2	137	1
East Omak CDP (w/Omak)	Okanogan	WA	37.1	21.3	2.32	20.4	1,018	15	368	3
Elmer City CDP	Okanogan	WA	42.4	19.2	2.02	14.2	525	3	231	3
Harmony Heights	Okanogan	WA	37.9	17.0	2.31	17.5	154	1	63	3
Kartar	Okanogan	WA	37.9	17.0	2.31	17.5	54	2	22	1
Knob Hill	Okanogan	WA	37.9	17.0	2.31	17.5	564	6	284	1
Malott	Okanogan	WA	27.2	55.7	3.96	22.3	1,150	7	406	2
Nespelem CDP	Okanogan	WA	32.8	21.3	2.19	20.4	1,172	2	344	0
Omak Flats/N Omak CDP	Okanogan	WA	37.1	21.3	2.32	20.4	3,650	83	1,325	3
Oroville	Okanogan	WA	39.1	32.9	2.22	10.2	4,266	18	1,785	3
Pateros CDP	Okanogan	WA	27	13.1	2.82	11.9	1,005	14	377	2
S. Pine Creek Rd.	Okanogan	WA	37.9	17.0	2.31	17.5	428	4	166	1
Salmon Creek Rd.	Okanogan	WA	37.9	17.0	2.31	17.5	365	5	151	2
Note: where no census data for the CDP existed, County or Tribal data was used										
Total								212	7,874	

Okanogan-Colville Subscriber Projections Census Data

	Factors					State Penetration Rate	Forecasted Local Penetration Rate (Data)
	Age Factor	Income Factor	Household Size Factor	Commute Time	Competition		
Aeneas	1.10	1.00	1.00	1.00	0.75	72%	59.40%
Belvedere-Rebecca/McGinnis Lake	1.10	1.00	1.00	1.00	1.00	72%	79.20%
Brewster CDP	1.10	1.00	1.10	1.00	0.66	72%	57.50%
Conconully CDP	1.00	1.10	0.90	1.10	0.66	72%	51.75%
Coulee Dam CDP	1.00	1.10	1.00	1.00	0.66	72%	52.27%
Disautel CDP	1.10	0.90	1.10	1.00	0.75	72%	58.81%
East Omak CDP (w/Omak)	1.10	0.90	1.00	1.00	0.50	72%	35.64%
Elmer City CDP	1.00	1.00	1.00	1.00	0.50	72%	36.00%
Harmony Heights	1.10	1.00	1.00	1.00	0.50	72%	39.60%
Kartar	1.10	1.00	1.00	1.00	0.75	72%	59.40%
Knob Hill	1.10	1.00	1.00	1.00	0.75	72%	59.40%
Malott	1.10	0.80	1.10	1.00	0.66	72%	46.00%
Nespelem CDP	1.10	0.90	1.00	1.00	1.00	72%	71.28%
Omak Flats/N Omak CDP	1.10	0.90	1.00	1.00	0.50	72%	35.64%
Oroville	1.10	0.80	1.00	1.00	0.50	72%	31.68%
Pateros CDP	1.10	1.10	1.10	1.00	0.66	72%	63.25%
S. Pine Creek Rd.	1.10	1.00	1.00	1.00	0.75	72%	59.40%
Salmon Creek Rd.	1.10	1.00	1.00	1.00	0.66	72%	52.27%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
0							0.00%
Average Penetration Rate							50%

Businesses			
# of Businesses	Competition	State Penetration Rate	Composite Business Penetration Rate
5	0.75	100%	75%
2	1.00	100%	100%
25	0.66	100%	66%
9	0.66	100%	66%
9	0.66	100%	66%
2	0.75	100%	75%
15	0.50	100%	50%
3	0.50	100%	50%
1	0.50	100%	50%
2	0.75	100%	75%
6	0.75	100%	75%
7	0.66	100%	66%
2	1.00	100%	100%
83	0.50	100%	50%
18	0.50	100%	50%
14	0.66	100%	66%
4	0.75	100%	75%
5	0.66	100%	66%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
0	0.00	100%	0%
Average Penetration Rate			64%

Okanogan-Colville Subscriber Projections Census Data

[illegible]

PFSA New Subscriber Forecast

PFSA NEW SUBSCRIBER FORECAST

PUD Service Area	Service Territory	Existing Wireless Customers	Wifi				Wireless				Existing Wired Customers	Wired		Total Existing Customers	Total Subs Forecasted	Total New Drops Required
			03/01 Mbps	07/03 Mbps	12/06 Mbps	20/10 Mbps	03/01 Mbps	07/02 Mbps	12/03 Mbps	20/05 Mbps		Residential	Sm. Business			
Aeneas	Okanogan PUD	13	2	7	1	1	0	2	0	0	1	0	1	14	428	414
Brewster	Okanogan PUD	90	2	1	1	1	6	38	29	12	61	3	58	151	509	358
Conconully	Okanogan PUD	75	3	3	3	8	13	21	11	13	2	2	0	77	74	-3
East Omak	Okanogan PUD	11	0	0	0	0	0	4	4	3	11	0	11	22	139	117
Harmony Heights	Okanogan PUD	4	0	0	0	0	0	0	1	3	0	0	0	4	26	22
Knob Hill	Okanogan PUD	0									0			0	174	174
Malott	Okanogan PUD	95	7	9	6	5	13	20	24	11	1	1	0	96	192	96
Omak Flats and North Omak	Okanogan PUD	150	0	0	0	0	20	48	48	34	3	2	1	153	514	361
Oroville	Okanogan PUD	600	50	74	36	30	60	179	96	75	48	22	26	648	574	-74
Pateros	Okanogan PUD	94	4	20	4	9	4	13	14	26	17	5	12	111	247	136
S Pine Creek Rd	Okanogan PUD	71	1	2	0	1	10	20	21	16	0	0	0	71	102	31
Salmon Creek Rd	Okanogan PUD	2	0	0	0	0	0	0	2	0	0	0	0	2	82	80
Belvedere-Rebecca/ McGinnis Lake	Colville Tribes														65	65
Coulee Dam	Colville Tribes														234	234
Disautel	Colville Tribes														83	83
Elmer City	Colville Tribes														85	85
Kartar	Colville Tribes														15	15
Nespelem	Colville Tribes														247	247
Total		1205	69	116	51	55	126	345	250	193	144	35	109	1349	3790	2441

Okanogan PUD Existing Wireless Clients									
Service Area	Customers	Wifi				Wireless			
		03/01 Mbps	07/03 Mbps	12/06 Mbps	20/10 Mbps	03/01 Mbps	07/02 Mbps	12/03 Mbps	20/05 Mbps
Aeneas	13	2	7	1	1	0	2	0	0
Brewster	90	2	1	1	1	6	38	29	12
Conconully	75	3	3	3	8	13	21	11	13
East Omak	11	0	0	0	0	0	4	4	3
Harmony Heights	4	0	0	0	0	0	0	1	3
Malott	95	7	9	6	5	13	20	24	11
Omak Flats and North Omak	150	0	0	0	0	20	48	48	34
Oroville	600	50	74	36	30	60	179	96	75
Pateros	94	4	20	4	9	4	13	14	26
S Pine Creek Rd	71	1	2	0	1	10	20	21	16
Salmon Creek Rd	2	0	0	0	0	0	0	2	0
Total:	1205	69	116	51	55	126	345	250	193

Okanogan PUD Existing Fiber Customers			
Service Area	Customers	Residential	Small Business
Aeneas	1	0	1
Brewster	61	3	58
Conconully	2	2	0
East Omak	11	0	11
Malott	1	1	0
Omak Flats and North Omak	3	2	1
Oroville	48	22	26
Pateros	17	5	12
Total:	144	35	109

Competitive Analysis

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Aeneas	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Aeneas	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Aeneas	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Aeneas	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Aeneas	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Aeneas	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
Aeneas	NCI Datacom	Fixed Wireless	5	1	Video/Data	Essential	\$35.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Aeneas	NCI Datacom	Fixed Wireless	5	1.5	Video/Data	Swift Stream	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Aeneas	NCI Datacom	Fixed Wireless	7	2	Video/Data	Swift Stream	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Aeneas	NCI Datacom	Fixed Wireless	10	2.5	Video/Data	Advantage	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Aeneas	NCI Datacom	Fixed Wireless	25	4	Video/Data	Family	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Aeneas	NCI Datacom	Fixed Wireless	40	6	Video/Data	Ultimate	\$75.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Aeneas	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Aeneas	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Aeneas	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Aeneas	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Belvedere-Rebecca/McGinnis Lake	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Belvedere-Rebecca/McGinnis Lake	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Belvedere-Rebecca/McGinnis Lake	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Belvedere-Rebecca/McGinnis Lake	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Belvedere-Rebecca/McGinnis Lake	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Belvedere-Rebecca/McGinnis Lake	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Belvedere-Rebecca/McGinnis Lake	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Belvedere-Rebecca/McGinnis Lake	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Belvedere-Rebecca/McGinnis Lake	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFS	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Brewster	Frontier Communications Corp	ADSL	6	1	Data	Simply Broadband Core	\$27.99	Residential	
Brewster	Frontier Communications Corp	ADSL	25	2	Data	Frontier Preferred	\$34.99	Residential	
Brewster	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Brewster	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Brewster	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Brewster	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Brewster	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Brewster	NCI Datacom	Fixed Wireless	5	1	Video/Data	Essential	\$35.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Brewster	NCI Datacom	Fixed Wireless	5	1.5	Video/Data	Swift Stream	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Brewster	NCI Datacom	Fixed Wireless	7	2	Video/Data	Swift Stream	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Brewster	NCI Datacom	Fixed Wireless	10	2.5	Video/Data	Advantage	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Brewster	NCI Datacom	Fixed Wireless	25	4	Video/Data	Family	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Brewster	NCI Datacom	Fixed Wireless	40	6	Video/Data	Ultimate	\$75.00	Residential	
Brewster	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Brewster	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Brewster	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Brewster	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Conconully	CenturyLink, Inc.	ADSL	1.5	0.896	Data		\$50.00	Residential	
Conconully	CommunityNet	Wireless	3	1	Data		\$45.00	Residential	Reseller for PUD #1
Conconully	CommunityNet	Wireless	7	2	Data		\$53.00	Residential	Reseller for PUD #1
Conconully	CommunityNet	Wireless	12	3	Data		\$61.00	Residential	Reseller for PUD #1
Conconully	CommunityNet	Wireless	20	5	Data		\$75.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	Wireless	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	WIFI	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	Wireless	7	3	Data		\$50.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	WIFI	7	3	Data		\$48.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	WIFI	10	5	Data		\$60.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	Wireless	12	6	Data		\$65.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	WIFI	12	6	Data		\$65.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	WIFI	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Conconully	Highland Internet	Fiber							Also reseller for PUD
Conconully	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Conconully	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Conconully	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Conconully	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Conconully	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Conconully	LocalTel	Fiber	100	10	Data		51.44	Residential	Reseller for PUD #1
Conconully	LocalTel	Fiber	100	100	Data		71.64	Residential	Reseller for PUD #1
Conconully	LocalTel	Fiber	1000	100	Data		74.95	Residential	Reseller for PUD #1
Conconully	Methownet	Fixed Wireless	3	1	Data		\$49.00	Residential	Reseller for PUD #1
Conconully	Methownet	Fixed Wireless	7	2 or 3	Data		\$59.00	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Conconully	Methownet	Fixed Wireless	12	3 or 6	Data		\$79.00	Residential	Reseller for PUD #1
Conconully	Methownet	Fixed Wireless	20	5 or 10	Data		\$99.00	Residential	Reseller for PUD #1
Conconully	NCI Datacom	Fixed Wireless	3	1	Data		\$35.00	Residential	Reseller for PUD #1
Conconully	NCI Datacom	Fixed Wireless	5	1	Video/Data	Essential	\$35.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Conconully	NCI Datacom	Fixed Wireless	5	1.5	Video/Data	Swift Stream	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Conconully	NCI Datacom	Fixed Wireless	7	2	Video/Data	Swift Stream	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Conconully	NCI Datacom	Fixed Wireless	7	2	Data		\$45.00	Residential	Reseller for PUD #1
Conconully	NCI Datacom	Fixed Wireless	10	2.5	Video/Data	Advantage	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Conconully	NCI Datacom	Fixed Wireless	12	3	Data		\$60.00	Residential	Reseller for PUD #1
Conconully	NCI Datacom	Fixed Wireless	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Conconully	NCI Datacom	Fixed Wireless	25	4	Video/Data	Family	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Conconully	NCI Datacom	Fixed Wireless	40	6	Video/Data	Ultimate	\$75.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Conconully	PC Telecom	Wireless	1		Data		29.99	Residential	Reseller for PUD #1
Conconully	PC Telecom	Wireless	3		Data		39.99	Residential	Reseller for PUD #1
Conconully	PC Telecom	Wireless	5		Data		49.99	Residential	Reseller for PUD #1
Conconully	PC Telecom	Fiber	5		Data		59.99	Residential	Reseller for PUD #1
Conconully	PC Telecom	Wireless	7		Data		59.99	Residential	Reseller for PUD #1
Conconully	PC Telecom	Wireless	10		Data		69.99	Residential	Reseller for PUD #1
Conconully	PC Telecom	Fiber	10		Data		69.99	Residential	Reseller for PUD #1
Conconully	PC Telecom	Fiber	20		Data		79.99	Residential	Reseller for PUD #1
Conconully	PC Telecom	Fiber	50		Data		89.99	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Conconully	PC Telecom	Fiber	100		Data		99.99	Residential	Reseller for PUD #1
Conconully	Startouch								Carrier & Business solutions only
Conconully	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Conconully	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Conconully	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Conconully	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business
Conconully	WillConnect	Wireless	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Conconully	WillConnect	Wireless	7	2	Data		\$50.00	Residential	Reseller for PUD #1
Conconully	WillConnect	Wireless	12	3	Data		\$65.00	Residential	Reseller for PUD #1
Conconully	WillConnect	Wireless	20	5	Data		\$75.00	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Coulee Dam	CenturyLink, Inc.	ADSL	40	2	Data		\$55.00	Residential	
Coulee Dam	Coulee Internet Services Co.	Fixed Wireless	50	50	Data		\$55.00	Residential	
Coulee Dam	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Coulee Dam	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Coulee Dam	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Coulee Dam	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Coulee Dam	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Coulee Dam	NCI Datacom	Fixed Wireless	5	1	Video/Data	Essential	\$35.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Coulee Dam	NCI Datacom	Fixed Wireless	5	1.5	Video/Data	Swift Stream	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Coulee Dam	NCI Datacom	Fixed Wireless	7	2	Video/Data	Swift Stream	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Coulee Dam	NCI Datacom	Fixed Wireless	7	2	Data		\$45.00	Residential	Reseller for PUD #1
Coulee Dam	NCI Datacom	Fixed Wireless	10	2.5	Video/Data	Advantage	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Coulee Dam	NCI Datacom	Fixed Wireless	25	4	Video/Data	Family	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Coulee Dam	NCI Datacom	Fixed Wireless	40	6	Video/Data	Ultimate	\$75.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Coulee Dam	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Coulee Dam	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Coulee Dam	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Coulee Dam	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Disautel	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Disautel	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Disautel	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Disautel	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Disautel	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Disautel	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
Disautel	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Disautel	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Disautel	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Disautel	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
East Omak	CenturyLink, Inc.	ADSL	10	1	Data		\$50.00	Residential	
East Omak	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play select	\$99.97	Residential	125 Channels
East Omak	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play silver	\$119.99	Residential	175 Channels
East Omak	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play gold	\$139.97	Residential	200 Channels
East Omak	Charter Communications	Cable	120	10	Data	Internet	\$44.99	Residential	
East Omak	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
East Omak	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
East Omak	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
East Omak	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
East Omak	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
East Omak	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
East Omak	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1
East Omak	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
East Omak	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
East Omak	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1
East Omak	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
East Omak	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
East Omak	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
East Omak	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Elmer City	CenturyLink, Inc.	ADSL	1.5	0.896	Data		\$50.00	Residential	
Elmer City	Charter Communications	Cable	940	35	Voice/Video/Data				per FCC's broadband site, not able to verify this offering with Charter
Elmer City	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Elmer City	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Elmer City	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Elmer City	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Elmer City	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Elmer City	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
Elmer City	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1
Elmer City	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
Elmer City	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
Elmer City	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1
Elmer City	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Elmer City	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Elmer City	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Elmer City	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Harmony Heights	Frontier Communications Corp	ADSL	6	1	Data	Simply Broadband Core	\$27.99	Residential	
Harmony Heights	Frontier Communications Corp	ADSL	25	2	Data	Frontier Preferred	\$34.99	Residential	
Harmony Heights	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Harmony Heights	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Harmony Heights	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Harmony Heights	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Harmony Heights	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Harmony Heights	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1
Harmony Heights	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
Harmony Heights	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
Harmony Heights	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1
Harmony Heights	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Harmony Heights	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Harmony Heights	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Harmony Heights	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Kartar	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Kartar	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Kartar	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Kartar	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Kartar	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Kartar	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
Kartar	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1
Kartar	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
Kartar	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
Kartar	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1
Kartar	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Kartar	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Kartar	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Kartar	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Knob Hill	CenturyLink, Inc.	ADSL	10	1	Data		\$50.00	Residential	
Knob Hill	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Knob Hill	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Knob Hill	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Knob Hill	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Knob Hill	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Knob Hill	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1
Knob Hill	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
Knob Hill	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
Knob Hill	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1
Knob Hill	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Knob Hill	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Knob Hill	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Knob Hill	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Malott	CenturyLink, Inc.	ADSL	60	5	Data		\$55.00	Residential	
Malott	CommunityNet	Wireless	3	1	Data		\$45.00	Residential	Reseller for PUD #1
Malott	CommunityNet	Wireless	7	2	Data		\$53.00	Residential	Reseller for PUD #1
Malott	CommunityNet	Wireless	12	3	Data		\$61.00	Residential	Reseller for PUD #1
Malott	CommunityNet	Wireless	20	5	Data		\$75.00	Residential	Reseller for PUD #1
Malott	Highland Internet	Wireless	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Malott	Highland Internet	WIFI	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Malott	Highland Internet	Wireless	7	3	Data		\$50.00	Residential	Reseller for PUD #1
Malott	Highland Internet	WIFI	7	3	Data		\$48.00	Residential	Reseller for PUD #1
Malott	Highland Internet	WIFI	10	5	Data		\$60.00	Residential	Reseller for PUD #1
Malott	Highland Internet	Wireless	12	6	Data		\$65.00	Residential	Reseller for PUD #1
Malott	Highland Internet	WIFI	12	6	Data		\$65.00	Residential	Reseller for PUD #1
Malott	Highland Internet	WIFI	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Malott	Highland Internet	Fiber							Also reseller for PUD
Malott	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Malott	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Malott	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Malott	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Malott	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Malott	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
Malott	LocalTel	Fiber	100	10	Data		51.44	Residential	Reseller for PUD #1
Malott	LocalTel	Fiber	100	100	Data		71.64	Residential	Reseller for PUD #1
Malott	LocalTel	Fiber	1000	100	Data		74.95	Residential	Reseller for PUD #1
Malott	Methownet	Fixed Wireless	3	1	Data		\$49.00	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Malott	Methownet	Fixed Wireless	7	2 or 3	Data		\$59.00	Residential	Reseller for PUD #1
Malott	Methownet	Fixed Wireless	12	3 or 6	Data		\$79.00	Residential	Reseller for PUD #1
Malott	Methownet	Fixed Wireless	20	5 or 10	Data		\$99.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fixed Wireless	3	1	Data		\$35.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fixed Wireless	5	1	Video/Data	Essential	\$35.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Malott	NCI Datacom	Fixed Wireless	5	1.5	Video/Data	Swift Stream	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Malott	NCI Datacom	Fixed Wireless	7	2	Video/Data	Swift Stream	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Malott	NCI Datacom	Fixed Wireless	7	2	Data		\$45.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fixed Wireless	10	2.5	Video/Data	Advantage	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Malott	NCI Datacom	Fixed Wireless	12	3	Data		\$60.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fixed Wireless	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fixed Wireless	25	4	Video/Data	Family	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Malott	NCI Datacom	Fixed Wireless	40	6	Video/Data	Ultimate	\$75.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Malott	NCI Datacom	Fiber	40	8	Data		\$79.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fiber	40	40	Data		\$99.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fiber	40	8	Data		\$89.00	Business	Reseller for PUD #1
Malott	NCI Datacom	Fiber	40	40	Data		\$109.00	Business	Reseller for PUD #1
Malott	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
Malott	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
Malott	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Malott	PC Telecom	Wireless	1		Data		29.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Wireless	3		Data		39.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Wireless	5		Data		49.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Fiber	5		Data		59.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Wireless	7		Data		59.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Wireless	10		Data		69.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Fiber	10		Data		69.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Fiber	20		Data		79.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Fiber	50		Data		89.99	Residential	Reseller for PUD #1
Malott	PC Telecom	Fiber	100		Data		99.99	Residential	Reseller for PUD #1
Malott	Startouch								Carrier & Business solutions only
Malott	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Malott	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Malott	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Malott	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business
Malott	WillConnect	Wireless	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Malott	WillConnect	Wireless	7	2	Data		\$50.00	Residential	Reseller for PUD #1
Malott	WillConnect	Wireless	12	3	Data		\$65.00	Residential	Reseller for PUD #1
Malott	WillConnect	Wireless	20	5	Data		\$75.00	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Nespelem	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Nespelem	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Nespelem	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Nespelem	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Nespelem	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Nespelem	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Nespelem	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Nespelem	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Nespelem	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Omak Flats, N. Omak	CenturyLink, Inc.	ADSL	10	1	Data		\$50.00	Residential	
Omak Flats, N. Omak	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play select	\$99.97	Residential	125 Channels
Omak Flats, N. Omak	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play silver	\$119.99	Residential	175 Channels
Omak Flats, N. Omak	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play gold	\$139.97	Residential	200 Channels
Omak Flats, N. Omak	Charter Communications	Cable	120	10	Data	Internet	\$44.99	Residential	
Omak Flats, N. Omak	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Omak Flats, N. Omak	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Omak Flats, N. Omak	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Omak Flats, N. Omak	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Omak Flats, N. Omak	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Omak Flats, N. Omak	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
Omak Flats, N. Omak	LocalTel	Fiber	100	10	Data		51.44	Residential	Reseller for PUD #1
Omak Flats, N. Omak	LocalTel	Fiber	100	100	Data		71.64	Residential	Reseller for PUD #1
Omak Flats, N. Omak	LocalTel	Fiber	1000	100	Data		74.95	Residential	Reseller for PUD #1
Omak Flats, N. Omak	Methownet	Fixed Wireless	3	1	Data		\$49.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	Methownet	Fixed Wireless	7	2 or 3	Data		\$59.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	Methownet	Fixed Wireless	12	3 or 6	Data		\$79.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	Methownet	Fixed Wireless	20	5 or 10	Data		\$99.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	3	1	Data		\$35.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	5	1	Video/Data	Essential	\$35.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	5	1.5	Video/Data	Swift Stream	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	7	2	Video/Data	Swift Stream	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	7	2	Data		\$45.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	10	2.5	Video/Data	Advantage	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	12	3	Data		\$60.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	25	4	Video/Data	Family	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Omak Flats, N. Omak	NCI Datacom	Fixed Wireless	40	6	Video/Data	Ultimate	\$75.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Omak Flats, N. Omak	NCI Datacom	Fiber	40	8	Data		\$79.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fiber	40	40	Data		\$99.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fiber	40	8	Data		\$89.00	Business	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fiber	40	40	Data		\$109.00	Business	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
Omak Flats, N. Omak	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
Omak Flats, N. Omak	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Omak Flats, N. Omak	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Omak Flats, N. Omak	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Omak Flats, N. Omak	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Service depends on location. The closer to Omak proper, more of these are available.

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Oroville	CenturyLink, Inc.	ADSL	20	2	Data		\$50.00	Residential	
Oroville	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play select	\$99.97	Residential	125 Channels
Oroville	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play silver	\$119.99	Residential	175 Channels
Oroville	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play gold	\$139.97	Residential	200 Channels
Oroville	Charter Communications	Cable	120	10	Data	Internet	\$44.99	Residential	
Oroville	CommunityNet	Wireless	3	1	Data		\$45.00	Residential	Reseller for PUD #1
Oroville	CommunityNet	Wireless	7	2	Data		\$53.00	Residential	Reseller for PUD #1
Oroville	CommunityNet	Wireless	12	3	Data		\$61.00	Residential	Reseller for PUD #1
Oroville	CommunityNet	Wireless	20	5	Data		\$75.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	Wireless	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	WIFI	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	Wireless	7	3	Data		\$50.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	WIFI	7	3	Data		\$48.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	WIFI	10	5	Data		\$60.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	Wireless	12	6	Data		\$65.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	WIFI	12	6	Data		\$65.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	WIFI	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Oroville	Highland Internet	Fiber							Also reseller for PUD
Oroville	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Oroville	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Oroville	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Oroville	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Oroville	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Oroville	LocalTel	Fiber	100	10	Data		51.44	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Oroville	LocalTel	Fiber	100	100	Data		71.64	Residential	Reseller for PUD #1
Oroville	LocalTel	Fiber	1000	100	Data		74.95	Residential	Reseller for PUD #1
Oroville	Methownet	Fixed Wireless	3	1	Data		\$49.00	Residential	Reseller for PUD #1
Oroville	Methownet	Fixed Wireless	7	2 or 3	Data		\$59.00	Residential	Reseller for PUD #1
Oroville	Methownet	Fixed Wireless	12	3 or 6	Data		\$79.00	Residential	Reseller for PUD #1
Oroville	Methownet	Fixed Wireless	20	5 or 10	Data		\$99.00	Residential	Reseller for PUD #1
Oroville	NCI Datacom	Fixed Wireless	3	1	Data		\$35.00	Residential	Reseller for PUD #1
Oroville	NCI Datacom	Fixed Wireless	5	1	Video/Data	Essential	\$35.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Oroville	NCI Datacom	Fixed Wireless	5	1.5	Video/Data	Swift Stream	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Oroville	NCI Datacom	Fixed Wireless	7	2	Video/Data	Swift Stream	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Oroville	NCI Datacom	Fixed Wireless	7	2	Data		\$45.00	Residential	Reseller for PUD #1
Oroville	NCI Datacom	Fixed Wireless	10	2.5	Video/Data	Advantage	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Oroville	NCI Datacom	Fixed Wireless	12	3	Data		\$60.00	Residential	Reseller for PUD #1
Oroville	NCI Datacom	Fixed Wireless	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Oroville	NCI Datacom	Fixed Wireless	25	4	Video/Data	Family	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Oroville	NCI Datacom	Fixed Wireless	40	6	Video/Data	Ultimate	\$75.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Oroville	NCI Datacom	Fiber	40	8	Data		\$79.00	Residential	Reseller for PUD #1
Oroville	NCI Datacom	Fiber	40	40	Data		\$99.00	Residential	Reseller for PUD #1
Oroville	NCI Datacom	Fiber	40	8	Data		\$89.00	Business	Reseller for PUD #1
Oroville	NCI Datacom	Fiber	40	40	Data		\$109.00	Business	Reseller for PUD #1
Oroville	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Oroville	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
Oroville	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
Oroville	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1
Oroville	PC Telecom	Wireless	1		Data		29.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Wireless	3		Data		39.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Wireless	5		Data		49.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Fiber	5		Data		59.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Wireless	7		Data		59.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Wireless	10		Data		69.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Fiber	10		Data		69.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Fiber	20		Data		79.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Fiber	50		Data		89.99	Residential	Reseller for PUD #1
Oroville	PC Telecom	Fiber	100		Data		99.99	Residential	Reseller for PUD #1
Oroville	Startouch								Carrier & Business solutions only
Oroville	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Oroville	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Oroville	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Oroville	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business
Oroville	WillConnect	Wireless	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Oroville	WillConnect	Wireless	7	2	Data		\$50.00	Residential	Reseller for PUD #1
Oroville	WillConnect	Wireless	12	3	Data		\$65.00	Residential	Reseller for PUD #1
Oroville	WillConnect	Wireless	20	5	Data		\$75.00	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Pateros	CenturyLink, Inc.	ADSL	20	2	Data		\$50.00	Residential	
Pateros	CommunityNet	Wireless	3	1	Data		\$45.00	Residential	Reseller for PUD #1
Pateros	CommunityNet	Wireless	7	2	Data		\$53.00	Residential	Reseller for PUD #1
Pateros	CommunityNet	Wireless	12	3	Data		\$61.00	Residential	Reseller for PUD #1
Pateros	CommunityNet	Wireless	20	5	Data		\$75.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	Wireless	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	WIFI	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	Wireless	7	3	Data		\$50.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	WIFI	7	3	Data		\$48.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	WIFI	10	5	Data		\$60.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	Wireless	12	6	Data		\$65.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	WIFI	12	6	Data		\$65.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	WIFI	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Pateros	Highland Internet	Fiber							Also reseller for PUD
Pateros	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Pateros	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Pateros	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Pateros	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Pateros	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Pateros	LocalTel	Fiber	100	10	Data		51.44	Residential	Reseller for PUD #1
Pateros	LocalTel	Fiber	100	100	Data		71.64	Residential	Reseller for PUD #1
Pateros	LocalTel	Fiber	1000	100	Data		74.95	Residential	Reseller for PUD #1
Pateros	Methownet	Fixed Wireless	3	1	Data		\$49.00	Residential	Reseller for PUD #1
Pateros	Methownet	Fixed Wireless	7	2 or 3	Data		\$59.00	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Pateros	Methownet	Fixed Wireless	12	3 or 6	Data		\$79.00	Residential	Reseller for PUD #1
Pateros	Methownet	Fixed Wireless	20	5 or 10	Data		\$99.00	Residential	Reseller for PUD #1
Pateros	NCI Datacom	Fixed Wireless	3	1	Data		\$35.00	Residential	Reseller for PUD #1
Pateros	NCI Datacom	Fixed Wireless	5	1	Video/Data	Essential	\$35.00	Residential	does not provide this speed in fixed wireless in Okanogan Co.
Pateros	NCI Datacom	Fixed Wireless	5	1.5	Video/Data	Swift Stream	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Pateros	NCI Datacom	Fixed Wireless	7	2	Video/Data	Swift Stream	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Pateros	NCI Datacom	Fixed Wireless	7	2	Data		\$45.00	Residential	Reseller for PUD #1
Pateros	NCI Datacom	Fixed Wireless	10	2.5	Video/Data	Advantage	\$45.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Pateros	NCI Datacom	Fixed Wireless	12	3	Data		\$60.00	Residential	Reseller for PUD #1
Pateros	NCI Datacom	Fixed Wireless	20	10	Data		\$75.00	Residential	Reseller for PUD #1
Pateros	NCI Datacom	Fixed Wireless	25	4	Video/Data	Family	\$60.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Pateros	NCI Datacom	Fixed Wireless	40	6	Video/Data	Ultimate	\$75.00	Residential	FCC site says 100 down/10 up. NCI website does not provide this speed in fixed wireless in Okanogan Co.
Pateros	PC Telecom	Wireless	1		Data		29.99	Residential	Reseller for PUD #1
Pateros	PC Telecom	Wireless	3		Data		39.99	Residential	Reseller for PUD #1
Pateros	PC Telecom	Wireless	5		Data		49.99	Residential	Reseller for PUD #1
Pateros	PC Telecom	Fiber	5		Data		59.99	Residential	Reseller for PUD #1
Pateros	PC Telecom	Wireless	7		Data		59.99	Residential	Reseller for PUD #1
Pateros	PC Telecom	Wireless	10		Data		69.99	Residential	Reseller for PUD #1
Pateros	PC Telecom	Fiber	10		Data		69.99	Residential	Reseller for PUD #1
Pateros	PC Telecom	Fiber	20		Data		79.99	Residential	Reseller for PUD #1
Pateros	PC Telecom	Fiber	50		Data		89.99	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSAs	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Pateros	PC Telecom	Fiber	100		Data		99.99	Residential	Reseller for PUD #1
Pateros	Startouch								Carrier & Business solutions only
Pateros	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Pateros	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Pateros	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Pateros	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business
Pateros	WillConnect	Wireless	3	1	Data		\$40.00	Residential	Reseller for PUD #1
Pateros	WillConnect	Wireless	7	2	Data		\$50.00	Residential	Reseller for PUD #1
Pateros	WillConnect	Wireless	12	3	Data		\$65.00	Residential	Reseller for PUD #1
Pateros	WillConnect	Wireless	20	5	Data		\$75.00	Residential	Reseller for PUD #1

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
S. Pine Creek Rd.	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play select	\$99.97	Residential	125 Channels
S. Pine Creek Rd.	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play silver	\$119.99	Residential	175 Channels
S. Pine Creek Rd.	Charter Communications	Cable	120	10	Voice/Video/Data	Triple play gold	\$139.97	Residential	200 Channels
S. Pine Creek Rd.	Charter Communications	Cable	120	10	Data	Internet	\$44.99	Residential	
S. Pine Creek Rd.	Frontier Communications Corp	ADSL	6	1	Data	Simply Broadband Core	\$27.99	Residential	
S. Pine Creek Rd.	Frontier Communications Corp	ADSL	12	1	Data	Simply Broadband Ultra	\$34.99	Residential	
S. Pine Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
S. Pine Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
S. Pine Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
S. Pine Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
S. Pine Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
S. Pine Creek Rd.	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
S. Pine Creek Rd.	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	
S. Pine Creek Rd.	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
S. Pine Creek Rd.	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
S. Pine Creek Rd.	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1
S. Pine Creek Rd.	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
S. Pine Creek Rd.	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
S. Pine Creek Rd.	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
S. Pine Creek Rd.	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

Okanogan County/Colville Confederated Tribes
COMPETITIVE ANALYSIS

PFSA	Provider	Technology	Speed down	Speed up	Service	Description	Cost	Residential/B usiness	Notes
Salmon Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	10GB	\$59.99	Residential	
Salmon Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	20GB	\$69.99	Residential	
Salmon Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	30GB	\$99.99	Residential	
Salmon Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	50GB	\$149.99	Residential	
Salmon Creek Rd.	Hughes Network Systems	Satellite	25	3	Data	Business 35	\$69.99	Business	
Salmon Creek Rd.	King Street Wireless, LLC	Fixed Wireless	10	2	Data				
Salmon Creek Rd.	NCI Datacom	Fiber	100	20	Data		\$95.00	Residential	Reseller for PUD #1
Salmon Creek Rd.	NCI Datacom	Fiber	100	100	Data		\$120.00	Residential	Reseller for PUD #1
Salmon Creek Rd.	NCI Datacom	Fiber	100	20	Data		\$105.00	Business	Reseller for PUD #1
Salmon Creek Rd.	NCI Datacom	Fiber	100	100	Data		\$130.00	Business	Reseller for PUD #1
Salmon Creek Rd.	ViaSat, Inc.	Satellite	35	3	Data	Unlimited Gold 30	\$150.00	Residential	
Salmon Creek Rd.	ViaSat, Inc.	Satellite	35	4	Data	Business Unlimited 35	\$175.00	Business	
Salmon Creek Rd.	ViaSat, Inc.	Satellite			Video	Select	\$35.00	Residential	
Salmon Creek Rd.	VSAT Systems, LLC	Satellite	2	1.3	Data				Managed network service for business

USDA Rural Development Map Data



BROADBAND PROGRAM MAPPING TOOL



Welcome [My Applications](#) [My Existing Areas](#) [Upload a Public Map](#) [Public Notice](#) [My Responses](#) [Subscription](#) [Search](#) [Logoff](#) [My Profile](#) [About Broadband](#) [Contact Us](#) [Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-18
Created By: James Lightfoot
Access Key:
Submitted Date: *Not Submitted*
Reference Number: *Not Submitted*

[View All Service Areas](#)[Add New Service Area](#)[Create Access Key](#)[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter: **Area Name****Actions****Aeneas**[Edit Service Area Details](#)[Delete Service Area](#)[Edit Service Area Map](#)[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	1,601	1,331	713	554
Unserviced	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-04
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name		Actions		
Belvedere-Rebecca and McGinnis Lake		Edit Service Area Details	Delete Service Area	Edit Service Area Map
		Communities		
	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	189	95	80	12
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries



[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)

[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



BROADBAND PROGRAM MAPPING TOOL



Welcome **My Applications** My Existing Areas Upload a Public Map Public Notice My Responses Subscription Search Logoff

My Profile About Broadband Contact Us Help

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-21
Created By: James Lightfoot
Access Key:
Submitted Date: *Not Submitted*
Reference Number: *Not Submitted*

[View All Service Areas](#)[Add New Service Area](#)[Create Access Key](#)[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter: **Area Name****Actions****Brewster**[Edit Service Area Details](#)[Delete Service Area](#)[Edit Service Area Map](#)[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	2,870	921	855	10
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-03
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter:

Area Name

Actions

Conconully

[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	271	320	131	15
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-03
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter:

Area Name

Actions

Coulee Dam

[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	1,032	508	436	5
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries


[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-03
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter:

Area Name

Actions

Disautel

[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	391	146	137	42
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries


[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-03
 Created By: James Lightfoot
 Access Key: 4AFVCRM1
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Delete Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter:

Area Name

Actions

East Omak

[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	1,018	397	368	4
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-03
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name

Actions

Elmer City

[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	525	263	231	9
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2[2019-02-16[13:40:16]]



BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-21
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name

Actions

Harmony Heights

[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	154	86	63	19
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2[2019-02-16[13:40:16]]



BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-04
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name

Actions

Kartar
[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	54	26	22	63
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2[2019-02-16[13:40:16]]



BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-18
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name	Actions			
Knob Hill	Edit Service Area Details Delete Service Area Edit Service Area Map Communities			
	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
	Service Area 564	508	284	141
Unserviced	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-18
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name

Actions

Malott
[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	1,150	463	406	16
Unserviced	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2[2019-02-16[13:40:16]]



[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-03
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter:

Area Name

Actions

Nespelem

[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	1,172	374	344	11
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries





[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-03
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter:

Area Name

Actions

Omak Flats and North Omak

[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	3,650	1,442	1,325	55
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries





BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-18
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name

Actions

Oroville
[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	4,266	2,523	1,785	257
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



BROADBAND PROGRAM MAPPING TOOL



Welcome [My Applications](#) [My Existing Areas](#) [Upload a Public Map](#) [Public Notice](#) [My Responses](#) [Subscription](#) [Search](#) [Logoff](#) [My Profile](#) [About Broadband](#) [Contact Us](#) [Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-18
Created By: James Lightfoot
Access Key:
Submitted Date: *Not Submitted*
Reference Number: *Not Submitted*

[View All Service Areas](#)[Add New Service Area](#)[Create Access Key](#)[Submit](#)

Service Areas & Communities [\(info\)](#)

Filter: **Area Name****Actions****Pateros**[Edit Service Area Details](#)[Delete Service Area](#)[Edit Service Area Map](#)[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	1,005	502	377	16
Unserviced	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2|2019-02-16[13:40:16]



BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-18
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name		Actions		
S Pine Creek Rd		Edit Service Area Details	Delete Service Area	Edit Service Area Map
		Communities		
	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	428	210	166	77
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2[2019-02-16[13:40:16]]



BROADBAND PROGRAM MAPPING TOOL



[Welcome](#)
[My Applications](#)
[My Existing Areas](#)
[Upload a Public Map](#)
[Public Notice](#)
[My Responses](#)
[Subscription](#)
[Search](#)
[Logoff](#)
[My Profile](#)
[About Broadband](#)
[Contact Us](#)
[Help](#)

[My Applications](#) : View Application

View Application

Application Details

Created Date: 2020-08-18
 Created By: James Lightfoot
 Access Key:
 Submitted Date: *Not Submitted*
 Reference Number: *Not Submitted*

[View All Service Areas](#)
[Add New Service Area](#)
[Create Access Key](#)
[Submit](#)

Service Areas & Communities [\(info\)](#)

 Filter:

Area Name

Actions

Salmon Creek Rd.
[Edit Service Area Details](#)
[Delete Service Area](#)
[Edit Service Area Map](#)
[Communities](#)

	Total Population in Polygons	Total Housing Units in Polygons	Total Households in Polygons	Total Square Miles in Polygons
Service Area	365	168	151	21
Unserved	N/A	N/A	N/A	N/A

Showing 1 to 1 of 1 entries

[RD Home](#) | [USDA.gov](#) | [Site Map](#) | [Policies and Links](#)
[FOIA](#) | [Accessibility Statement](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [FirstGov](#) | [White House](#)

Version 2.8.2[2019-02-16[13:40:16]]

Financial Pro Forma

**Okanogan-Colville Broadband
Pro Forma Summary
Okanogan-Colville**

	Year 1	Year 2	Year 3	Year 4	Year 5
11/9/2020 17:07					
INCOME STATEMENT					
1 REVENUE	180,780	757,938	1,145,875	1,525,398	1,603,102
2 BAD DEBT	(904)	(3,790)	(5,729)	(7,627)	(8,016)
3 EXPENSES	2,048,981	3,916,684	4,137,901	4,189,188	4,334,808
4 PROFIT BEFORE TAX	(1,869,105)	(3,162,536)	(2,997,756)	(2,671,418)	(2,739,722)
5 <i>tax rate</i>	7.85%	7.85%	7.85%	7.85%	7.85%
6 TAX	(146,725)	(248,259)	(235,324)	(209,706)	(215,068)
7 NET PROFIT AFTER TAX	(1,722,380)	(2,914,276)	(2,762,432)	(2,461,711)	(2,524,653)
CASH FLOW STATEMENT					
9 CASH RECIEPTS	179,876	754,148	1,140,146	1,517,771	1,595,086
10 OPERATING EXPENSES	1,056,835	1,880,099	2,051,624	2,053,218	2,169,022
11 LESS RECIEVABLES	(1,506)	(4,810)	(4,739)	(7,972)	(5,387)
12 PLUS PAYABLES	17,075	15,564	18,918	15,992	20,132
13 PRINCIPAL PAYMENTS	0	0	1,566,717	1,629,429	1,681,705
14 <i>NET PROFIT AFTER TAX</i>	<i>(1,722,380)</i>	<i>(2,914,276)</i>	<i>(2,762,432)</i>	<i>(2,461,711)</i>	<i>(2,524,653)</i>
15 DIVIDENDS PAID	0	0	0	0	0
16 RETAINED CASH	(861,391)	(1,115,196)	(2,464,016)	(2,156,857)	(2,240,895)
17 CAPITAL EXPENDITURES	20,333,314	20,681,164	347,850	347,850	69,570
18 DEBT FINANCING	20,333,314	20,681,164	347,850	347,850	69,570
19 EQUITY FINANCING	861,391	1,115,196	2,464,016	2,156,857	2,240,895
20 ACCUMULATED CASH	0	0	0	0	0
BALANCE SHEET					
21 CASH	0	0	0	0	0
22 FIXED ASSETS LESS DEPRECIATI	19,341,168	37,985,747	36,247,320	34,459,200	32,362,984
23 TOTAL ASSETS	19,341,168	37,985,747	36,247,320	34,459,200	32,362,984
24 LOAN DEBT LESS PRINCIPLE	20,333,314	41,014,478	39,795,611	38,514,033	36,901,898
25 OWNERS' EQUITY	(992,146)	(3,028,731)	(3,548,291)	(4,054,833)	(4,538,915)
26 TOTAL LIABILITY	19,341,168	37,985,747	36,247,320	34,459,200	32,362,984
28 OWNER PROCEEDS	0	0	0	0	0
29 CAPITAL DEPLOYMENT	20,333,314	41,014,478	41,362,328	41,710,178	41,779,748
30 Yearly % of Loan					
30 Yearly Deployment	20,333,314	20,681,164	347,850	347,850	69,570
31 Yearly Depreciation	992,146	2,036,585	2,086,278	2,135,970	2,165,786
32 Yearly Interest	609,999	1,230,434	1,240,870	1,204,304	1,157,508
33 Yearly Principal Paid	0	0	1,566,717	1,629,429	1,681,705
34 REVENUE	180,780	757,938	1,145,875	1,525,398	1,603,102
35 BROADBAND Revenue	178,339	741,056	1,125,434	1,499,567	1,578,492
38 Installation Revnue	2,441	4,882	2,441	1,831	610
41 VoIP Revenue	-	-	-	-	-
41 Video	0	0	0	0	0
53 NRC & Other Revenue \$K	0	12,000	18,000	24,000	24,000
54 EXPENSES	2,048,981	3,916,684	4,137,901	4,189,188	4,334,808
55 Depreciation	992,146	2,036,585	2,086,278	2,135,970	2,165,786
56 Vehicles	5,836	5,924	12,025	12,206	18,583
57 Insurance	84,166	167,596	189,723	209,520	234,714
58 Interest	609,999	1,230,434	1,240,870	1,204,304	1,157,508
59 Rent/Lease	-	-	-	-	-
60 Salary	182,000	187,460	310,313	319,623	453,580
62 Repairs/Maintenance	101,667	205,072	206,812	208,551	208,899
Office Furniture	-	-	0	0	0
Computers & Office Equipment	-	-	0	0	0
63 Software Systems	-	-	-	-	-
64 Marketing	18,000	18,000	12,000	12,000	6,000
65 Wholesale Voice, Bandwidth & Video Content	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00
66 General Office Supplies	-	-	-	-	-
67 Accounting, Banking, Legal, Misc.	9,000	9,000	15,000	15,000	15,000
68 Billing	3,222	13,621	20,797	27,827	29,292
69 Call Center Expense	-	-	-	-	-
Meter Reading	-	-	-	-	-
70 Annual Property Tax	0	0	0	0	0
Pole Attachment Fees	0	0	0	0	0
71 Utilities	945	992	2,084	2,188	3,446

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan - Colville**

All Inputs are Highlighted

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
PAYROLL						
5 Number of Executives	0	0	0	0	0	0
Broadband Manager	0	0	0	0	0	0
6 Number of Admin Assistants	0	0	0	0	0	0
7 Number of Network Technicians	0	1	1	2	2	3
8 Billing Manager	0	-	0	0	0	0
9 Billing Assistant	0	-	0	0	0	0
10 Finance Administrator	0	-	0	0	0	0
11 Mgr. of Customer Relations	0	-	0	0	0	0
12 Regional Sales Manager	0	-	0	0	0	0
13 Outside Sales	0	-	0	0	0	0
14 Shift Supervisor	0	-	0	0	0	0
15 Marketing Manager	0	-	0	0	0	0
16 Technician Manager	0	-	0	0	0	0
17 Infrastructure Manager	0	-	0	0	0	0
18 Project Manager	0	-	0	0	0	0
19 IT Engineers	0	1	1	1	1	1
20 Tech Support Supervisors	0	-	0	0	0	0
21 Number of Customer Service	0	1	1	2	2	3
SALARIES						
22 Average Executive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23 Average Broadband Manager	\$ 75,000	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413
24 Average Admin. Assistant	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
25 Average Network Technician	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
26 Average Billing Manager	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
27 Average Billing Assistant	\$ 28,000	\$ 28,000	\$ 28,840	\$ 29,705	\$ 30,596	\$ 31,514
28 Average Finance Administrator	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
29 Average Mgr. of Customer Relations	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
30 Average Regional Sales Manager	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
31 Average Outside Sales	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
32 Average Shift Supervisor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33 Average Marketing Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34 Average Technician Manager	\$ 60,000	\$ 60,000	\$ 61,800	\$ 63,654	\$ 65,564	\$ 67,531
35 Average Infrastructure Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36 Average Project Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37 Average IT Engineers	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
38 Average Tech Support Supervisors	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
39 Average Customer Service	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
40 Annual Escalator	1.030	1.030	1.030	1.030	1.030	1.030
41 Benefit Factor	0.300	0.300	0.300	0.300	0.300	0.300
42 Bonus Factor	0.030	0.030	0.030	0.030	0.030	0.030
43 Total Salaries	\$ -	\$ 140,000	\$ 144,200	\$ 238,703	\$ 245,864	\$ 348,908
44 Benefits	\$ -	\$ 42,000	\$ 43,260	\$ 71,611	\$ 73,759	\$ 104,672
45 Bonuses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46 Total Payroll Compensation	\$ -	\$ 182,000	\$ 187,460	\$ 310,313	\$ 319,623	\$ 453,580
LEVEL 1 SUPPORT						
47 Amount per subscriber	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48 Subscribers		269	1,135	1,733	2,319	2,441
49 Total Level 1 Support (Outsourced)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan - Colville**

TOWER LEASE

50 Number of Tower Co. Sites	0	0	0	0	0	0
51 Number of Municipality/Private Sites	0	0	0	0	0	0
52 Average Lease Per Tower Co./Mo.	750	750	750	750	750	750
53 Ave. Municipality/Private Lease/Mo.	300	300	300	300	300	300
54 Annual Escalator	1.00	1.00	1.00	1.00	1.00	1.00
55 Tower Co. Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56 Municipality/Private Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57 Total Tower Lease Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

REAL ESTATE LEASE

58 Number of square feet leased	-	-	-	-	-	-
59 Price per Square Foot	\$ 15	\$ 16	\$ 17	\$ 17	\$ 18	\$ 19
60 Annual Escalator	1.05	1.05	1.05	1.05	1.05	1.05
61 Total Real Estate Lease	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

VEHICLE EXPENSE

62 Number of Technician Vehicles	0	1	1	2	2	3
63 Number of company cars	0	0	0	0	0	0
Vehicle Lease	0	0	0	0	0	0
64 Ave. mo. fuel per tech vehicle	450	457	464	471	478	485
65 Ave. mo. fuel per company car	225	228	232	235	239	242
66 Ave. yr. tag and tax per vehicle	100	102	103	105	106	108
67 Ave. yr. maintenance per vehicle	250	254	258	261	265	269
68 Annual rate of cost increase	1.015	0.015	0.015	0.015	0.015	0.015
69 Vehicle Expenses	\$ -	\$ 5,836	\$ 5,924	\$ 12,025	\$ 12,206	\$ 18,583

INSURANCE

70 Policy Premium per Auto	1,250	-	-	-	-	-
71 General Liability		2,866	3,247	5,375	5,536	7,856
72 Hazard (property)	0.003	0.003	0.004	0.004	0.004	0.005
73 Fixed Assets Insured	-	20,333,314	41,014,478	41,362,328	41,710,178	41,779,748
74 Worker's Comp		2,200	2,266	4,668	4,808	7,428
75 Umbrella Policy	-	12,000	13,200	14,520	15,972	17,569
76 Director's Insurance	5.00%	-	-	-	-	-
77 Annual rate of cost increase	1.1	1.1	1.1	1.1	1.1	1.1
78 Total Insurance	-	84,166	167,596	189,723	209,520	234,714

79 ANNUAL PROPERTY TAX

-	-	-	-	-	-
---	---	---	---	---	---

WHOLESALE VOICE COSTS

84 Voice Subscribers	-	-	-	-	-	-
85 Third Party voice costs cost per sub	10.00	10.00	10.00	10.00	10.00	10.00
86 Total Wholesale Voice Costs	0	0	0	0	0	0

BANDWIDTH & Fiber Costs

Fiber IRU	-	-	-	-	-	-
87 Ave. Cost per 1 Gbps Link	2,100	2,100	2,100	2,100	2,100	2,100
88 Ave. Cost per 10 Gig Link	3,500	3,500	3,500	3,500	3,500	3,500
89 No. of 1 Gbps Links	0	-	-	-	-	-
90 No. of 10 Gig Links	1	1	1	1	1	1
99 Total Bandwidth Costs	42,000	42,000	42,000	42,000	42,000	42,000

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan - Colville**

VIDEO CONTENT

Video Subscribers	-	-	-	-	-
Ave. cost of Content per Sub	(5)	(5)	(5)	(5)	(5)
Total Video Content Cost	-	-	-	-	-

POLE ATTACHMENT FEES

100 Annual Pole Attachment Fees	0.00	0.00	0.00	0.00	0.00	0.00
---------------------------------	------	------	------	------	------	------

UTILITIES

101 Number of tower sites	0	0	0	0	0	0
102 Number of offices	0	0	0	0	0	0
103 Number of cell phones	0	1	1	2	2	3
104 Utility Rate per tower site/ mo.	100	105	110	116	122	128
105 Utility Rate per office / mo.	500	525	551	579	608	638
106 Average Cell Phone Cost / mo.	75	79	83	87	91	96
107 Utility Rate Increase	1.05	1.05	1.05	1.05	1.05	1.05
108 Utility Expense	-	-	-	-	-	-
109 Cell Phone Expense	-	79	83	174	182	287
110 Total Utilities Expense	-	945	992	2,084	2,188	3,446

OFFICE SUPPLIES

111 Furniture	-	-	-	-	-	-
112 Office Supplies	-	-	-	-	-	-
113 Computers & Office Equipment	-	-	-	-	-	-
114 Software	-	-	-	-	-	-
114A Misc	-	3,000	3,000	3,000	3,000	3,000
115 Total Supplies	-	-	-	-	-	-

PLANT REPAIRS & MAINTENANCE

116 Invested Fixed Assets	\$0	\$ 20,333,314	\$ 41,014,478	\$ 41,362,328	\$ 41,710,178	\$ 41,779,748
117 Maintenance Rate	0.005	0.005	0.005	0.005	0.005	0.005
118 Annual Repairs & Maintenance	\$ -	\$ 101,667	\$ 205,072	\$ 206,812	\$ 208,551	\$ 208,899

119

120 MARKETING

121 Monthly Investment	\$ -	\$ 1,500	\$ 1,500	\$ 1,000	\$ 1,000	\$ 500
122 Total Marketing Investment	-	18,000	18,000	12,000	12,000	6,000

BILLING

Annual Billing Cost @ \$1.00/sub/mo	\$1.00	3,222	13,621	20,797	27,827	29,292
-------------------------------------	--------	-------	--------	--------	--------	--------

**Meter Reading
meters**

\$0.00	0	0	0	0	0
0					

PROFESSIONAL FEES

123 Engineering	-	-	-	6,000	6,000	6,000
124 Accounting/Financial	-	6,000	6,000	6,000	6,000	6,000
125 Legal	-	3,000	3,000	3,000	3,000	3,000
126 Total Professional Fees	-	9,000	9,000	15,000	15,000	15,000

Okanogan-Colville Broadband Subscriber Revenue Projections Okanogan - Colville

			Yr 1 % Take Rate	Yr 2 % Take Rate	Yr 3 % Take Rate	Yr 4 % Take Rate	Yr 5 % Take Rate
			10.00%	45.00%	70.00%	95.00%	100.00%
Estimated Service Plan Subscriptions	MONTHLY	Percentage Take Rate	Year 1	Year 2	Year 3	Year 4	Year 5
DATA SERVICES							
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00	45.00%	99	445	692	939	989
RESIDENTIAL SILVER 100/10 Mbps	\$59.95	40.00%	88	395	615	835	879
RESIDENTIAL GOLD 250/25 Mbps	\$79.95	13.00%	29	129	200	271	286
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00	2.00%	4	20	31	42	44
Total Residential Data Subscribers		100.00%	220	989	1,538	2,087	2,197
			20.00%	60.00%	80.00%	95.00%	100.00%
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95	40.00%	20	59	78	93	98
BUS BROADBAND SILVER 100/10 Mbps	\$69.95	35.00%	17	51	68	81	85
BUS BROADBAND GOLD 250/25 Mbps		15.00%	7	22	29	35	37
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95	10.00%	5	15	20	23	24
Total Business Data Subscribers		100.00%	49	146	195	232	244
Total Voice Subscribers		0.00%	0	0	0	0	0
Total Video Subscribers		0.00%	0	0	0	0	0

			Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Projections	MONTHLY						
DATA SERVICES							
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00		\$41,521	\$186,846	\$290,650	\$394,453	\$415,214
RESIDENTIAL SILVER 100/10 Mbps	\$59.95		\$63,218	\$284,481	\$442,526	\$600,571	\$632,180
RESIDENTIAL GOLD 250/25 Mbps	\$79.95		\$27,400	\$123,301	\$191,801	\$260,302	\$274,002
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00		\$5,220	\$23,489	\$36,539	\$49,588	\$52,198
Total Residential Data Annual Revenue			\$137,359	\$618,117	\$961,516	\$1,304,914	\$1,373,594
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95		\$11,705	\$35,115	\$46,820	\$55,599	\$58,525
BUS BROADBAND SILVER 100/10 Mbps	\$69.95		\$14,343	\$43,028	\$57,371	\$68,128	\$71,714
BUS BROADBAND GOLD 250/25 Mbps	\$89.95		\$6,147	\$18,441	\$24,588	\$29,198	\$30,735
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95		\$8,785	\$26,354	\$35,139	\$41,727	\$43,923
Total Business Data Annual Revenue			\$40,980	\$122,939	\$163,918	\$194,653	\$204,898
Total Annual Revenue			\$178,339	\$741,056	\$1,125,434	\$1,499,567	\$1,578,492
Total Voice Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Video Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Res Intallation Revenue	\$50.00		\$10,985	\$38,446	\$27,461	\$27,461	\$5,492
Total Annual Bus Intallation Revenue	\$50.00		\$2,441	\$4,882	\$2,441	\$1,831	\$610
Total Facility Revenue Savings	\$0.00		\$0	\$0	\$0	\$0	\$0
Total cell site revenues (\$500/mo/tower)	\$6,000.00		\$0	\$12,000	\$18,000	\$24,000	\$24,000
Total dark fiber & Bandwidth Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Smart Home & Security Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Other Revenue			\$0	\$12,000	\$18,000	\$24,000	\$24,000

Total HHP 0

Total 5 yr residential data subs 2,197 0.00%

Total Businesses 0

Total 5 yr bus data subs 244 0.00%

Total 5 yr Data Subscribers 2,441

**Okanogan-Colville Broadband
Depreciation
Okanogan - Colville**

Green are only inputs (cell references) in this tab

YEAR 1 INVESTMENT

	Life	Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	125,000	125,000	125,000	125,000	125,000
Outside Plant & Towers	20	834,269	834,269	834,269	834,269	834,269
Buildings & Land	25	13,000	13,000	13,000	13,000	13,000
Customer Premise Equipment	7	19,877	19,877	19,877	19,877	19,877
Billing & Operations Support	15	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	15	-	-	-	-	-
Testing	15	-	-	-	-	-
Site Preparation	25	-	-	-	-	-
Total		992,146	992,146	992,146	992,146	992,146

YEAR 2 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7		125,000	125,000	125,000	125,000
Outside Plant & Towers	20		834,269	834,269	834,269	834,269
Buildings & Land	25		15,600	15,600	15,600	15,600
Customer Premise Equipment	7		69,570	69,570	69,570	69,570
Billing & Operations Support	10		-	-	-	-
Operating Equipment	10		-	-	-	-
Engineering & Professional Services	10		-	-	-	-
Testing	10		-	-	-	-
Site Preparation	25		-	-	-	-
Total			1,044,439	1,044,439	1,044,439	1,044,439

YEAR 3 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7			-	-	-
Outside Plant & Towers	20			-	-	-
Buildings & Land	25			-	-	-
Customer Premise Equipment	7			49,693	49,693	49,693
Billing & Operations Support	10			-	-	-
Operating Equipment	10			-	-	-
Engineering & Professional Services	10			-	-	-
Testing	10			-	-	-
Site Preparation	25			-	-	-
Total				49,693	49,693	49,693

YEAR 4 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7				-	-
Outside Plant & Towers	20				-	-
Buildings & Land	25				-	-
Customer Premise Equipment	7				49,693	49,693
Billing & Operations Support	10				-	-
Operating Equipment	10				-	-
Engineering & Professional Services	10				-	-
Testing	10				-	-
Site Preparation	25				-	-
Total					49,693	49,693

YEAR 5 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7					-
Outside Plant & Towers	20					-
Buildings & Land	25					-
Customer Premise Equipment	7					9,939
Billing & Operations Support	10					-
Operating Equipment	10					-
Engineering & Professional Services	10					-
Testing	10					-
Site Preparation	25					-
Total						9,939

**Okanogan-Colville Broadband
Depreciation
Okanogan - Colville**

		TOTAL PROJECT DEPRECIATION				
		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	125,000	250,000	250,000	250,000	250,000
Outside Plant & Towers	20	834,269	1,668,538	1,668,538	1,668,538	1,668,538
Buildings & Land	25	13,000	28,600	28,600	28,600	28,600
Customer Premise Equipment	7	19,877	89,447	139,140	188,833	198,771
Billing & Operations Support	10	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	10	-	-	-	-	-
Testing	10	-	-	-	-	9,939
Site Preparation	25	-	-	-	-	9,939
Total		992,146	2,036,585	2,086,278	2,135,970	2,165,786

Okanogan-Colville Broadband Debt Amortization Okanogan - Colville

Green are only inputs (cell references) in this tab

CAPX - Year 1	20,333,314				
Term	20				
Interest	3.00%				
Monthly Payment	112,768				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	609,999	609,999	609,999	587,703	564,737
Annual Principle	-	-	743,217	765,514	788,479
Loan Balance	20,333,314	20,333,314	19,590,097	18,824,583	18,036,103
CAPX - Year 2		20,681,164			
Term		19			
Interest		3.00%			
Monthly Payment		119,111			
		Year 2	Year 3	Year 4	Year 5
Annual Interest		620,435	620,435	596,168	571,173
Annual Principle		-	808,901	833,168	858,163
Loan Balance		20,681,164	19,872,263	19,039,095	18,180,932
CAPX - Year 3			347,850		
Term			18		
Interest			3.00%		
Monthly Payment			2,086		
			Year 3	Year 4	Year 5
Annual Interest			10,436	9,998	9,546
Annual Principle			14,598	15,036	15,487
Loan Balance			333,252	318,216	302,729
CAPX - Year 4				347,850	
Term				17	
Interest				3.00%	
Monthly Payment				2,179	
				Year 4	Year 5
Annual Interest				10,436	9,964
Annual Principle				15,711	16,182
Loan Balance				332,139	315,957
CAPX - Year 5					69,570
Term					16
Interest					3.00%
Monthly Payment					457
					Year 5
Annual Interest					2,087
Annual Principle					3,393
Loan Balance					66,177
CAPX - Total					41,779,748
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	609,999	1,230,434	1,240,870	1,204,304	1,157,508
Annual Principle	-	-	1,566,717	1,629,429	1,681,705
Loan Balance	20,333,314	41,014,478	39,795,611	38,514,033	36,901,898

**Okanogan-Colville Broadband
CAPX
Okanogan - Colville**

SUMMARY OF PROJECT COSTS BY YEAR

Budget Category	Prior Years	Year 1	Year 2	Year 3	Year 4	Year 5	Total Project Cost
NETWORK/ACCESS EQUIPMENT		\$875,000.00	\$875,000.00	\$0.00	\$0.00	\$0.00	\$1,750,000.00
OUTSIDE PLANT		\$16,685,375.00	\$16,685,375.00	\$0.00	\$0.00	\$0.00	\$33,370,750.00
BUILDINGS		\$325,000.00	\$325,000.00	\$0.00	\$0.00	\$0.00	\$650,000.00
LAND		\$65,000.00	\$65,000.00	\$0.00	\$0.00	\$0.00	\$130,000.00
TOWERS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISE EQUIPMENT		\$139,140.00	\$486,990.00	\$347,850.00	\$347,850.00	\$69,570.00	\$1,391,400.00
BILLING SUPPORT & OPERATING EQUIP.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ENGINEERING		\$2,243,799.00	\$2,243,799.00	\$0.00	\$0.00	\$0.00	\$4,487,598.00
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL		\$20,333,314.00	\$20,681,164.00	\$347,850.00	\$347,850.00	\$69,570.00	\$41,779,748.00

Budget Category	Prior Years	Year 1	Year 2	Year 3
		Loan Funds	Non-Loan Funds	Loan Funds
NETWORK/ACCESS EQUIPMENT	0	\$875,000.00	\$0.00	\$875,000.00
OUTSIDE PLANT	0	\$16,685,375.00	\$0.00	\$16,685,375.00
BUILDING	0	\$325,000.00	\$0.00	\$325,000.00
LAND	0	\$65,000.00	\$0.00	\$65,000.00
TOWER	0	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISES EQUIPMENT*	0	\$139,140.00	\$0.00	\$486,990.00
BILLING SUPPORT & OPERATING EQUIP.	0	\$0.00	\$0.00	\$0.00
ENGINEERING	0	\$2,243,799.00	\$0.00	\$2,243,799.00
<u>ACQUISITION</u>	0	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
TOTAL	0	\$20,333,314.00	\$0.00	\$20,681,164.00

Inputs from cost tab	Total Non-Funded CAPX	Funded CAPX
NETWORK/ACCESS EQUIPMENT	\$1,750,000.00	
OUTSIDE PLANT	\$33,370,750.00	
BUILDING	\$650,000.00	
LAND	\$130,000.00	
TOWER	\$0.00	
CUSTOMER PREMISES EQUIPMENT*	\$1,391,400.00	
BILLING SUPPORT & OPERATING EQUIP.	\$0.00	
ENGINEERING	\$4,487,598.00	
<u>ACQUISITION</u>		
TOTAL	\$41,779,748.00	\$0.00

CAPX buildout timeline

50%	0%	50%	0%	0%	0%
yr 1 funded	yr 1 non-funded	yr 2 funded	yr 2 non-funded	yr 3 funded	yr 3 non-funded

**Okanogan-Colville Broadband
Pro Forma Summary
Okanogan PUD Only**

12/9/2020 13:55					
	Year 1	Year 2	Year 3	Year 4	Year 5
INCOME STATEMENT					
1 REVENUE	132,493	558,695	844,615	1,124,369	1,181,318
2 BAD DEBT	(662)	(2,793)	(4,223)	(5,622)	(5,907)
3 EXPENSES	1,576,540	3,126,935	3,167,991	3,242,954	3,215,717
4 PROFIT BEFORE TAX	(1,444,709)	(2,571,034)	(2,327,599)	(2,124,207)	(2,040,305)
5 <i>tax rate</i>	7.85%	7.85%	7.85%	7.85%	7.85%
6 TAX	(113,410)	(201,826)	(182,717)	(166,750)	(160,164)
7 NET PROFIT AFTER TAX	(1,331,300)	(2,369,208)	(2,144,882)	(1,957,457)	(1,880,141)
CASH FLOW STATEMENT					
9 CASH RECIEPTS	131,830	555,902	840,392	1,118,747	1,175,411
10 OPERATING EXPENSES	707,406	1,358,116	1,370,420	1,416,631	1,372,143
11 LESS RECIEVABLES	(1,104)	(3,552)	(3,487)	(5,883)	(3,961)
12 PLUS PAYABLES	13,138	12,920	13,480	13,545	13,253
13 PRINCIPAL PAYMENTS	0	0	1,391,349	1,442,180	1,487,408
14 <i>NET PROFIT AFTER TAX</i>	<i>(1,331,300)</i>	<i>(2,369,208)</i>	<i>(2,144,882)</i>	<i>(1,957,457)</i>	<i>(1,880,141)</i>
15 DIVIDENDS PAID	0	0	0	0	0
16 RETAINED CASH	(563,542)	(792,846)	(1,911,383)	(1,732,402)	(1,674,848)
17 CAPITAL EXPENDITURES	18,172,701	18,373,963	201,263	201,263	40,253
18 DEBT FINANCING	18,172,701	18,373,963	201,263	201,263	40,253
19 EQUITY FINANCING	563,542	792,846	1,911,383	1,732,402	1,674,848
20 ACCUMULATED CASH	(0)	(0)	(0)	(0)	(0)
BALANCE SHEET					
21 CASH	(0)	(0)	(0)	(0)	(0)
22 FIXED ASSETS LESS DEPRECIATI	17,303,567	33,908,710	32,312,401	30,687,340	28,884,019
23 TOTAL ASSETS	17,303,567	33,908,710	32,312,401	30,687,340	28,884,019
24 LOAN DEBT LESS PRINCIPLE	18,172,701	36,546,664	35,356,577	34,115,659	32,668,504
25 OWNERS' EQUITY	(869,134)	(2,637,954)	(3,044,176)	(3,428,319)	(3,784,485)
26 TOTAL LIABILITY	17,303,567	33,908,710	32,312,401	30,687,340	28,884,019
28 OWNER PROCEEDS	0	0	0	0	0
29 CAPITAL DEPLOYMENT	18,172,701	36,546,664	36,747,926	36,949,189	36,989,441
Yearly % of Loan					
30 Yearly Deployment	18,172,701	18,373,963	201,263	201,263	40,253
31 Yearly Depreciation	869,134	1,768,820	1,797,571	1,826,323	1,843,574
32 Yearly Interest	545,181	1,096,400	1,102,438	1,066,735	1,024,677
33 Yearly Principal Paid	0	0	1,391,349	1,442,180	1,487,408
34 REVENUE	132,493	558,695	844,615	1,124,369	1,181,318
35 BROADBAND Revenue	130,704	543,117	824,826	1,099,027	1,156,871
Installation Rvnue	1,789	3,578	1,789	1,342	447
38 VoIP Revenue	-	-	-	-	-
41 Video	0	0	0	0	0
53 NRC & Other Revenue \$K	0	12,000	18,000	24,000	24,000
54 EXPENSES	1,576,540	3,126,935	3,167,991	3,242,954	3,215,717
55 Depreciation	869,134	1,768,820	1,797,571	1,826,323	1,843,574
56 Vehicles	-	-	-	-	-
57 Insurance	-	-	-	3,634	3,743
58 Interest	545,181	1,096,400	1,102,438	1,066,735	1,024,677
59 Rent/Lease	-	-	-	-	-
60 Salary	-	-	-	71,027	73,158
62 Repairs/Maintenance	90,864	182,733	183,740	184,746	184,947
Office Furniture	-	-	0	0	0
Computers & Office Equipment	-	-	0	0	0
63 Software Systems	-	-	-	-	-
64 Marketing	18,000	18,000	12,000	12,000	6,000
Wholesale Voice, Bandwidth & Video Content	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00
66 General Office Supplies	-	-	-	-	-
67 Accounting, Banking, Legal, Misc.	9,000	9,000	15,000	15,000	15,000
68 Billing	2,361	9,983	15,242	20,395	21,468
69 Call Center Expense	-	-	-	-	-
Meter Reading	-	-	-	-	-
70 Annual Property Tax	0	0	0	0	0
Pole Attachment Fees	0	0	0	0	0
71 Utilities	-	-	-	1,094	1,149

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan PUD Only**

All Inputs are Highlighted

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
PAYROLL						
5 Number of Executives	0	0	0	0	0	0
Broadband Manager	0	0	0	0	0	0
6 Number of Admin Assistants	0	0	0	0	0	0
7 Number of Network Technicians	0	-	-	-	1	1
8 Billing Manager	0	-	0	0	0	0
9 Billing Assistant	0	-	0	0	0	0
10 Finance Administrator	0	-	0	0	0	0
11 Mgr. of Customer Relations	0	-	0	0	0	0
12 Regional Sales Manager	0	-	0	0	0	0
13 Outside Sales	0	-	0	0	0	0
14 Shift Supervisor	0	-	0	0	0	0
15 Marketing Manager	0	-	0	0	0	0
16 Technician Manager	0	-	0	0	0	0
17 Infrastructure Manager	0	-	0	0	0	0
18 Project Manager	0	-	0	0	0	0
19 IT Engineers	0	-	0	0	0	0
20 Tech Support Supervisors	0	-	0	0	0	0
21 Number of Customer Service	0	-	-	-	-	-
SALARIES						
22 Average Executive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23 Average Broadband Manager	\$ 75,000	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413
24 Average Admin. Assistant	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
25 Average Network Technician	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
26 Average Billing Manager	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
27 Average Billing Assistant	\$ 28,000	\$ 28,000	\$ 28,840	\$ 29,705	\$ 30,596	\$ 31,514
28 Average Finance Administrator	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
29 Average Mgr. of Customer Relations	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
30 Average Regional Sales Manager	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
31 Average Outside Sales	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
32 Average Shift Supervisor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33 Average Marketing Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34 Average Technician Manager	\$ 60,000	\$ 60,000	\$ 61,800	\$ 63,654	\$ 65,564	\$ 67,531
35 Average Infrastructure Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36 Average Project Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37 Average IT Engineers	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
38 Average Tech Support Supervisors	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
39 Average Customer Service	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
40 Annual Escalator	1.030	1.030	1.030	1.030	1.030	1.030
41 Benefit Factor	0.300	0.300	0.300	0.300	0.300	0.300
42 Bonus Factor	0.030	0.030	0.030	0.030	0.030	0.030
43 Total Salaries	\$ -	\$ -	\$ -	\$ -	\$ 54,636	\$ 56,275
44 Benefits	\$ -	\$ -	\$ -	\$ -	\$ 16,391	\$ 16,883
45 Bonuses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46 Total Payroll Compensation	\$ -	\$ -	\$ -	\$ -	\$ 71,027	\$ 73,158
LEVEL 1 SUPPORT						
47 Amount per subscriber	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48 Subscribers		197	832	1,270	1,700	1,789
49 Total Level 1 Support (Outsourced)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan PUD Only**

TOWER LEASE

50 Number of Tower Co. Sites	0	0	0	0	0	0
51 Number of Municipality/Private Sites	0	0	0	0	0	0
52 Average Lease Per Tower Co./Mo.	750	750	750	750	750	750
53 Ave. Municipality/Private Lease/Mo.	300	300	300	300	300	300
54 Annual Escalator	1.00	1.00	1.00	1.00	1.00	1.00
55 Tower Co. Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56 Municipality/Private Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57 Total Tower Lease Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

REAL ESTATE LEASE

58 Number of square feet leased	-	-	-	-	-	-
59 Price per Square Foot	\$ 15	\$ 16	\$ 17	\$ 17	\$ 18	\$ 19
60 Annual Escalator	1.05	1.05	1.05	1.05	1.05	1.05
61 Total Real Estate Lease	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

VEHICLE EXPENSE

62 Number of Technician Vehicles	0	0	0	0	0	0
63 Number of company cars	0	0	0	0	0	0
Vehicle Lease	0	0	0	0	0	0
64 Ave. mo. fuel per tech vehicle	450	457	464	471	478	485
65 Ave. mo. fuel per company car	225	228	232	235	239	242
66 Ave. yr. tag and tax per vehicle	100	102	103	105	106	108
67 Ave. yr. maintenance per vehicle	250	254	258	261	265	269
68 Annual rate of cost increase	1.015	0.015	0.015	0.015	0.015	0.015
69 Vehicle Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

INSURANCE

70 Policy Premium per Auto	1,250	-	-	-	-	-
71 General Liability		0	0	0	1,230	1,267
72 Hazard (property)	0.000	0.000	0.000	0.000	0.000	0.000
73 Fixed Assets Insured	-	18,172,701	36,546,664	36,747,926	36,949,189	36,989,441
74 Worker's Comp		-	-	-	2,404	2,476
75 Umbrella Policy	-	-	-	-	-	-
76 Director's Insurance	5.00%	-	-	-	-	-
77 Annual rate of cost increase	1.1	1.1	1.1	1.1	1.1	1.1
78 Total Insurance	-	-	-	-	3,634	3,743

79 ANNUAL PROPERTY TAX

-	-	-	-	-	-	-
---	---	---	---	---	---	---

WHOLESALE VOICE COSTS

84 Voice Subscribers	-	-	-	-	-	-
85 Third Party voice costs cost per sub	10.00	10.00	10.00	10.00	10.00	10.00
86 Total Wholesale Voice Costs	0	0	0	0	0	0

BANDWIDTH & Fiber Costs

Fiber IRU	-	-	-	-	-	-
87 Ave. Cost per 1 Gbps Link	2,100	2,100	2,100	2,100	2,100	2,100
88 Ave. Cost per 10 Gig Link	3,500	3,500	3,500	3,500	3,500	3,500
89 No. of 1 Gbps Links	0	-	-	-	-	-
90 No. of 10 Gig Links	1	1	1	1	1	1
99 Total Bandwidth Costs	42,000	42,000	42,000	42,000	42,000	42,000

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan PUD Only**

VIDEO CONTENT

Video Subscribers	-	-	-	-	-
Ave. cost of Content per Sub	(5)	(5)	(5)	(5)	(5)
Total Video Content Cost	-	-	-	-	-

POLE ATTACHMENT FEES

100 Annual Pole Attachment Fees	0.00	0.00	0.00	0.00	0.00	0.00
---------------------------------	------	------	------	------	------	------

UTILITIES

101 Number of tower sites	0	0	0	0	0	0
102 Number of offices	0	0	0	0	0	0
103 Number of cell phones	0	0	0	0	1	1
104 Utility Rate per tower site/ mo.	100	105	110	116	122	128
105 Utility Rate per office / mo.	500	525	551	579	608	638
106 Average Cell Phone Cost / mo.	75	79	83	87	91	96
107 Utility Rate Increase	1.05	1.05	1.05	1.05	1.05	1.05
108 Utility Expense	-	-	-	-	-	-
109 Cell Phone Expense	-	-	-	-	91	96
110 Total Utilities Expense	-	-	-	-	1,094	1,149

OFFICE SUPPLIES

111 Furniture	-	-	-	-	-	-
112 Office Supplies	-	-	-	-	-	-
113 Computers & Office Equipment	-	-	-	-	-	-
114 Software	-	-	-	-	-	-
114A Misc	-	3,000	3,000	3,000	3,000	3,000
115 Total Supplies	-	-	-	-	-	-

PLANT REPAIRS & MAINTENANCE

116 Invested Fixed Assets	\$0	\$ 18,172,701	\$ 36,546,664	\$ 36,747,926	\$ 36,949,189	\$ 36,989,441
117 Maintenance Rate	0.005	0.005	0.005	0.005	0.005	0.005
118 Annual Repairs & Maintenance	\$ -	\$ 90,864	\$ 182,733	\$ 183,740	\$ 184,746	\$ 184,947

119

120 MARKETING

121 Monthly Investment	\$ -	\$ 1,500	\$ 1,500	\$ 1,000	\$ 1,000	\$ 500
122 Total Marketing Investment	-	18,000	18,000	12,000	12,000	6,000

BILLING

Annual Billing Cost @ \$1.00/sub/mo	\$1.00	2,361	9,983	15,242	20,395	21,468
-------------------------------------	--------	-------	-------	--------	--------	--------

**Meter Reading
meters**

\$0.00	0	0	0	0	0
0					

PROFESSIONAL FEES

123 Engineering	-	-	-	6,000	6,000	6,000
124 Accounting/Financial	-	6,000	6,000	6,000	6,000	6,000
125 Legal	-	3,000	3,000	3,000	3,000	3,000
126 Total Professional Fees	-	9,000	9,000	15,000	15,000	15,000

**Okanogan-Colville Broadband
Subscriber Revenue Projections
Okanogan PUD Only**

			Yr 1 % Take Rate	Yr 2 % Take Rate	Yr 3 % Take Rate	Yr 4 % Take Rate	Yr 5 % Take Rate
			10.00%	45.00%	70.00%	95.00%	100.00%
Estimated Service Plan Subscriptions	MONTHLY	Percentage Take Rate	Year 1	Year 2	Year 3	Year 4	Year 5
DATA SERVICES							
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00	45.00%	72	326	507	688	725
RESIDENTIAL SILVER 100/10 Mbps	\$59.95	40.00%	64	290	451	612	644
RESIDENTIAL GOLD 250/25 Mbps	\$79.95	13.00%	21	94	147	199	209
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00	2.00%	3	14	23	31	32
Total Residential Data Subscribers		100.00%	161	725	1,127	1,530	1,610
			20.00%	60.00%	80.00%	95.00%	100.00%
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95	40.00%	14	43	57	68	72
BUS BROADBAND SILVER 100/10 Mbps	\$69.95	35.00%	13	38	50	59	63
BUS BROADBAND GOLD 250/25 Mbps		15.00%	5	16	21	25	27
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95	10.00%	4	11	14	17	18
Total Business Data Subscribers		100.00%	36	107	143	170	179
Total Voice Subscribers		0.00%	0	0	0	0	0
Total Video Subscribers		0.00%	0	0	0	0	0

			Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Projections	MONTHLY						
DATA SERVICES							
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00		\$30,431	\$136,939	\$213,016	\$289,093	\$304,309
RESIDENTIAL SILVER 100/10 Mbps	\$59.95		\$46,332	\$208,495	\$324,326	\$440,156	\$463,322
RESIDENTIAL GOLD 250/25 Mbps	\$79.95		\$20,081	\$90,367	\$140,570	\$190,774	\$200,815
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00		\$3,826	\$17,215	\$26,779	\$36,343	\$38,256
Total Residential Data Annual Revenue			\$100,670	\$453,016	\$704,692	\$956,367	\$1,006,702
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95		\$8,579	\$25,736	\$34,314	\$40,748	\$42,893
BUS BROADBAND SILVER 100/10 Mbps	\$69.95		\$10,512	\$31,535	\$42,047	\$49,931	\$52,559
BUS BROADBAND GOLD 250/25 Mbps	\$89.95		\$4,505	\$13,515	\$18,020	\$21,399	\$22,525
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95		\$6,438	\$19,315	\$25,753	\$30,582	\$32,191
Total Business Data Annual Revenue			\$30,034	\$90,101	\$120,135	\$142,660	\$150,169
Total Annual Revenue			\$130,704	\$543,117	\$824,826	\$1,099,027	\$1,156,871
Total Voice Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Video Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Res Intallation Revenue	\$50.00		\$8,051	\$28,177	\$20,126	\$20,126	\$4,025
Total Annual Bus Intallation Revenue	\$50.00		\$1,789	\$3,578	\$1,789	\$1,342	\$447
Total Facility Revenue Savings	\$0.00		\$0	\$0	\$0	\$0	\$0
Total cell site revenues (\$500/mo/tower)	\$6,000.00		\$0	\$12,000	\$18,000	\$24,000	\$24,000
Total dark fiber & Bandwidth Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Smart Home & Security Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Other Revenue			\$0	\$12,000	\$18,000	\$24,000	\$24,000

Total HHP 0

Total 5 yr residential data subs 1,610 0.00%

Total Businesses 0

Total 5 yr bus data subs 179 0.00%

Total 5 yr Data Subscribers 1,789

**Okanogan-Colville Broadband
Depreciation
Okanogan PUD Only**

Green are only inputs (cell references) in this tab

YEAR 1 INVESTMENT

	Life	Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	89,286	89,286	89,286	89,286	89,286
Outside Plant & Towers	20	759,348	759,348	759,348	759,348	759,348
Buildings & Land	25	9,000	9,000	9,000	9,000	9,000
Customer Premise Equipment	7	11,501	11,501	11,501	11,501	11,501
Billing & Operations Support	15	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	15	-	-	-	-	-
Testing	15	-	-	-	-	-
Site Preparation	25	-	-	-	-	-
Total		869,134	869,134	869,134	869,134	869,134

YEAR 2 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7		89,286	89,286	89,286	89,286
Outside Plant & Towers	20		759,348	759,348	759,348	759,348
Buildings & Land	25		10,800	10,800	10,800	10,800
Customer Premise Equipment	7		40,253	40,253	40,253	40,253
Billing & Operations Support	10		-	-	-	-
Operating Equipment	10		-	-	-	-
Engineering & Professional Services	10		-	-	-	-
Testing	10		-	-	-	-
Site Preparation	25		-	-	-	-
Total			899,686	899,686	899,686	899,686

YEAR 3 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7			-	-	-
Outside Plant & Towers	20			-	-	-
Buildings & Land	25			-	-	-
Customer Premise Equipment	7			28,752	28,752	28,752
Billing & Operations Support	10			-	-	-
Operating Equipment	10			-	-	-
Engineering & Professional Services	10			-	-	-
Testing	10			-	-	-
Site Preparation	25			-	-	-
Total				28,752	28,752	28,752

YEAR 4 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7				-	-
Outside Plant & Towers	20				-	-
Buildings & Land	25				-	-
Customer Premise Equipment	7				28,752	28,752
Billing & Operations Support	10				-	-
Operating Equipment	10				-	-
Engineering & Professional Services	10				-	-
Testing	10				-	-
Site Preparation	25				-	-
Total					28,752	28,752

YEAR 5 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7					-
Outside Plant & Towers	20					-
Buildings & Land	25					-
Customer Premise Equipment	7					5,750
Billing & Operations Support	10					-
Operating Equipment	10					-
Engineering & Professional Services	10					-
Testing	10					-
Site Preparation	25					-
Total						5,750

**Okanogan-Colville Broadband
Depreciation
Okanogan PUD Only**

		TOTAL PROJECT DEPRECIATION				
		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	89,286	178,571	178,571	178,571	178,571
Outside Plant & Towers	20	759,348	1,518,695	1,518,695	1,518,695	1,518,695
Buildings & Land	25	9,000	19,800	19,800	19,800	19,800
Customer Premise Equipment	7	11,501	51,753	80,505	109,257	115,007
Billing & Operations Support	10	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	10	-	-	-	-	-
Testing	10	-	-	-	-	5,750
Site Preparation	25	-	-	-	-	5,750
Total		869,134	1,768,820	1,797,571	1,826,323	1,843,574

Okanogan-Colville Broadband Debt Amortization Okanogan PUD Only

Green are only inputs (cell references) in this tab

CAPX - Year 1	18,172,701				
Term	20				
Interest	3.00%				
Monthly Payment	100,785				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	545,181	545,181	545,181	525,254	504,729
Annual Principle	-	-	664,243	684,171	704,696
Loan Balance	18,172,701	18,172,701	17,508,457	16,824,287	16,119,591
CAPX - Year 2		18,373,963			
Term		19			
Interest		3.00%			
Monthly Payment		105,823			
		Year 2	Year 3	Year 4	Year 5
Annual Interest		551,219	551,219	529,659	507,453
Annual Principle		-	718,660	740,219	762,426
Loan Balance		18,373,963	17,655,303	16,915,084	16,152,658
CAPX - Year 3			201,263		
Term			18		
Interest			3.00%		
Monthly Payment			1,207		
			Year 3	Year 4	Year 5
Annual Interest			6,038	5,784	5,523
Annual Principle			8,446	8,700	8,961
Loan Balance			192,816	184,116	175,156
CAPX - Year 4				201,263	
Term				17	
Interest				3.00%	
Monthly Payment				1,261	
				Year 4	Year 5
Annual Interest				6,038	5,765
Annual Principle				9,090	9,363
Loan Balance				192,172	182,810
CAPX - Year 5					40,253
Term					16
Interest					3.00%
Monthly Payment					264
					Year 5
Annual Interest					1,208
Annual Principle					1,963
Loan Balance					38,289
CAPX - Total					36,989,441
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	545,181	1,096,400	1,102,438	1,066,735	1,024,677
Annual Principle	-	-	1,391,349	1,442,180	1,487,408
Loan Balance	18,172,701	36,546,664	35,356,577	34,115,659	32,668,504

**Okanogan-Colville Broadband
CAPX
Okanogan PUD Only**

SUMMARY OF PROJECT COSTS BY YEAR

Budget Category	Prior Years	Year 1	Year 2	Year 3	Year 4	Year 5	Total Project Cost
NETWORK/ACCESS EQUIPMENT		\$625,000.00	\$625,000.00	\$0.00	\$0.00	\$0.00	\$1,250,000.00
OUTSIDE PLANT		\$15,186,950.00	\$15,186,950.00	\$0.00	\$0.00	\$0.00	\$30,373,900.00
BUILDINGS		\$225,000.00	\$225,000.00	\$0.00	\$0.00	\$0.00	\$450,000.00
LAND		\$45,000.00	\$45,000.00	\$0.00	\$0.00	\$0.00	\$90,000.00
TOWERS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISE EQUIPMENT		\$80,505.00	\$281,767.50	\$201,262.50	\$201,262.50	\$40,252.50	\$805,050.00
BILLING SUPPORT & OPERATING EQUIP.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ENGINEERING		\$2,010,245.50	\$2,010,245.50	\$0.00	\$0.00	\$0.00	\$4,020,491.00
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL		\$18,172,700.50	\$18,373,963.00	\$201,262.50	\$201,262.50	\$40,252.50	\$36,989,441.00

Budget Category	Prior Years	Year 1	Year 2	Year 3
		Loan Funds	Loan Funds	Loan Funds
		Non-Loan Funds	Non-Loan Funds	Non-Loan Funds
NETWORK/ACCESS EQUIPMENT	0	\$625,000.00	\$0.00	\$625,000.00
OUTSIDE PLANT	0	\$15,186,950.00	\$0.00	\$15,186,950.00
BUILDING	0	\$225,000.00	\$0.00	\$225,000.00
LAND	0	\$45,000.00	\$0.00	\$45,000.00
TOWER	0	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISES EQUIPMENT*	0	\$80,505.00	\$0.00	\$281,767.50
BILLING SUPPORT & OPERATING EQUIP.	0	\$0.00	\$0.00	\$0.00
ENGINEERING	0	\$2,010,245.50	\$0.00	\$2,010,245.50
<u>ACQUISITION</u>	<u>0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
TOTAL	0	\$18,172,700.50	\$0.00	\$18,373,963.00

Inputs from cost tab	Total Non-Funded CAPX	Funded CAPX
NETWORK/ACCESS EQUIPMENT	\$1,250,000.00	
OUTSIDE PLANT	\$30,373,900.00	
BUILDING	\$450,000.00	
LAND	\$90,000.00	
TOWER	\$0.00	
CUSTOMER PREMISES EQUIPMENT*	\$805,050.00	
BILLING SUPPORT & OPERATING EQUIP.	\$0.00	
ENGINEERING	\$4,020,491.00	
<u>ACQUISITION</u>		
TOTAL	\$36,989,441.00	\$0.00

CAPX buildout timeline						
50%	0%	50%	0%	0%	0%	0%
yr 1 funded	yr 1 non-funded	yr 2 funded	yr 2 non-funded	yr 3 funded	yr 3 non-funded	

**Okanogan-Colville Broadband
Pro Forma Summary
Okanogan PUD Only less Conconully-Oroville**

12/9/2020 14:11					
	Year 1	Year 2	Year 3	Year 4	Year 5
INCOME STATEMENT					
1 REVENUE	132,493	558,695	844,615	1,124,369	1,181,318
2 BAD DEBT	(662)	(2,793)	(4,223)	(5,622)	(5,907)
3 EXPENSES	1,266,245	2,505,946	2,547,001	2,630,527	2,612,110
4 PROFIT BEFORE TAX	(1,134,415)	(1,950,044)	(1,706,609)	(1,511,780)	(1,436,698)
5 <i>tax rate</i>	7.85%	7.85%	7.85%	7.85%	7.85%
6 TAX	(89,052)	(153,078)	(133,969)	(118,675)	(112,781)
7 NET PROFIT AFTER TAX	(1,045,363)	(1,796,965)	(1,572,640)	(1,393,105)	(1,323,917)
CASH FLOW STATEMENT					
9 CASH RECIEPTS	131,830	555,902	840,392	1,118,747	1,175,411
10 OPERATING EXPENSES	575,376	1,094,055	1,106,359	1,161,133	1,125,465
11 LESS RECIEVABLES	(1,104)	(3,552)	(3,487)	(5,883)	(3,961)
12 PLUS PAYABLES	10,552	10,331	10,894	11,027	10,741
13 PRINCIPAL PAYMENTS	0	0	1,105,920	1,148,188	1,184,596
14 <i>NET PROFIT AFTER TAX</i>	<i>(1,045,363)</i>	<i>(1,796,965)</i>	<i>(1,572,640)</i>	<i>(1,393,105)</i>	<i>(1,323,917)</i>
15 DIVIDENDS PAID	0	0	0	0	0
16 RETAINED CASH	(434,097)	(531,374)	(1,364,479)	(1,185,430)	(1,127,870)
17 CAPITAL EXPENDITURES	14,400,407	14,601,669	201,263	201,263	40,253
18 DEBT FINANCING	14,400,407	14,601,669	201,263	201,263	40,253
19 EQUITY FINANCING	434,097	531,374	1,364,479	1,185,430	1,127,870
20 ACCUMULATED CASH	0	0	0	0	0
BALANCE SHEET					
21 CASH	0	0	0	0	0
22 FIXED ASSETS LESS DEPRECIATI	13,709,537	26,899,316	25,659,936	24,391,805	22,945,412
23 TOTAL ASSETS	13,709,537	26,899,316	25,659,936	24,391,805	22,945,412
24 LOAN DEBT LESS PRINCIPLE	14,400,407	29,002,076	28,097,418	27,150,493	26,006,149
25 OWNERS' EQUITY	(690,869)	(2,102,760)	(2,437,482)	(2,758,688)	(3,060,737)
26 TOTAL LIABILITY	13,709,537	26,899,316	25,659,936	24,391,805	22,945,412
28 OWNER PROCEEDS	0	0	0	0	0
29 CAPITAL DEPLOYMENT	14,400,407	29,002,076	29,203,338	29,404,601	29,444,853
30 Yearly % of Loan					
31 Yearly Deployment	14,400,407	14,601,669	201,263	201,263	40,253
32 Yearly Depreciation	690,869	1,411,890	1,440,642	1,469,394	1,486,645
33 Yearly Interest	432,012	870,062	876,100	848,960	815,722
34 Yearly Principal Paid	0	0	1,105,920	1,148,188	1,184,596
34 REVENUE	132,493	558,695	844,615	1,124,369	1,181,318
35 BROADBAND Revenue	130,704	543,117	824,826	1,099,027	1,156,871
Installation Revenue	1,789	3,578	1,789	1,342	447
38 VoIP Revenue	-	-	-	-	-
41 Video	0	0	0	0	0
53 NRC & Other Revenue \$K	0	12,000	18,000	24,000	24,000
54 EXPENSES	1,266,245	2,505,946	2,547,001	2,630,527	2,612,110
55 Depreciation	690,869	1,411,890	1,440,642	1,469,394	1,486,645
56 Vehicles	-	-	-	-	-
57 Insurance	-	-	-	3,634	3,743
58 Interest	432,012	870,062	876,100	848,960	815,722
59 Rent/Lease	-	-	-	-	-
60 Salary	-	-	-	71,027	73,158
62 Repairs/Maintenance	72,002	145,010	146,017	147,023	147,224
Office Furniture	-	-	0	0	0
Computers & Office Equipment	-	-	0	0	0
63 Software Systems	-	-	-	-	-
64 Marketing	18,000	18,000	12,000	12,000	6,000
Wholesale Voice, Bandwidth & Video Content	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00
66 General Office Supplies	-	-	-	-	-
67 Accounting, Banking, Legal, Misc.	9,000	9,000	15,000	15,000	15,000
68 Billing	2,361	9,983	15,242	20,395	21,468
69 Call Center Expense	-	-	-	-	-
Meter Reading	-	-	-	-	-
70 Annual Property Tax	0	0	0	0	0
Pole Attachment Fees	0	0	0	0	0
71 Utilities	-	-	-	1,094	1,149

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan PUD Only less Conconully-Oroville**

All Inputs are Highlighted

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
PAYROLL						
5 Number of Executives	0	0	0	0	0	0
Broadband Manager	0	0	0	0	0	0
6 Number of Admin Assistants	0	0	0	0	0	0
7 Number of Network Technicians	0	-	-	-	1	1
8 Billing Manager	0	-	0	0	0	0
9 Billing Assistant	0	-	0	0	0	0
10 Finance Administrator	0	-	0	0	0	0
11 Mgr. of Customer Relations	0	-	0	0	0	0
12 Regional Sales Manager	0	-	0	0	0	0
13 Outside Sales	0	-	0	0	0	0
14 Shift Supervisor	0	-	0	0	0	0
15 Marketing Manager	0	-	0	0	0	0
16 Technician Manager	0	-	0	0	0	0
17 Infrastructure Manager	0	-	0	0	0	0
18 Project Manager	0	-	0	0	0	0
19 IT Engineers	0	-	0	0	0	0
20 Tech Support Supervisors	0	-	0	0	0	0
21 Number of Customer Service	0	-	-	-	-	-
SALARIES						
22 Average Executive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23 Average Broadband Manager	\$ 75,000	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413
24 Average Admin. Assistant	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
25 Average Network Technician	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
26 Average Billing Manager	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
27 Average Billing Assistant	\$ 28,000	\$ 28,000	\$ 28,840	\$ 29,705	\$ 30,596	\$ 31,514
28 Average Finance Administrator	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
29 Average Mgr. of Customer Relations	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
30 Average Regional Sales Manager	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
31 Average Outside Sales	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
32 Average Shift Supervisor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33 Average Marketing Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34 Average Technician Manager	\$ 60,000	\$ 60,000	\$ 61,800	\$ 63,654	\$ 65,564	\$ 67,531
35 Average Infrastructure Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36 Average Project Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37 Average IT Engineers	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
38 Average Tech Support Supervisors	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
39 Average Customer Service	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
40 Annual Escalator	1.030	1.030	1.030	1.030	1.030	1.030
41 Benefit Factor	0.300	0.300	0.300	0.300	0.300	0.300
42 Bonus Factor	0.030	0.030	0.030	0.030	0.030	0.030
43 Total Salaries	\$ -	\$ -	\$ -	\$ -	\$ 54,636	\$ 56,275
44 Benefits	\$ -	\$ -	\$ -	\$ -	\$ 16,391	\$ 16,883
45 Bonuses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46 Total Payroll Compensation	\$ -	\$ -	\$ -	\$ -	\$ 71,027	\$ 73,158
LEVEL 1 SUPPORT						
47 Amount per subscriber	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48 Subscribers		197	832	1,270	1,700	1,789
49 Total Level 1 Support (Outsourced)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan PUD Only less Conconully-Oroville**

TOWER LEASE

50 Number of Tower Co. Sites	0	0	0	0	0	0
51 Number of Municipality/Private Sites	0	0	0	0	0	0
52 Average Lease Per Tower Co./Mo.	750	750	750	750	750	750
53 Ave. Municipality/Private Lease/Mo.	300	300	300	300	300	300
54 Annual Escalator	1.00	1.00	1.00	1.00	1.00	1.00
55 Tower Co. Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56 Municipality/Private Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57 Total Tower Lease Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

REAL ESTATE LEASE

58 Number of square feet leased	-	-	-	-	-	-
59 Price per Square Foot	\$ 15	\$ 16	\$ 17	\$ 17	\$ 18	\$ 19
60 Annual Escalator	1.05	1.05	1.05	1.05	1.05	1.05
61 Total Real Estate Lease	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

VEHICLE EXPENSE

62 Number of Technician Vehicles	0	0	0	0	0	0
63 Number of company cars	0	0	0	0	0	0
Vehicle Lease	0	0	0	0	0	0
64 Ave. mo. fuel per tech vehicle	450	457	464	471	478	485
65 Ave. mo. fuel per company car	225	228	232	235	239	242
66 Ave. yr. tag and tax per vehicle	100	102	103	105	106	108
67 Ave. yr. maintenance per vehicle	250	254	258	261	265	269
68 Annual rate of cost increase	1.015	0.015	0.015	0.015	0.015	0.015
69 Vehicle Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

INSURANCE

70 Policy Premium per Auto	1,250	-	-	-	-	-
71 General Liability		0	0	0	1,230	1,267
72 Hazard (property)	0.000	0.000	0.000	0.000	0.000	0.000
73 Fixed Assets Insured	-	14,400,407	29,002,076	29,203,338	29,404,601	29,444,853
74 Worker's Comp	-	-	-	-	2,404	2,476
75 Umbrella Policy	-	-	-	-	-	-
76 Director's Insurance	5.00%	-	-	-	-	-
77 Annual rate of cost increase	1.1	1.1	1.1	1.1	1.1	1.1
78 Total Insurance	-	-	-	-	3,634	3,743

79 ANNUAL PROPERTY TAX

-	-	-	-	-	-	-
---	---	---	---	---	---	---

WHOLESALE VOICE COSTS

84 Voice Subscribers	-	-	-	-	-	-
85 Third Party voice costs cost per sub	10.00	10.00	10.00	10.00	10.00	10.00
86 Total Wholesale Voice Costs	0	0	0	0	0	0

BANDWIDTH & Fiber Costs

Fiber IRU	-	-	-	-	-	-
87 Ave. Cost per 1 Gbps Link	2,100	2,100	2,100	2,100	2,100	2,100
88 Ave. Cost per 10 Gig Link	3,500	3,500	3,500	3,500	3,500	3,500
89 No. of 1 Gbps Links	0	-	-	-	-	-
90 No. of 10 Gig Links	1	1	1	1	1	1
99 Total Bandwidth Costs	42,000	42,000	42,000	42,000	42,000	42,000

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Okanogan PUD Only less Conconully-Oroville**

VIDEO CONTENT

Video Subscribers	-	-	-	-	-	-
Ave. cost of Content per Sub	(5)	(5)	(5)	(5)	(5)	(5)
Total Video Content Cost	-	-	-	-	-	-

POLE ATTACHMENT FEES

100 Annual Pole Attachment Fees	0.00	0.00	0.00	0.00	0.00	0.00
---------------------------------	------	------	------	------	------	------

UTILITIES

101 Number of tower sites	0	0	0	0	0	0
102 Number of offices	0	0	0	0	0	0
103 Number of cell phones	0	0	0	0	1	1
104 Utility Rate per tower site/ mo.	100	105	110	116	122	128
105 Utility Rate per office / mo.	500	525	551	579	608	638
106 Average Cell Phone Cost / mo.	75	79	83	87	91	96
107 Utility Rate Increase	1.05	1.05	1.05	1.05	1.05	1.05
108 Utility Expense	-	-	-	-	-	-
109 Cell Phone Expense	-	-	-	-	91	96
110 Total Utilities Expense	-	-	-	-	1,094	1,149

OFFICE SUPPLIES

111 Furniture	-	-	-	-	-	-
112 Office Supplies	-	-	-	-	-	-
113 Computers & Office Equipment	-	-	-	-	-	-
114 Software	-	-	-	-	-	-
114A Misc	-	3,000	3,000	3,000	3,000	3,000
115 Total Supplies	-	-	-	-	-	-

PLANT REPAIRS & MAINTENANCE

116 Invested Fixed Assets	\$0	\$ 14,400,407	\$ 29,002,076	\$ 29,203,338	\$ 29,404,601	\$ 29,444,853
117 Maintenance Rate	0.005	0.005	0.005	0.005	0.005	0.005
118 Annual Repairs & Maintenance	\$ -	\$ 72,002	\$ 145,010	\$ 146,017	\$ 147,023	\$ 147,224

119

120 MARKETING

121 Monthly Investment	\$ -	\$ 1,500	\$ 1,500	\$ 1,000	\$ 1,000	\$ 500
122 Total Marketing Investment	-	18,000	18,000	12,000	12,000	6,000

BILLING

Annual Billing Cost @ \$1.00/sub/mo	\$1.00	2,361	9,983	15,242	20,395	21,468
-------------------------------------	--------	-------	-------	--------	--------	--------

**Meter Reading
meters**

\$0.00	0	0	0	0	0
0					

PROFESSIONAL FEES

123 Engineering	-	-	-	6,000	6,000	6,000
124 Accounting/Financial	-	6,000	6,000	6,000	6,000	6,000
125 Legal	-	3,000	3,000	3,000	3,000	3,000
126 Total Professional Fees	-	9,000	9,000	15,000	15,000	15,000

**Okanogan-Colville Broadband
Subscriber Revenue Projections
Okanogan PUD Only less Conconully-Oroville**

			Yr 1 % Take Rate	Yr 2 % Take Rate	Yr 3 % Take Rate	Yr 4 % Take Rate	Yr 5 % Take Rate
			10.00%	45.00%	70.00%	95.00%	100.00%
Estimated Service Plan Subscriptions	MONTHLY	Percentage Take Rate	Year 1	Year 2	Year 3	Year 4	Year 5
DATA SERVICES							
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00	45.00%	72	326	507	688	725
RESIDENTIAL SILVER 100/10 Mbps	\$59.95	40.00%	64	290	451	612	644
RESIDENTIAL GOLD 250/25 Mbps	\$79.95	13.00%	21	94	147	199	209
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00	2.00%	3	14	23	31	32
Total Residential Data Subscribers		100.00%	161	725	1,127	1,530	1,610
			20.00%	60.00%	80.00%	95.00%	100.00%
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95	40.00%	14	43	57	68	72
BUS BROADBAND SILVER 100/10 Mbps	\$69.95	35.00%	13	38	50	59	63
BUS BROADBAND GOLD 250/25 Mbps		15.00%	5	16	21	25	27
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95	10.00%	4	11	14	17	18
Total Business Data Subscribers		100.00%	36	107	143	170	179
Total Voice Subscribers		0.00%	0	0	0	0	0
Total Video Subscribers		0.00%	0	0	0	0	0

			Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Projections	MONTHLY						
DATA SERVICES							
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00		\$30,431	\$136,939	\$213,016	\$289,093	\$304,309
RESIDENTIAL SILVER 100/10 Mbps	\$59.95		\$46,332	\$208,495	\$324,326	\$440,156	\$463,322
RESIDENTIAL GOLD 250/25 Mbps	\$79.95		\$20,081	\$90,367	\$140,570	\$190,774	\$200,815
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00		\$3,826	\$17,215	\$26,779	\$36,343	\$38,256
Total Residential Data Annual Revenue			\$100,670	\$453,016	\$704,692	\$956,367	\$1,006,702
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95		\$8,579	\$25,736	\$34,314	\$40,748	\$42,893
BUS BROADBAND SILVER 100/10 Mbps	\$69.95		\$10,512	\$31,535	\$42,047	\$49,931	\$52,559
BUS BROADBAND GOLD 250/25 Mbps	\$89.95		\$4,505	\$13,515	\$18,020	\$21,399	\$22,525
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95		\$6,438	\$19,315	\$25,753	\$30,582	\$32,191
Total Business Data Annual Revenue			\$30,034	\$90,101	\$120,135	\$142,660	\$150,169
Total Annual Revenue			\$130,704	\$543,117	\$824,826	\$1,099,027	\$1,156,871
Total Voice Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Video Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Res Intallation Revenue	\$50.00		\$8,051	\$28,177	\$20,126	\$20,126	\$4,025
Total Annual Bus Intallation Revenue	\$50.00		\$1,789	\$3,578	\$1,789	\$1,342	\$447
Total Facility Revenue Savings	\$0.00		\$0	\$0	\$0	\$0	\$0
Total cell site revenues (\$500/mo/tower)	\$6,000.00		\$0	\$12,000	\$18,000	\$24,000	\$24,000
Total dark fiber & Bandwidth Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Smart Home & Security Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Other Revenue			\$0	\$12,000	\$18,000	\$24,000	\$24,000

Total HHP 0
Total 5 yr residential data subs 1,610 0.00%

Total Businesses 0
Total 5 yr bus data subs 179 0.00%

Total 5 yr Data Subscribers 1,789

**Okanogan-Colville Broadband
Depreciation
Okanogan PUD Only less Conconully-Oroville**

Green are only inputs (cell references) in this tab

YEAR 1 INVESTMENT

	Life	Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	71,429	71,429	71,429	71,429	71,429
Outside Plant & Towers	20	600,940	600,940	600,940	600,940	600,940
Buildings & Land	25	7,000	7,000	7,000	7,000	7,000
Customer Premise Equipment	7	11,501	11,501	11,501	11,501	11,501
Billing & Operations Support	15	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	15	-	-	-	-	-
Testing	15	-	-	-	-	-
Site Preparation	25	-	-	-	-	-
Total		690,869	690,869	690,869	690,869	690,869

YEAR 2 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7		71,429	71,429	71,429	71,429
Outside Plant & Towers	20		600,940	600,940	600,940	600,940
Buildings & Land	25		8,400	8,400	8,400	8,400
Customer Premise Equipment	7		40,253	40,253	40,253	40,253
Billing & Operations Support	10		-	-	-	-
Operating Equipment	10		-	-	-	-
Engineering & Professional Services	10		-	-	-	-
Testing	10		-	-	-	-
Site Preparation	25		-	-	-	-
Total			721,021	721,021	721,021	721,021

YEAR 3 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7			-	-	-
Outside Plant & Towers	20			-	-	-
Buildings & Land	25			-	-	-
Customer Premise Equipment	7			28,752	28,752	28,752
Billing & Operations Support	10			-	-	-
Operating Equipment	10			-	-	-
Engineering & Professional Services	10			-	-	-
Testing	10			-	-	-
Site Preparation	25			-	-	-
Total				28,752	28,752	28,752

YEAR 4 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7				-	-
Outside Plant & Towers	20				-	-
Buildings & Land	25				-	-
Customer Premise Equipment	7				28,752	28,752
Billing & Operations Support	10				-	-
Operating Equipment	10				-	-
Engineering & Professional Services	10				-	-
Testing	10				-	-
Site Preparation	25				-	-
Total					28,752	28,752

YEAR 5 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7					-
Outside Plant & Towers	20					-
Buildings & Land	25					-
Customer Premise Equipment	7					5,750
Billing & Operations Support	10					-
Operating Equipment	10					-
Engineering & Professional Services	10					-
Testing	10					-
Site Preparation	25					-
Total						5,750

**Okanogan-Colville Broadband
Depreciation
Okanogan PUD Only less Conconully-Oroville**

		TOTAL PROJECT DEPRECIATION				
		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	71,429	142,857	142,857	142,857	142,857
Outside Plant & Towers	20	600,940	1,201,880	1,201,880	1,201,880	1,201,880
Buildings & Land	25	7,000	15,400	15,400	15,400	15,400
Customer Premise Equipment	7	11,501	51,753	80,505	109,257	115,007
Billing & Operations Support	10	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	10	-	-	-	-	-
Testing	10	-	-	-	-	5,750
Site Preparation	25	-	-	-	-	5,750
Total		690,869	1,411,890	1,440,642	1,469,394	1,486,645

Okanogan-Colville Broadband Debt Amortization Okanogan PUD Only less Conconully-Oroville

Green are only inputs (cell references) in this tab

CAPX - Year 1	14,400,407				
Term	20				
Interest	3.00%				
Monthly Payment	79,864				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	432,012	432,012	432,012	416,221	399,957
Annual Principle	-	-	526,360	542,150	558,415
Loan Balance	14,400,407	14,400,407	13,874,047	13,331,897	12,773,482
CAPX - Year 2		14,601,669			
Term		19			
Interest		3.00%			
Monthly Payment		84,097			
		Year 2	Year 3	Year 4	Year 5
Annual Interest		438,050	438,050	420,917	403,269
Annual Principle		-	571,114	588,248	605,895
Loan Balance		14,601,669	14,030,555	13,442,307	12,836,412
CAPX - Year 3			201,263		
Term			18		
Interest			3.00%		
Monthly Payment			1,207		
			Year 3	Year 4	Year 5
Annual Interest			6,038	5,784	5,523
Annual Principle			8,446	8,700	8,961
Loan Balance			192,816	184,116	175,156
CAPX - Year 4				201,263	
Term				17	
Interest				3.00%	
Monthly Payment				1,261	
				Year 4	Year 5
Annual Interest				6,038	5,765
Annual Principle				9,090	9,363
Loan Balance				192,172	182,810
CAPX - Year 5					40,253
Term					16
Interest					3.00%
Monthly Payment					264
					Year 5
Annual Interest					1,208
Annual Principle					1,963
Loan Balance					38,289
CAPX - Total					29,444,853
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	432,012	870,062	876,100	848,960	815,722
Annual Principle	-	-	1,105,920	1,148,188	1,184,596
Loan Balance	14,400,407	29,002,076	28,097,418	27,150,493	26,006,149

**Okanogan-Colville Broadband
CAPX
Okanogan PUD Only less Conconully-Oroville**

SUMMARY OF PROJECT COSTS BY YEAR

Budget Category	Prior Years	Year 1	Year 2	Year 3	Year 4	Year 5	Total Project Cost
NETWORK/ACCESS EQUIPMENT		\$500,000.00	\$500,000.00	\$0.00	\$0.00	\$0.00	\$1,000,000.00
OUTSIDE PLANT		\$12,018,800.00	\$12,018,800.00	\$0.00	\$0.00	\$0.00	\$24,037,600.00
BUILDINGS		\$175,000.00	\$175,000.00	\$0.00	\$0.00	\$0.00	\$350,000.00
LAND		\$35,000.00	\$35,000.00	\$0.00	\$0.00	\$0.00	\$70,000.00
TOWERS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISE EQUIPMENT		\$80,505.00	\$281,767.50	\$201,262.50	\$201,262.50	\$40,252.50	\$805,050.00
BILLING SUPPORT & OPERATING EQUIP.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ENGINEERING		\$1,591,101.50	\$1,591,101.50	\$0.00	\$0.00	\$0.00	\$3,182,203.00
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL		\$14,400,406.50	\$14,601,669.00	\$201,262.50	\$201,262.50	\$40,252.50	\$29,444,853.00

Budget Category	Prior Years	Year 1	Year 2	Year 3
		Loan Funds	Non-Loan Funds	Loan Funds
NETWORK/ACCESS EQUIPMENT	0	\$500,000.00	\$0.00	\$500,000.00
OUTSIDE PLANT	0	\$12,018,800.00	\$0.00	\$12,018,800.00
BUILDING	0	\$175,000.00	\$0.00	\$175,000.00
LAND	0	\$35,000.00	\$0.00	\$35,000.00
TOWER	0	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISES EQUIPMENT*	0	\$80,505.00	\$0.00	\$281,767.50
BILLING SUPPORT & OPERATING EQUIP.	0	\$0.00	\$0.00	\$0.00
ENGINEERING	0	\$1,591,101.50	\$0.00	\$1,591,101.50
<u>ACQUISITION</u>	0	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
TOTAL	0	\$14,400,406.50	\$0.00	\$14,601,669.00

Inputs from cost tab	Total Non-Funded CAPX	Funded CAPX
NETWORK/ACCESS EQUIPMENT	\$1,000,000.00	
OUTSIDE PLANT	\$24,037,600.00	
BUILDING	\$350,000.00	
LAND	\$70,000.00	
TOWER	\$0.00	
CUSTOMER PREMISES EQUIPMENT*	\$805,050.00	
BILLING SUPPORT & OPERATING EQUIP.	\$0.00	
ENGINEERING	\$3,182,203.00	
<u>ACQUISITION</u>		
TOTAL	\$29,444,853.00	\$0.00

CAPX buildout timeline

50%	0%	50%	0%	0%	0%
yr 1 funded	yr 1 non-funded	yr 2 funded	yr 2 non-funded	yr 3 funded	yr 3 non-funded

**Okanogan-Colville Broadband
Pro Forma Summary
Colville Only FTTH Data**

11/9/2020 16:50					
	Year 1	Year 2	Year 3	Year 4	Year 5
INCOME STATEMENT					
1 REVENUE	53,990	234,773	354,838	472,390	495,596
2 BAD DEBT	(270)	(1,174)	(1,774)	(2,362)	(2,478)
3 EXPENSES	706,617	963,096	1,002,144	1,030,852	1,051,159
4 PROFIT BEFORE TAX	(652,897)	(729,497)	(649,080)	(560,825)	(558,041)
5 <i>tax rate</i>	7.85%	7.85%	7.85%	7.85%	7.85%
6 TAX	(51,252)	(57,265)	(50,953)	(44,025)	(43,806)
7 NET PROFIT AFTER TAX	(601,645)	(672,231)	(598,127)	(516,800)	(514,235)
CASH FLOW STATEMENT					
9 CASH RECIEPTS	53,720	233,599	353,064	470,028	493,118
10 OPERATING EXPENSES	566,008	669,363	696,694	713,687	726,964
11 LESS RECIEVABLES	(450)	(1,507)	(1,450)	(2,486)	(1,644)
12 PLUS PAYABLES	5,888	2,137	6,214	2,377	6,383
13 PRINCIPAL PAYMENTS	0	0	168,848	177,617	183,746
14 <i>NET PROFIT AFTER TAX</i>	<i>(601,645)</i>	<i>(672,231)</i>	<i>(598,127)</i>	<i>(516,800)</i>	<i>(514,235)</i>
15 DIVIDENDS PAID	0	0	0	0	0
16 RETAINED CASH	(506,850)	(435,133)	(507,715)	(421,386)	(412,853)
17 CAPITAL EXPENDITURES	2,143,643	2,225,656	82,013	82,013	16,403
18 DEBT FINANCING	2,143,643	2,225,656	82,013	82,013	16,403
19 EQUITY FINANCING	506,850	435,133	507,715	421,386	412,853
20 ACCUMULATED CASH	0	0	0	0	0
BALANCE SHEET					
21 CASH	0	0	0	0	0
22 FIXED ASSETS LESS DEPRECIATIC	2,003,034	3,934,957	3,711,520	3,476,367	3,168,575
23 TOTAL ASSETS	2,003,034	3,934,957	3,711,520	3,476,367	3,168,575
24 LOAN DEBT LESS PRINCIPLE	2,143,643	4,369,299	4,282,463	4,186,859	4,019,516
25 OWNERS' EQUITY	(140,609)	(434,342)	(570,944)	(710,492)	(850,941)
26 TOTAL LIABILITY	2,003,034	3,934,957	3,711,520	3,476,367	3,168,575
28 OWNER PROCEEDS	0	0	0	0	0
29 CAPITAL DEPLOYMENT	2,143,643	4,369,299	4,451,311	4,533,324	4,549,726
Yearly % of Loan					
30 Yearly Deployment	2,143,643	2,225,656	82,013	82,013	16,403
31 Yearly Depreciation	140,609	293,733	305,449	317,165	324,195
32 Yearly Interest	64,309	131,079	133,539	130,934	126,098
33 Yearly Principal Paid	0	0	168,848	177,617	183,746
34 REVENUE	53,990	234,773	354,838	472,390	495,596
35 BROADBAND Revenue	53,261	221,315	336,109	447,843	471,414
Installation Revnue	729	1,458	729	547	182
38 VoIP Revenue	-	-	-	-	-
41 Video	0	0	0	0	0
53 NRC & Other Revenue \$K	0	12,000	18,000	24,000	24,000
54 EXPENSES	706,617	963,096	1,002,144	1,030,852	1,051,159
55 Depreciation	140,609	293,733	305,449	317,165	324,195
56 Vehicles	8,932	9,066	9,202	9,340	9,480
57 Insurance	30,751	41,924	45,755	49,981	54,328
58 Interest	64,309	131,079	133,539	130,934	126,098
59 Rent/Lease	-	-	-	-	-
60 Salary	396,500	408,395	420,647	433,266	446,264
62 Repairs/Maintenance	10,718	21,846	22,257	22,667	22,749
Office Furniture	-	-	0	0	0
Computers & Office Equipment	-	-	0	0	0
63 Software Systems	-	-	-	-	-
64 Marketing	6,000	6,000	6,000	6,000	6,000
Wholesale Voice, Bandwidth & Video Content	36,000.00	36,000.00	36,000.00	36,000.00	36,000.00
66 General Office Supplies	-	-	-	-	-
67 Accounting, Banking, Legal, Misc.	9,000	9,000	15,000	15,000	15,000
68 Billing	962	4,068	6,211	8,311	8,748
69 Call Center Expense	-	-	-	-	-
Meter Reading	-	-	-	-	-
70 Annual Property Tax	0	0	0	0	0
Pole Attachment Fees	0	0	0	0	0
71 Utilities	2,835	1,985	2,084	2,188	2,297

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Colville Only FTTH Data**

All Inputs are Highlighted

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
PAYROLL						
5 Number of Executives	0	0	0	0	0	0
Broadband Manager	0	1	1	1	1	1
6 Number of Admin Assistants	0	1	1	1	1	1
7 Number of Network Technicians	0	1	1	1	1	1
8 Billing Manager	0	-	0	0	0	0
9 Billing Assistant	0	-	0	0	0	0
10 Finance Administrator	0	-	0	0	0	0
11 Mgr. of Customer Relations	0	-	0	0	0	0
12 Regional Sales Manager	0	1	1	1	1	1
13 Outside Sales	0	-	0	0	0	0
14 Shift Supervisor	0	-	0	0	0	0
15 Marketing Manager	0	-	0	0	0	0
16 Technician Manager	0	-	0	0	0	0
17 Infrastructure Manager	0	-	0	0	0	0
18 Project Manager	0	-	0	0	0	0
19 IT Engineers	0	1	1	1	1	1
20 Tech Support Supervisors	0	-	0	0	0	0
21 Number of Customer Service	0	1	1	1	1	1
SALARIES						
22 Average Executive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23 Average Broadband Manager	\$ 75,000	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413
24 Average Admin. Assistant	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
25 Average Network Technician	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
26 Average Billing Manager	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
27 Average Billing Assistant	\$ 28,000	\$ 28,000	\$ 28,840	\$ 29,705	\$ 30,596	\$ 31,514
28 Average Finance Administrator	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
29 Average Mgr. of Customer Relations	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
30 Average Regional Sales Manager	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
31 Average Outside Sales	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
32 Average Shift Supervisor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33 Average Marketing Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34 Average Technician Manager	\$ 60,000	\$ 60,000	\$ 61,800	\$ 63,654	\$ 65,564	\$ 67,531
35 Average Infrastructure Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36 Average Project Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37 Average IT Engineers	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
38 Average Tech Support Supervisors	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
39 Average Customer Service	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
40 Annual Escalator	1.030	1.030	1.030	1.030	1.030	1.030
41 Benefit Factor	0.300	0.300	0.300	0.300	0.300	0.300
42 Bonus Factor	0.030	0.030	0.030	0.030	0.030	0.030
43 Total Salaries	\$ -	\$ 305,000	\$ 314,150	\$ 323,575	\$ 333,282	\$ 343,280
44 Benefits	\$ -	\$ 91,500	\$ 94,245	\$ 97,072	\$ 99,985	\$ 102,984
45 Bonuses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46 Total Payroll Compensation	\$ -	\$ 396,500	\$ 408,395	\$ 420,647	\$ 433,266	\$ 446,264
LEVEL 1 SUPPORT						
47 Amount per subscriber	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48 Subscribers		80	339	518	693	729
49 Total Level 1 Support (Outsourced)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Colville Only FTTH Data**

TOWER LEASE

50 Number of Tower Co. Sites	0	0	0	0	0	0
51 Number of Municipality/Private Sites	0	0	0	0	0	0
52 Average Lease Per Tower Co./Mo.	750	750	750	750	750	750
53 Ave. Municipality/Private Lease/Mo.	300	300	300	300	300	300
54 Annual Escalator	1.00	1.00	1.00	1.00	1.00	1.00
55 Tower Co. Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56 Municipality/Private Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57 Total Tower Lease Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

REAL ESTATE LEASE

58 Number of square feet leased	-	-	-	-	-	-
59 Price per Square Foot	\$ 15	\$ 16	\$ 17	\$ 17	\$ 18	\$ 19
60 Annual Escalator	1.05	1.05	1.05	1.05	1.05	1.05
61 Total Real Estate Lease	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

VEHICLE EXPENSE

62 Number of Technician Vehicles	0	1	1	1	1	1
63 Number of company cars	0	1	1	1	1	1
Vehicle Lease	0	0	0	0	0	0
64 Ave. mo. fuel per tech vehicle	450	457	464	471	478	485
65 Ave. mo. fuel per company car	225	228	232	235	239	242
66 Ave. yr. tag and tax per vehicle	100	102	103	105	106	108
67 Ave. yr. maintenance per vehicle	250	254	258	261	265	269
68 Annual rate of cost increase	1.015	0.015	0.015	0.015	0.015	0.015
69 Vehicle Expenses	\$ -	\$ 8,932	\$ 9,066	\$ 9,202	\$ 9,340	\$ 9,480

INSURANCE

70 Policy Premium per Auto	1,250	1,375	1,513	1,664	1,830	2,013
71 General Liability		6,243	7,074	7,286	7,505	7,730
72 Hazard (property)	0.003	0.003	0.004	0.004	0.004	0.005
73 Fixed Assets Insured	-	2,143,643	4,369,299	4,451,311	4,533,324	4,549,726
74 Worker's Comp		2,684	2,765	2,847	2,933	3,021
75 Umbrella Policy	-	12,000	13,200	14,520	15,972	17,569
76 Director's Insurance	5.00%	-	-	-	-	-
77 Annual rate of cost increase	1.1	1.1	1.1	1.1	1.1	1.1
78 Total Insurance	-	30,751	41,924	45,755	49,981	54,328

79 ANNUAL PROPERTY TAX

-	-	-	-	-	-
---	---	---	---	---	---

WHOLESALE VOICE COSTS

84 Voice Subscribers	-	-	-	-	-	-
85 Third Party voice costs cost per sub	10.00	10.00	10.00	10.00	10.00	10.00
86 Total Wholesale Voice Costs	0	0	0	0	0	0

BANDWIDTH & Fiber Costs

Fiber IRU	-	-	-	-	-	-
87 Ave. Cost per 1 Gbps Link	2,100	2,100	2,100	2,100	2,100	2,100
88 Ave. Cost per 5 Gig Link	3,000	3,000	3,000	3,000	3,000	3,000
89 No. of 1 Gbps Links	0	-	-	-	-	-
90 No. of 10 Gig Links	1	1	1	1	1	1
99 Total Bandwidth Costs	36,000	36,000	36,000	36,000	36,000	36,000

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Colville Only FTTH Data**

VIDEO CONTENT

Video Subscribers	-	-	-	-	-
Ave. cost of Content per Sub	(5)	(5)	(5)	(5)	(5)
Total Video Content Cost	-	-	-	-	-

POLE ATTACHMENT FEES

100 Annual Pole Attachment Fees	0.00	0.00	0.00	0.00	0.00	0.00
---------------------------------	------	------	------	------	------	------

UTILITIES

101 Number of tower sites	0	0	0	0	0	0
102 Number of offices	0	0	0	0	0	0
103 Number of cell phones	0	3	2	2	2	2
104 Utility Rate per tower site/ mo.	100	105	110	116	122	128
105 Utility Rate per office / mo.	500	525	551	579	608	638
106 Average Cell Phone Cost / mo.	75	79	83	87	91	96
107 Utility Rate Increase	1.05	1.05	1.05	1.05	1.05	1.05
108 Utility Expense	-	-	-	-	-	-
109 Cell Phone Expense	-	236	165	174	182	191
110 Total Utilities Expense	-	2,835	1,985	2,084	2,188	2,297

OFFICE SUPPLIES

111 Furniture	-	-	-	-	-	-
112 Office Supplies	-	-	-	-	-	-
113 Computers & Office Equipment	-	-	-	-	-	-
114 Software	-	-	-	-	-	-
114A Misc	-	3,000	3,000	3,000	3,000	3,000
115 Total Supplies	-	-	-	-	-	-

PLANT REPAIRS & MAINTENANCE

116 Invested Fixed Assets	\$0	\$ 2,143,643	\$ 4,369,299	\$ 4,451,311	\$ 4,533,324	\$ 4,549,726
117 Maintenance Rate	0.005	0.005	0.005	0.005	0.005	0.005
118 Annual Repairs & Maintenance	\$ -	\$ 10,718	\$ 21,846	\$ 22,257	\$ 22,667	\$ 22,749

119

120 MARKETING

121 Monthly Investment	\$ -	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
122 Total Marketing Investment	-	6,000	6,000	6,000	6,000	6,000

BILLING

Annual Billing Cost @ \$1.00/sub/mo	\$1.00	962	4,068	6,211	8,311	8,748
-------------------------------------	--------	-----	-------	-------	-------	-------

**Meter Reading
meters**

\$0.00	0	0	0	0	0
0					

PROFESSIONAL FEES

123 Engineering	-	-	-	6,000	6,000	6,000
124 Accounting/Financial	-	6,000	6,000	6,000	6,000	6,000
125 Legal	-	3,000	3,000	3,000	3,000	3,000
126 Total Professional Fees	-	9,000	9,000	15,000	15,000	15,000

**Okanogan-Colville Broadband
Subscriber Revenue Projections
Colville Only FTTH Data**

			Yr 1 % Take Rate	Yr 2 % Take Rate	Yr 3 % Take Rate	Yr 4 % Take Rate	Yr 5 % Take Rate
Estimated Service Plan Subscriptions			10.00%	45.00%	70.00%	95.00%	100.00%
DATA SERVICES	MONTHLY	Percentage Take Rate	Year 1	Year 2	Year 3	Year 4	Year 5
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00	45.00%	30	133	207	280	295
RESIDENTIAL SILVER 100/10 Mbps	\$59.95	40.00%	26	118	184	249	262
RESIDENTIAL GOLD 250/25 Mbps	\$79.95	13.00%	9	38	60	81	85
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00	2.00%	1	6	9	12	13
Total Residential Data Subscribers		100.00%	66	295	459	623	656
			20.00%	60.00%	80.00%	95.00%	100.00%
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95	40.00%	6	17	23	28	29
BUS BROADBAND SILVER 100/10 Mbps	\$69.95	35.00%	5	15	20	24	26
BUS BROADBAND GOLD 250/25 Mbps		15.00%	2	7	9	10	11
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95	10.00%	1	4	6	7	7
Total Business Data Subscribers		100.00%	15	44	58	69	73
Total Voice Subscribers		0.00%	0	0	0	0	0
Total Video Subscribers		0.00%	0	0	0	0	0

			Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Projections	MONTHLY						
DATA SERVICES							
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00		\$12,400	\$55,801	\$86,802	\$117,803	\$124,003
RESIDENTIAL SILVER 100/10 Mbps	\$59.95		\$18,880	\$84,960	\$132,160	\$179,359	\$188,799
RESIDENTIAL GOLD 250/25 Mbps	\$79.95		\$8,183	\$36,824	\$57,281	\$77,739	\$81,830
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00		\$1,559	\$7,015	\$10,912	\$14,809	\$15,589
Total Residential Data Annual Revenue			\$41,022	\$184,600	\$287,155	\$389,710	\$410,221
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95		\$3,496	\$10,487	\$13,983	\$16,605	\$17,479
BUS BROADBAND SILVER 100/10 Mbps	\$69.95		\$4,283	\$12,850	\$17,134	\$20,346	\$21,417
BUS BROADBAND GOLD 250/25 Mbps	\$89.95		\$1,836	\$5,507	\$7,343	\$8,720	\$9,179
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95		\$2,624	\$7,871	\$10,494	\$12,462	\$13,118
Total Business Data Annual Revenue			\$12,238	\$36,715	\$48,954	\$58,133	\$61,192
Total Annual Revenue			\$53,261	\$221,315	\$336,109	\$447,843	\$471,414
Total Voice Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Video Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Res Intallation Revenue	\$50.00		\$3,281	\$11,482	\$8,201	\$8,201	\$1,640
Total Annual Bus Intallation Revenue	\$50.00		\$729	\$1,458	\$729	\$547	\$182
Total Facility Revenue Savings	\$0.00		\$0	\$0	\$0	\$0	\$0
Total cell site revenues (\$500/mo/tower)	\$6,000.00		\$0	\$12,000	\$18,000	\$24,000	\$24,000
Total dark fiber & Bandwidth Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Smart Home & Security Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Other Revenue			\$0	\$12,000	\$18,000	\$24,000	\$24,000

Total HHP 0

Total 5 yr residential data subs 656 0.00%

Total Businesses 0

Total 5 yr bus data subs 73 0.00%

Total 5 yr Data Subscribers 729

**Okanogan-Colville Broadband
Depreciation
Colville Only FTTH Data**

Green are only inputs (cell references) in this tab

YEAR 1 INVESTMENT

	Life	Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	67,857	67,857	67,857	67,857	67,857
Outside Plant & Towers	20	64,065	64,065	64,065	64,065	64,065
Buildings & Land	25	4,000	4,000	4,000	4,000	4,000
Customer Premise Equipment	7	4,686	4,686	4,686	4,686	4,686
Billing & Operations Support	15	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	15	-	-	-	-	-
Testing	15	-	-	-	-	-
Site Preparation	25	-	-	-	-	-
Total		140,609	140,609	140,609	140,609	140,609

YEAR 2 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7		67,857	67,857	67,857	67,857
Outside Plant & Towers	20		64,065	64,065	64,065	64,065
Buildings & Land	25		4,800	4,800	4,800	4,800
Customer Premise Equipment	7		16,403	16,403	16,403	16,403
Billing & Operations Support	10		-	-	-	-
Operating Equipment	10		-	-	-	-
Engineering & Professional Services	10		-	-	-	-
Testing	10		-	-	-	-
Site Preparation	25		-	-	-	-
Total			153,125	153,125	153,125	153,125

YEAR 3 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7			-	-	-
Outside Plant & Towers	20			-	-	-
Buildings & Land	25			-	-	-
Customer Premise Equipment	7			11,716	11,716	11,716
Billing & Operations Support	10			-	-	-
Operating Equipment	10			-	-	-
Engineering & Professional Services	10			-	-	-
Testing	10			-	-	-
Site Preparation	25			-	-	-
Total				11,716	11,716	11,716

YEAR 4 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7				-	-
Outside Plant & Towers	20				-	-
Buildings & Land	25				-	-
Customer Premise Equipment	7				11,716	11,716
Billing & Operations Support	10				-	-
Operating Equipment	10				-	-
Engineering & Professional Services	10				-	-
Testing	10				-	-
Site Preparation	25				-	-
Total					11,716	11,716

YEAR 5 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7					-
Outside Plant & Towers	20					-
Buildings & Land	25					-
Customer Premise Equipment	7					2,343
Billing & Operations Support	10					-
Operating Equipment	10					-
Engineering & Professional Services	10					-
Testing	10					-
Site Preparation	25					-
Total						2,343

**Okanogan-Colville Broadband
Depreciation
Colville Only FTTH Data**

		TOTAL PROJECT DEPRECIATION				
		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	67,857	135,714	135,714	135,714	135,714
Outside Plant & Towers	20	64,065	128,130	128,130	128,130	128,130
Buildings & Land	25	4,000	8,800	8,800	8,800	8,800
Customer Premise Equipment	7	4,686	21,089	32,805	44,521	46,864
Billing & Operations Support	10	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	10	-	-	-	-	-
Testing	10	-	-	-	-	2,343
Site Preparation	25	-	-	-	-	2,343
Total		140,609	293,733	305,449	317,165	324,195

**Okanogan-Colville Broadband
Debt Amortization
Colville Only FTTH Data**

Green are only inputs (cell references) in this tab

CAPX - Year 1

Term	20
Interest	3.00%
Monthly Payment	11,889

	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	64,309	64,309	64,309	61,959	59,538
Annual Principle	-	-	78,354	80,704	83,126
Loan Balance	2,143,643	2,143,643	2,065,289	1,984,585	1,901,459

CAPX - Year 2

Term	19
Interest	3.00%
Monthly Payment	12,818

	Year 2	Year 3	Year 4	Year 5
Annual Interest	66,770	66,770	64,158	61,468
Annual Principle	-	87,052	89,663	92,353
Loan Balance	2,225,656	2,138,604	2,048,940	1,956,587

CAPX - Year 3

Term	18
Interest	3.00%
Monthly Payment	492

	Year 3	Year 4	Year 5
Annual Interest	2,460	2,357	2,251
Annual Principle	3,442	3,545	3,651
Loan Balance	78,571	75,026	71,374

CAPX - Year 4

Term	17
Interest	3.00%
Monthly Payment	514

	Year 4	Year 5
Annual Interest	2,460	2,349
Annual Principle	3,704	3,815
Loan Balance	78,308	74,493

CAPX - Year 5

Term	16
Interest	3.00%
Monthly Payment	108

	Year 5
Annual Interest	492
Annual Principle	800
Loan Balance	15,603

CAPX - Total

4,549,726

	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	64,309	131,079	133,539	130,934	126,098
Annual Principle	-	-	168,848	177,617	183,746
Loan Balance	2,143,643	4,369,299	4,282,463	4,186,859	4,019,516

**Okanogan-Colville Broadband
CAPX
Colville Only FTTH Data**

SUMMARY OF PROJECT COSTS BY YEAR

Budget Category	Prior Years	Year 1	Year 2	Year 3	Year 4	Year 5	Total Project Cost
NETWORK/ACCESS EQUIPMENT		\$475,000.00	\$475,000.00	\$0.00	\$0.00	\$0.00	\$950,000.00
OUTSIDE PLANT		\$1,281,300.00	\$1,281,300.00	\$0.00	\$0.00	\$0.00	\$2,562,600.00
BUILDINGS		\$100,000.00	\$100,000.00	\$0.00	\$0.00	\$0.00	\$200,000.00
LAND		\$20,000.00	\$20,000.00	\$0.00	\$0.00	\$0.00	\$40,000.00
TOWERS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISE EQUIPMENT		\$32,805.00	\$114,817.50	\$82,012.50	\$82,012.50	\$16,402.50	\$328,050.00
BILLING SUPPORT & OPERATING EQUIP.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ENGINEERING		\$234,538.00	\$234,538.00	\$0.00	\$0.00	\$0.00	\$469,076.00
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL		\$2,143,643.00	\$2,225,655.50	\$82,012.50	\$82,012.50	\$16,402.50	\$4,549,726.00

Budget Category	Prior Years	Year 1	Year 2	Year 3		
		Loan Funds	Non-Loan Funds	Loan Funds	Non-Loan Funds	Loan Funds
NETWORK/ACCESS EQUIPMENT	0	\$475,000.00	\$0.00	\$475,000.00	\$0.00	\$0.00
OUTSIDE PLANT	0	\$1,281,300.00	\$0.00	\$1,281,300.00	\$0.00	\$0.00
BUILDING	0	\$100,000.00	\$0.00	\$100,000.00	\$0.00	\$0.00
LAND	0	\$20,000.00	\$0.00	\$20,000.00	\$0.00	\$0.00
TOWER	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISES EQUIPMENT*	0	\$32,805.00	\$0.00	\$114,817.50	\$0.00	\$82,012.50
BILLING SUPPORT & OPERATING EQUIP.	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ENGINEERING	0	\$234,538.00	\$0.00	\$234,538.00	\$0.00	\$0.00
<u>ACQUISITION</u>	<u>0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
TOTAL	0	\$2,143,643.00	\$0.00	\$2,225,655.50	\$0.00	\$82,012.50

Inputs from cost tab	Total Non-Funded CAPX	Total Funded CAPX
NETWORK/ACCESS EQUIPMENT	\$950,000.00	
OUTSIDE PLANT	\$2,562,600.00	
BUILDING	\$200,000.00	
LAND	\$40,000.00	
TOWER	\$0.00	
CUSTOMER PREMISES EQUIPMENT*	\$328,050.00	
BILLING SUPPORT & OPERATING EQUIP.	\$0.00	
ENGINEERING	\$469,076.00	
<u>ACQUISITION</u>		
TOTAL	\$4,549,726.00	\$0.00

CAPX buildout timeline

50%	0%	50%	0%	0%	0%
yr 1 funded	yr 1 non-funded	yr 2 funded	yr 2 non-funded	yr 3 funded	yr 3 non-funded

11/9/2020 16:54					
	Year 1	Year 2	Year 3	Year 4	Year 5
INCOME STATEMENT					
REVENUE	53,990	234,773	354,838	472,390	495,596
BAD DEBT	(270)	(1,174)	(1,774)	(2,362)	(2,478)
EXPENSES	416,210	599,597	629,028	652,948	670,453
PROFIT BEFORE TAX	(362,491)	(365,998)	(275,964)	(182,920)	(177,335)
tax rate	7.85%	7.85%	7.85%	7.85%	7.85%
TAX	(28,456)	(28,731)	(21,663)	(14,359)	(13,921)
NET PROFIT AFTER TAX	(334,035)	(337,267)	(254,301)	(168,561)	(163,414)
CASH FLOW STATEMENT					
CASH RECIEPTS	53,720	233,599	353,064	470,028	493,118
OPERATING EXPENSES	275,602	305,864	323,578	335,783	346,258
LESS RECIEVABLES	(450)	(1,507)	(1,450)	(2,486)	(1,644)
PLUS PAYABLES	3,468	1,528	3,714	1,728	3,860
PRINCIPAL PAYMENTS	0	0	0	0	0
NET PROFIT AFTER TAX	(334,035)	(337,267)	(254,301)	(168,561)	(163,414)
DIVIDENDS PAID	0	0	0	0	0
RETAINED CASH	(218,863)	(72,243)	31,748	133,486	149,076
CAPITAL EXPENDITURES	2,143,643	2,225,656	82,013	82,013	16,403
DEBT FINANCING	2,143,643	2,225,656	82,013	82,013	16,403
EQUITY FINANCING	218,863	72,243	0	0	0
ACCUMULATED CASH	0	0	31,748	165,235	314,310
BALANCE SHEET					
CASH	0	0	31,748	165,235	314,310
FIXED ASSETS LESS DEPRECIATI	2,003,034	3,934,957	3,711,520	3,476,367	3,168,575
TOTAL ASSETS	2,003,034	3,934,957	3,743,268	3,641,602	3,482,885
LOAN DEBT LESS PRINCIPLE	2,143,643	4,369,299	4,451,311	4,533,324	4,549,726
OWNERS' EQUITY	(140,609)	(434,342)	(708,043)	(891,722)	(1,066,841)
TOTAL LIABILITY	2,003,034	3,934,957	3,743,268	3,641,602	3,482,885
OWNER PROCEEDS					
	0	0	0	0	0
CAPITAL DEPLOYMENT					
Yearly % of Loan	2,143,643	4,369,299	4,451,311	4,533,324	4,549,726
Yearly Deployment	2,143,643	2,225,656	82,013	82,013	16,403
Yearly Depreciation	140,609	293,733	305,449	317,165	324,195
Yearly Interest	-	-	-	-	-
Yearly Principal Paid	0	0	0	0	0
REVENUE					
BROADBAND Revenue	53,990	234,773	354,838	472,390	495,596
Installation Revnue	729	1,458	729	547	182
VoIP Revenue	-	-	-	-	-
Video	0	0	0	0	0
NRC & Other Revenue \$K	0	12,000	18,000	24,000	24,000
EXPENSES					
Depreciation	416,210	599,597	629,028	652,948	670,453
Vehicles	140,609	293,733	305,449	317,165	324,195
Insurance	5,836	5,924	6,013	6,103	6,194
Interest	24,140	34,574	37,972	41,732	45,575
Rent/Lease	-	-	-	-	-
Salary	-	-	-	-	-
Repairs/Maintenance	182,000	187,460	193,084	198,876	204,843
Office Furniture	10,718	21,846	22,257	22,667	22,749
Computers & Office Equipment	-	-	0	0	0
Software Systems	-	-	0	0	0
Marketing	-	-	-	-	-
Wholesale Voice, Bandwidth & Video Content	6,000	6,000	6,000	6,000	6,000
General Office Supplies	36,000.00	36,000.00	36,000.00	36,000.00	36,000.00
Accounting, Banking, Legal, Misc.	-	-	-	-	-
Billing	9,000	9,000	15,000	15,000	15,000
Call Center Expense	962	4,068	6,211	8,311	8,748
Meter Reading	-	-	-	-	-
Annual Property Tax	-	-	-	-	-
Pole Attachment Fees	0	0	0	0	0
Utilities	0	0	0	0	0
	945	992	1,042	1,094	1,144

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Colville Only 100% Grant**

All Inputs are Highlighted

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
PAYROLL						
5 Number of Executives	0	0	0	0	0	0
Broadband Manager	0	0	0	0	0	0
6 Number of Admin Assistants	0	0	0	0	0	0
7 Number of Network Technicians	0	1	1	1	1	1
8 Billing Manager	0	-	0	0	0	0
9 Billing Assistant	0	-	0	0	0	0
10 Finance Administrator	0	-	0	0	0	0
11 Mgr. of Customer Relations	0	-	0	0	0	0
12 Regional Sales Manager	0	-	0	0	0	0
13 Outside Sales	0	-	0	0	0	0
14 Shift Supervisor	0	-	0	0	0	0
15 Marketing Manager	0	-	0	0	0	0
16 Technician Manager	0	-	0	0	0	0
17 Infrastructure Manager	0	-	0	0	0	0
18 Project Manager	0	-	0	0	0	0
19 IT Engineers	0	1	1	1	1	1
20 Tech Support Supervisors	0	-	0	0	0	0
21 Number of Customer Service	0	1	1	1	1	1
SALARIES						
22 Average Executive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23 Average Broadband Manager	\$ 75,000	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413
24 Average Admin. Assistant	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
25 Average Network Technician	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
26 Average Billing Manager	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275
27 Average Billing Assistant	\$ 28,000	\$ 28,000	\$ 28,840	\$ 29,705	\$ 30,596	\$ 31,514
28 Average Finance Administrator	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
29 Average Mgr. of Customer Relations	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
30 Average Regional Sales Manager	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
31 Average Outside Sales	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
32 Average Shift Supervisor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33 Average Marketing Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34 Average Technician Manager	\$ 60,000	\$ 60,000	\$ 61,800	\$ 63,654	\$ 65,564	\$ 67,531
35 Average Infrastructure Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36 Average Project Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37 Average IT Engineers	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
38 Average Tech Support Supervisors	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903
39 Average Customer Service	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393
40 Annual Escalator	1.030	1.030	1.030	1.030	1.030	1.030
41 Benefit Factor	0.300	0.300	0.300	0.300	0.300	0.300
42 Bonus Factor	0.030	0.030	0.030	0.030	0.030	0.030
43 Total Salaries	\$ -	\$ 140,000	\$ 144,200	\$ 148,526	\$ 152,982	\$ 157,571
44 Benefits	\$ -	\$ 42,000	\$ 43,260	\$ 44,558	\$ 45,895	\$ 47,271
45 Bonuses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46 Total Payroll Compensation	\$ -	\$ 182,000	\$ 187,460	\$ 193,084	\$ 198,876	\$ 204,843
LEVEL 1 SUPPORT						
47 Amount per subscriber	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48 Subscribers		80	339	518	693	729
49 Total Level 1 Support (Outsourced)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Colville Only 100% Grant**

TOWER LEASE

50 Number of Tower Co. Sites	0	0	0	0	0	0
51 Number of Municipality/Private Sites	0	0	0	0	0	0
52 Average Lease Per Tower Co./Mo.	750	750	750	750	750	750
53 Ave. Municipality/Private Lease/Mo.	300	300	300	300	300	300
54 Annual Escalator	1.00	1.00	1.00	1.00	1.00	1.00
55 Tower Co. Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56 Municipality/Private Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57 Total Tower Lease Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

REAL ESTATE LEASE

58 Number of square feet leased	-	-	-	-	-	-
59 Price per Square Foot	\$ 15	\$ 16	\$ 17	\$ 17	\$ 18	\$ 19
60 Annual Escalator	1.05	1.05	1.05	1.05	1.05	1.05
61 Total Real Estate Lease	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

VEHICLE EXPENSE

62 Number of Technician Vehicles	0	1	1	1	1	1
63 Number of company cars	0	0	0	0	0	0
Vehicle Lease	0	0	0	0	0	0
64 Ave. mo. fuel per tech vehicle	450	457	464	471	478	485
65 Ave. mo. fuel per company car	225	228	232	235	239	242
66 Ave. yr. tag and tax per vehicle	100	102	103	105	106	108
67 Ave. yr. maintenance per vehicle	250	254	258	261	265	269
68 Annual rate of cost increase	1.015	0.015	0.015	0.015	0.015	0.015
69 Vehicle Expenses	\$ -	\$ 5,836	\$ 5,924	\$ 6,013	\$ 6,103	\$ 6,194

INSURANCE

70 Policy Premium per Auto	1,250	-	-	-	-	-
71 General Liability		2,866	3,247	3,344	3,445	3,548
72 Hazard (property)	0.003	0.003	0.004	0.004	0.004	0.005
73 Fixed Assets Insured	-	2,143,643	4,369,299	4,451,311	4,533,324	4,549,726
74 Worker's Comp		2,200	2,266	2,334	2,404	2,476
75 Umbrella Policy	-	12,000	13,200	14,520	15,972	17,569
76 Director's Insurance	5.00%	-	-	-	-	-
77 Annual rate of cost increase	1.1	1.1	1.1	1.1	1.1	1.1
78 Total Insurance	-	24,140	34,574	37,972	41,732	45,575

79 ANNUAL PROPERTY TAX

-	-	-	-	-	-
---	---	---	---	---	---

WHOLESALE VOICE COSTS

84 Voice Subscribers	-	-	-	-	-	-
85 Third Party voice costs cost per sub	10.00	10.00	10.00	10.00	10.00	10.00
86 Total Wholesale Voice Costs	0	0	0	0	0	0

BANDWIDTH & Fiber Costs

Fiber IRU	-	-	-	-	-	-
87 Ave. Cost per 1 Gbps Link	2,100	2,100	2,100	2,100	2,100	2,100
88 Ave. Cost per 5 Gig Link	3,000	3,000	3,000	3,000	3,000	3,000
89 No. of 1 Gbps Links	0	-	-	-	-	-
90 No. of 10 Gig Links	1	1	1	1	1	1
99 Total Bandwidth Costs	36,000	36,000	36,000	36,000	36,000	36,000

**Okanogan-Colville Broadband
Assumptions Operating Expenses
Colville Only 100% Grant**

VIDEO CONTENT

Video Subscribers	-	-	-	-	-
Ave. cost of Content per Sub	(5)	(5)	(5)	(5)	(5)
Total Video Content Cost	-	-	-	-	-

POLE ATTACHMENT FEES

100 Annual Pole Attachment Fees	0.00	0.00	0.00	0.00	0.00	0.00
---------------------------------	------	------	------	------	------	------

UTILITIES

101 Number of tower sites	0	0	0	0	0	0
102 Number of offices	0	0	0	0	0	0
103 Number of cell phones	0	1	1	1	1	1
104 Utility Rate per tower site/ mo.	100	105	110	116	122	128
105 Utility Rate per office / mo.	500	525	551	579	608	638
106 Average Cell Phone Cost / mo.	75	79	83	87	91	96
107 Utility Rate Increase	1.05	1.05	1.05	1.05	1.05	1.05
108 Utility Expense	-	-	-	-	-	-
109 Cell Phone Expense	-	79	83	87	91	96
110 Total Utilities Expense	-	945	992	1,042	1,094	1,149

OFFICE SUPPLIES

111 Furniture	-	-	-	-	-	-
112 Office Supplies	-	-	-	-	-	-
113 Computers & Office Equipment	-	-	-	-	-	-
114 Software	-	-	-	-	-	-
114A Misc	-	3,000	3,000	3,000	3,000	3,000
115 Total Supplies	-	-	-	-	-	-

PLANT REPAIRS & MAINTENANCE

116 Invested Fixed Assets	\$0	\$ 2,143,643	\$ 4,369,299	\$ 4,451,311	\$ 4,533,324	\$ 4,549,726
117 Maintenance Rate	0.005	0.005	0.005	0.005	0.005	0.005
118 Annual Repairs & Maintenance	\$ -	\$ 10,718	\$ 21,846	\$ 22,257	\$ 22,667	\$ 22,749

119

120 MARKETING

121 Monthly Investment	\$ -	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
122 Total Marketing Investment		6,000	6,000	6,000	6,000	6,000

BILLING

Annual Billing Cost @ \$1.00/sub/mo	\$1.00	962	4,068	6,211	8,311	8,748
-------------------------------------	--------	-----	-------	-------	-------	-------

**Meter Reading
meters**

\$0.00	0	0	0	0	0
0					

PROFESSIONAL FEES

123 Engineering	-	-	-	6,000	6,000	6,000
124 Accounting/Financial	-	6,000	6,000	6,000	6,000	6,000
125 Legal	-	3,000	3,000	3,000	3,000	3,000
126 Total Professional Fees	-	9,000	9,000	15,000	15,000	15,000

**Okanogan-Colville Broadband
Subscriber Revenue Projections
Colville Only 100% Grant**

			Yr 1 % Take Rate	Yr 2 % Take Rate	Yr 3 % Take Rate	Yr 4 % Take Rate	Yr 5 % Take Rate
Estimated Service Plan Subscriptions			10.00%	45.00%	70.00%	95.00%	100.00%
DATA SERVICES	MONTHLY	Percentage Take Rate	Year 1	Year 2	Year 3	Year 4	Year 5
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00	45.00%	30	133	207	280	295
RESIDENTIAL SILVER 100/10 Mbps	\$59.95	40.00%	26	118	184	249	262
RESIDENTIAL GOLD 250/25 Mbps	\$79.95	13.00%	9	38	60	81	85
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00	2.00%	1	6	9	12	13
Total Residential Data Subscribers		100.00%	66	295	459	623	656
			20.00%	60.00%	80.00%	95.00%	100.00%
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95	40.00%	6	17	23	28	29
BUS BROADBAND SILVER 100/10 Mbps	\$69.95	35.00%	5	15	20	24	26
BUS BROADBAND GOLD 250/25 Mbps		15.00%	2	7	9	10	11
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95	10.00%	1	4	6	7	7
Total Business Data Subscribers		100.00%	15	44	58	69	73
Total Voice Subscribers		0.00%	0	0	0	0	0
Total Video Subscribers		0.00%	0	0	0	0	0

			Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Projections	MONTHLY						
DATA SERVICES							
RESIDENTIAL BRONZE 25/3 Mbps	\$35.00		\$12,400	\$55,801	\$86,802	\$117,803	\$124,003
RESIDENTIAL SILVER 100/10 Mbps	\$59.95		\$18,880	\$84,960	\$132,160	\$179,359	\$188,799
RESIDENTIAL GOLD 250/25 Mbps	\$79.95		\$8,183	\$36,824	\$57,281	\$77,739	\$81,830
RESIDENTIAL PLATINUM 1,000/100 Mbps	\$99.00		\$1,559	\$7,015	\$10,912	\$14,809	\$15,589
Total Residential Data Annual Revenue			\$41,022	\$184,600	\$287,155	\$389,710	\$410,221
BUS BROADBAND Non-Profit 25/3 Mbps	\$49.95		\$3,496	\$10,487	\$13,983	\$16,605	\$17,479
BUS BROADBAND SILVER 100/10 Mbps	\$69.95		\$4,283	\$12,850	\$17,134	\$20,346	\$21,417
BUS BROADBAND GOLD 250/25 Mbps	\$89.95		\$1,836	\$5,507	\$7,343	\$8,720	\$9,179
BUS BROADBAND PLATINUM 1/100 Mbps	\$149.95		\$2,624	\$7,871	\$10,494	\$12,462	\$13,118
Total Business Data Annual Revenue			\$12,238	\$36,715	\$48,954	\$58,133	\$61,192
Total Annual Revenue			\$53,261	\$221,315	\$336,109	\$447,843	\$471,414
Total Voice Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Video Annual Revenue (ARPU)	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Res Intallation Revenue	\$50.00		\$3,281	\$11,482	\$8,201	\$8,201	\$1,640
Total Annual Bus Intallation Revenue	\$50.00		\$729	\$1,458	\$729	\$547	\$182
Total Facility Revenue Savings	\$0.00		\$0	\$0	\$0	\$0	\$0
Total cell site revenues (\$500/mo/tower)	\$6,000.00		\$0	\$12,000	\$18,000	\$24,000	\$24,000
Total dark fiber & Bandwidth Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Smart Home & Security Rev.	\$0.00		\$0	\$0	\$0	\$0	\$0
Total Annual Other Revenue			\$0	\$12,000	\$18,000	\$24,000	\$24,000

Total HHP 0

Total 5 yr residential data subs 656 0.00%

Total Businesses 0

Total 5 yr bus data subs 73 0.00%

Total 5 yr Data Subscribers 729

**Okanogan-Colville Broadband
Depreciation
Colville Only 100% Grant**

Green are only inputs (cell references) in this tab

YEAR 1 INVESTMENT

	Life	Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	67,857	67,857	67,857	67,857	67,857
Outside Plant & Towers	20	64,065	64,065	64,065	64,065	64,065
Buildings & Land	25	4,000	4,000	4,000	4,000	4,000
Customer Premise Equipment	7	4,686	4,686	4,686	4,686	4,686
Billing & Operations Support	15	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	15	-	-	-	-	-
Testing	15	-	-	-	-	-
Site Preparation	25	-	-	-	-	-
Total		140,609	140,609	140,609	140,609	140,609

YEAR 2 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7		67,857	67,857	67,857	67,857
Outside Plant & Towers	20		64,065	64,065	64,065	64,065
Buildings & Land	25		4,800	4,800	4,800	4,800
Customer Premise Equipment	7		16,403	16,403	16,403	16,403
Billing & Operations Support	10		-	-	-	-
Operating Equipment	10		-	-	-	-
Engineering & Professional Services	10		-	-	-	-
Testing	10		-	-	-	-
Site Preparation	25		-	-	-	-
Total			153,125	153,125	153,125	153,125

YEAR 3 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7			-	-	-
Outside Plant & Towers	20			-	-	-
Buildings & Land	25			-	-	-
Customer Premise Equipment	7			11,716	11,716	11,716
Billing & Operations Support	10			-	-	-
Operating Equipment	10			-	-	-
Engineering & Professional Services	10			-	-	-
Testing	10			-	-	-
Site Preparation	25			-	-	-
Total				11,716	11,716	11,716

YEAR 4 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7				-	-
Outside Plant & Towers	20				-	-
Buildings & Land	25				-	-
Customer Premise Equipment	7				11,716	11,716
Billing & Operations Support	10				-	-
Operating Equipment	10				-	-
Engineering & Professional Services	10				-	-
Testing	10				-	-
Site Preparation	25				-	-
Total					11,716	11,716

YEAR 5 INVESTMENT

		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7					-
Outside Plant & Towers	20					-
Buildings & Land	25					-
Customer Premise Equipment	7					2,343
Billing & Operations Support	10					-
Operating Equipment	10					-
Engineering & Professional Services	10					-
Testing	10					-
Site Preparation	25					-
Total						2,343

**Okanogan-Colville Broadband
Depreciation
Colville Only 100% Grant**

		TOTAL PROJECT DEPRECIATION				
		Year 1	Year 2	Year 3	Year 4	Year 5
Network Access Equipment	7	67,857	135,714	135,714	135,714	135,714
Outside Plant & Towers	20	64,065	128,130	128,130	128,130	128,130
Buildings & Land	25	4,000	8,800	8,800	8,800	8,800
Customer Premise Equipment	7	4,686	21,089	32,805	44,521	46,864
Billing & Operations Support	10	-	-	-	-	-
Operating Equipment	10	-	-	-	-	-
Engineering & Professional Services	10	-	-	-	-	-
Testing	10	-	-	-	-	2,343
Site Preparation	25	-	-	-	-	2,343
Total		140,609	293,733	305,449	317,165	324,195

**Okanogan-Colville Broadband
Debt Amortization
Colville Only 100% Grant**

Green are only inputs (cell references) in this tab

CAPX - Year 1	2,143,643				
Term	20				
Interest	0.00%				
Monthly Payment	8,932				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	-	-	-	-	-
Annual Principle	-	-	107,182	107,182	107,182
Loan Balance	2,143,643	2,143,643	2,036,461	1,929,279	1,822,097
CAPX - Year 2		2,225,656			
Term		19			
Interest		0.00%			
Monthly Payment		9,762			
		Year 2	Year 3	Year 4	Year 5
Annual Interest		-	-	-	-
Annual Principle		-	117,140	117,140	117,140
Loan Balance		2,225,656	2,108,516	1,991,376	1,874,236
CAPX - Year 3			82,013		
Term			18		
Interest			0.00%		
Monthly Payment			380		
			Year 3	Year 4	Year 5
Annual Interest			-	-	-
Annual Principle			4,556	4,556	4,556
Loan Balance			77,456	72,900	68,344
CAPX - Year 4				82,013	
Term				17	
Interest				0.00%	
Monthly Payment				402	
				Year 4	Year 5
Annual Interest				-	-
Annual Principle				4,824	4,824
Loan Balance				77,188	72,364
CAPX - Year 5					16,403
Term					16
Interest					0.00%
Monthly Payment					85
					Year 5
Annual Interest					-
Annual Principle					1,025
Loan Balance					15,377
CAPX - Total					4,549,726
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Interest	-	-	-	-	-
Annual Principle	-	-	228,878	233,702	234,728
Loan Balance	2,143,643	4,369,299	4,222,433	4,070,743	3,852,418

**Okanogan-Colville Broadband
CAPX
Colville Only 100% Grant**

SUMMARY OF PROJECT COSTS BY YEAR

Budget Category	Prior Years	Year 1	Year 2	Year 3	Year 4	Year 5	Total Project Cost
NETWORK/ACCESS EQUIPMENT		\$475,000.00	\$475,000.00	\$0.00	\$0.00	\$0.00	\$950,000.00
OUTSIDE PLANT		\$1,281,300.00	\$1,281,300.00	\$0.00	\$0.00	\$0.00	\$2,562,600.00
BUILDINGS		\$100,000.00	\$100,000.00	\$0.00	\$0.00	\$0.00	\$200,000.00
LAND		\$20,000.00	\$20,000.00	\$0.00	\$0.00	\$0.00	\$40,000.00
TOWERS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISE EQUIPMENT		\$32,805.00	\$114,817.50	\$82,012.50	\$82,012.50	\$16,402.50	\$328,050.00
BILLING SUPPORT & OPERATING EQUIP.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ENGINEERING		\$234,538.00	\$234,538.00	\$0.00	\$0.00	\$0.00	\$469,076.00
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL		\$2,143,643.00	\$2,225,655.50	\$82,012.50	\$82,012.50	\$16,402.50	\$4,549,726.00

	Prior Years	Year 1		Year 2		Year 3		
Budget Category		Loan Funds	Non-Loan Funds	Loan Funds	Non-Loan Funds	Loan Funds	Non-Loan Funds	
NETWORK/ACCESS EQUIPMENT	0	\$475,000.00	\$0.00	\$475,000.00	\$0.00	\$0.00	\$0.00	\$0.00
OUTSIDE PLANT	0	\$1,281,300.00	\$0.00	\$1,281,300.00	\$0.00	\$0.00	\$0.00	\$0.00
BUILDING	0	\$100,000.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.00	\$0.00
LAND	0	\$20,000.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00	\$0.00
TOWER	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CUSTOMER PREMISES EQUIPMENT*	0	\$32,805.00	\$0.00	\$114,817.50	\$0.00	\$82,012.50	\$0.00	\$0.00
BILLING SUPPORT & OPERATING EQUIP.	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ENGINEERING	0	\$234,538.00	\$0.00	\$234,538.00	\$0.00	\$0.00	\$0.00	\$0.00
<u>ACQUISITION</u>	<u>0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
TOTAL	0	\$2,143,643.00	\$0.00	\$2,225,655.50	\$0.00	\$82,012.50	\$0.00	

Inputs from cost tab	Total Non-Funded CAPX	Total Funded CAPX
NETWORK/ACCESS EQUIPMENT	\$950,000.00	
OUTSIDE PLANT	\$2,562,600.00	
BUILDING	\$200,000.00	
LAND	\$40,000.00	
TOWER	\$0.00	
CUSTOMER PREMISES EQUIPMENT*	\$328,050.00	
BILLING SUPPORT & OPERATING EQUIP.	\$0.00	
ENGINEERING	\$469,076.00	
<u>ACQUISITION</u>		
TOTAL	\$4,549,726.00	\$0.00

CAPX buildout timeline

50%	0%	50%	0%	0%	0%
yr 1 funded	yr 1 non-funded	yr 2 funded	yr 2 non-funded	yr 3 funded	yr 3 non-funded

Assumptions

ASSUMPTIONS

The following assumptions were used in the Okanogan – Colville Tribes Broadband Action Team (BAT) Feasibility Study and financial pro forma. The assumptions are based on a combination of industry standards, recent comparable labor costs and actual material quotes.

A. Cost Estimates

Labor Costs

All labor costs were based on recent competitively bid proposals for similar projects and review with members of the BAT.

1. Aerial Fiber Cable Installation – An average labor and material cost of \$30,000 per mile was used in the budget and financial pro forma.
2. Aerial Make Ready – It was assumed within the Colville Tribal jurisdictional area, minimal make ready in the amount of \$4,300 per mile would be required. This is partly based on discussions with Nespelem Valley Electric and their willingness to partner with the Colville Tribes for the deployment of broadband services. A much higher make ready cost was calculated within the Okanogan PUD service areas based on design criteria and exiting pole data from the PUD.
3. Buried Fiber Cable Installation – An average labor and material cost of \$65,000 per mile was used in the budget and financial pro forma.
4. Aerial Fiber Drop Cable Installation – An average length of 200’ was assumed with an average aerial drop cost of \$350 inclusive of all labor and material.
5. Buried Fiber Drop Cable Installation – An average length of 200’ was assumed with an average buried drop cost of \$1,200 Inclusive of all labor and materials.
6. Electronics Installation – Installation costs for all FTTH related electronics are based on industry standards for turnkey labor and recent material pricing from

equipment vendors and included in the total unit costs reflected of the Detailed Costs with a copy recent quotes contained herein under the exhibits.

Material Costs

1. Fiber Cable – Actual material quotes for all fiber optic cable at various cable sizes were obtained and contained herein under the exhibits.
2. Fiber Drop Cable – Actual material quotes were obtained and contained herein under the exhibits.
3. Broadband Electronics - The costs contained within the pro forma are part of the total unit costs depicted on the Detail Costs schedule which are inclusive of all labor and material, shipping, taxes and related cost estimates. These are based on recent comparable projects similar to the one proposed by the BST
4. Microwave Backhaul – N/A
5. Wireless Distribution – N/A

B. Subscriber Forecast

A subscriber forecast is contained under Tab 4. Accompanying the forecast is a Market Survey describing the basis for the forecasted projections. As described within the Market Survey, the projections are based on a combination of census data and local knowledge of the area including a total count of households passed, businesses, local demographics for the area and a customer survey of the local residents and businesses. National statistics, take rates for comparable broadband projects and information related to existing service providers were also factored into the BAT study subscriber projections.

Local knowledge of the area along with census data and information from the BAT were all utilized to obtain an accurate count of the households passed and businesses for the proposed service area.

Broadband Expansion Team– Expansion of Broadband Internet

Financial Pro Forma Assumptions

The FCC's National Broadband Map and local knowledge of the area was used to obtain a list of existing broadband providers. Additional research was necessary to obtain detailed service plan information.

The US Census website was used to obtain demographic information like family income, household size and commute time to work. Each of these factors and more is part of the subscriber projections with a copy of the results contained in the attached exhibit.

Each of these factors was used to develop an actual formula to predict the total 5-year subscriber projections. The final results yielded a residential take rate of 32% and 79%.

Additional factors were needed however to accurately project the revenue streams from the forecasted subscribers such as the growth rate over the 5-year ultimate forecast and the subscription breakdown of the various service offerings. Each of these last two factors was taken from actual statistics of a similar broadband project.

The growth rate of the final 5-year penetration rate is as follows:

Year 1	10%
Year 2	45%
Year 3	70%
Year 4	95%
Year 5	100%

The breakdown of services taken by each subscriber is heavily dependent on the pricing of each plan with 45% of all subscribers electing to subscribe to the least expensive plan.

C. Pro Forma

Revenues

1. Local Voice Service Revenues – Not applicable. No voice services are proposed at this time.

Broadband Expansion Team– Expansion of Broadband Internet

Financial Pro Forma Assumptions

2. Broadband Data Revenues – Multiple service plans will be offered with the following breakdown.

Residential

Bronze	25/3 Mbps	\$35.00
Silver	100/10 Mbps	\$59.95
Gold	250/25 Mbps	\$79.95
Platinum	1,000/100 Gbps	\$99.00

Business

Bronze	25/3 Mbps	\$49.95
Silver	100/10 Mbps	\$69.95
Gold	250/25 Mbps	\$89.95
Platinum	1,000/100 Gbps	\$149.95

3. Video Service Revenues – Not applicable. No video services are proposed at this time.
4. Middle Mile Revenues – No middle mile revenues are forecasted herein.
5. Universal Service Fund – Neither regulated telecommunications services nor participation in the Universal Service Fund/Connect America Fund was contemplated herein.
6. Toll Service/Long Distance Voice – N/A. Voice services are not proposed as part of this study.
7. Installation Revenues – Consists of a one-time service call charge averaging \$50.00 for all services as part of the typical truck roll for the initial installation of service.
8. Amortized Grant Revenues – Not applicable.
9. Other Operating Revenues – Although other services may be offered and available over time such as Geek Squad type services, additional static IP addresses, and specialty services such as smart home/security system and cell site bandwidth, to name a few. A conservative approach was taken however, with only the standard broadband services, installation fees and some cell site services taken into account.

Financial Pro Forma Assumptions

10. Uncollectable Revenues – Based on historical statistics of similar operating companies, an average rate of 0.5% of revenues was used to forecast uncollectable revenue.

Expenses

1. Salaries – Salaries were based on national statistics and local rates. A detailed list of all projected personnel is contained within the pro forma under the “Assumptions Operating Expenses”. It was determined existing BAT and tribal IT personnel would be capable of accomplishing the majority of all functions and staffing needs. Only some additional supporting staff primarily related to technician and customer service representatives were added.
2. Tower Colocation Lease Fees – N/A
3. Real Estate- N/A. It was assumed all required floor space is existing today and will utilize existing PUD and Colville Tribes facilities.
4. Company Vehicles – The acquisition of new company vehicles was assumed for all new field technicians.
5. Insurance – Auto, General Liability, Hazard/Property, Workers Comp and an Umbrella policy were all estimated with a detailed breakdown of each provided under “Assumptions & Operating Expenses”.
6. Property Tax – N/A
7. Wholesale Voice Costs – Not applicable.
8. Bandwidth - The cost for bandwidth and backhaul facilities is expressed within the detailed line item expenses of the pro forma. Recent circuit pricing was used for one 10 Gbps link for \$3,500 per month per circuit.
9. Video Content – Not applicable

Financial Pro Forma Assumptions

10. Pole Attachment Fees – N/A - All proposed poles attachments will be on PUD or Nespelem Valley Electric owned poles.
11. Utilities – Varies from year to year but covers office utilities, cell phone charges and tower site electric service.
12. Office Supplies – A monthly expense of \$250 was assumed for all miscellaneous office supplies.
13. Plant Repairs & Maintenance– The total cost is based on a 0.005% rate of total assets.
14. Sales & Marketing – A monthly investment of \$1,500 was assumed for the initial two years with this tapering off to \$1,000 per month for the subsequent two years and then down to \$500 for year five.
15. Customer Billing – A total cost of \$1.00 per month per subscriber was used in the pro forma.

Timeline

Okanogan-Colville Tribes Broadband Project

ID		Task Name	Duration	Start	Finish	Predecessors
1		Okanogan-Colville Sample Broadband Project Buildout Timeline	326 days	Mon 3/1/21	Mon 5/30/22	
2		Acquisition of Financing	90 days	Mon 3/1/21	Fri 7/2/21	
3		FTTH & Transmission Electronics	236 days	Mon 7/5/21	Mon 5/30/22	2
4		Review of Requirements	15 days	Mon 7/5/21	Fri 7/23/21	
5		Plans & Specs	30 days	Mon 7/26/21	Fri 9/3/21	4
6		Bid Process	21 days	Mon 9/6/21	Mon 10/4/21	5
7		Order & Installation & Configuration	90 days	Tue 11/16/21	Mon 3/21/22	6FS+30 days
8		Friendly Customer Installs	10 days	Tue 3/22/22	Mon 4/4/22	7,17SS+5 days
9		Trial Billing & Troubleshooting Network	20 days	Tue 4/5/22	Mon 5/2/22	⁸
10		Commence with Full Commercial Deployment	5 days	Tue 5/24/22	Mon 5/30/22	⁹ FS+15 days
11		Outside Plant Fiber Cable	186 days	Mon 7/5/21	Mon 3/21/22	2
12		Initial Design & Review of Requirements	20 days	Mon 7/5/21	Fri 7/30/21	
13		Staking Process - Multiple Contracts or Amendments	45 days	Mon 8/2/21	Fri 10/1/21	12
14		OSP Plans & Specifications - Multiple Contracts or Amendments	20 days	Tue 8/31/21	Mon 9/27/21	13SS+21 days
15		Bid Process	15 days	Tue 9/14/21	Mon 10/4/21	14SS+10 days
16		Construction Process	90 days	Tue 10/26/21	Mon 2/28/22	15SS+30 days
17		Drop Construction	90 days	Tue 11/16/21	Mon 3/21/22	16SS+15 days

Exhibits

A. U.S. Census Bureau Demographic Data

Colville Reservation	Colville Reservation and Off-Reservation Trust Land, WA	
	Estimate	Percent
EMPLOYMENT STATUS		
Population 16 years and over	5,693	5,693
In labor force	3,030	53.2%
Civilian labor force	3,030	53.2%
Employed	2,685	47.2%
Unemployed	345	6.1%
Armed Forces	0	0.0%
Not in labor force	2,663	46.8%
Civilian labor force	3,030	3,030
Unemployment Rate	(X)	11.4%
Females 16 years and over	2,880	2,880
In labor force	1,494	51.9%
Civilian labor force	1,494	51.9%
Employed	1,364	47.4%
Own children of the householder under 6 years	557	557
All parents in family in labor force	323	58.0%
Own children of the householder 6 to 17 years	922	922
All parents in family in labor force	640	69.4%
COMMUTING TO WORK		
Workers 16 years and over	2,614	2,614
Car, truck, or van -- drove alone	1,980	75.7%
Car, truck, or van -- carpooled	395	15.1%
Public transportation (excluding taxicab)	20	0.8%
Walked	103	3.9%
Other means	21	0.8%
Worked at home	95	3.6%
Mean travel time to work (minutes)	20.4	(X)
OCCUPATION		
Civilian employed population 16 years and over	2,685	2,685
Management, business, science, and arts occupations	873	32.5%
Service occupations	639	23.8%
Sales and office occupations	444	16.5%
Natural resources, construction, and maintenance occupations	425	15.8%

Colville Reservation	Colville Reservation and Off-Reservation Trust Land, WA	
Production, transportation, and material moving occupations	304	11.3%
INDUSTRY		
Civilian employed population 16 years and over	2,685	2,685
Agriculture, forestry, fishing and hunting, and mining	209	7.8%
Construction	166	6.2%
Manufacturing	95	3.5%
Wholesale trade	34	1.3%
Retail trade	221	8.2%
Transportation and warehousing, and utilities	76	2.8%
Information	22	0.8%
Finance and insurance, and real estate and rental and leasing	47	1.8%
Professional, scientific, and management, and administrative and waste management services	170	6.3%
Educational services, and health care and social assistance	618	23.0%
Arts, entertainment, and recreation, and accommodation and food services	273	10.2%
Other services, except public administration	54	2.0%
Public administration	700	26.1%
CLASS OF WORKER		
Civilian employed population 16 years and over	2,685	2,685
Private wage and salary workers	1,037	38.6%
Government workers	1,483	55.2%
Self-employed in own not incorporated business workers	157	5.8%
Unpaid family workers	8	0.3%
DOLLARS)		
Total households	2,910	2,910
Less than \$10,000	306	10.5%
\$10,000 to \$14,999	306	10.5%
\$15,000 to \$24,999	304	10.4%
\$25,000 to \$34,999	313	10.8%
\$35,000 to \$49,999	565	19.4%
\$50,000 to \$74,999	480	16.5%
\$75,000 to \$99,999	260	8.9%
\$100,000 to \$149,999	241	8.3%

Colville Reservation	Colville Reservation and Off-Reservation Trust Land, WA	
\$150,000 to \$199,999	92	3.2%
\$200,000 or more	43	1.5%
Median household income (dollars)	39,483	(X)
Mean household income (dollars)	51,519	(X)
With earnings	1,986	68.2%
Mean earnings (dollars)	56,045	(X)
With Social Security	1,009	34.7%
Mean Social Security income (dollars)	16,328	(X)
With retirement income	504	17.3%
Mean retirement income (dollars)	21,725	(X)
With Supplemental Security Income	182	6.3%
Mean Supplemental Security Income (dollars)	8,896	(X)
With cash public assistance income	180	6.2%
Mean cash public assistance income (dollars)	3,969	(X)
With Food Stamp/SNAP benefits in the past 12 months	812	27.9%
Families	1,957	1,957
Less than \$10,000	181	9.2%
\$10,000 to \$14,999	134	6.8%
\$15,000 to \$24,999	153	7.8%
\$25,000 to \$34,999	212	10.8%
\$35,000 to \$49,999	389	19.9%
\$50,000 to \$74,999	392	20.0%
\$75,000 to \$99,999	182	9.3%
\$100,000 to \$149,999	199	10.2%
\$150,000 to \$199,999	95	4.9%
\$200,000 or more	20	1.0%
Median family income (dollars)	44,205	(X)
Mean family income (dollars)	57,504	(X)
Per capita income (dollars)	20,792	(X)
Nonfamily households	953	953
Median nonfamily income (dollars)	23,348	(X)
Mean nonfamily income (dollars)	32,648	(X)
Median earnings for workers (dollars)	27,367	(X)
Median earnings for male full-time, year-round workers (dollars)	43,031	(X)

Colville Reservation	Colville Reservation and Off-Reservation Trust Land, WA	
(dollars)	36,132	(X)
HEALTH INSURANCE COVERAGE		
Civilian noninstitutionalized population	7,205	7,205
With health insurance coverage	5,959	82.7%
With private health insurance	3,088	42.9%
With public coverage	3,650	50.7%
No health insurance coverage	1,246	17.3%
Civilian noninstitutionalized population under 19 years	1,868	1,868
No health insurance coverage	244	13.1%
Civilian noninstitutionalized population 19 to 64 years	4,218	4,218
In labor force:	2,824	2,824
Employed:	2,496	2,496
With health insurance coverage	2,016	80.8%
With private health insurance	1,660	66.5%
With public coverage	436	17.5%
No health insurance coverage	480	19.2%
Unemployed:	328	328
With health insurance coverage	198	60.4%
With private health insurance	40	12.2%
With public coverage	163	49.7%
No health insurance coverage	130	39.6%
Not in labor force:	1,394	1,394
With health insurance coverage	1,033	74.1%
With private health insurance	348	25.0%
With public coverage	738	52.9%
No health insurance coverage	361	25.9%
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL		
All families	(X)	21.3%
With related children of the householder under 18 years	(X)	29.5%
With related children of the householder under 5 years only	(X)	37.8%
Married couple families	(X)	11.1%
With related children of the householder under 18 years	(X)	18.6%
With related children of the householder under 5 years only	(X)	14.3%

Colville Reservation	Colville Reservation and Off-Reservation Trust Land, WA	
Families with female householder, no husband present	(X)	37.3%
With related children of the householder under 18 years	(X)	44.4%
With related children of the householder under 5 years only	(X)	57.4%
All people	(X)	26.4%
Under 18 years	(X)	33.7%
Related children of the householder under 18 years	(X)	33.4%
Related children of the householder under 5 years	(X)	45.5%
Related children of the householder 5 to 17 years	(X)	28.0%
18 years and over	(X)	24.1%
18 to 64 years	(X)	26.2%
65 years and over	(X)	16.1%
People in families	(X)	22.8%
Unrelated individuals 15 years and over	(X)	39.2%

Colville Reservation and Off-Reservation Trust Land, WA

			Married-couple family household	Male householder, no wife present, family	Female householder, no husband present, family household	Nonfamily household
	Total					
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
HOUSEHOLDS						
Total households	2,883	1,097	305	529	952	
Average household size	2.58	3.14	3.14	3.38	1.29	
FAMILIES						
Total families	1,931	1,097	305	529	(X)	
Average family size	3.01	3.09	2.59	3.1	(X)	
AGE OF OWN CHILDREN						
Households with own children of the householder under 18 years	882	366	197	319	(X)	
Under 6 years only	19.3%	5.5%	20.3%	34.5%	(X)	
Under 6 years and 6 to 17 years	25.3%	28.1%	17.3%	27.0%	(X)	
6 to 17 years only	55.4%	66.4%	62.4%	38.6%	(X)	
Total households	2,883	1,097	305	529	952	
SELECTED HOUSEHOLDS BY TYPE						
Households with one or more people under 18 years	39.4%	44.2%	74.1%	73.5%	3.9%	
Households with one or more people 60 years and over	41.7%	47.9%	20.0%	23.4%	51.6%	
Householder living alone	26.8%	(X)	(X)	(X)	81.2%	
65 years and over	11.7%	(X)	(X)	(X)	35.3%	
UNMARRIED-PARTNER HOUSEHOLDS						
Same sex	0.0%	(X)	(X)	(X)	(X)	
Opposite sex	10.0%	(X)	(X)	(X)	(X)	
UNITS IN STRUCTURE						
1-unit structures	64.5%	69.1%	62.0%	71.1%	56.3%	
2-or-more-unit structures	10.4%	4.6%	8.9%	11.3%	17.1%	
Mobile homes and all other types of units	25.1%	26.3%	29.2%	17.6%	26.6%	
HOUSING TENURE						
Owner-occupied housing units	63.7%	73.7%	57.0%	45.7%	64.3%	
Renter-occupied housing units	36.3%	26.3%	43.0%	54.3%	35.7%	

Okanogan County, Washington

	Total	Percent	Male	Percent Male	Female	Percent Female
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Total population	41,638	(X)	21,061	(X)	20,577	(X)
AGE						
Under 5 years	2,608	6.3%	1,371	6.5%	1,237	6.0%
5 to 9 years	2,663	6.4%	1,344	6.4%	1,319	6.4%
10 to 14 years	2,737	6.6%	1,458	6.9%	1,279	6.2%
15 to 19 years	2,368	5.7%	1,244	5.9%	1,124	5.5%
20 to 24 years	2,236	5.4%	1,185	5.6%	1,051	5.1%
25 to 29 years	2,152	5.2%	1,072	5.1%	1,080	5.2%
30 to 34 years	2,246	5.4%	1,150	5.5%	1,096	5.3%
35 to 39 years	2,358	5.7%	1,126	5.3%	1,232	6.0%
40 to 44 years	2,304	5.5%	1,243	5.9%	1,061	5.2%
45 to 49 years	2,264	5.4%	1,132	5.4%	1,132	5.5%
50 to 54 years	2,553	6.1%	1,280	6.1%	1,273	6.2%
55 to 59 years	3,210	7.7%	1,413	6.7%	1,797	8.7%
60 to 64 years	3,313	8.0%	1,740	8.3%	1,573	7.6%
65 to 69 years	3,012	7.2%	1,666	7.9%	1,346	6.5%
70 to 74 years	2,340	5.6%	1,100	5.2%	1,240	6.0%
75 to 79 years	1,477	3.5%	727	3.5%	750	3.6%
80 to 84 years	1,124	2.7%	556	2.6%	568	2.8%
85 years and over	673	1.6%	254	1.2%	419	2.0%
SELECTED AGE CATEGORIES						
5 to 14 years	5,400	13.0%	2,802	13.3%	2,598	12.6%
15 to 17 years	1,556	3.7%	802	3.8%	754	3.7%
Under 18 years	9,564	23.0%	4,975	23.6%	4,589	22.3%
18 to 24 years	3,048	7.3%	1,627	7.7%	1,421	6.9%
15 to 44 years	13,664	32.8%	7,020	33.3%	6,644	32.3%
16 years and over	33,122	79.5%	16,631	79.0%	16,491	80.1%
18 years and over	32,074	77.0%	16,086	76.4%	15,988	77.7%
21 years and over	30,992	74.4%	15,536	73.8%	15,456	75.1%
60 years and over	11,939	28.7%	6,043	28.7%	5,896	28.7%
62 years and over	10,802	25.9%	5,438	25.8%	5,364	26.1%
65 years and over	8,626	20.7%	4,303	20.4%	4,323	21.0%

75 years and over	3,274	7.9%	1,537	7.3%	1,737	8.4%
SUMMARY INDICATORS						
Median age (years)	42.9	(X)	42.4	(X)	43.9	(X)
Sex ratio (males per 100 females)	102.4	(X)	(X)	(X)	(X)	(X)
Age dependency ratio	77.6	(X)	(X)	(X)	(X)	(X)
Old-age dependency ratio	36.8	(X)	(X)	(X)	(X)	(X)
Child dependency ratio	40.8	(X)	(X)	(X)	(X)	(X)
PERCENT ALLOCATED						
Sex	(X)	0.0%	(X)	(X)	(X)	(X)
Age	(X)	2.0%	(X)	(X)	(X)	(X)

The 2020 Census is Happening Now. Respond Today.

QuickFacts

Okanogan County, Washington; United States

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

Table

Families & Living Arran... ▼	Okanogan County, Washington	United States
Population, Census, April 1, 2010	41,120	308,745,538
 PEOPLE		
Families & Living Arrangements		
Households, 2014-2018	17,527	119,730,128
Persons per household, 2014-2018	2.31	2.63
Living in same house 1 year ago, percent of persons age 1 year+, 2014-2018	84.2%	85.5%
Language other than English spoken at home, percent of persons age 5 years+, 2014-2018	17.9%	21.5%

Value Notes

⚠ Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info ⓘ icon to the row in TABLE view to learn about sampling error.

The vintage year (e.g., V2019) refers to the final year of the series (2010 thru 2019). *Different vintage years of estimates are not comparable.*

Fact Notes

- (a) Includes persons reporting only one race
- (b) Hispanics may be of any race, so also are included in applicable race categories
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

Value Flags

- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper in open ended distribution.
- D Suppressed to avoid disclosure of confidential information
- F Fewer than 25 firms
- FN Footnote on this item in place of data
- N Data for this geographic area cannot be displayed because the number of sample cases is too small.
- NA Not available
- S Suppressed; does not meet publication standards
- X Not applicable
- Z Value greater than zero but less than half unit of measure shown

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

ABOUT US

- Help for Survey Participants
- FAQs
- Director's Corner
- Regional Offices
- History
- Research
- Scientific Integrity
- Census Careers
- Business Opportunities
- Congressional and Intergovernmental
- Contact Us

FIND DATA

- QuickFacts
- Explore Census Data
- 2020 Census
- 2010 Census
- Economic Census
- Interactive Maps
- Training & Workshops
- Data Tools
- Developers
- Publications

BUSINESS & ECONOMY

- Help With Your Forms
- Economic Indicators
- Economic Census
- E-Stats
- International Trade
- Export Codes
- NAICS
- Governments
- Longitudinal Employer-Household Dynamics (LEHD)
- Survey of Business Owners

PEOPLE & HOUSEHOLDS

- 2020 Census
- 2010 Census
- American Community Survey
- Income
- Poverty
- Population Estimates
- Population Projections
- Health Insurance
- Housing
- International
- Genealogy

SPECIAL TOPICS

- Advisors, Centers and Research Programs
- Statistics in Schools
- Tribal Resources (AIAN)
- Emergency Preparedness
- Special Census Program
- Data Linkage Infrastructure
- Fraudulent Activity & Scams
- USA.gov

NEWSROOM

- News Releases
- Release Schedule
- Facts for Features
- Stats for Stories
- Blogs

CONNECT WITH US

The 2020 Census is Happening Now. Respond Today.

QuickFacts

Okanogan County, Washington; United States

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

Table

All Topics ▼	Okanogan County, Washington	United States
Population, Census, April 1, 2010	41,120	308,745,538
 PEOPLE		
Population		
Population estimates, July 1, 2019, (V2019)	42,243	328,239,523
Population estimates base, April 1, 2010, (V2019)	41,117	308,758,105
Population, percent change - April 1, 2010 (estimates base) to July 1, 2019, (V2019)	2.7%	6.3%
Population, Census, April 1, 2010	41,120	308,745,538
Age and Sex		
Persons under 5 years, percent	▲ 6.2%	▲ 6.1%
Persons under 18 years, percent	▲ 23.2%	▲ 22.4%
Persons 65 years and over, percent	▲ 21.6%	▲ 16.0%
Female persons, percent	▲ 49.7%	▲ 50.8%
Race and Hispanic Origin		
White alone, percent	▲ 81.5%	▲ 76.5%
Black or African American alone, percent (a)	▲ 0.9%	▲ 13.4%
American Indian and Alaska Native alone, percent (a)	▲ 13.0%	▲ 1.3%
Asian alone, percent (a)	▲ 1.2%	▲ 5.9%
Native Hawaiian and Other Pacific Islander alone, percent (a)	▲ 0.3%	▲ 0.2%
Two or More Races, percent	▲ 3.1%	▲ 2.7%
Hispanic or Latino, percent (b)	▲ 20.5%	▲ 18.3%
White alone, not Hispanic or Latino, percent	▲ 64.7%	▲ 60.4%
Population Characteristics		
Veterans, 2014-2018	3,501	18,611,432
Foreign born persons, percent, 2014-2018	10.3%	13.5%
Housing		
Housing units, July 1, 2019, (V2019)	23,516	139,684,244
Owner-occupied housing unit rate, 2014-2018	66.2%	63.8%
Median value of owner-occupied housing units, 2014-2018	\$173,500	\$204,900
Median selected monthly owner costs -with a mortgage, 2014-2018	\$1,185	\$1,558
Median selected monthly owner costs -without a mortgage, 2014-2018	\$378	\$490
Median gross rent, 2014-2018	\$681	\$1,023
Building permits, 2019	156	1,386,048
Families & Living Arrangements		
Households, 2014-2018	17,527	119,730,128
Persons per household, 2014-2018	2.31	2.63
Living in same house 1 year ago, percent of persons age 1 year+, 2014-2018	84.2%	85.5%
Language other than English spoken at home, percent of persons age 5 years+, 2014-2018	17.9%	21.5%
Computer and Internet Use		
Households with a computer, percent, 2014-2018	84.4%	88.8%
Households with a broadband Internet subscription, percent, 2014-2018	73.7%	80.4%
Education		
High school graduate or higher, percent of persons age 25 years+, 2014-2018	83.5%	87.7%
Bachelor's degree or higher, percent of persons age 25 years+, 2014-2018	19.0%	31.5%
Health		
With a disability, under age 65 years, percent, 2014-2018	12.0%	8.6%
Persons without health insurance, under age 65 years, percent	▲ 14.4%	▲ 10.0%
Economy		

In civilian labor force, total, percent of population age 16 years+, 2014-2018	54.7%	62.9%
In civilian labor force, female, percent of population age 16 years+, 2014-2018	53.1%	58.2%
Total accommodation and food services sales, 2012 (\$1,000) (c)	54,794	708,138,598
Total health care and social assistance receipts/revenue, 2012 (\$1,000) (c)	143,831	2,040,441,203
Total manufacturers shipments, 2012 (\$1,000) (c)	123,688	5,696,729,632
Total merchant wholesaler sales, 2012 (\$1,000) (c)	D	5,208,023,478
Total retail sales, 2012 (\$1,000) (c)	446,957	4,219,821,871
Total retail sales per capita, 2012 (c)	\$10,829	\$13,443

Transportation

Mean travel time to work (minutes), workers age 16 years+, 2014-2018	17.5	26.6
--	------	------

Income & Poverty

Median household income (in 2018 dollars), 2014-2018	\$45,808	\$60,293
Per capita income in past 12 months (in 2018 dollars), 2014-2018	\$23,961	\$32,621
Persons in poverty, percent	▲ 17.0%	▲ 11.8%

BUSINESSES

Businesses

Total employer establishments, 2017	1,143	7,860,674
Total employment, 2017	8,194	128,591,812
Total annual payroll, 2017 (\$1,000)	276,115	6,725,346,754
Total employment, percent change, 2016-2017	-4.8%	1.5%
Total nonemployer establishments, 2018	2,387	26,485,532
All firms, 2012	3,182	27,626,360
Men-owned firms, 2012	1,601	14,844,597
Women-owned firms, 2012	892	9,878,397
Minority-owned firms, 2012	228	7,952,386
Nonminority-owned firms, 2012	2,735	18,987,918
Veteran-owned firms, 2012	440	2,521,682
Nonveteran-owned firms, 2012	2,436	24,070,685

GEOGRAPHY

Geography

Population per square mile, 2010	7.8	87.4
Land area in square miles, 2010	5,267.98	3,531,905.43
FIPS Code	53047	1

Value Notes

⚠ Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info ⓘ icon to the row in TABLE view to learn about sampling error.

The vintage year (e.g., V2019) refers to the final year of the series (2010 thru 2019). *Different vintage years of estimates are not comparable.*

Fact Notes

- (a) Includes persons reporting only one race
- (b) Hispanics may be of any race, so also are included in applicable race categories
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

Value Flags

- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper in open ended distribution.
- D Suppressed to avoid disclosure of confidential information
- F Fewer than 25 firms
- FN Footnote on this item in place of data
- N Data for this geographic area cannot be displayed because the number of sample cases is too small.
- NA Not available
- S Suppressed; does not meet publication standards
- X Not applicable
- Z Value greater than zero but less than half unit of measure shown

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Expenses, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

ABOUT US

- Help for Survey Participants
- FAQs
- Director's Corner
- Regional Offices
- History
- Research
- Scientific Integrity
- Census Careers
- Business Opportunities
- Congressional and Intergovernmental
- Contact Us

FIND DATA

- QuickFacts
- Explore Census Data
- 2020 Census
- 2010 Census
- Economic Census
- Interactive Maps
- Training & Workshops
- Data Tools
- Developers
- Publications

BUSINESS & ECONOMY

- Help With Your Forms
- Economic Indicators
- Economic Census
- E-Stats
- International Trade
- Export Codes
- NAICS
- Governments
- Longitudinal Employer-Household Dynamics (LEHD)
- Survey of Business Owners

PEOPLE & HOUSEHOLDS

- 2020 Census
- 2010 Census
- American Community Survey
- Income
- Poverty
- Population Estimates
- Population Projections
- Health Insurance
- Housing
- International
- Genealogy

SPECIAL TOPICS

- Advisors, Centers and Research Programs
- Statistics in Schools
- Tribal Resources (AIAN)
- Emergency Preparedness
- Special Census Program
- Data Linkage Infrastructure
- Fraudulent Activity & Scams
- USA.gov

NEWSROOM

- News Releases
- Release Schedule
- Facts for Features
- Stats for Stories
- Blogs

CONNECT WITH US

The 2020 Census is Happening Now. Respond Today.

QuickFacts

Okanogan County, Washington; United States

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

Table

Income & Poverty ▼	Okanogan County, Washington	United States
Population, Census, April 1, 2010	41,120	308,745,538
 PEOPLE		
Income & Poverty		
Median household income (in 2018 dollars), 2014-2018	\$45,808	\$60,293
Per capita income in past 12 months (in 2018 dollars), 2014-2018	\$23,961	\$32,621
Persons in poverty, percent	▲ 17.0%	▲ 11.8%

Value Notes

⚠ Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info ⓘ icon to the row in TABLE view to learn about sampling error.

The vintage year (e.g., V2019) refers to the final year of the series (2010 thru 2019). *Different vintage years of estimates are not comparable.*

Fact Notes

- (a) Includes persons reporting only one race
- (b) Hispanics may be of any race, so also are included in applicable race categories
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

Value Flags

- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper in open ended distribution.
- D Suppressed to avoid disclosure of confidential information
- F Fewer than 25 firms
- FN Footnote on this item in place of data
- N Data for this geographic area cannot be displayed because the number of sample cases is too small.
- NA Not available
- S Suppressed; does not meet publication standards
- X Not applicable
- Z Value greater than zero but less than half unit of measure shown

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

ABOUT US	FIND DATA	BUSINESS & ECONOMY	PEOPLE & HOUSEHOLDS	SPECIAL TOPICS	NEWSROOM
Help for Survey Participants	QuickFacts	Help With Your Forms	2020 Census	Advisors, Centers and Research Programs	News Releases
FAQs	Explore Census Data	Economic Indicators	2010 Census	Statistics in Schools	Release Schedule
Director's Corner	2020 Census	Economic Census	American Community Survey	Tribal Resources (AIAN)	Facts for Features
Regional Offices	2010 Census	E-Stats	Income	Emergency Preparedness	Stats for Stories
History	Economic Census	International Trade	Poverty	Special Census Program	Blogs
Research	Interactive Maps	Export Codes	Population Estimates	Data Linkage Infrastructure	
Scientific Integrity	Training & Workshops	NAICS	Population Projections	Fraudulent Activity & Scams	
Census Careers	Data Tools	Governments	Health Insurance	USA.gov	
Business Opportunities	Developers	Longitudinal Employer-Household Dynamics (LEHD)	Housing		
Congressional and Intergovernmental	Publications	Survey of Business Owners	International		
Contact Us			Genealogy		

CONNECT WITH US

The 2020 Census is Happening Now. Respond Today.

QuickFacts

Okanogan County, Washington; United States

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

Table

Transportation	Okanogan County, Washington	United States
Population, Census, April 1, 2010	41,120	308,745,538
 PEOPLE		
Transportation		
Mean travel time to work (minutes), workers age 16 years+, 2014-2018	17.5	26.6

Value Notes

⚠ Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info ⓘ icon to the row in TABLE view to learn about sampling error.

The vintage year (e.g., V2019) refers to the final year of the series (2010 thru 2019). *Different vintage years of estimates are not comparable.*

Fact Notes

- (a) Includes persons reporting only one race
- (b) Hispanics may be of any race, so also are included in applicable race categories
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

Value Flags

- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper in open ended distribution.
- D Suppressed to avoid disclosure of confidential information
- F Fewer than 25 firms
- FN Footnote on this item in place of data
- N Data for this geographic area cannot be displayed because the number of sample cases is too small.
- NA Not available
- S Suppressed; does not meet publication standards
- X Not applicable
- Z Value greater than zero but less than half unit of measure shown

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

ABOUT US

- Help for Survey Participants
- FAQs
- Director's Corner
- Regional Offices
- History
- Research
- Scientific Integrity
- Census Careers
- Business Opportunities
- Congressional and Intergovernmental
- Contact Us

FIND DATA

- QuickFacts
- Explore Census Data
- 2020 Census
- 2010 Census
- Economic Census
- Interactive Maps
- Training & Workshops
- Data Tools
- Developers
- Publications

BUSINESS & ECONOMY

- Help With Your Forms
- Economic Indicators
- Economic Census
- E-Stats
- International Trade
- Export Codes
- NAICS
- Governments
- Longitudinal Employer-Household Dynamics (LEHD)
- Survey of Business Owners

PEOPLE & HOUSEHOLDS

- 2020 Census
- 2010 Census
- American Community Survey
- Income
- Poverty
- Population Estimates
- Population Projections
- Health Insurance
- Housing
- International
- Genealogy

SPECIAL TOPICS

- Advisors, Centers and Research Programs
- Statistics in Schools
- Tribal Resources (AIAN)
- Emergency Preparedness
- Special Census Program
- Data Linkage Infrastructure
- Fraudulent Activity & Scams
- USA.gov

NEWSROOM

- News Releases
- Release Schedule
- Facts for Features
- Stats for Stories
- Blogs

CONNECT WITH US



	Brewster city, Washington		Conconully town, Washington		Coulee Dam town, Washington		Disautel CDP, Washington		Elmer City town, Washington	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
EMPLOYMENT STATUS										
Population 16 years and over	1,711	1,711	197	197	969	969	16	16	285	285
In labor force	1,253	73.2%	90	45.7%	526	54.3%	0	0.0%	145	50.9%
Civilian labor force	1,218	71.2%	90	45.7%	526	54.3%	0	0.0%	145	50.9%
Employed	1,148	67.1%	80	40.6%	514	53.0%	0	0.0%	132	46.3%
Unemployed	70	4.1%	10	5.1%	12	1.2%	0	0.0%	13	4.6%
Armed Forces	35	2.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Not in labor force	458	26.8%	107	54.3%	443	45.7%	16	100.0%	140	49.1%
Civilian labor force	1,218	1,218	90	90	526	526	0	0	145	145
Unemployment Rate	(X)	5.7%	(X)	11.1%	(X)	2.3%	(X)	-	(X)	9.0%
Females 16 years and over	820	820	96	96	473	473	16	16	155	155
In labor force	567	69.1%	36	37.5%	242	51.2%	0	0.0%	73	47.1%
Civilian labor force	567	69.1%	36	37.5%	242	51.2%	0	0.0%	73	47.1%
Employed	567	69.1%	28	29.2%	236	49.9%	0	0.0%	68	43.9%
Own children of the householder under 6 years	280	280	0	0	83	83	0	0	25	25
All parents in family in labor force	249	88.9%	0	-	49	59.0%	0	-	19	76.0%
Own children of the householder 6 to 17 years	697	697	4	4	174	174	0	0	35	35
All parents in family in labor force	681	97.7%	2	50.0%	147	84.5%	0	-	29	82.9%
COMMUTING TO WORK										
Workers 16 years and over	1,118	1,118	78	78	503	503	0	0	130	130
Car, truck, or van -- drove alone	784	70.1%	62	79.5%	409	81.3%	0	-	112	86.2%
Car, truck, or van -- carpooled	198	17.7%	7	9.0%	61	12.1%	0	-	11	8.5%
Public transportation (excluding taxicab)	4	0.4%	0	0.0%	0	0.0%	0	-	0	0.0%
Walked	83	7.4%	7	9.0%	18	3.6%	0	-	1	0.8%
Other means	29	2.6%	0	0.0%	6	1.2%	0	-	2	1.5%
Worked at home	20	1.8%	2	2.6%	9	1.8%	0	-	4	3.1%
Mean travel time to work (minutes)	14.6	(X)	31.3	(X)	17.3	(X)	-	(X)	14.2	(X)
INCOME AND BENEFITS (IN 2018 INFLATION- ADJUSTED DOLLARS)										
Total households	832	832	135	135	544	544	16	16	171	171
Less than \$10,000	75	9.0%	9	6.7%	24	4.4%	0	0.0%	14	8.2%
\$10,000 to \$14,999	39	4.7%	6	4.4%	21	3.9%	0	0.0%	13	7.6%
\$15,000 to \$24,999	85	10.2%	34	25.2%	41	7.5%	16	100.0%	16	9.4%
\$25,000 to \$34,999	108	13.0%	16	11.9%	42	7.7%	0	0.0%	19	11.1%
\$35,000 to \$49,999	193	23.2%	15	11.1%	128	23.5%	0	0.0%	37	21.6%
\$50,000 to \$74,999	223	26.8%	28	20.7%	91	16.7%	0	0.0%	31	18.1%
\$75,000 to \$99,999	64	7.7%	17	12.6%	79	14.5%	0	0.0%	23	13.5%
\$100,000 to \$149,999	45	5.4%	10	7.4%	95	17.5%	0	0.0%	14	8.2%
\$150,000 to \$199,999	0	0.0%	0	0.0%	19	3.5%	0	0.0%	4	2.3%
\$200,000 or more	0	0.0%	0	0.0%	4	0.7%	0	0.0%	0	0.0%
Median household income (dollars)	46,442	(X)	37,639	(X)	53,269	(X)	-	(X)	43,672	(X)
Mean household income (dollars)	45,960	(X)	44,417	(X)	66,008	(X)	N	N	52,042	(X)
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL										
All families	(X)	16.8%	(X)	5.3%	(X)	7.8%	(X)	-	(X)	16.7%
All people	(X)	17.6%	(X)	11.3%	(X)	14.5%	(X)	0.0%	(X)	19.2%

SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES

American Community Survey	Brewster city, Washington		Conconully town, Washington		Coulee Dam town, Washington		Disautel CDP, Washington		Elmer City town, Washington	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
HOUSEHOLDS BY TYPE										
Total households	832	832	135	135	544	544	16	16	171	171
Average household size	3.05	(X)	1.5	(X)	2.26	(X)	-	(X)	2.02	(X)
Average family size	3.73	(X)	2.09	(X)	2.7	(X)	-	(X)	2.32	(X)
SCHOOL ENROLLMENT										
Population 3 years and over enrolled in school	889	889	11	11	281	281	0	0	62	62
Nursery school, preschool	27	3.00%	0	0.00%	29	10.30%	0	-	8	12.90%
Kindergarten	85	9.60%	2	18.20%	19	6.80%	0	-	2	3.20%
Elementary school (grades 1-8)	514	57.80%	2	18.20%	128	45.60%	0	-	28	45.20%
High school (grades 9-12)	191	21.50%	2	18.20%	69	24.60%	0	-	12	19.40%
College or graduate school	72	8.10%	5	45.50%	36	12.80%	0	-	12	19.40%
EDUCATIONAL ATTAINMENT										
Population 25 years and over	1,292	1,292	178	178	843	843	16	16	236	236
Less than 9th grade	447	34.60%	6	3.40%	18	2.10%	0	0.00%	0	0.00%
9th to 12th grade, no diploma	194	15.00%	4	2.20%	69	8.20%	9	56.30%	17	7.20%
High school graduate (includes equivalency)	199	15.40%	76	42.70%	224	26.60%	0	0.00%	72	30.50%
Some college, no degree	198	15.30%	46	25.80%	242	28.70%	7	43.80%	61	25.80%
Associate's degree	34	2.60%	20	11.20%	125	14.80%	0	0.00%	23	9.70%
Bachelor's degree	163	12.60%	20	11.20%	102	12.10%	0	0.00%	38	16.10%
Graduate or professional degree	57	4.40%	6	3.40%	63	7.50%	0	0.00%	25	10.60%
High school graduate or higher	651	50.40%	168	94.40%	756	89.70%	7	43.80%	219	92.80%
Bachelor's degree or higher	220	17.00%	26	14.60%	165	19.60%	0	0.00%	63	26.70%
DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION										
Total Civilian Noninstitutionalized Population	2,501	2,501	203	203	1,230	1,230	16	16	345	345
With a disability	232	9.30%	49	24.10%	211	17.20%	0	0.00%	66	19.10%
Under 18 years	1,026	1,026	7	7	290	290	0	0	69	69
With a disability	31	3.00%	0	0.00%	9	3.10%	0	-	2	2.90%
18 to 64 years	1,328	1,328	118	118	681	681	7	7	190	190
With a disability	114	8.60%	16	13.60%	94	13.80%	0	0.00%	28	14.70%
65 years and over	147	147	78	78	259	259	9	9	86	86
With a disability	87	59.20%	33	42.30%	108	41.70%	0	0.00%	36	41.90%
COMPUTERS AND INTERNET USE										
Total households	832	832	135	135	544	544	16	16	171	171
With a computer	657	79.00%	114	84.40%	469	86.20%	7	43.80%	144	84.20%
With a broadband Internet subscription	508	61.10%	83	61.50%	435	80.00%	7	43.80%	129	75.40%

SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES

American Community Survey	Methow CDP, Washington		Nespelem town, Washington		Nespelem Community CDP,	
	Estimate	Percent	Estimate	Percent	Estimate	Percent
HOUSEHOLDS BY TYPE						
Total households	35	35	88	88	83	83
Average household size	2.31	(X)	2.19	(X)	2.94	(X)
Average family size	2.28	(X)	2.38	(X)	3.53	(X)
SCHOOL ENROLLMENT						
Population 3 years and over enrolled in school	7	7	49	49	54	54
Nursery school, preschool	0	0.00%	6	12.20%	2	3.70%
Kindergarten	3	42.90%	5	10.20%	5	9.30%
Elementary school (grades 1-8)	4	57.10%	12	24.50%	29	53.70%
High school (grades 9-12)	0	0.00%	9	18.40%	8	14.80%
College or graduate school	0	0.00%	17	34.70%	10	18.50%
EDUCATIONAL ATTAINMENT						
Population 25 years and over	71	71	129	129	139	139
Less than 9th grade	0	0.00%	7	5.40%	4	2.90%
9th to 12th grade, no diploma	3	4.20%	9	7.00%	18	12.90%
High school graduate (includes equivalency)	36	50.70%	38	29.50%	63	45.30%
Some college, no degree	20	28.20%	57	44.20%	28	20.10%
Associate's degree	0	0.00%	15	11.60%	22	15.80%
Bachelor's degree	6	8.50%	1	0.80%	0	0.00%
Graduate or professional degree	6	8.50%	2	1.60%	4	2.90%
High school graduate or higher	68	95.80%	113	87.60%	117	84.20%
Bachelor's degree or higher	12	16.90%	3	2.30%	4	2.90%
DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION						
Total Civilian Noninstitutionalized Population	78	78	193	193	244	244
With a disability	0	0.00%	43	22.30%	27	11.10%
Under 18 years	10	10	31	31	68	68
With a disability	0	0.00%	0	0.00%	2	2.90%
18 to 64 years	64	64	144	144	154	154
With a disability	0	0.00%	33	22.90%	18	11.70%
65 years and over	4	4	18	18	22	22
With a disability	0	0.00%	10	55.60%	7	31.80%
COMPUTERS AND INTERNET USE						
Total households	35	35	88	88	83	83
With a computer	35	100.00%	75	85.20%	64	77.10%
With a broadband Internet subscription	25	71.40%	53	60.20%	41	49.40%

SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES

American Community Survey

Okanogan city,
Washington

Omak city,
Washington

Pateros city,
Washington

Estimate

Percent

Estimate

Percent

Estimate

Percent

HOUSEHOLDS BY TYPE

Total households	988	988	2,049	2,049	213	213
Average household size	2.33	(X)	2.32	(X)	2.82	(X)
Average family size	2.97	(X)	2.79	(X)	3.7	(X)

SCHOOL ENROLLMENT

Population 3 years and over enrolled in school	665	665	1,082	1,082	210	210
Nursery school, preschool	48	7.20%	52	4.80%	12	5.70%
Kindergarten	13	2.00%	75	6.90%	15	7.10%
Elementary school (grades 1-8)	360	54.10%	543	50.20%	87	41.40%
High school (grades 9-12)	177	26.60%	237	21.90%	85	40.50%
College or graduate school	67	10.10%	175	16.20%	11	5.20%

EDUCATIONAL ATTAINMENT

Population 25 years and over	1,685	1,685	3,111	3,111	311	311
Less than 9th grade	170	10.10%	225	7.20%	90	28.90%
9th to 12th grade, no diploma	173	10.30%	185	5.90%	48	15.40%
High school graduate (includes equivalency)	534	31.70%	1,229	39.50%	76	24.40%
Some college, no degree	340	20.20%	802	25.80%	45	14.50%
Associate's degree	174	10.30%	355	11.40%	14	4.50%
Bachelor's degree	149	8.80%	194	6.20%	29	9.30%
Graduate or professional degree	145	8.60%	121	3.90%	9	2.90%
High school graduate or higher	1,342	79.60%	2,701	86.80%	173	55.60%
Bachelor's degree or higher	294	17.40%	315	10.10%	38	12.20%

DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION

Total Civilian Noninstitutionalized Population	2,298	2,298	4,762	4,762	601	601
With a disability	527	22.90%	1,003	21.10%	72	12.00%
Under 18 years	699	699	1,391	1,391	212	212
With a disability	55	7.90%	15	1.10%	0	0.00%
18 to 64 years	1,265	1,265	2,590	2,590	337	337
With a disability	297	23.50%	551	21.30%	54	16.00%
65 years and over	334	334	781	781	52	52
With a disability	175	52.40%	437	56.00%	18	34.60%

COMPUTERS AND INTERNET USE

Total households	988	988	2,049	2,049	213	213
With a computer	878	88.90%	1,701	83.00%	168	78.90%
With a broadband Internet subscription	781	79.00%	1,400	68.30%	129	60.60%

US
AGE & SEX

Label	Total / Estimate	Percent / Estimate	Male / Estimate	Percent Male / Estimate	Female / Estimate	Percent Female / Estimate
Total population	328239523	(X)	161588973	(X)	166650550	(X)
AGE						
Under 5 years	19404835	5.9	9938937	6.2	9465898	5.7
5 to 9 years	19690437	6	10033518	6.2	9656919	5.8
10 to 14 years	21423479	6.5	10987313	6.8	10436166	6.3
15 to 19 years	21353524	6.5	10903653	6.7	10449871	6.3
20 to 24 years	21468680	6.5	11014460	6.8	10454220	6.3
25 to 29 years	23233299	7.1	11817829	7.3	11415470	6.8
30 to 34 years	22345176	6.8	11281470	7	11063706	6.6
35 to 39 years	21728259	6.6	10892040	6.7	10836219	6.5
40 to 44 years	20186586	6.1	10028675	6.2	10157911	6.1
45 to 49 years	20398226	6.2	10079567	6.2	10318659	6.2
50 to 54 years	20464881	6.2	10075795	6.2	10389086	6.2
55 to 59 years	21484060	6.5	10440265	6.5	11043795	6.6
60 to 64 years	20984053	6.4	10051170	6.2	10932883	6.6
65 to 69 years	17427013	5.3	8191111	5.1	9235902	5.5
70 to 74 years	14148548	4.3	6529918	4	7618630	4.6
75 to 79 years	9759764	3	4367764	2.7	5392000	3.2
80 to 84 years	6380474	1.9	2671396	1.7	3709078	2.2
85 years and over	6358229	1.9	2284092	1.4	4074137	2.4
SELECTED AGE CATEGORIES						
5 to 14 years	41113916	12.5	21020831	13	20093085	12.1
15 to 17 years	12449034	3.8	6361859	3.9	6087175	3.7
Under 18 years	72967785	22.2	37321627	23.1	35646158	21.4
18 to 24 years	30373170	9.3	15556254	9.6	14816916	8.9
15 to 44 years	130315524	39.7	65938127	40.8	64377397	38.6
16 years and over	263534161	80.3	128496159	79.5	135038002	81
18 years and over	255271738	77.8	124267346	76.9	131004392	78.6
21 years and over	241886206	73.7	117407269	72.7	124478937	74.7
60 years and over	75058081	22.9	34095451	21.1	40962630	24.6
62 years and over	66395660	20.2	29927016	18.5	36468644	21.9
65 years and over	54074028	16.5	24044281	14.9	30029747	18
75 years and over	22498467	6.9	9323252	5.8	13175215	7.9

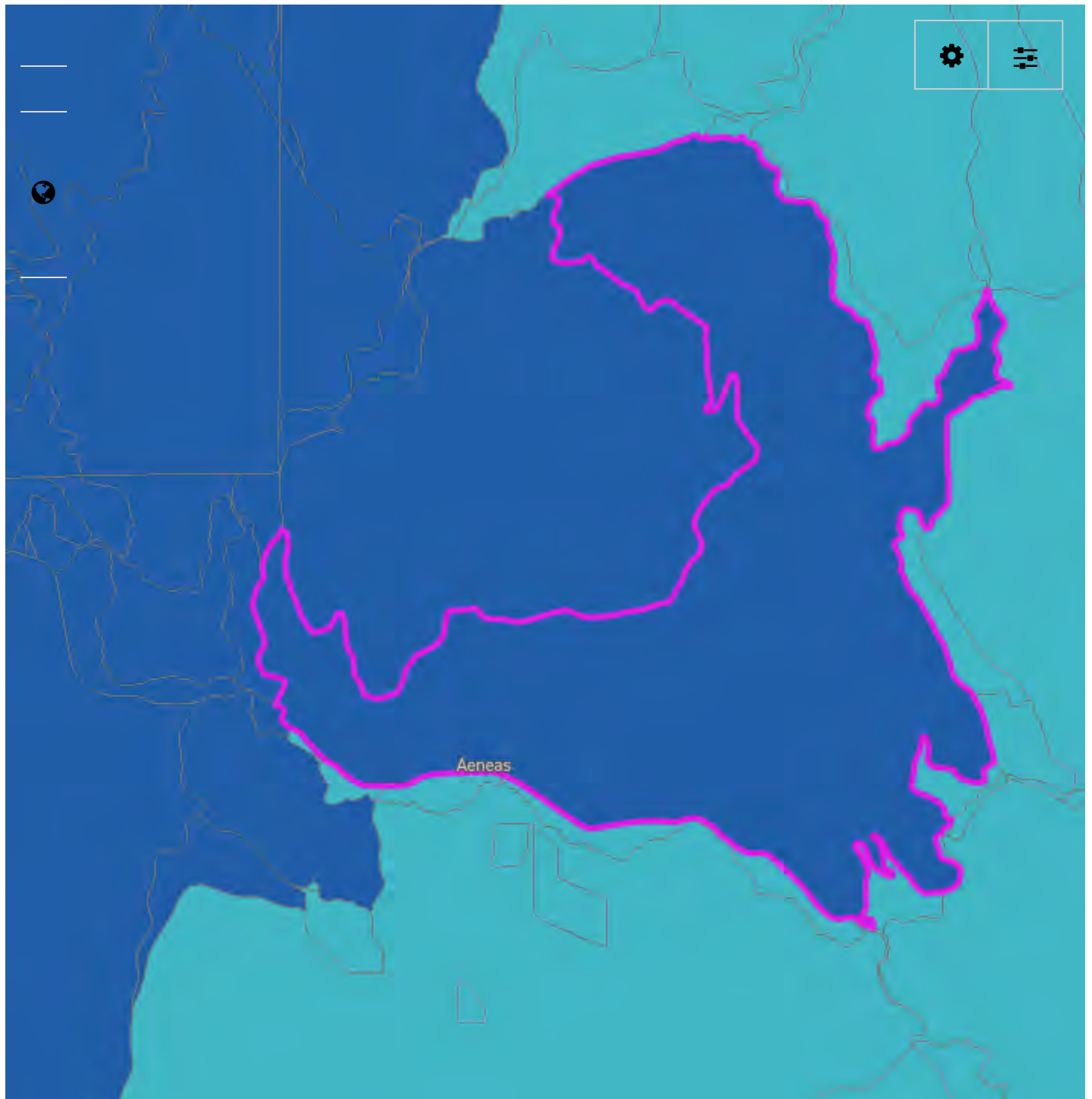
US
AGE & SEX

Label	Total / Estimate	Percent / Estimate	Male / Estimate	Percent Male / Estimate	Female / Estimate	Percent Female / Estimate
SUMMARY INDICATORS						
Median age (years)	38.5	(X)	37.2	(X)	39.8	(X)
Sex ratio (males per 100 females)	97	(X)	(X)	(X)	(X)	(X)
Age dependency ratio	63.1	(X)	(X)	(X)	(X)	(X)
Old-age dependency ratio	26.9	(X)	(X)	(X)	(X)	(X)
Child dependency ratio	36.3	(X)	(X)	(X)	(X)	(X)
PERCENT ALLOCATED						
Sex	(X)	0.1	(X)	(X)	(X)	(X)
Age	(X)	1.7	(X)	(X)	(X)	(X)

B. FCC Fixed Broadband Deployment Service Provider Reporting

Fixed Broadband at a Location

Address ▼	Aeneas, Washington, United States	Q
-----------	-----------------------------------	---



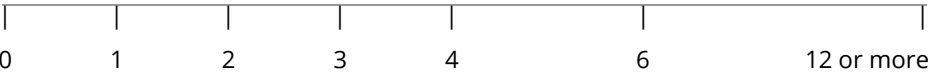
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479703002313

Number of Fixed Residential Broadband Providers



Broadband

Technology
ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed
≥ 25/3 Mbps

Date
June 2019 (latest public release)

Provider	Tech	Down (Mbps)	Up (Mbps)
NCI Datacom NCI	Fixed Wireless	100	20
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Coordinates ▾	Belvedere-Rebecca	Q
---------------	-------------------	---



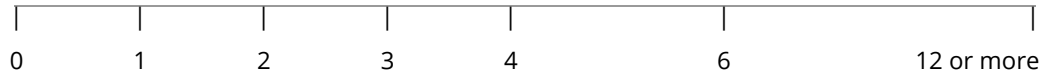
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479401001080

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

Date

June 2019 *(latest public release)*

Provider	Tech	Down <i>(Mbps)</i>	Up <i>(Mbps)</i>
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Address ▼	Brewster, Washington, United States	Q
-----------	-------------------------------------	---



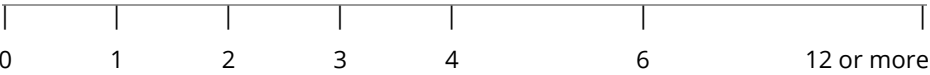
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479708003047

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

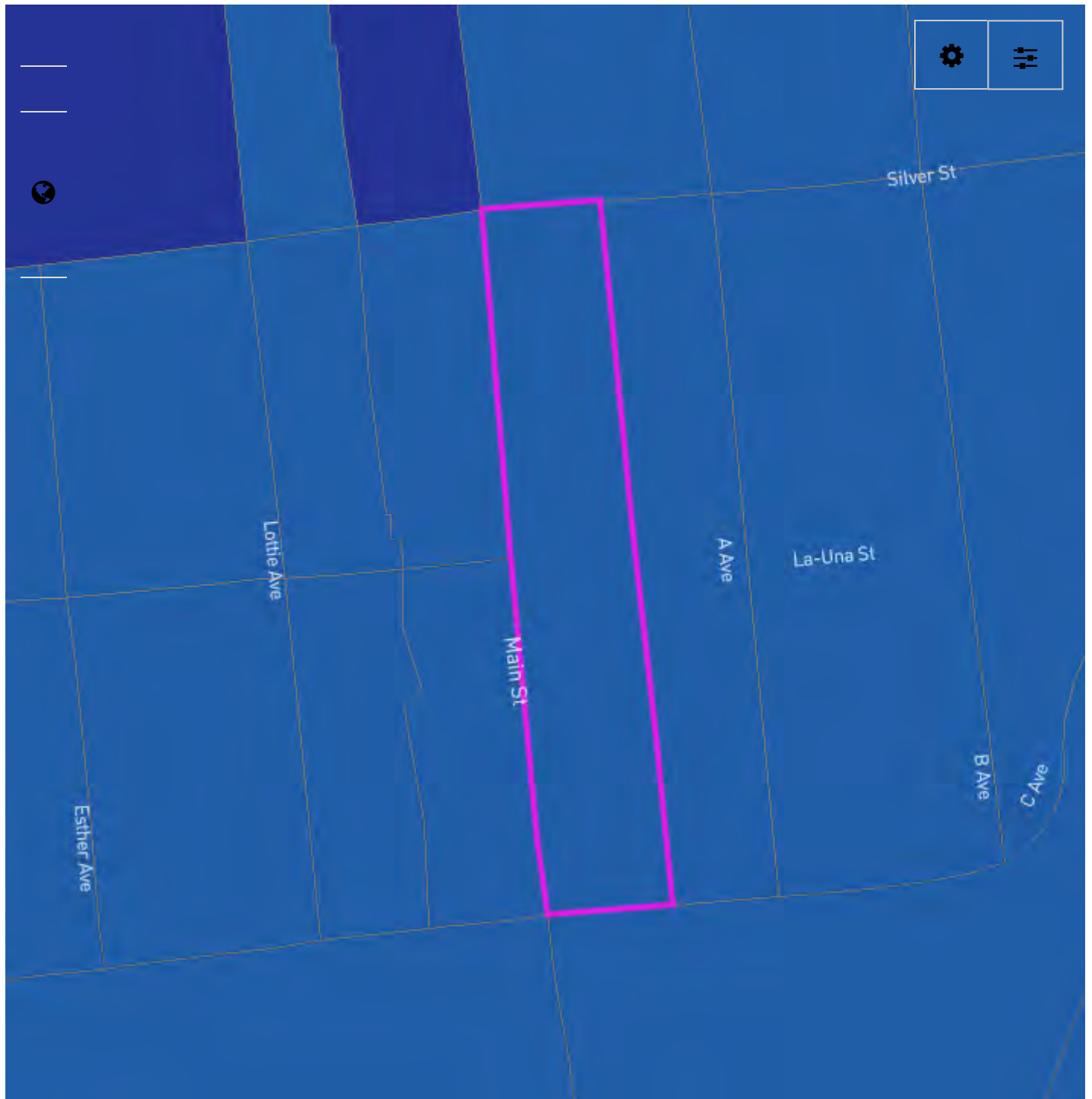
Date

June 2019 (latest public release)

Provider	Tech	Down (Mbps) ▼	Up (Mbps)
■ NCI Datacom NCI	Fixed Wireless	100	20
■ ViaSat, Inc. Viasat Inc	Satellite	35	3
Frontier Communications Corporation	ADSL	25	2
Frontier Communications Corporation	ADSL	25	2
■ Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
Frontier Communications Corporation	ADSL	6	1
■ VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Address ▼	Conconully, Washington, United States	Q
-----------	---------------------------------------	---



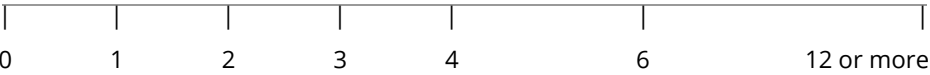
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479705003105

Number of Fixed Residential Broadband Providers



Broadband

Technology
ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed
≥ 25/3 Mbps

Date
June 2019 *(latest public release)*

Provider	Tech	Down (Mbps) ▼	Up (Mbps)
NCI Datacom NCI	Fixed Wireless	100	20
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
Okanogan County PUD No. 1	Fixed Wireless	20	10
VSAT Systems, LLC Skycasters	Satellite	2	1.3
CenturyLink, Inc. CenturyLink	ADSL	1.5	0.896

Fixed Broadband at a Location

Address ▼	Coulee Dam, Washington, United States	Q
-----------	---------------------------------------	---



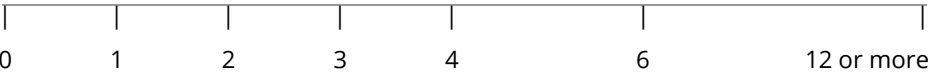
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479401003081

Number of Fixed Residential Broadband Providers



Broadband

Technology
ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

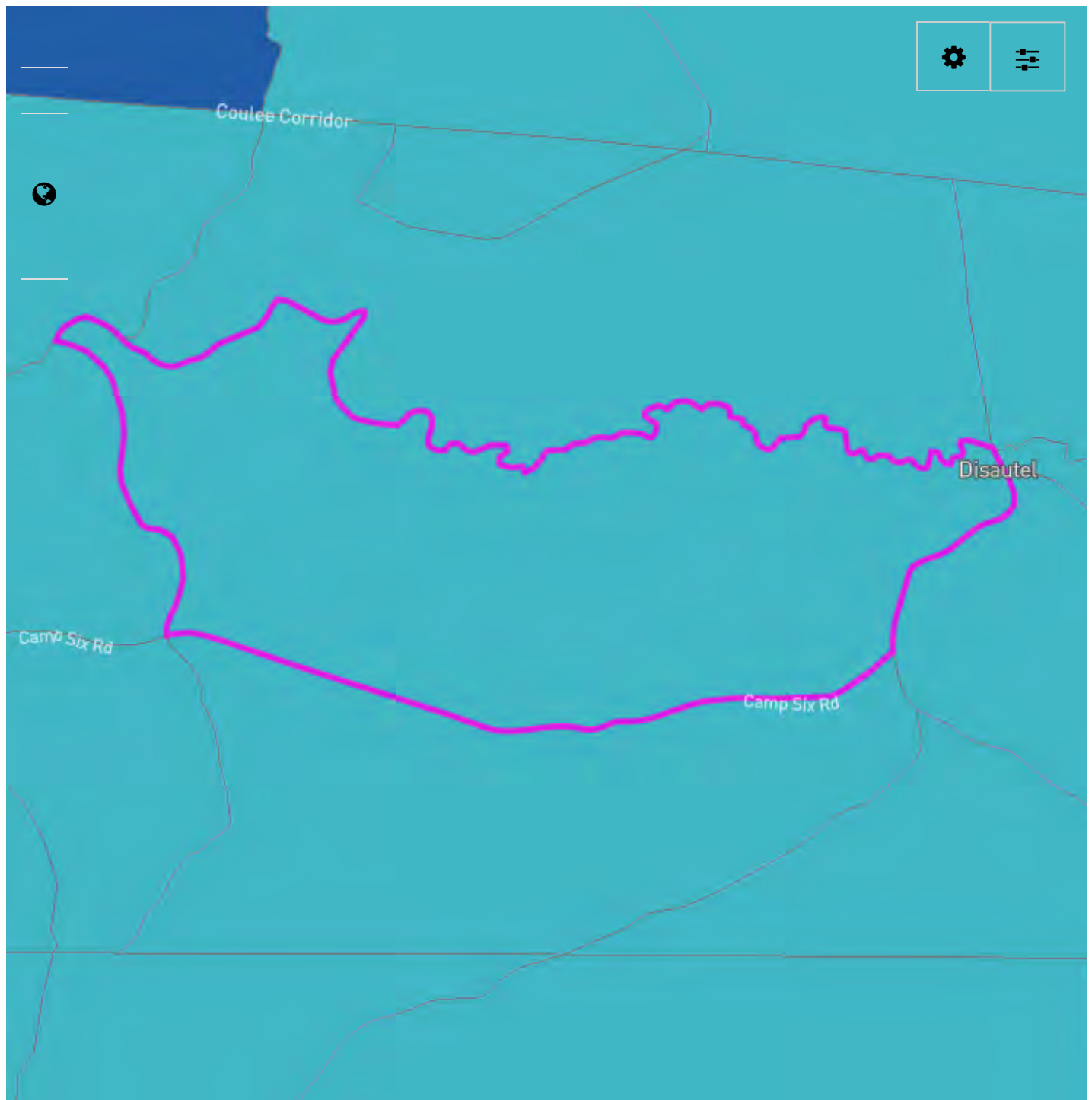
Speed
≥ 25/3 Mbps

Date
June 2019 (latest public release)

Provider	Tech	Down (Mbps) ▼	Up (Mbps)
■ NCI Datacom NCI	Fixed Wireless	100	20
■ Coulee Internet Services Company Coulee internet services company Coulee Internet Services	Fixed Wireless	50	50
■ CenturyLink, Inc. CenturyLink	ADSL	40	2
■ ViaSat, Inc. Viasat Inc	Satellite	35	3
■ Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
■ VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Address ▼	Disautel, Washington, United States	Q
-----------	-------------------------------------	---



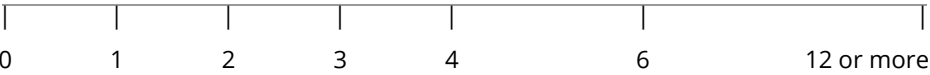
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479402001109

Number of Fixed Residential Broadband Providers



Broadband

Technology
ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed
≥ 25/3 Mbps

Date
June 2019 (latest public release)

Provider	Tech	Down (Mbps) ▼	Up (Mbps)
 ViaSat, Inc. Viasat Inc	Satellite	35	3
 Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
 King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
 VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Coordinates ▾	East Omak	Q
---------------	-----------	---



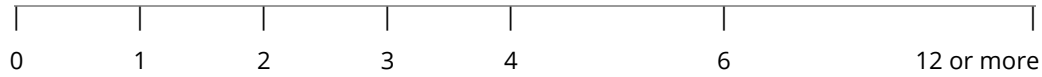
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479402003005

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

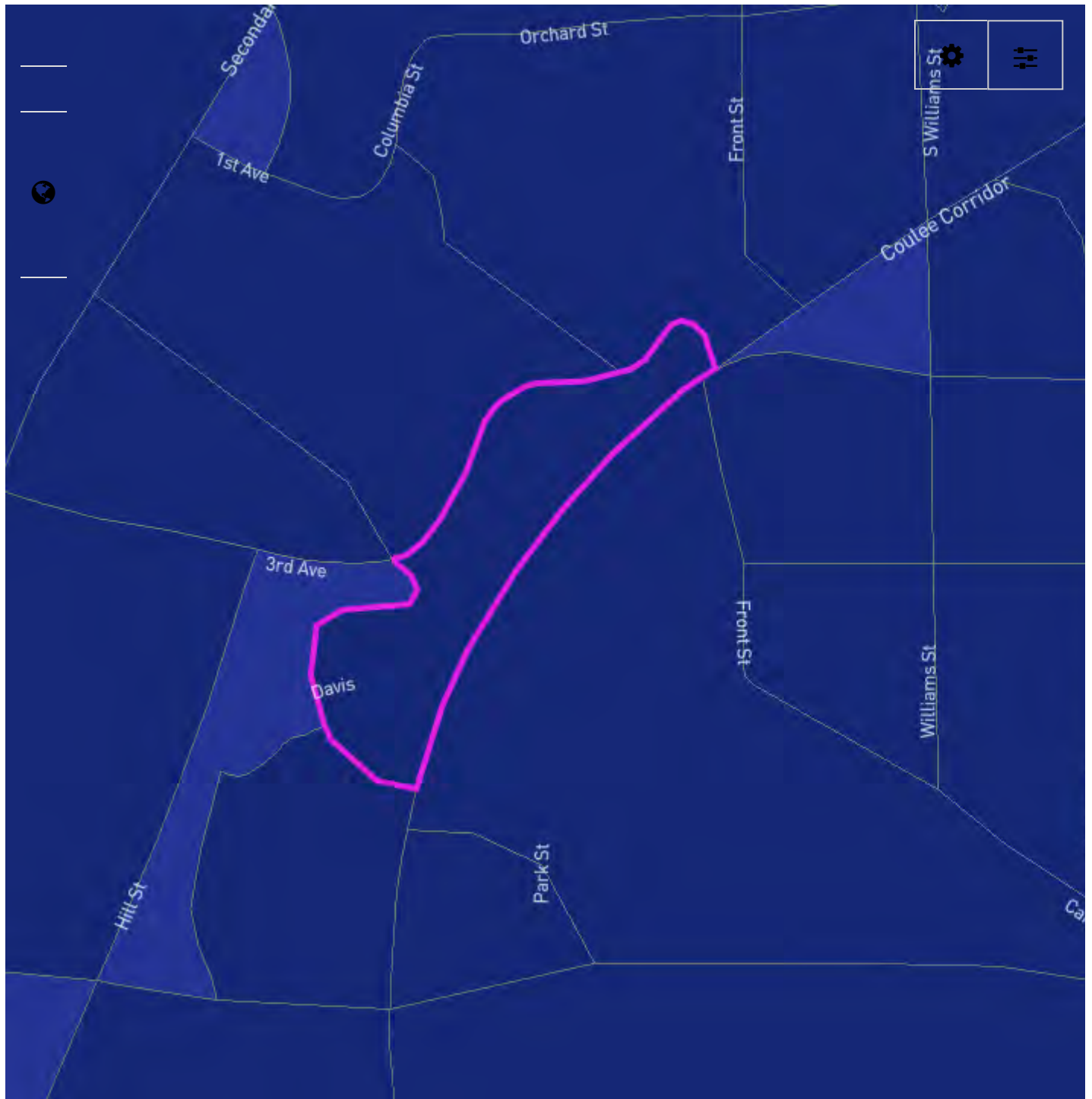
Date

June 2019 (latest public release)

Provider ▲	Tech	Down (Mbps)	Up (Mbps)
■ CenturyLink, Inc. CenturyLink	ADSL	10	1
■ Charter Communications Charter Communications, Inc. Charter Communications Inc	Cable	120	10
■ Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
■ King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
■ NCI Datacom NCI	Fixed Wireless	100	20
■ ViaSat, Inc. Viasat Inc	Satellite	35	3
■ VSAT Systems, LLC Skycasters	Satellite	2	1.3
Okanogan County PUD No. 1	Fixed Wireless	20	10

Fixed Broadband at a Location

Address ▼	Elmer City, Washington, United States	Q
-----------	---------------------------------------	---



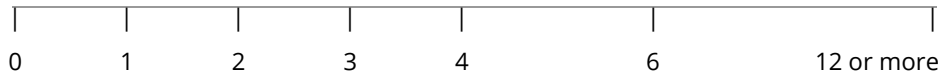
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479401003058

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

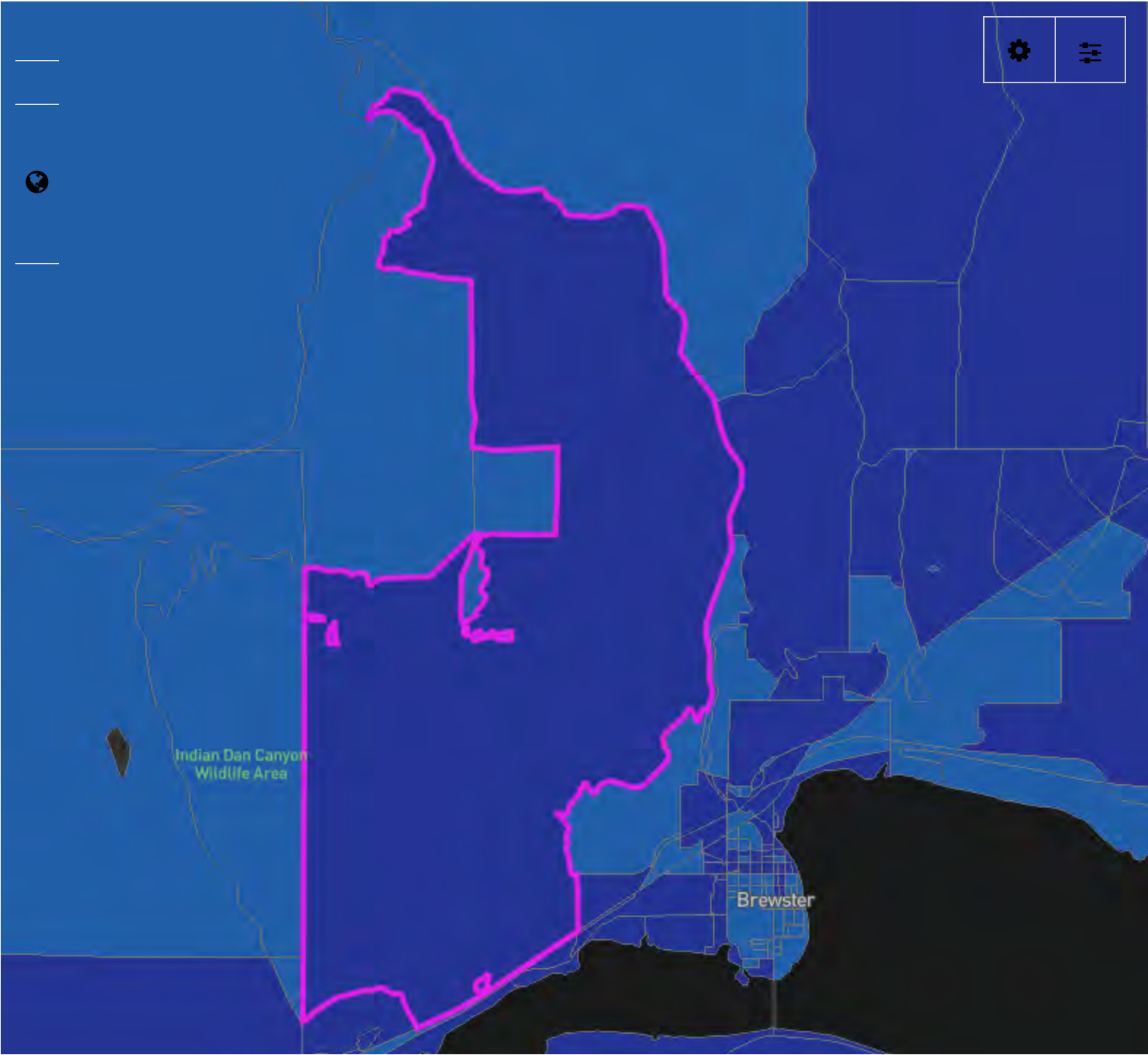
Date

June 2019 (*latest public release*)

Provider	Tech	Down (Mbps)	Up (Mbps)
Charter Communications Charter Communications, Inc. Charter Communications Inc	Cable	940	35
NCI Datacom NCI	Fixed Wireless	100	20
Coulee Internet Services Company Coulee internet services company Coulee Internet Services	Fixed Wireless	50	50
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
VSAT Systems, LLC Skycasters	Satellite	2	1.3
CenturyLink, Inc. CenturyLink	ADSL	1.5	0.896

Fixed Broadband at a Location

Coordinates ▾	Harmony Heights, WA	Q
---------------	---------------------	---



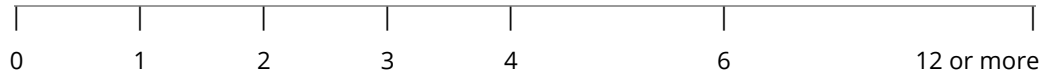
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479708004023

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

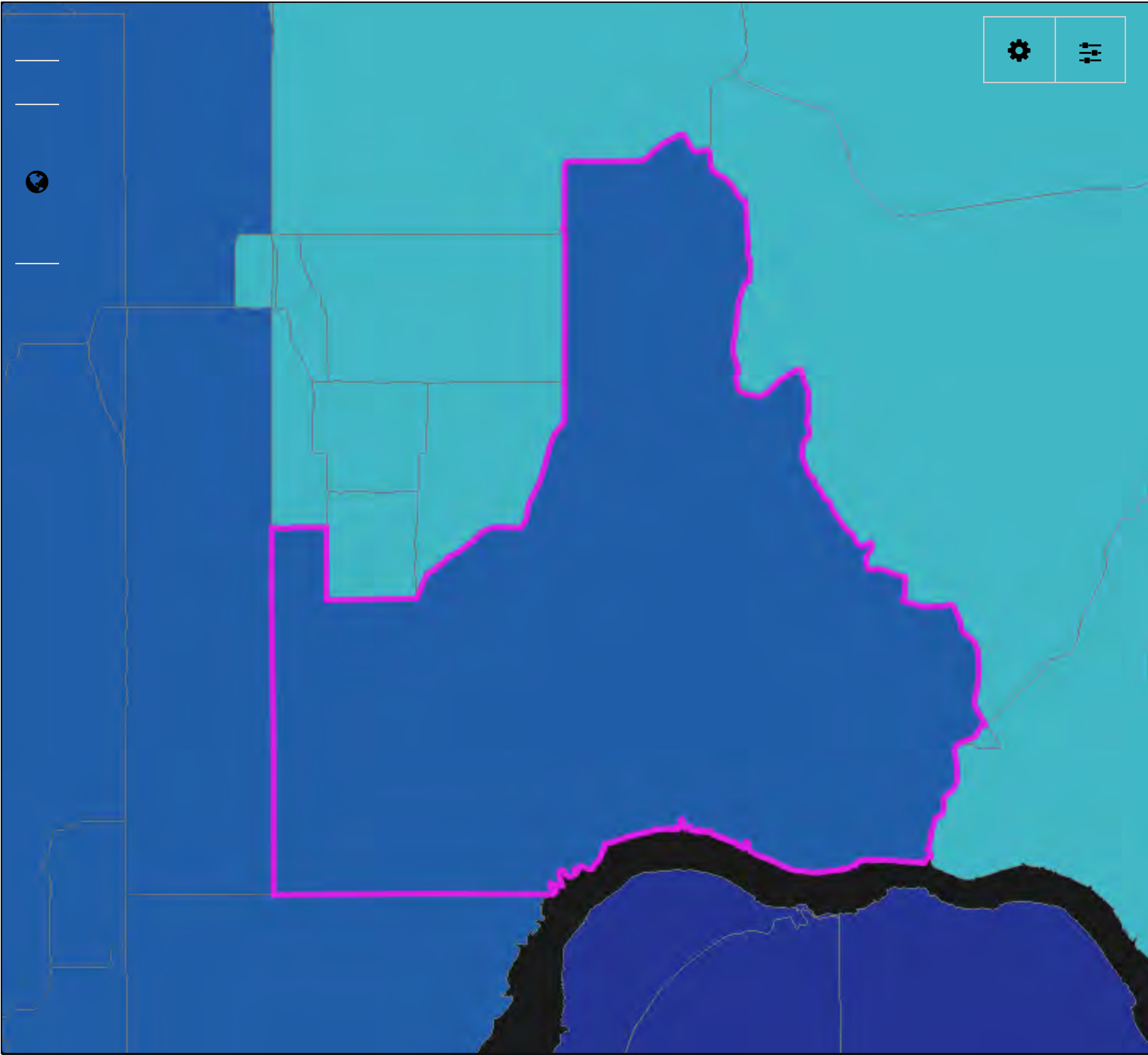
Date

June 2019 *(latest public release)*

Provider	Tech	Down <i>(Mbps)</i>	Up <i>(Mbps)</i>
Okanogan County PUD No. 1	Fiber	100	100
■ NCI Datacom NCI	Fixed Wireless	100	20
■ ViaSat, Inc. Viasat Inc	Satellite	35	3
Frontier Communications Corporation	ADSL	25	2
Frontier Communications Corporation	ADSL	25	2
■ Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
Okanogan County PUD No. 1	Fixed Wireless	20	10
Frontier Communications Corporation	ADSL	6	1
■ VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Coordinates ▾	Kartar, WA	Q
---------------	------------	---



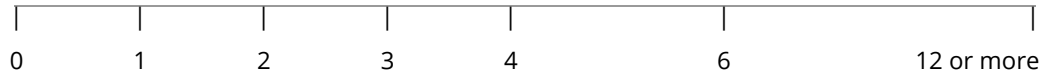
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479402002185

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

Date

June 2019 *(latest public release)*

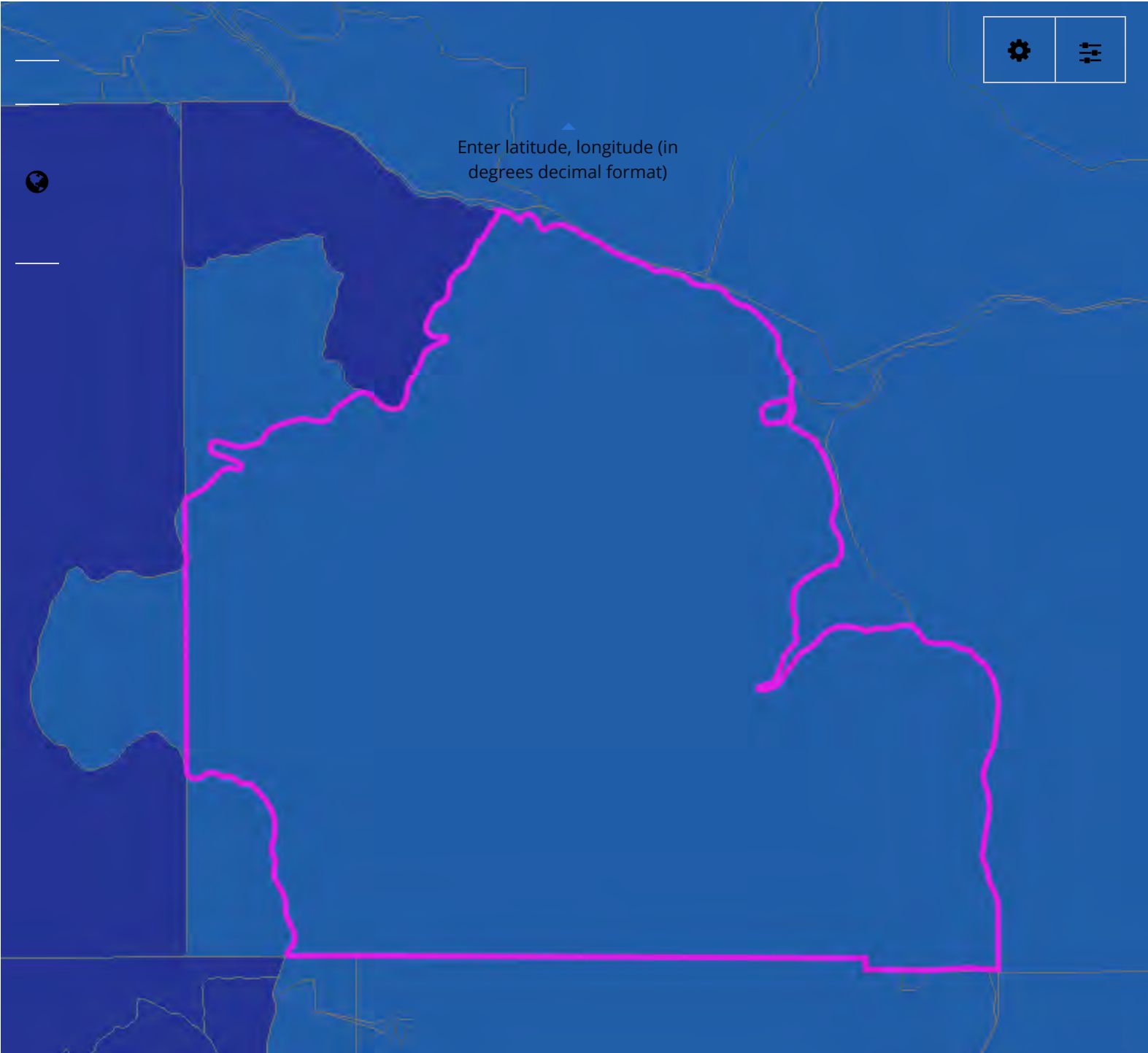
Provider	Tech	Down <i>(Mbps)</i>	Up <i>(Mbps)</i>
NCI Datacom NCI	Fixed Wireless	100	20
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Coordinates ▾

Knob Hill WA

Q



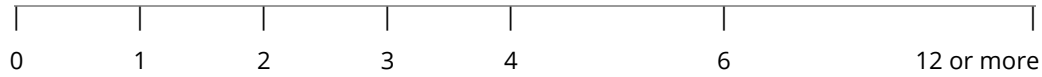
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479703004000

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

Date

June 2019 *(latest public release)*

Provider	Tech	Down <i>(Mbps)</i>	Up <i>(Mbps)</i>
NCI Datacom NCI	Fixed Wireless	100	20
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
CenturyLink, Inc. CenturyLink	ADSL	10	1
VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Address ▼	Malott, Washington, United States	Q
-----------	-----------------------------------	---



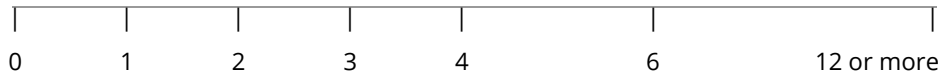
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479707005036

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

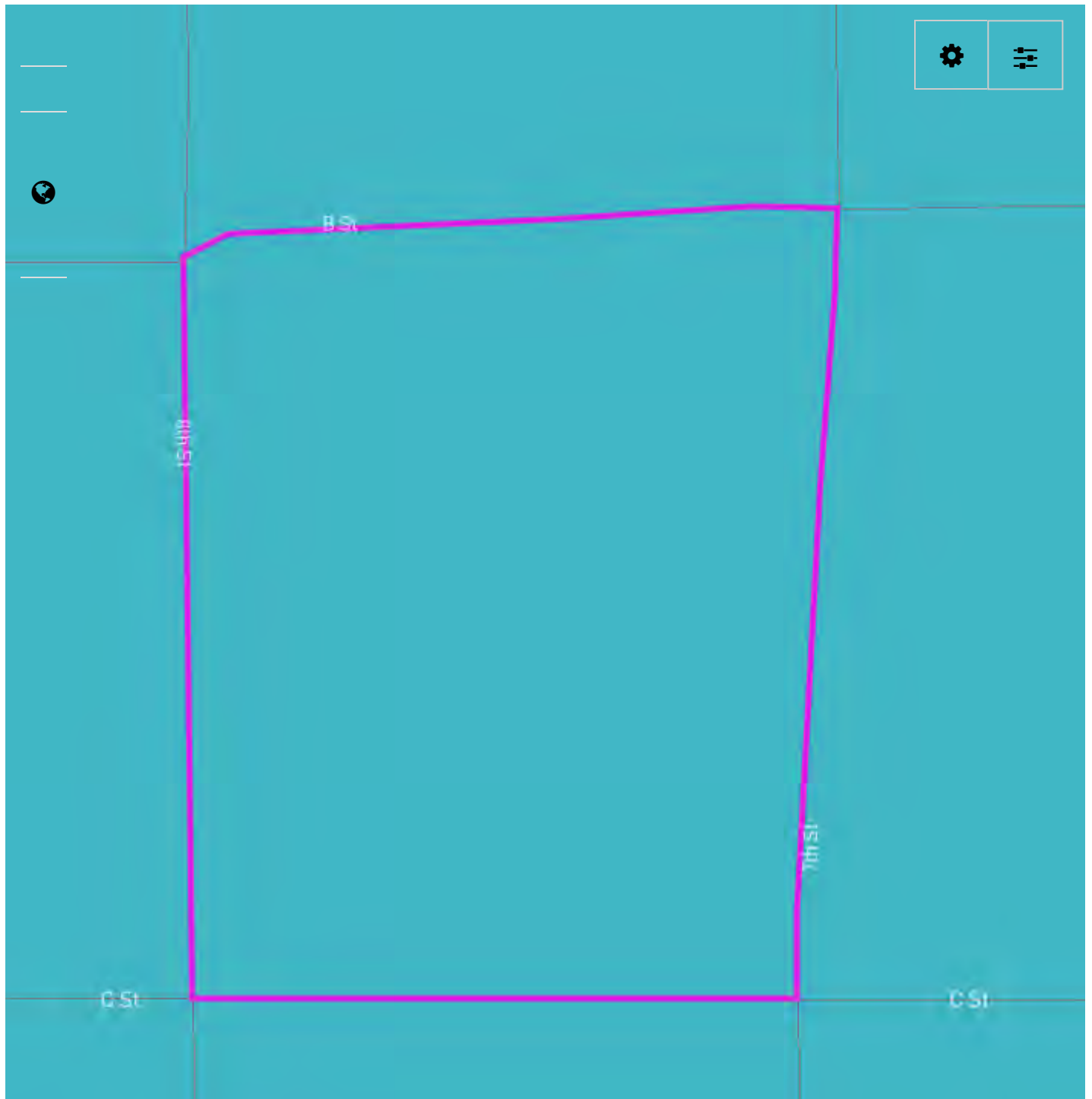
Date

June 2019 (*latest public release*)

Provider	Tech	Down (Mbps) ▼	Up (Mbps)
Okanogan County PUD No. 1	Fiber	100	100
■ NCI Datacom NCI	Fixed Wireless	100	20
■ CenturyLink, Inc. CenturyLink	ADSL	60	5
■ ViaSat, Inc. Viasat Inc	Satellite	35	3
■ Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
Okanogan County PUD No. 1	Fixed Wireless	20	10
■ King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
■ VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Address ▼	Nespelem, Washington, United States	Q
-----------	-------------------------------------	---



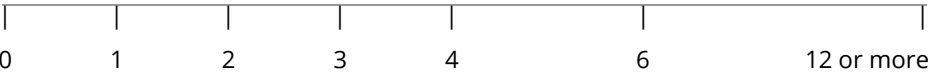
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479401002159

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

Date

June 2019 (latest public release)

Provider	Tech	Down (Mbps) ▼	Up (Mbps)
■ ViaSat, Inc. Viasat Inc	Satellite	35	3
■ Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
■ VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Address ▼	Omak, Washington, United States	Q
-----------	---------------------------------	---



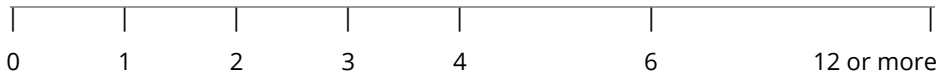
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479706003033

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

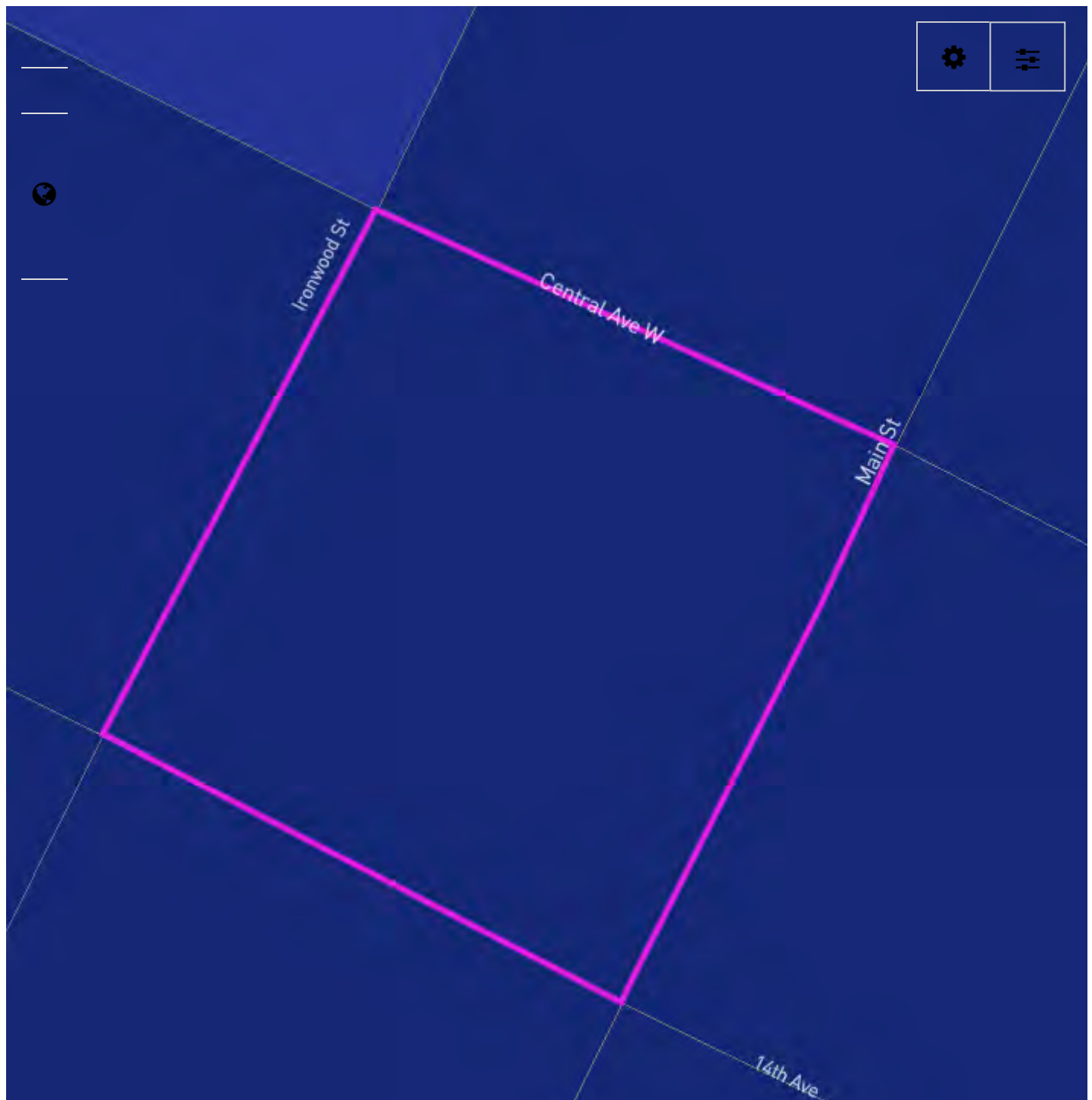
Date

June 2019 (latest public release)

Provider	Tech	Down ▼ (Mbps)	Up (Mbps)
Charter Communications Charter Communications, Inc. Charter Communications Inc	Cable	120	10
Okanogan County PUD No. 1	Fiber	100	100
NCI Datacom NCI	Fixed Wireless	100	20
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
Okanogan County PUD No. 1	Fixed Wireless	20	10
CenturyLink, Inc. CenturyLink	ADSL	12	0.896
King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Address ▼	Oroville, Washington, United States	Q
-----------	-------------------------------------	---



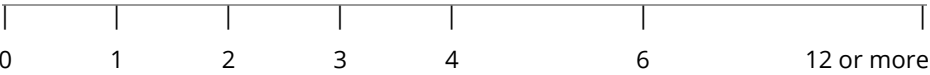
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479703007125

Number of Fixed Residential Broadband Providers



Broadband

Technology
ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

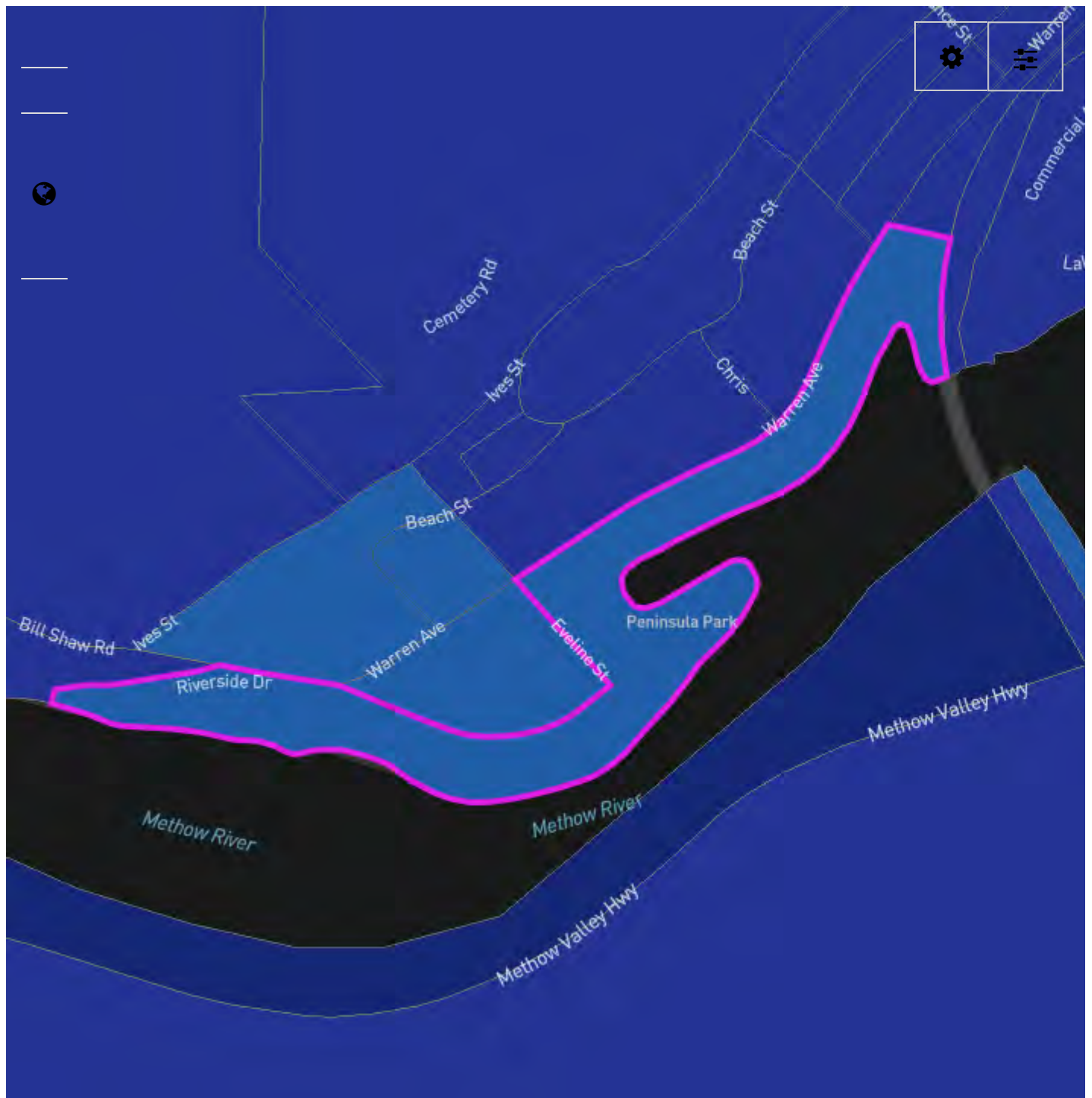
Speed
≥ 25/3 Mbps

Date
June 2019 (latest public release)

Provider	Tech	Down  (Mbps)	Up (Mbps)
 Charter Communications Charter Communications, Inc. Charter Communications Inc	Cable	120	10
Okanogan County PUD No. 1	Fiber	100	100
 NCI Datacom NCI	Fixed Wireless	100	20
 ViaSat, Inc. Viasat Inc	Satellite	35	3
 Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
 CenturyLink, Inc. CenturyLink	ADSL	20	2
Okanogan County PUD No. 1	Fixed Wireless	20	10
 VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Address ▼	Pateros, Washington, United States	Q
-----------	------------------------------------	---



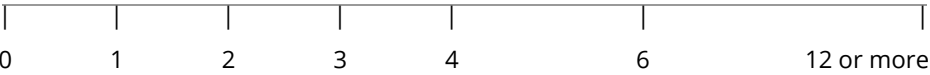
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479708005023

Number of Fixed Residential Broadband Providers



Broadband

Technology
ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed
≥ 25/3 Mbps

Date
June 2019 (latest public release)

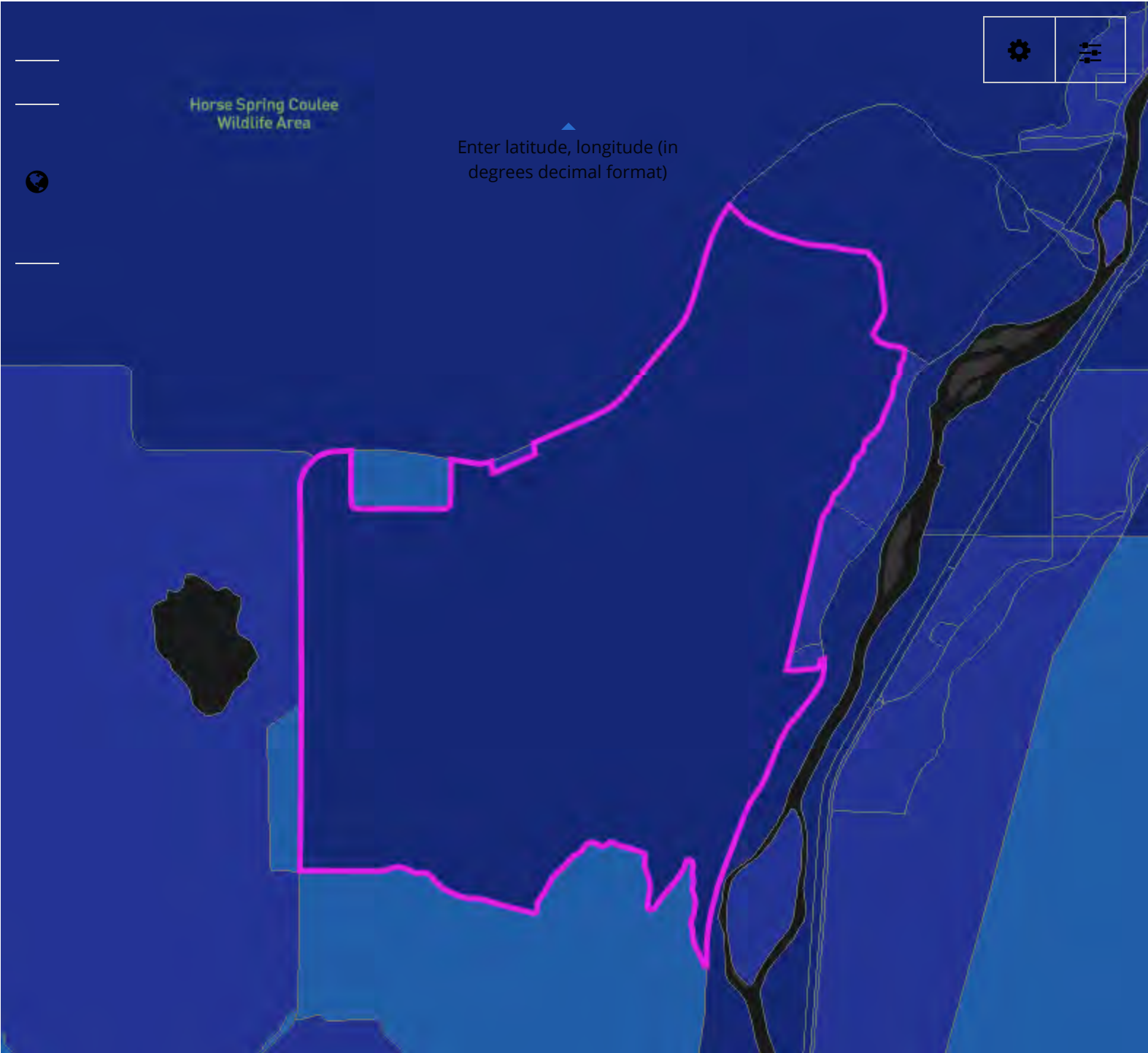
Provider	Tech	Down (Mbps)	Up (Mbps)
NCI Datacom NCI	Fixed Wireless	100	20
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
CenturyLink, Inc. CenturyLink	ADSL	20	2
Okanogan County PUD No. 1	Fixed Wireless	20	10
VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Coordinates ▾

S.Pine Creek Rd

Q



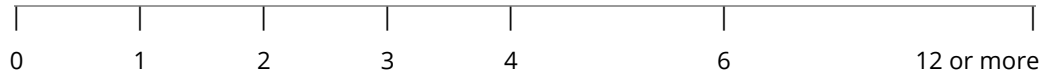
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479704003059

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

Date

June 2019 (latest public release)

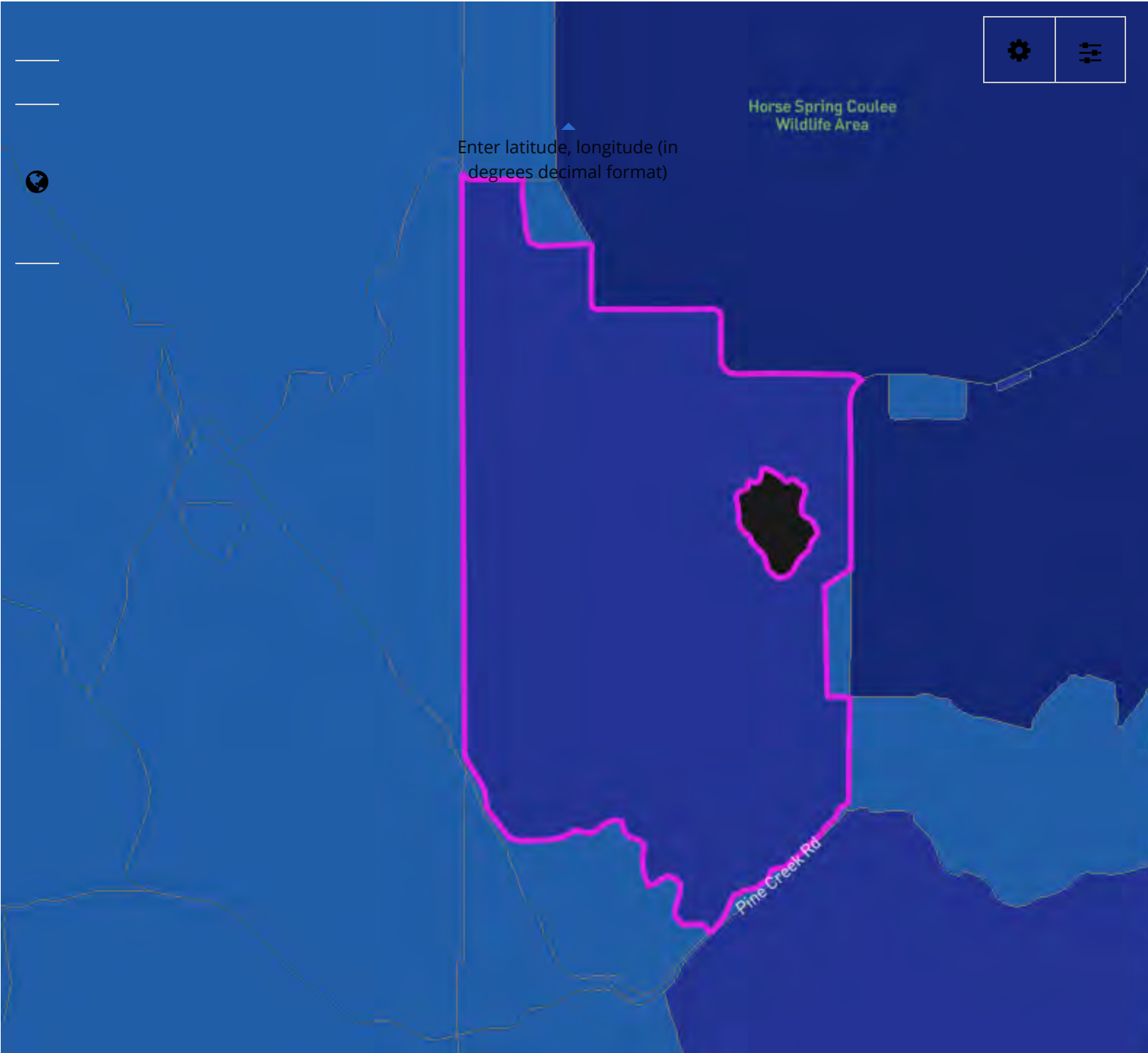
Provider	Tech	Down (Mbps)	Up (Mbps)
Charter Communications Charter Communications, Inc. Charter Communications Inc	Cable	120	10
Okanogan County PUD No. 1	Fiber	100	100
NCI Datacom NCI	Fixed Wireless	100	20
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
Okanogan County PUD No. 1	Fixed Wireless	20	10
Frontier Communications Corporation	ADSL	12	1
King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
Frontier Communications Corporation	ADSL	6	1
Frontier Communications Corporation	ADSL	6	1
VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Coordinates ▾

S. Pine Creek Rd 2

Q



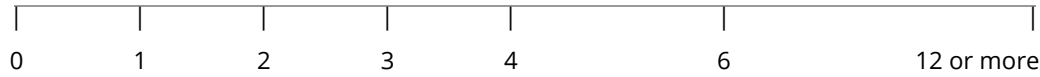
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479704003062

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

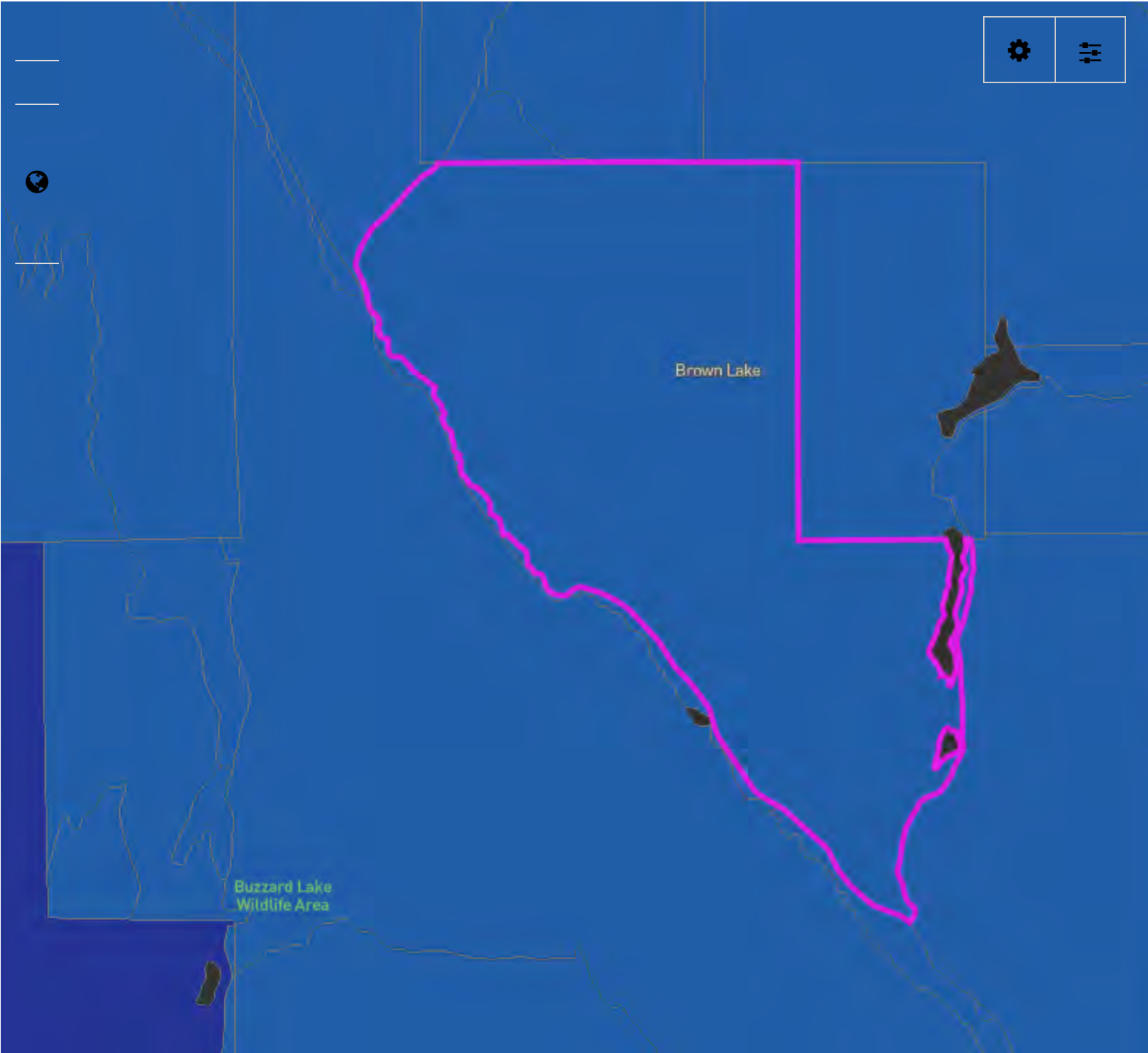
Date

June 2019 (latest public release)

Provider	Tech	Down (Mbps) ▼	Up (Mbps)
Okanogan County PUD No. 1	Fiber	100	100
■ NCI Datacom NCI	Fixed Wireless	100	20
■ ViaSat, Inc. Viasat Inc	Satellite	35	3
■ Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
Okanogan County PUD No. 1	Fixed Wireless	20	10
■ King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
■ VSAT Systems, LLC Skycasters	Satellite	2	1.3

Fixed Broadband at a Location

Coordinates ▾	Salmon Creek Rd	Q
---------------	-----------------	---



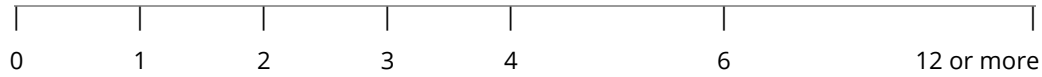
© Mapbox © OpenStreetMap

All Providers Reporting Service



Census block ID: 530479705002010

Number of Fixed Residential Broadband Providers



Broadband



Technology

ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other

Speed

≥ 25/3 Mbps

Date

June 2019 *(latest public release)*

Provider	Tech	Down <i>(Mbps)</i>	Up <i>(Mbps)</i>
NCI Datacom NCI	Fixed Wireless	100	20
ViaSat, Inc. Viasat Inc	Satellite	35	3
Hughes Network Systems, LLC HNS License Sub, LLC HughesNet	Satellite	25	3
King Street Wireless, LP King Street Wireless, L.P. King Street Wireless L.P.	Fixed Wireless	10	2
VSAT Systems, LLC Skycasters	Satellite	2	1.3

C. NTCA 2016 Broadband/Internet Availability Survey Report



NTCA 2016 BROADBAND/INTERNET AVAILABILITY SURVEY REPORT

July 2017

DISCLAIMER: Data from the survey has been presented as reported.

To get more information on this report please contact Rick Schadelbauer at NTCA (703-351-2019, rschadelbauer@ntca.org).

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	3
INTRODUCTION.....	4
OVERVIEW OF SURVEY.....	5
SURVEY RESULTS.....	5
CONCLUSIONS.....	14
Appendix A.....	15

FIGURES

Figure 1. Broadband Customers Served by Network Platform.....	6
Figure 2. Maximum Speed Availability.....	7
Figure 3. Broadband Take Rates by Speed Tier.....	8
Figure 4. Barriers to Fiber Deployment.....	10
Figure 5. Broadband Marketing Promotions.....	11
Figure 6. Offering Video Service?.....	12
Figure 7. Barriers to Video Deployment.....	13

EXECUTIVE SUMMARY

For nearly two decades, NTCA–The Rural Broadband Association has conducted its annual Broadband/Internet Availability Survey to gauge the deployment rates of advanced services by its member companies. In the spring of 2017, NTCA sent an electronic survey form to each of the companies (as reflected at the holding company level) in NTCA’s email database; 172 members (29%) responded.

One hundred percent of the 2016 survey respondents offer broadband to some part of their customer bases, compared with the 58% of the year 2000 survey respondents who offered the then-lower definition of broadband service.¹ Respondents indicated that they use a variety of technologies within their respective serving areas to provide at least basic levels of broadband to their customers. Forty-one percent of respondents’ broadband customers are served via fiber to the home (FTTH), 36% via copper loops, 12% cable modem, 9% fiber to the node (FTTN), 1% licensed and unlicensed fixed wireless, and 0.2% satellite.

Fifty-two percent of those survey respondents currently deploying fiber serve at least 50% of their customers with FTTH, while 24% serve 20% of their customers or less via such technology. Eighty-two percent of survey respondents indicated they had a long-term fiber deployment strategy. Thirty-nine percent of those respondents with a fiber deployment strategy plan to offer fiber to the node to more than 75% of their customers by year-end 2019, while 66% plan to offer fiber to the home to at least 50% of their customers over the same time frame. An additional 31% have already completed fiber deployments to all customers.

Deployment cost remains the most significant barrier to widespread deployment of fiber, followed by regulatory uncertainty, long loops, current regulatory rules, low customer demand, obtaining financing, fiber order fulfillment delays, and obtaining cost-effective equipment. Throughout the history of the survey, deployment cost has been respondents’ most significant concern.

Approximately 0.3% of respondents’ customers can receive a maximum downstream speed of between 768 kilobits per second (kbps) and 1.0 megabits per second (Mbps); 0.8% 1.0 to 1.5 Mbps; 2% 1.5 to 3.0 Mbps; 1% 3.0 to 4.0 Mbps; 3% 4.0 to 6.0 Mbps; 7% 6.0 to 10.0 Mbps; 20% 10.0 Mbps to 25.0 Mbps; and 67% greater than 25.0 Mbps.

Forty-one percent of survey respondents’ customers taking broadband subscribe to service greater than or equal to 10 Mbps downstream. The next most popular speed tiers

¹ Beginning with the 2015 survey, broadband was defined as throughput of at least 3 Mbps in one direction. This was an update from earlier NTCA Broadband Surveys, which defined broadband as throughput of at least 768 kbps (from 2009 through 2014) or 200 kbps (from 2000 through 2008) in one direction.

are 6.0 Mbps to 10.0 Mbps (10%), and 4.0 Mbps to 6.0 Mbps (9%). The overall take rate for broadband service is 72% (virtually unchanged from 73% last year).

The average respondent is 68 miles from its primary internet connection; the median respondent is 38 miles away. Eighty-eight percent of those who recently changed backbone providers did so for price reasons. Seventy-three percent of respondents indicated they are generally satisfied with their current backbone access provider, while 27% are generally dissatisfied.

Survey respondents indicated they face some type of competition for broadband in limited portions of their serving areas from national internet service providers (ISPs), cable companies and fixed and/or mobile wireless internet service providers (WISPs.) Respondents are taking numerous marketing steps to increase broadband take rates, including free customer premise equipment installation, bundling of services, price promotions, free introductory service, free education and training, discounted computers or tablets, and free modems.

Thirty-three percent of respondents currently offer voice over internet protocol (VoIP) service, unchanged from last year. Forty-seven percent of respondents not currently offering VoIP have plans to do so in the foreseeable future, up from 38% last year. Seventy percent of respondents offer video service to their customers, down slightly from 72% last year.

INTRODUCTION

In the spring of 2017, NTCA–The Rural Broadband Association surveyed its members on their activities in the areas of providing broadband services and internet availability to their members/customers. NTCA is a national association representing nearly 850 rural rate-of-return regulated operating company telecommunications providers in 45 states. All NTCA members are small carriers that are “rural telephone companies” as defined in the Communications Act of 1934, as amended by the Telecommunications Act of 1996. Only four NTCA member study areas comprise 40,000 lines or more; the largest is just over 58,000. Population density in most member service areas is generally in the 1 to 5 customers per square mile range.

This latest broadband survey is a follow-up to similar surveys conducted in recent years by NTCA, and seeks to build upon the results of those surveys.² This year’s survey asked about technologies used to provide broadband service, broadband availability and subscription rates, prices charged, quantity and type of competition, broadband marketing

² Copies of this and previous NTCA survey reports may be downloaded from the NTCA web site, www.ntca.org/survey-reports/survey-reports.html.

efforts, fiber deployment, emerging technologies, internet backbone connections, finance and availability of capital. The survey also provided an opportunity for respondents to provide any specific comments they wished to share.

OVERVIEW OF SURVEY

The 2016 NTCA Broadband/Internet Availability Survey was conducted online. Every effort was made to minimize the reporting burden on the survey respondents.

The survey was composed of general questions about the respondents' current operations, competition/marketing and current and planned fiber deployment. Additional questions dealt with the internet backbone, voice over internet protocol (VoIP) and video. The survey also provided an opportunity for respondents to offer any miscellaneous thoughts.

SURVEY RESULTS

The survey URL for each part of the survey was distributed via email to all member companies in NTCA's email database. The message contained instructions for online access to the survey. Responses were received from 172 member companies, a 29% response rate.³

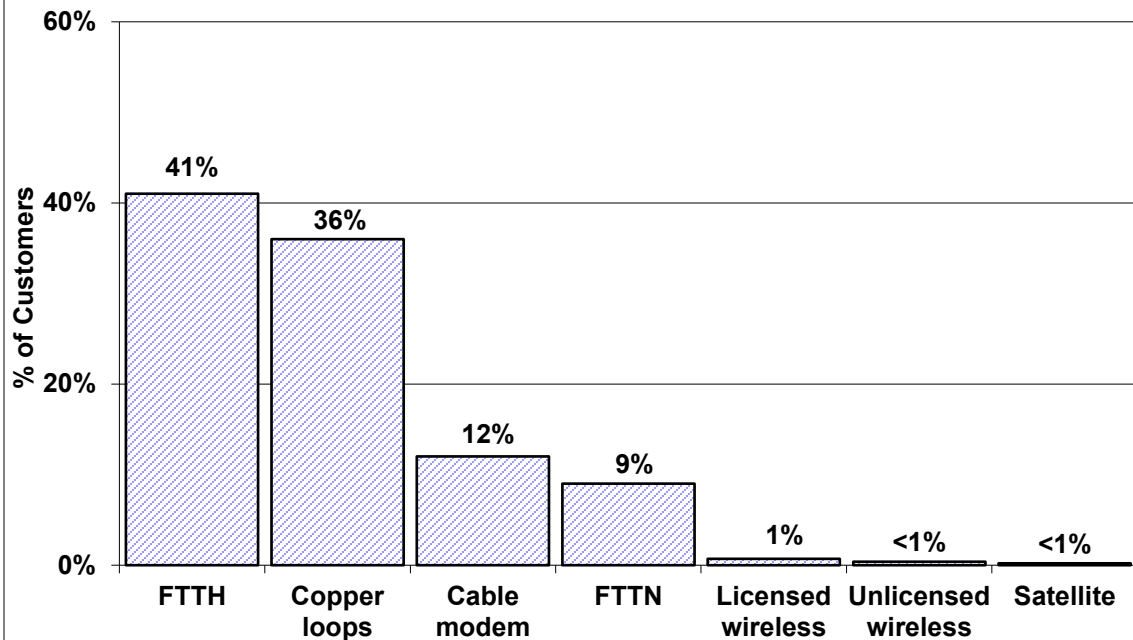
Fifty-seven percent of survey respondents' service areas are 500 square miles or larger; 25% are at least 2,000 square miles. Half—51%—have customer densities in their service area of 10 residential customers per square mile or less. More than one-fifth—22%—have customer densities of two residential customers per square mile or less.

The average survey respondent serves 4,723 residential and 1,463 business voice grade access lines; a few larger companies skew these numbers upward, hence the median respondent serves 2,227 residential and 611 business lines. One hundred percent of survey respondents offer broadband service to some part of their customer base.⁴ Respondents indicated that they use a variety of technologies, even within individual serving areas, to offer at least basic levels of broadband to their customers: 41% of respondents' broadband customers are served via fiber to the home (FTTH), 36% via copper loops, 12% cable modem, 9% fiber to the node (FTTN), 1.1% licensed and unlicensed wireless, and 0.2% satellite. (See Figure 1.)

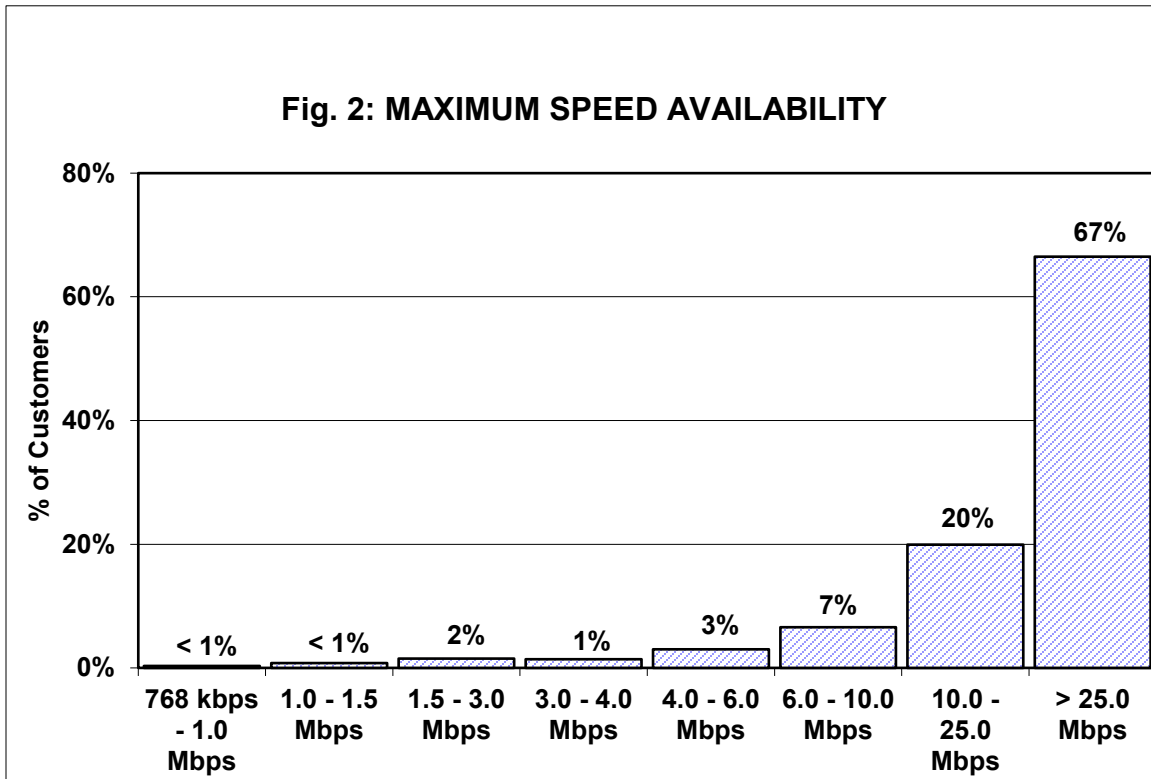
³ Based on the sample size, results of this survey can be assumed to be accurate to within $\pm 6\%$ at the 95% confidence level.

⁴ For the purpose of this survey, broadband is defined as throughput of at least 3 Mbps in one direction.

Fig. 1: BROADBAND CUSTOMERS SERVED BY NETWORK PLATFORM

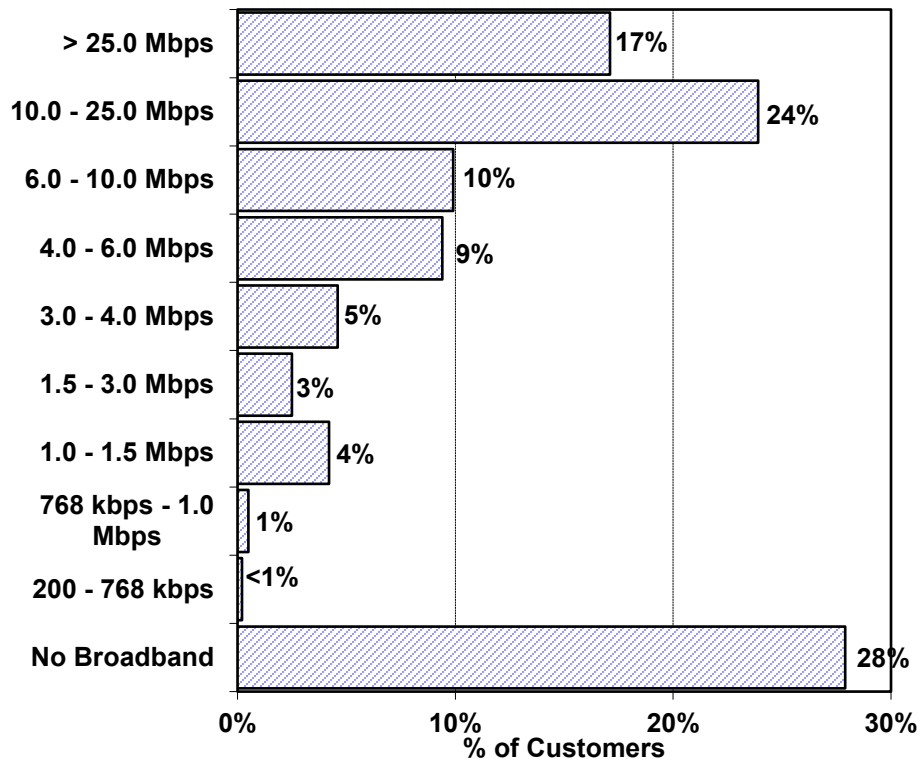


Approximately 0.3% of respondents' customers can subscribe to a maximum speed 768 kbps to 1.0 megabits per second (Mbps) service; 0.8% to 1.0 to 1.5 Mbps; 2% to 1.5 to 3.0 Mbps; 1% to 3.0 to 4.0 Mbps; 3% to 4.0 to 6.0 Mbps; 7% to 6.0 to 10.0 Mbps; 20% to 10.0 to 25.0 Mbps; and 67% to greater than 25 Mbps service. (See Figure 2.)



Survey results indicate an overall broadband take rate from NTCA member companies of 72%, approximately the same as 73% a year ago. By far, the most popular speed tier among survey respondents' broadband subscribers is between 10.0 Mbps and 25.0 Mbps—24% of survey respondents' customers subscribe to this level of service. Next most popular is greater than 25.0 Mbps (17%), followed by 6.0 Mbps to 10.0 Mbps (10%), 4.0 Mbps to 6.0 Mbps (9%), 3.0 to 4.0 Mbps (5%), 1.0 Mbps to 1.5 Mbps (4%), and 1.5 Mbps to 3.0 Mbps (3%) Non-broadband subscribers make up 28% of survey respondents' customer base. (See Fig. 3.)

Fig. 3: BROADBAND TAKE RATES BY SPEED TIER



Typical prices charged range from \$34.95 to \$44.95 for cable modem service, \$29.95 to \$49.95 per month for DSL service, \$39.95 to \$49.95 for wireless broadband service, and \$39.95 to \$59.95 for fiber-based broadband service.

Forty-two percent of survey respondents indicated their customers may purchase so-called “stand-alone DSL”—broadband service without a voice component. Take rates for stand-alone DSL service are relatively low, however, with the majority of those respondents offering stand-alone DSL reporting take rates of 10% or less, although some have take rates between 15 and 25%.

Twenty-seven percent of respondents estimate that they could bring all of their customers currently receiving service below 25 Mbps up to that speed for between \$1 million and \$10 million in additional capital investment. An additional 27% could do so for between \$20 million and \$50 million, 21% at a cost of \$10 to \$20 million, 18% for \$1 million or less, and 7% estimate the total cost would be more than \$50 million.

Survey respondents provide critically important broadband service to anchor institutions in their communities. The median respondent serves four public service entities (police,

fire, etc.); three primary/secondary schools; one public library; one hospital or medical clinic; as well as 911 call centers, post offices and city halls.

Fiber Deployment

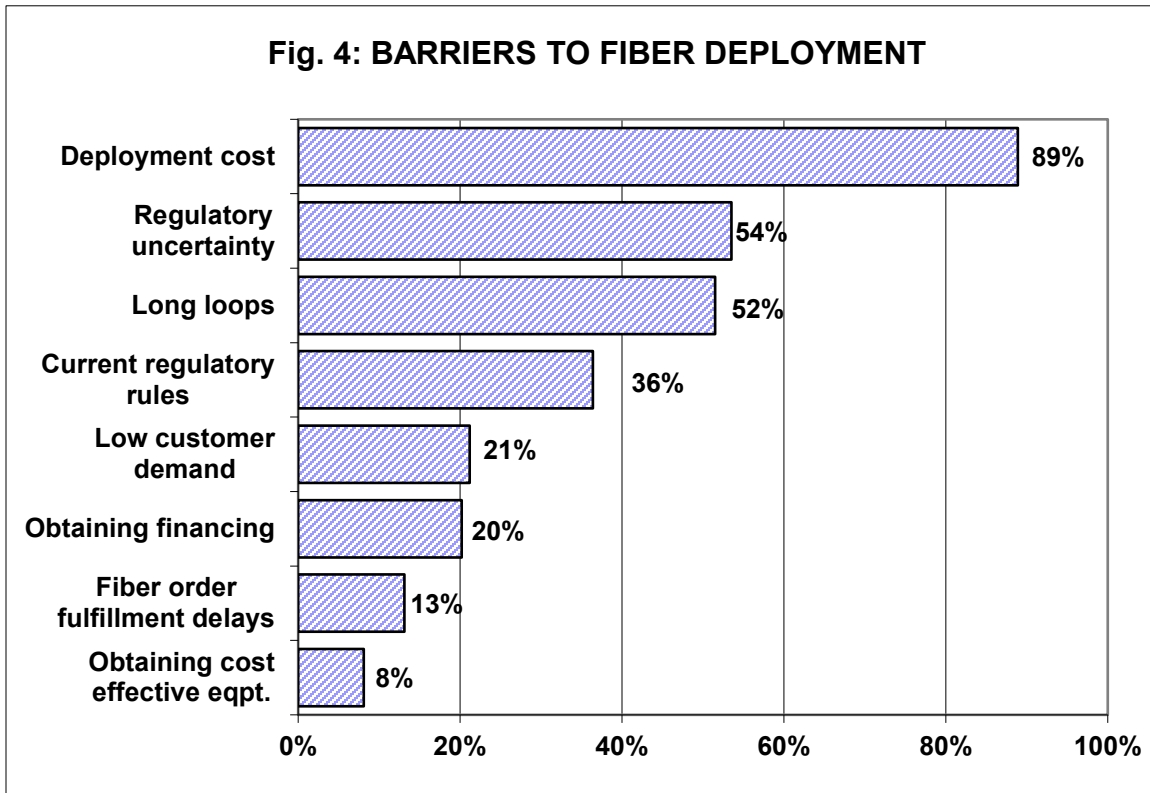
Fifty-two percent of those survey respondents currently deploying fiber serve at least 50% of their customers using fiber to the home (down from 55% last year), while 24% serve 20% of their customer base or less with fiber to the home (FTTH) technology (down from 26%.)

Survey respondents described their companies' plans to deploy fiber to the node (FTTN) and/or FTTH to their customers. Eighty-two percent of survey respondents indicated that they have a long-term fiber deployment strategy. Thirty-nine percent of those survey respondents with a fiber deployment strategy expect to offer fiber to the node to more than 75% of their customers by the end of 2019. Sixty-six percent of respondents expect to be able to provide FTTH to at least half of their customers by year-end 2019. An additional 31% have already completed fiber deployment to all of their customers.

Eighty-nine percent of survey respondents identified the cost of fiber deployment as a significant barrier to widespread deployment. Regulatory uncertainty was the number two barrier (54%, down from 79% last year), followed by long loops (52%), current regulatory rules (36%, down from 56%), obtaining financing (20%), low customer demand (21%), fiber order fulfillment delays (13%) and obtaining cost-effective equipment (8%).⁵ (See Figure 4.)

⁵ Totals exceed 100% as respondents were allowed to select more than one barrier.

Fig. 4: BARRIERS TO FIBER DEPLOYMENT



Internet Backbone

Survey respondents are, on average, 68 miles from their primary internet connection; the median distance is 38 miles. Eighty-eight percent of those respondents who recently switched internet backbone access providers did so for price reasons, while 25% switched due to quality of service concerns and 25% for other reasons, such as the ability to add redundant routes.⁶ Seventy-three percent of respondents indicated they are generally satisfied with their current backbone access provider, while 27% are generally dissatisfied. Fifty-five percent of all survey respondents expect to need additional backbone capacity in one year or less.

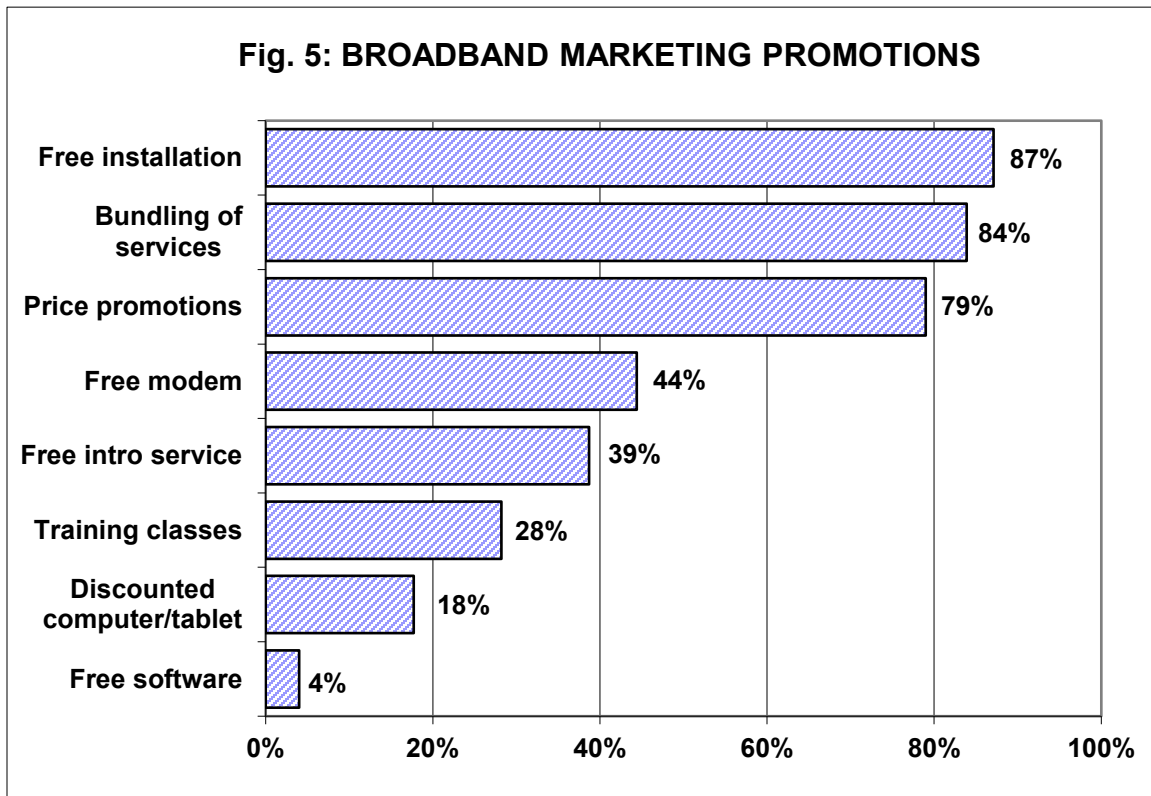
Competition/Marketing

Virtually all survey respondents indicated that they face competition from at least one other service provider in some portion of their service area. Survey respondents typically compete with national ISPs, fixed and/or mobile wireless internet service providers

⁶ Totals exceed 100% as respondents were allowed to select more than one reason for switching providers.

(WISPs) and satellite broadband providers. Other potential competitors include cable companies, electric utilities, local ISPs and neighboring cooperatives.

Rural incumbent local exchange carriers are taking numerous steps in the marketing arena to increase broadband take rates. Eighty-seven percent are offering free installation, 84% are bundling services, 79% are offering price promotions, 44% are offering free modems, 39% are offering free service for an introductory time period (such as 30 days), 28% are offering free education/training classes, 18% are offering discounted computers or tablets, and 4% are offering free software.⁷ (See Figure 5.) Respondents consider their price promotions, bundling of services, and free installation to be their most effective marketing promotions.



⁷ Totals exceed 100% as respondents' companies may be offering more than one marketing promotion.

Other Services

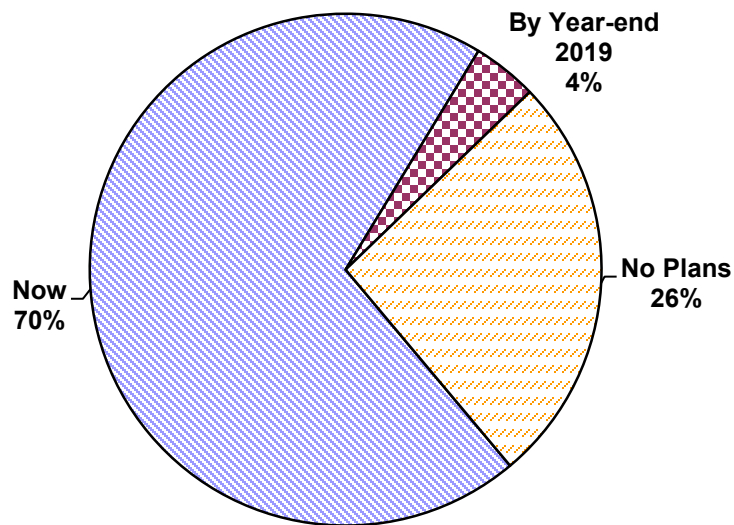
- **VoIP**

Thirty-three percent of survey respondents currently offer VoIP service to their customers, up slightly from 31% one year ago. Forty-seven percent of those respondents not currently offering VoIP have plans to do so in the foreseeable future, up from 38% last year.

- **Video**

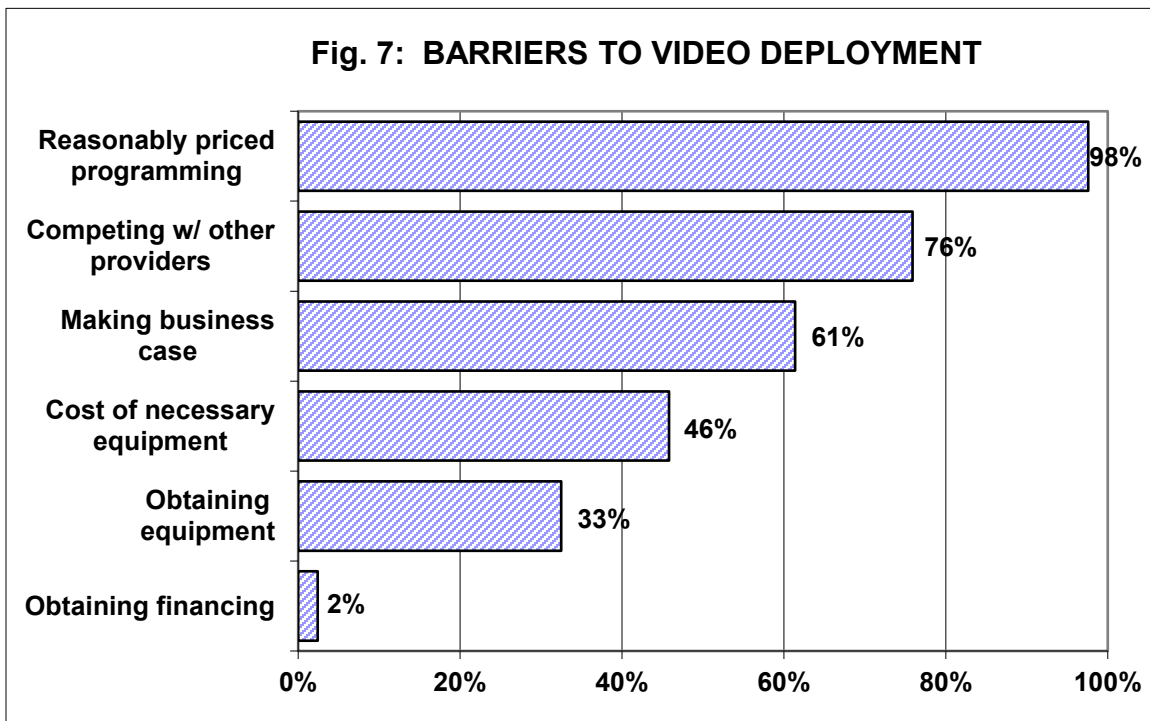
Seventy percent of survey respondents offer video service to their customers. Fourteen percent of those respondents not currently offering video (4% of all respondents) plan to do so by year-end 2019. The remaining 86% of those not currently offering video (26% of all respondents) currently have no plans to offer video service. (See Figure 6.) Seventy-eight percent of those planning a future video offering intend to offer internet protocol television (IPTV) service in the foreseeable future.

Fig. 6: OFFERING VIDEO SERVICE?



Of those respondents currently offering video services, 86% offer IPTV, and 51% offer legacy coax (CATV) service.⁸ Twenty-nine percent of those providing CATV service use an analog system, while 71% use a digital system. The average respondent offers their customers three “tiers” of entertainment television packages from which to choose, unchanged from last year. Seventy-eight percent of the customers of those survey respondents offering video are able to watch programming on multiple devices, both inside and outside their home (i.e., “TV everywhere”), about the same as last year.

The main barrier facing those survey respondents providing video service is access to reasonably priced programming, as cited by 98% of survey respondents. Seventy-six percent cited difficulty competing with other providers, 61% the challenge of making a business case for video service, 46% the cost of necessary equipment, 33% difficulty obtaining necessary equipment, and 2% difficulty obtaining necessary financing.⁹ (See Fig. 7.)



⁸ Totals exceed 100% as respondents may offer more than one type of video service.

⁹ Totals exceed 100% as respondents may be facing more than one barrier.

Miscellaneous

Survey respondents were asked what specific obstacles they have encountered in their efforts to deploy fiber to their customers, and how conditions would need to change to allow them to successfully overcome those obstacles. Their responses are presented in Appendix A of this report.

CONCLUSIONS

Respondents' customers are subscribing to faster broadband speeds. While the overall broadband take rate is generally the same (72% this year versus 73% last year), subscribers are moving up to higher speeds. This year, 17% of respondents' customers subscribed to broadband service in excess of 25 Mbps, versus 8% a year ago. Sixty percent subscribe to service of 4 Mbps or greater, versus 55% a year ago. And only 12% subscribe to service between 1 and 4 Mbps, versus 16%. Consumers are moving up the broadband speed chain; providers need to be prepared to offer them the level of service they demand.

While concerns about regulatory uncertainty have eased somewhat, they remain substantial. Fifty-four percent of survey respondents cited regulatory uncertainty as a significant barrier to broadband deployment, down from 79% in last year's survey. This is at least partially a result of steps taken by the FCC to attempt to ease the uncertainty. However, recent events have shown that small, rural providers are still subject to unforeseen and drastic changes to their support levels—clearly, much more remains to be done.

The pursuit of reasonably-priced video programming remains a nearly-universal struggle. Virtually all survey respondents offering video—98%—cited their ability to access affordably-priced programming as a significant impediment to their ongoing video operations. Unless this issue can be adequately addressed in the very near-term future, the ability of these providers to offer their customers high-quality, reasonably-priced video service will be seriously challenged.

Survey respondents provide critically important broadband service to community anchor institutions. These small providers serve public service entities (such as police and fire), primary and secondary schools, public libraries, hospitals and medical clinics, and numerous other important anchor institutions. In so doing, they make significant contributions to the safety, health and overall well-being of their customers. Their service helps facilitate the overall viability of rural America.

APPENDIX A

Q: What specific obstacles have you encountered in your efforts to deploy fiber to your customers, and how would conditions need to change to allow you to successfully overcome these obstacles?

New financial dynamics (viability) given new regulatory environment.

Cost of construction, regulatory environment

If grants were available to help with cost we would deploy fiber.

Cost of construction. We are ACAM so we are spending there, but without it we would have to have a business case and that is difficult in our very rural areas.

Less regulatory constraints.

Have been 100% FTTH since 2011. Very expensive to construct and operate, but delivers the bandwidth for future services.

We have completed fiber to all customers, trying to recover the build out costs, will take time, due to increasing expense cost to provide all services.

Length of subscriber loops and cost of fiber deployment.

Cost for deployment and customers don't want to pay more for higher speeds

Large service area. Lot of money to extend our fiber plant.

Reduced USF

It is expensive. Doing it in the rural area (2 customers/mile) has no hope on return on investment.

Some customers just don't want it because they feel a cell phone is enough

Cost and financing.

Once fiber is deployed, the cost of the customer premise equipment per location.

I have deployed 100% but construction costs are the biggest obstacle to deploying fiber. Increased penetration will justify costs eventually.



Time and money is issue. Selected ACAM and working to meet obligations and offer better service.

Rate of Return rules and FCC Obstacles

Reduction in support dollars due to fiber penetration. Broadband only support not realistic. Reduction in HCLS dollars.

Obtaining sufficient and sustainable cost recovery. You need the right people who support the availability of a wired network for the benefit of Rural Consumers.

I would like the FCC to stop chipping away at my recovery. Get more money in the USF budget to fund this. My other issue is pricing standalone broadband competitively and still being able to maximize recovery/profit.

The only way to deploy fiber in rural areas is to have some level of support for cost recovery.

We are a high cost area dependent on support for infrastructure build, at the time we need the support the most it has been reduced due to inaccurate data and insufficient challenge process giving no consideration for carriers in areas with COLR obligations as well as lack of choices for the rural consumer

Money, money, money. Shorter loops or un-capped USF programs.

Cost. Long loops.

Cost, Long Loops, Time to install

Money and time

Price barriers. Customers not interested in paying higher prices for fiber rate plans with greater speeds. Copper lines provide speeds with affordable plans.

High construction costs. TVA Electric Cooperatives have very high pole attachment rates and there needs to be some way for these costs to come down to reasonable levels.

Terrain adds to costs. Budget Control Mechanisms contained in the USF reforms have cut the amount of capital we have for fiber builds. These budget controls should be removed and the FCC should full fund the program to meet the demand of rural consumers and ensure they have services that are comparable and as affordable as urban Americans.

Money

Costs due to population density and number of subscribers

We have nearly 100% build out but financing was an issue. We received stimulus funds in the form of a grant and a loan. Without financial help, it wouldn't have been possible.

Financial cost to deploy

Not having the capital resources to deploy. However, the recent FCC A-CAM Model-based support will help us deploy fiber from 65% - 75% of our customer service base over 10 years. Would like to see the FCC extended the Model-based program to allow companies to be able to reach 100% of their customer service base.

We have built the lease expensive customers. Now faced by longer loop costs. Limited by FCC per location limit and effect of budget control mechanism

The cost of construction, conversion costs, and the cost of additional equipment.

We average 1/2 customer per square mile with extremely rough and rocky terrain. Cost of construction is prohibitive.

The sparse population in our service area when compared to the cost of deployment does not give us a business plan to do it. The regulatory environment would needs to change to cover those cost either through some mechanism.

Long loops.

We are 100% deployed

1. Difficult terrain 2. Existing utility congestion within easements. Changes needed: We need regulatory certainty that if one borrows money to complete the fiber build out, the support needed to repay that debt will not be taken away.

Regulatory uncertainty and cost recovery over time. Took the chance anyway, \$10M for 973 customers for FTTH

Overall cost of the build and decreasing support dollars to pay back loans for that buildout

None



Having the cash flow to continue our phases of constructing and deploying FTTH. USF or any other support mechanism.

None

Increasing broadband adoption rates would help us (figuring out if it is on-line literacy, computer equipment in the home, or other factors that would increase take-rates)

Take rate and need for affordable financing options are our largest obstacles. Cost. Additionally, as long as broadband only support remains broken we will continue to be unable to compete with encroaching cable companies like Time Warner/Spectrum.

Sufficient cost recovery is the biggest obstacle.

Rights of way is becoming harder to obtain.

Availability of fiber, cost, overcoming regulatory obstacles to serve other areas
petitioning for fiber

D. Construction Quotes

1. Aerial & Buried Cable Installation

Bid Tabulation Sheet

Units	Quantity	Labor	Material	Unit Price	Total
BDO 288 P		\$ -	\$ -	\$ -	\$ -
BDO 576 P	1	\$ 1,000.00	\$ 13,350.00	\$ 14,350.00	\$ 14,350.00
BFO 144	1,000	\$ 0.35	\$ 0.98	\$ 1.33	\$ 1,330.00
BFO 144 COIL	250	\$ 0.35	\$ 0.98	\$ 1.33	\$ 332.50
BFO 144 I	500	\$ 0.70	\$ 0.98	\$ 1.68	\$ 840.00
BFO 24	250	\$ 0.35	\$ 0.31	\$ 0.66	\$ 165.00
BFO 24 COIL	400	\$ 0.35	\$ 0.31	\$ 0.66	\$ 264.00
BFO 24 I	2,350	\$ 0.70	\$ 0.31	\$ 1.01	\$ 2,373.50
BFO 288	250	\$ 0.35	\$ 1.66	\$ 2.01	\$ 502.50
BFO 288 COIL	100	\$ 0.35	\$ 1.66	\$ 2.01	\$ 201.00
BFO 288 I	1,475	\$ 0.70	\$ 1.66	\$ 2.36	\$ 3,481.00
BFO 48		\$ -	\$ -	\$ -	\$ -
BFO 48 COIL		\$ -	\$ -	\$ -	\$ -
BFO 48 I		\$ -	\$ -	\$ -	\$ -
BFO 96		\$ -	\$ -	\$ -	\$ -
BFO 96 COIL	50	\$ 0.35	\$ 0.69	\$ 1.04	\$ 52.00
BFO 96 I	450	\$ 0.70	\$ 0.69	\$ 1.39	\$ 625.50
BFO96		\$ -	\$ -	\$ -	\$ -
BHF(24X36X30)T	8	\$ 400.00	\$ 600.00	\$ 1,000.00	\$ 8,000.00
BHF(36X24X30)T		\$ -	\$ -	\$ -	\$ -
BHF(48X30X36)T		\$ -	\$ -	\$ -	\$ -
BM2(1/2)(5)	9	\$ 50.00	\$ 14.00	\$ 64.00	\$ 576.00
BM2A	12	\$ 50.00	\$ 13.00	\$ 63.00	\$ 756.00
BM2E	2,350	\$ 0.25	\$ 0.15	\$ 0.40	\$ 940.00
BM53F	10	\$ 50.00	\$ 25.00	\$ 75.00	\$ 750.00
BM55F	8	\$ 100.00	\$ 78.00	\$ 178.00	\$ 1,424.00
BM60 (1.25) X (2)		\$ -	\$ -	\$ -	\$ -
BM60 (1.25) X (3)	50	\$ 10.00	\$ 1.50	\$ 11.50	\$ 575.00
BM60 (1.25) X (4)		\$ -	\$ -	\$ -	\$ -
BM60(1.25)	4,350	\$ 8.00	\$ 0.50	\$ 8.50	\$ 36,975.00
BM60(1.25)D		\$ -	\$ -	\$ -	\$ -
BM71	1,100	\$ 14.00	\$ -	\$ 14.00	\$ 15,400.00
BM81	15	\$ 50.00	\$ 11.00	\$ 61.00	\$ 915.00
BM82	1	\$ 50.00	\$ 12.50	\$ 62.50	\$ 62.50
CFO 144	12,000	\$ 0.60	\$ 1.32	\$ 1.92	\$ 23,040.00
CFO 144 COIL	2,000	\$ 0.60	\$ 1.10	\$ 1.70	\$ 3,400.00
CFO 24	5,700	\$ 0.60	\$ 0.58	\$ 1.18	\$ 6,726.00
CFO 24 COIL	1,750	\$ 0.60	\$ 0.34	\$ 0.94	\$ 1,645.00
CFO 288	9,650	\$ 0.60	\$ 2.62	\$ 3.22	\$ 31,073.00
CFO 288 COIL	950	\$ 0.60	\$ 2.38	\$ 2.98	\$ 2,831.00
CFO 48	3,000	\$ 0.60	\$ 0.70	\$ 1.30	\$ 3,900.00

CFO 48 (6M)	1,000	\$ 1.52	\$ 1.04	\$ 2.56	\$ 2,560.00
CFO 48 COIL	950	\$ 0.60	\$ 0.46	\$ 1.06	\$ 1,007.00
CFO 6	1,500	\$ 0.60	\$ 0.55	\$ 1.15	\$ 1,725.00
CFO 6 COIL	250	\$ 0.60	\$ 0.31	\$ 0.91	\$ 227.50
CFO 96	4,200	\$ 0.60	\$ 0.99	\$ 1.59	\$ 6,678.00
CFO 96 COIL	750	\$ 0.60	\$ 0.75	\$ 1.35	\$ 1,012.50
CO 144 COIL	0	\$ -	\$ -	\$ -	\$ -
CO 288 COIL	0	\$ -	\$ -	\$ -	\$ -
CO 96 COIL	0	\$ -	\$ -	\$ -	\$ -
HACO (6)	3	\$ 185.00	\$ 315.00	\$ 500.00	\$ 1,500.00
HACO(144)	14	\$ 425.00	\$ 420.00	\$ 845.00	\$ 11,830.00
HACO(24)	10	\$ 215.00	\$ 315.00	\$ 530.00	\$ 5,300.00
HACO(288)	5	\$ 625.00	\$ 575.00	\$ 1,200.00	\$ 6,000.00
HACO(48)	3	\$ 285.00	\$ 335.00	\$ 620.00	\$ 1,860.00
HACO(96)	3	\$ 355.00	\$ 380.00	\$ 735.00	\$ 2,205.00
HBFO (12)		\$ -	\$ -	\$ -	\$ -
HBFO(144)	2	\$ 425.00	\$ 550.00	\$ 975.00	\$ 1,950.00
HBFO(24)	5	\$ 215.00	\$ 465.00	\$ 680.00	\$ 3,400.00
HBFO(288)	2	\$ 625.00	\$ 660.00	\$ 1,285.00	\$ 2,570.00
HBFO(48)		\$ -	\$ -	\$ -	\$ -
HBFO(96)	2	\$ 355.00	\$ 610.00	\$ 965.00	\$ 1,930.00
HO1	2,150	\$ 18.50	\$ 0.18	\$ 18.68	\$ 40,162.00
NPE1-2G	70	\$ 65.00	\$ 45.00	\$ 110.00	\$ 7,700.00
NPE2-2G	10	\$ 100.00	\$ 60.00	\$ 160.00	\$ 1,600.00
PF3-3	20	\$ 150.00	\$ 30.00	\$ 180.00	\$ 3,600.00
PM (AUX)	60	\$ 13.00	\$ 11.00	\$ 24.00	\$ 1,440.00
PM11	80	\$ 3.30	\$ 3.45	\$ 6.75	\$ 540.00
PM52	75	\$ 3.30	\$ 3.00	\$ 6.30	\$ 472.50
PM69	75	\$ 75.00	\$ 28.00	\$ 103.00	\$ 7,725.00

Total Project Cost \$ 278,500.00

\$91,229.89 Estimate Buried Cost
 \$172,920.11 Estimated Aerial Cost
 \$76,763.95 Estimated Buried Cost per Mile
 \$24,642.87 Estimated Aerial Cost per Mile

Bid Tabulation Sheet

UNITS	QUANTITY	LABOR	MATERIALS	UNIT PRICE	TOTAL
BDO 288 P	1	\$550.00	\$7,500.00	\$8,050.00	\$8,050.00
BFO 144	24	\$0.65	\$0.88	\$1.53	\$36.72
BFO 144 COIL	30	\$0.65	\$0.88	\$1.53	\$45.90
BFO 144 I	410	\$0.70	\$0.91	\$1.61	\$660.10
BFO 24	24	\$0.65	\$0.30	\$0.95	\$22.80
BFO 24 COIL	30	\$0.65	\$0.30	\$0.95	\$28.50
BFO 24 I	455	\$0.70	\$0.32	\$1.02	\$464.10
BFO 288 COIL	850	\$0.65	\$1.50	\$2.15	\$1,827.50
BFO 288 I	10,300	\$0.70	\$1.53	\$2.23	\$22,969.00
BFO 48	24	\$0.65	\$0.39	\$1.04	\$24.96
BFO 48 COIL	30	\$0.65	\$0.39	\$1.04	\$31.20
BFO 48 I	250	\$0.70	\$0.42	\$1.12	\$280.00
BFO 96	48	\$0.65	\$0.65	\$1.30	\$62.40
BFO 96 COIL	470	\$0.65	\$0.65	\$1.30	\$611.00
BFO 96 I	565	\$0.70	\$0.68	\$1.38	\$779.70
BHF(36X24X30)T	10	\$600.00	\$550.00	\$1,150.00	\$11,500.00
BM2(1/2)(5)	11	\$25.00	\$16.00	\$41.00	\$451.00
BM2A	5	\$2.00	\$1.00	\$3.00	\$15.00
BM2E	1,270	\$0.30	\$0.18	\$0.48	\$609.60
BM53F	19	\$25.00	\$55.00	\$80.00	\$1,520.00
BM60(1.25)	12,500	\$7.50	\$0.43	\$7.93	\$99,125.00
BM81	5	\$10.00	\$12.00	\$22.00	\$110.00
BM 71	2,420	\$10.00		\$10.00	\$24,200.00
CFO 144	540	\$1.32	\$1.00	\$2.32	\$1,252.80
CFO 144 COIL	310	\$1.32	\$1.03	\$2.35	\$728.50
CFO 24	5,340	\$1.32	\$0.34	\$1.66	\$8,864.40
CFO 24 COIL	1,230	\$1.32	\$0.38	\$1.70	\$2,091.00
CFO 48	1,670	\$1.32	\$0.45	\$1.77	\$2,955.90
CFO 48 COIL	510	\$1.32	\$0.50	\$1.82	\$928.20
CFO 96	10,480	\$1.32	\$0.70	\$2.02	\$21,169.60
CFO 96 (6.6M)	650	\$1.62	\$0.95	\$2.57	\$1,670.50
CFO 96 COIL	2,450	\$1.32	\$0.75	\$2.07	\$5,071.50
HACO(144)	1	\$210.00	\$400.00	\$610.00	\$610.00
HACO(24)	8	\$210.00	\$225.00	\$435.00	\$3,480.00
HACO(288)	5	\$210.00	\$400.00	\$610.00	\$3,050.00
HACO(48)	3	\$210.00	\$225.00	\$435.00	\$1,305.00
HACO(96)	12	\$210.00	\$225.00	\$435.00	\$5,220.00
HBFO(24)	1	\$210.00	\$225.00	\$435.00	\$435.00
HO1	750	\$16.00	\$0.25	\$16.25	\$12,187.50
NPE1-2G	56	\$45.00	\$45.50	\$90.50	\$5,068.00
NPE2-2G	12	\$55.00	\$48.00	\$103.00	\$1,236.00
PF3-3	7	\$185.00	\$23.00	\$208.00	\$1,456.00

PM (AUX)	50	\$22.00	\$16.00	\$38.00	\$1,900.00
PM11	55	\$10.00	\$4.00	\$14.00	\$770.00
PM52	49	\$10.00	\$2.00	\$12.00	\$588.00
PM69	46	\$40.00	\$11.00	\$51.00	\$2,346.00
Total Bid					\$257,808.38

\$170,490.54 Estimate Buried Cost

\$79,157.84 Estimated Aerial Cost

\$74,395.87 Estimated Buried Cost per Mile

\$22,374.38 Estimated Aerial Cost per Mile

Bid Tabulation Sheet

Units	Quantity	Labor	Material	Unit Price	Total
BFO 288	500	\$ 0.45	\$ 1.74	\$ 2.19	\$ 1,095.00
BFO 288 COIL	1,100	\$ 0.15	\$ 1.64	\$ 1.79	\$ 1,969.00
BFO 288 I	14,200	\$ 0.45	\$ 1.74	\$ 2.19	\$ 31,098.00
BHF(36X24X30)T	12	\$ 400.00	\$ 580.00	\$ 980.00	\$ 11,760.00
BHF(48X30X36)T	2	\$ 450.00	\$ 770.00	\$ 1,220.00	\$ 2,440.00
BM71	2,750	\$ 10.00	\$ -	\$ 10.00	\$ 27,500.00
BM 81	14	\$ 10.00	\$ 12.00	\$ 22.00	\$ 308.00
BM2(1/2)(5)	14	\$ 15.00	\$ 23.10	\$ 38.10	\$ 533.40
BM60 (3) (1.25)	3,000	\$ 7.75	\$ 1.29	\$ 9.04	\$ 27,120.00
BM60(1.25)	8,000	\$ 7.50	\$ 0.43	\$ 7.93	\$ 63,440.00
CFO 288	19,000	\$ 0.70	\$ 3.17	\$ 3.87	\$ 73,530.00
CFO 288 COIL	2,750	\$ 0.05	\$ 3.17	\$ 3.22	\$ 8,855.00
CO 288 (6.6M EHS)	138,550	\$ 0.70	\$ 2.14	\$ 2.84	\$ 393,482.00
CO 288 E	9,975	\$ 0.70	\$ 2.14	\$ 2.84	\$ 28,329.00
CO 288 COIL	9,575	\$ 0.05	\$ 1.64	\$ 1.69	\$ 16,181.75
HACO(288)	4	\$ 210.00	\$ 400.00	\$ 610.00	\$ 2,440.00
HBFO(288)	2	\$ 210.00	\$ 376.00	\$ 586.00	\$ 1,172.00
HO1	2,088	\$ 16.00	\$ 0.10	\$ 16.10	\$ 33,616.80
NPE1-2G	80	\$ 45.00	\$ 45.15	\$ 90.15	\$ 7,212.00
NPE2-2G	20	\$ 55.00	\$ 48.00	\$ 103.00	\$ 2,060.00
PF3-3	100	\$ 40.00	\$ 22.65	\$ 62.65	\$ 6,265.00
PM 11	100	\$ 10.00	\$ 4.00	\$ 14.00	\$ 1,400.00
PM 52	200	\$ 2.00	\$ 1.00	\$ 3.00	\$ 600.00
PM 69	150	\$ 35.00	\$ 11.00	\$ 46.00	\$ 6,900.00
WBHF	1	\$ 400.00	\$ 20.00	\$ 420.00	\$ 420.00
WHBFO	1	\$ 210.00	\$ 20.00	\$ 230.00	\$ 230.00
XXBHF(36X24X30)T	2	\$ 400.00	\$ 40.00	\$ 440.00	\$ 880.00

Total Project Cost \$ 750,836.95

\$172,526.29 Estimate Buried Cost

\$578,310.66 Estimated Aerial Cost

\$61,968.63 Estimated Buried Cost per Mile

\$19,381.02 Estimated Aerial Cost per Mile

D. Construction Quotes

2. Aerial & Buried Drop Installation

Aerial & Buried Drop Installation

Units	Quantity	Labor	Material	Unit Price	Total
BM2E	500	\$ 7.80	\$ 0.20	\$ 8.00	\$ 4,000.00
BM61	250	\$ 10.00	\$ -	\$ 10.00	\$ 2,500.00
BM71	250	\$ 14.00	\$ -	\$ 14.00	\$ 3,500.00
BM 80	10	\$ 50.00	\$ 10.00	\$ 60.00	\$ 600.00
BM 83	48	\$ 11.70	\$ 2.40	\$ 14.10	\$ 676.80
HO-1	146	\$ 49.70	\$ 0.30	\$ 50.00	\$ 7,300.00
NID	98	\$ 30.00	\$ 70.00	\$ 100.00	\$ 9,800.00
NID4BM2	48	\$ 40.00	\$ 90.00	\$ 130.00	\$ 6,240.00
SEBP-100	2	\$ 270.00		\$ 270.00	\$ 540.00
SEBP-150	4	\$ 290.00		\$ 290.00	\$ 1,160.00
SEBP-200	3	\$ 320.00		\$ 320.00	\$ 960.00
SEBP-250	2	\$ 340.00		\$ 340.00	\$ 680.00
SEBP-300	2	\$ 390.00		\$ 390.00	\$ 780.00
SEBP-400	2	\$ 440.00		\$ 440.00	\$ 880.00
SEBP-500	2	\$ 475.00		\$ 475.00	\$ 950.00
SEBP-750	2	\$ 510.00		\$ 510.00	\$ 1,020.00
SEBP-1000	2	\$ 550.00		\$ 550.00	\$ 1,100.00
SEAP-100	37	\$ 120.00		\$ 120.00	\$ 4,440.00
SEAP-150	15	\$ 140.00		\$ 140.00	\$ 2,100.00
SEAP-200	15	\$ 170.00		\$ 170.00	\$ 2,550.00
SEAP-250	5	\$ 190.00		\$ 190.00	\$ 950.00
SEAP-300	5	\$ 220.00		\$ 220.00	\$ 1,100.00
SEAP-400	5	\$ 275.00		\$ 275.00	\$ 1,375.00
SEAP-500	5	\$ 325.00		\$ 325.00	\$ 1,625.00
SEAP-750	5	\$ 430.00		\$ 430.00	\$ 2,150.00
SEAP-1000	5	\$ 500.00		\$ 500.00	\$ 2,500.00
SEABP-100	3	\$ 120.00		\$ 120.00	\$ 360.00
SEABP-150	3	\$ 140.00		\$ 140.00	\$ 420.00
SEABP-200	3	\$ 170.00		\$ 170.00	\$ 510.00
SEABP-250	3	\$ 190.00		\$ 190.00	\$ 570.00
SEABP-300	3	\$ 220.00		\$ 220.00	\$ 660.00
SEABP-400	3	\$ 275.00		\$ 275.00	\$ 825.00
SEABP-500	3	\$ 325.00		\$ 325.00	\$ 975.00
SEABP-750	3	\$ 430.00		\$ 430.00	\$ 1,290.00
SEABP-1000	3	\$ 500.00		\$ 500.00	\$ 1,500.00
		\$ -	\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -	\$ -

Total Project Cost \$ 68,586.80

E. Cable Material Pricing

1. Buried & ADSS Fiber Cable Material Quotes

Buried Fiber Cable RFP Summary

Quantity	Description	Cable Strand Size	Company A Unit Cost	Company A Total Cost	Company A Cable Type	Company B Unit Cost	Company B Total Cost	Company B Cable Type	Company C Unit Cost	Company C Total Cost	Company C Cable Type	Company D Unit Cost	Company D Total Cost	Company D Cable Type	Company E Unit Cost	Company E Total Cost	Company E Cable Type
1768800	Single armor, single PE jacket, dielectric central member, zero water pek-low water peak, 0.35/0.25 db/km 1310/1550nm, dry core, gel filled buffer tubes, RUS Buy American standards	24	0.2810	\$497,032.80	5	0.30922	\$546,948.34	13	0.27547	\$487,251.34	5	0.3040	\$537,715.20	9	0.29022	\$513,341.14	1
528000	Single armor, single PE jacket, dielectric central member, zero water pek-low water peak, 0.35/0.25 db/km 1310/1550nm, dry core, gel filled buffer tubes, RUS Buy American standards	48	0.3764	\$198,739.20	6	0.40396	\$213,290.88	14	0.36901	\$194,837.28	6	0.3930	\$207,504.00	10	0.39075	\$206,316.00	2
396000	Single armor, single PE jacket, dielectric central member, zero water pek-low water peak, 0.35/0.25 db/km 1310/1550nm, dry core, gel filled buffer tubes, RUS Buy American standards	96	0.6460	\$255,816.00	7	0.72000	\$285,120.00	15	0.63294	\$250,644.24	7	0.6170	\$244,392.00	11	0.68290	\$270,428.40	3
79200	Single armor, single PE jacket, dielectric central member, zero water pek-low water peak, 0.35/0.25 db/km 1310/1550nm, dry core, gel filled buffer tubes, RUS Buy American standards	144	0.9366	\$74,178.72	8	1.02543	\$81,214.06	16	0.91825	\$72,725.40	8	0.9090	\$71,992.80	12	0.97957	\$77,581.94	4
Total Bid				\$1,025,766.72			\$1,126,573.27			\$1,005,458.26			\$1,061,544.00			\$1,067,667.48	

Shipping Notes

Delivery Time Frame

12 weeks

34 weeks - negotiable

5-6 weeks

6-8 weeks

Per call with David R., shipping free if over \$30k

Footnote Cable Type			
1	OFS light armor, single PE jacket, single armor, dielectric central member, ALL-WAVE-SM .35/25 db/km 1310/1383/1550	AT-3BEH2TT-024	OFS
2	OFS light armor, single PE jacket, single armor, dielectric central member, ALL-WAVE-SM .35/25 db/km 1310/1383/1550	AT-3BEH2TT-048	OFS
3	OFS light armor, single PE jacket, single armor, dielectric central member, ALL-WAVE-SM .35/25 db/km 1310/1383/1550	AT-3BEH2TT-096	OFS
4	OFS light armor, single PE jacket, single armor, dielectric central member, ALL-WAVE-SM .35/25 db/km 1310/1383/1550	AT-3BEH2TT-144	OFS
5	Coming 24fiber Single Mode Armor Gel-filled, ALTOS® LITE# GEL-FILLED CABLE	024euc-14100a20	Corning
6	Coming 48fiber Single Mode Armor Gel-filled, ALTOS® LITE# GEL-FILLED CABLE	048euc-14100a20	Corning
7	Coming 96fiber Single Mode Armor Gel-filled, ALTOS® LITE# GEL-FILLED CABLE	096euc-14100a20	Corning
8	Coming 144fiber Single Mode Armor Gel-filled, ALTOS® LITE# GEL-FILLED CABLE	144euc-14100a20	Corning
9	24 strand, single mode, single armor/single jacket, dry core, with gel filled buffer tubes, RUS approved	4802474EEBSLWN	?
10	48 strand, single mode, single armor/single jacket, dry core, with gel filled buffer tubes, RUS approved	4804874EEBSLWN	?
11	96 strand, single mode, single armor/single jacket, dry core, with gel filled buffer tubes, RUS approved	4809674EEBSLWN	?
12	144 strand, single mode, single armor/single jacket, dry core, with gel filled buffer tubes, RUS approved	4814474EEBSLWN	?
13	8107298/D8 D-024-LA-8W-F12NS	S-OP-24-LA-A-3E-BK	CommScope
14	8107300/D8 D-048-LA-8W-F12NS	S-OP-48-LA-A-3E-BK	CommScope
15	8107303/D8 D-096-LA-8W-F12NS	S-OP-96-LA-A-3E-BK	CommScope
16	8107305/D8 D-144-LA-8W-F12NS	S-OP-144-LA-A-3E-BK	CommScope
17	24 CT singlemode, single jacket, single, armor, loose tube gel w/Corning SMF28e+	F90240204B	Teldor
18	48 CT singlemode, single jacket, single, armor, loose tube gel w/Corning SMF28e+	F90480489B	Teldor
19	96 CT singlemode, single jacket, single, armor, loose tube gel w/Corning SMF28e+	F90960855B	Teldor
20	144 CT singlemode, single jacket, single, armor, loose tube gel w/Corning SMF28e+	F91441253B	Teldor
21	ExpressLT™ Cable, SA/SJ, 12F/tube, gel free tubes, Coming Single Mode (ITU G.652.D), 0.35/0.31/0.25 dB/km at 1310/1383/1550 nm (zero water peak, 1383 nm uncabled), GR-20, RUS CFR-1755-900, ANS/ICEA S-87-640	F-ETH1A1J-12-CE-024-ES Prysmian	
22	ExpressLT™ Cable, SA/SJ, 12F/tube, gel free tubes, Coming Single Mode (ITU G.652.D), 0.35/0.31/0.25 dB/km at 1310/1383/1550 nm (zero water peak, 1383 nm uncabled), GR-20, RUS CFR-1755-900, ANS/ICEA S-87-640	F-ETH1A1J-12-CE-048-ES Prysmian	
23	ExpressLT™ Cable, SA/SJ, 12F/tube, gel free tubes, Coming Single Mode (ITU G.652.D), 0.35/0.31/0.25 dB/km at 1310/1383/1550 nm (zero water peak, 1383 nm uncabled), GR-20, RUS CFR-1755-900, ANS/ICEA S-87-640	F-ETH1A1J-12-CE-096-ES Prysmian	
24	ExpressLT™ Cable, SA/SJ, 12F/tube, gel free tubes, Coming Single Mode (ITU G.652.D), 0.35/0.31/0.25 dB/km at 1310/1383/1550 nm (zero water peak, 1383 nm uncabled), GR-20, RUS CFR-1755-900, ANS/ICEA S-87-640	F-ETH1A1J-12-CE-0144-E Prysmian	

Buried Fiber Cable RFP Summary

Quantity	Description	Cable Strand Size	Company E-2 Unit Cost	Company E-2 Total Cost	Company E-2 Cable Type	Company F Unit Cost	Company F Total Cost	Company F Cable Type	Company G Unit Cost	Company G Total Cost	Company G Cable Type	Company H Unit Cost	Company H Total Cost	Company H Cable Type	Company I Unit Cost	Company I Total Cost	Company I Cable Type	Company J Unit Cost	Company I Total Cost	Company I Cable Type
1768800	Single armor, single PE jacket, dielectric central member, zero water pek-low water peak, 0.35/0.25 db/km 1310/1550nm, dry core, gel filled buffer tubes, RUS Buy American standards	24	0.2976	\$526,394.88	13	0.2690	\$475,807.20	17	0.28935	\$511,802.28	21	0.29161	\$515,799.77	1	0.30000	\$530,640.00	1	0.27300	\$482,882.40	17
528000	Single armor, single PE jacket, dielectric central member, zero water pek-low water peak, 0.35/0.25 db/km 1310/1550nm, dry core, gel filled buffer tubes, RUS Buy American standards	48	0.3888	\$205,275.84	14	0.3519	\$185,803.20	18	0.39283	\$207,414.24	22	0.39870	\$210,513.60	2	0.41000	\$216,490.00	2	0.35600	\$187,968.00	18
396000	Single armor, single PE jacket, dielectric central member, zero water pek-low water peak, 0.35/0.25 db/km 1310/1550nm, dry core, gel filled buffer tubes, RUS Buy American standards	96	0.6929	\$274,404.24	15	0.5840	\$231,264.00	19	0.66826	\$264,630.96	23	0.70419	\$278,859.24	3	0.72400	\$286,704.00	3	0.59100	\$234,036.00	19
79200	Single armor, single PE jacket, dielectric central member, zero water pek-low water peak, 0.35/0.25 db/km 1310/1550nm, dry core, gel filled buffer tubes, RUS Buy American standards	144	0.9869	\$78,161.69	18	0.8519	\$67,470.48	20	0.98283	\$77,840.14	24	1.01387	\$80,298.50	4	1.04200	\$82,528.40	4	0.86200	\$68,270.40	20
			\$1,084,236.65			\$960,344.88			\$1,061,687.62			\$1,085,471.11			\$1,116,350.40			\$973,156.80		
			12-15 WEEKS			10 weeks			should be included for orders of \$25,000 or more.			4-5 weeks shipping			No indication of shipping charges No indication of delivery time frame			Feight is included 8-10weeks delivery		

**ADSS Fiber Cable
Material Quotes**

Quantity	Description	Part Number	Company A	Company A Total Cost	Company B	Company B Total Cost	Company C	Company C Total Cost	Company D	Company D Total Cost	Company E	Company E Total Cost
OFS 350 ft span												
1,176,384	24F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 11.7mm (.461 in.)	AT-3BE17N6-024-CLGA	0.2764	\$325,093.72	0.2616	\$307,718.53	0.2640	\$310,565.38	0.2617	\$307,859.69	0.26150	\$307,624.42
1,176,384	48F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 11.7mm (.461 in.)	AT-3BE17NT-048-CLGA	0.3678	\$432,615.22	0.3481	\$409,487.51	0.3510	\$412,910.78	0.3483	\$409,734.55	0.34800	\$409,381.63
1,176,384	72F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 12.7mm (.500 in.)	AT-3BE17NT-072-CLGA	0.5043	\$593,262.22	0.4774	\$561,546.90	0.4810	\$565,840.70	0.4776	\$561,841.00	0.47720	\$561,370.44
1,176,384	96F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 14.7mm (.579 in.)	AT-3BE17NT-096-CLGA	0.6430	\$756,438.44	0.6087	\$716,006.12	0.6130	\$721,123.39	0.6090	\$716,417.86	0.60850	\$715,829.66
1,176,384	144F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 18.5mm (.728 in.)	AT-3BE17NT-144-CLGA	0.9365	\$1,101,671.85	0.8855	\$1,041,688.03	0.8920	\$1,049,334.53	0.8859	\$1,042,158.59	0.88540	\$1,041,570.39
OFS 500 ft span												
1,176,384	24F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 11.8mm (.465 in.)	AT-3BE17N6-024-CMEA	0.2914	\$342,798.30	0.2758	\$324,482.00	0.2780	\$327,034.75	0.2759	\$324,564.35	0.27570	\$324,329.07
1,176,384	48F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 11.8mm (.465 in.)	AT-3BE17NT-048-CMGA	0.3936	\$462,965.92	0.3725	\$438,226.57	0.3750	\$441,144.00	0.3727	\$438,438.32	0.37240	\$438,085.40
1,176,384	72F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 12.8mm (.506 in.)	AT-3BE17NT-072-CMIA	0.5248	\$617,307.50	0.4967	\$584,298.17	0.5010	\$589,368.38	0.4969	\$584,545.21	0.49650	\$584,074.66
1,176,384	96F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 14.8mm (.583 in.)	AT-3BE17NT-096-CMFA	0.6667	\$784,259.92	0.6310	\$742,345.36	0.6360	\$748,180.22	0.6314	\$742,768.86	0.63090	\$742,180.67
1,176,384	144F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 18.6mm (.732 in.)	AT-3BE17NT-144-CMEA	0.9505	\$1,118,200.05	0.8997	\$1,058,439.74	0.9070	\$1,066,980.29	0.9002	\$1,058,980.88	0.89950	\$1,058,157.41
OFS 400 ft span												
1,176,384	24F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 11.7mm (.461 in.) 400 ft span	AT-3BE17N6-024-CLGA		\$0.00		\$0.00		\$0.00		\$0.00	0.27570	\$324,329.07
1,176,384	48F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 11.8mm (.465 in.) 400 ft span	AT-3BE17NT-048-CMEA		\$0.00		\$0.00		\$0.00		\$0.00	0.37240	\$438,085.40
1,176,384	72F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 12.8mm (.504 in.) 400 ft span	AT-3BE17NT-072-CMIA		\$0.00		\$0.00		\$0.00		\$0.00	0.49650	\$584,074.66
1,176,384	96F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 14.7mm (.579 in.) 400 ft span	AT-3BE17NT-096-CLGA		\$0.00		\$0.00		\$0.00		\$0.00	0.63090	\$742,180.67
1,176,384	144F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 18.5mm (.738 in.) 400 ft span	AT-3BE17NT-144-CLGA		\$0.00		\$0.00		\$0.00		\$0.00	0.89130	\$1,048,511.06
1,176,384	288F 100% DRY Single Jkt PowerGuide ADSS Single PE Jkt, Dielectric Central Member ALLWAVE-SM-.35/.31/.25 db/km@1310/1385/1550 CABLE DIAMETER: 18.5mm (.738 in.) 400 ft span	AT-3BE27DT-288-CNAB		\$0.00		\$0.00		\$0.00		\$0.00	1.97520	\$2,323,593.68
						\$0.00						
						</						

E. Cable Material Pricing

2. Aerial & Buried Fiber Drop Cable Material Quotes

QUOTE

QUOTE DATE	ORDER NO.
08/14/20	50361287-00
PLACED BY	P.O. NO.
Stephen	Drop Fiber
	PAGE #
	1

CUST.#:

SHIP TO:

REMIT TO:

BILL TO:

INSTRUCTIONS			
SHIP POINT	SHIP VIA	SHIPPED	TAKEN BY
SMC Joplin	Best Way		jme

Acceptance of SMC's goods/services is your acceptance of SMC's Terms and Conditions posted on www.smcelectric.com/terms.

LINE NO.	PRODUCT AND DESCRIPTION	COUNTRY OF ORIGIN	QUANTITY ORDERED	QTY. U/M	UNIT PRICE	AMOUNT
1	ESX6U0023101 2-RWP FTTP UNIV MDPE D/F;D/F~;		6056	FT	144.29 M	873.82
Total						873.82
Invoice Total						873.82

Aerial Drop Cable Material RFP

Drop Length	Quantity	Company A	Company B	Company C	Company D	Company E
100'	100	\$36.55	\$45.40	\$35.0628	\$35.0628	\$55.00
150'	100	\$43.33	\$52.02	\$41.5285	\$41.5285	\$65.97
200'	100	\$50.05	\$58.64	\$47.9942	\$47.9942	\$76.92
250'	100	\$57.10	\$65.25	\$54.4711	\$54.4711	\$87.89
300'	100	\$73.45	\$71.87	\$70.4617	\$70.4617	\$98.84
400'	100	\$94.25	\$85.10	\$81.0338	\$90.3743	\$120.76
500'	50	\$109.10	\$98.33	\$93.8502	\$104.6504	\$142.68
750'	25	\$161.95	\$131.35	\$139.2932	\$155.3563	\$197.47
1000'	25	\$199.15	\$164.49	\$171.2975	\$191.0690	\$252.36
Total @ Quantities above	700	\$49,955.50	\$50,140.50	\$45,512.49	\$47,882.41	\$68,917.75

Corning ROC Fast Access cable with Corning OptiTap.

Buried Fiber Cable RFP Summary

Unit Qty	Unit	Item Qty per Unit	Vendor part #	Description	Price	U of M
CORNING MATERIAL						
		20	004301EB1TR100F	00 - Pigtail, 43 - OptiTap SC/APC, 1 SMF-28e ROC Toneable Drop, 100 Feet Country of Origin: MEXICO	35.6474	EA
		45	004301EB1TR150F	00 - Pigtail, 43 - OptiTap SC/APC, 1 SMF-28e SST Toneable Drop, 150 Feet Country of Origin: MEXICO	42.2220	EA
		45	004301EB1TR200F	00 - Pigtail, 43 - OptiTap SC/APC, 1 SMF-28e ROC Dielectric Drop, 200 Feet Country of Origin: MEXICO	48.8077	EA
		40	004301EB1TR250F	00 - Pigtail, 43 - OptiTap SC/APC, 1 SMF-28e ROC Toneable Drop, 250 Feet Country of Origin: MEXICO	55.3822	EA
		25	004301EB1TR300F	00 - Pigtail, 43 - OptiTap SC/APC, 1 SMF-28e ROC Toneable Drop, 300 Feet Country of Origin: MEXICO	71.4397	EA
		30	004301EB1TR500F	00 - Pigtail, 43 - OptiTap SC/APC, 1 SMF-28e ROC Toneable Drop, 500 Feet Country of Origin: MEXICO	106.1288	EA
		5	004301EB1TR750F	00 - Pigtail, 43 - OptiTap SC/APC, 1 SMF-28e ROC Toneable Drop, 750 Feet Country of Origin: MEXICO	157.3434	EA
		3	004301EB1TRA00F	00 - Pigtail, 43 - OptiTap SC/APC, 1 SMF-28e ROC Toneable Drop, 1000 Feet Country of Origin: MEXICO	193.6260	EA

F. Electronics Pricing & Product Literature

1. GPON FTTH Electronics



BUDGETARY QUOTATION

Customer:
Location:
Partner

Quotation Date: May 5, 2020
Quote Number: 18.US.844430
Delivery: 2020
Prices FCA: ORIGIN

Equipment: **Nokia 7360 ISAM Equipment**

7360 ISAM Equipment Summary

ISAM Shelf Part Number	MNEM	Description	Quantity	Sale Price	Extended Price
OLT					
3HG01392AA	Kit	Redundant FX-8 Starter Kit w/ 16-PON Card. Each kit includes:	1		
3FE64936BB		7360 ISAM FX-8 shelf (ANSI variant), 48V only, incl. BFAN unit	1	\$ 20,677.99	\$ 20,677.99
3FE67300AA		FX-8 Horizontal mounting kit for 19" or 23" rack	1		
3FE61087EB		Fiber Routing Kit for ANSI FX-8	1		
3FE53701BD		7360 ISAM FX 480Gbps NT with ANSI T1 BITS, Synchronous Ethernet and IEEE1588 for high density/high bandwidth applications, without SFPs (ANSI variant)	2		
3FE68954AB		ISAM FX 16port GPON Line board	1		
3FE65651BA		Filler Panel for NTIO and LT, no pre-cabling	8		
3FE62600DA		SFP+ 1310 nm 0°C to + 70°C 10 km 10 dB Duplex LC	2		
3FE53441AC		ISAM FD/FX GPON SFP OLT (I-temp) Class B+	1		
Line Cards					
3FE53441AC	SFP B+	ISAM FD/FX GPON SFP OLT (I-temp) Class B+	-1	\$ 143.61	\$ (143.61)

Sub Total ISAM Shelf **\$20,534.38**

Outdoor ONT for Commercial Units

Part Number	MNEM	Description	Quantity	Extended Price
3FE55691AA	G-240G-A (outdoor)	Hardened 2 POTS, 4GE, fits universal Enclosure	0	\$ 98.43
1AB383340010	Cable	8' power cable (IEC 320-C5 to NEMA 5-15 [Type B]) for NA applications	0	\$ 4.60
3FE47358AA	G-240W-E	WiFi GPON residential gateway, 2xPOTS, 4xGE UNI, 3x3 11n+4x4 11ac, US plug	10	\$189.56

Sub Total Outdoor ONT for Commercial Units **\$1,895.60**

Element Management Software

Part Number	MNEM	Description	Quantity	Extended Price
SSP Kit with 3 Year Contract				
3AP38518AA	Kit	5520/5529 AMS SSP Starter Kit Bundle includes: 5520 Core Platform Five Operator Position Licenses ISAM and GPON Mgmt Modules Cold Standby 5529 APC GUI and XML NBI 5529 IDM GUI 5529 OAD and XML NBI Documentation 5520 AMS Starter system supports cold standby redundancy only.	1	\$ 11,487.78

Software Subscription Plan

301049607	SSP	SSP - AMS/7330/7342/7360 per line RTU YR1 (annual charge, requires 3 year contract, see Pricing Notes)	0	\$	9.13	\$	-
301049607	SSP	SSP - AMS/7330/7342/7360 per line RTU YR2 (annual charge, requires 3 year contract, see Pricing Notes)	0	\$	9.13	\$	-
301049607	SSP	SSP - AMS/7330/7342/7360 per line RTU YR3 (annual charge, requires 3 year contract, see Pricing Notes)	0	\$	9.13	\$	-

Sub Total EMS	\$11,487.78
----------------------	--------------------

Services

Part Number	Description	Quantity	Extended Price	
<u>Engineering and Installation</u>				
301036679	PER SITE/ PER SURVEY	1	\$2,983.70	\$ 2,983.70
301036679	Installation Engineering for one (1) 7360 FX-8 chassis	1	\$6,217.40	\$ 6,217.40
301036851	7360 FX-8 shelf installation	1	\$5,774.46	\$ 5,774.46
<u>Professional Services - System Integration and Turn-up</u>				
301093985	Professional Support Services, including one week on-site for system integration and turn-up and knowledge transfer (see Statement of Work for details) Additional training available - see Training tab for recommended web-based and instructor led courses	1	\$20,040.76	\$ 20,040.76

Sub Total Services	\$35,016.32
---------------------------	--------------------

Maintenance

Part Number	Description	Quantity	Extended Price	
301013249	Technical Support - Gold YR1	1	\$1,268.24	\$1,268.24
301013249	Technical Support - Gold YR2	1	\$1,268.24	\$1,268.24
301013249	Technical Support - Gold YR3	1	\$1,268.24	\$1,268.24
300426210	GPON Advanced Exchange (NBD) YR1	1	\$646.19	\$646.19
300426210	GPON Advanced Exchange (NBD) YR2	1	\$646.19	\$646.19
300426210	GPON Advanced Exchange (NBD) YR3	1	\$646.19	\$646.19

Sub Total Maintenance	\$5,743.29
------------------------------	-------------------

Grand Total	\$74,677.37
--------------------	--------------------

Options**Spares**

Part Number	MNEM	Description	Quantity	Extended Price	
3HG01392AA	Kit	Redundant FX-8 Starter Kit w/ 16-PON Card. Each kit includes:	1	\$20,677.99	
3FE55691AA	G-240G-A (outdoor)	Hardened 2 POTS, 4GE, fits universal Enclosure	1	\$0.00	

Sub Total Spares	\$20,677.99
-------------------------	--------------------

Outdoor ONT for Multiple Commercial Units

Part Number	MNEM	Description	Quantity	Extended Price	
3FE56074AA	G-881G-A	Outdoor ONT , 8 POTS, 8 GE, 1RF	0		
1AB383340010	Cable	8' power cable (IEC 320-C5 to NEMA 5-15 [Type B]) for NA applications	0		

Sub Total Outdoor ONT for Multiple Commercial Units	\$0.00
--	---------------

Indoor ONT for Multiple Commercial Units

Part Number	MNEM	Description	Quantity	Extended Price
3FE56074AB	G-881G-B	Indoor ONT (Rack Mount), 8 POTS, 8 GE, 1RF	0	
3EM23372AA	UPS	UPS 90-264VAC/48VDC, Wall Mount, 50 Watt, -20C to +55C for SOHO and Business ONT	0	
1AB383340010	Cable	8' power cable (IEC 320-C5 to NEMA 5-15 [Type B]) for NA applications	0	
1AF17581ABAA	Battery	Batteries (Installation) 16.8Ah*12V_UPS	0	

Sub Total Indoor ONT for Multiple Commercial Units	\$0.00
---	---------------

Indoor Integrated ONT Gateway

Part Number	MNEM	Description	Quantity	Extended Price
3FE47358AA	G-240W-E	WiFi GPON residential gateway, 2xPOTS, 4xGE UNI, 3x3 11n+4x4 11ac, US plug	0	

Sub Total Indoor Integrated ONT Gateway	\$0.00
--	---------------

Pricing Notes

- Pricing levels are volume based and assume commitment for the total number of OLT and ONT shown
- Pricing is valid for 60 days
- Hardware and Software warranties are 1 year
- Pricing per Alcatel-Lucent Standard Terms and Conditions
- Server(s) for the 5520 AMS are not included in pricing
- Standard product lead times: (8) weeks Forecasted, (12) weeks Unforecasted, plus shipping and processing time
- Maintenance Pricing requires a 3 yr contract.
- Software pricing assumes a SSP (Software Subscription Plan) is executed. SSP charges will be billed annually, based on number of deployed ONTs and requires a 3 yr contract.
- SW and customer documentation are downloaded at no charge from CARES.
- This pricing is for Layer 2 licenses only – it does not include any Right to Use (RTU) for Layer 3, MPLS features and associated enhanced features.

Alcatel-Lucent 7360 Intelligent Services Access Manager FX Shelf

RELEASE 4.3

Alcatel-Lucent 7360 ISAM FX shelves are high-capacity access shelves included in the ISAM family of IP access products. These shelves address the need for mass-market, high-capacity fiber deployments by simultaneously supporting multiple Passive Optical Network (PON) technologies along with high-density point-to-point services over a non-blocking future-ready backplane architecture. High-bandwidth service throughput is guaranteed by backplane technology that enables dual 100-Gb/s backplane connections to each line termination (LT) slot.



FX-16



FX-8



FX-4

With three Alcatel-Lucent 7360 ISAM FX shelf sizes to choose from, service providers have maximum flexibility for deploying in Central Office (CO), outside plant cabinet or other remote environments. All Alcatel-Lucent 7360 ISAM FX shelves are ready to support any future fiber-based access application with full flexibility for mixing 10G XG-PON, EPON, GPON and point-to-point access technologies on the same platform. As a result, operators are not locked in to a certain fiber access technology or shelf density; they can choose to deploy different options based on techno-economics, local regulations or services offered.

For operators with an Alcatel-Lucent 7302 ISAM or Alcatel-Lucent 7330 ISAM (ETSI) installed base, the Alcatel-Lucent 7360 ISAM FX shelves offer smooth complementary evolution to an increased shelf capacity when needed. All products in the Alcatel-Lucent ISAM product family, including the Alcatel-Lucent 7360 ISAM FX, are supported by the same Alcatel-Lucent

5520 Access Management System (AMS) and Alcatel-Lucent ISAM software stream, resulting in lower cost and time-to-market when deploying new ISAM technologies.

Features

- High-capacity backplane: 2 x 100 Gb/s per slot
- Four-slot (FX-4), eight-slot (FX-8) and sixteen-slot (FX-16) shelf options
- Simultaneous support of multiple fiber access technologies
- High-density 10G XG-PON, EPON, GPON and point-to-point support
- Residential, mobile and business applications converge on a single platform
- IP/Ethernet access platform supporting Multi-Protocol Label Switching (MPLS)
- Application and subscriber intelligence to extract more value from the network

Benefits

- High-bandwidth capacity to meet increasing demand
- Shelf-size options that support every application in central office (CO) or outside plant (OSP)
- One ISAM family: Any technology, any service, any deployment model
- Intuitive service provisioning practices for both fiber and copper access technologies
- Commonality of software, line cards and deployment practices across the Alcatel-Lucent ISAM shelf types (FD and FX)
- Supported existing practices and proven ISAM technology
- Allows multiple service providers to offer their services over a single network using an open access platform
- Supported by the Alcatel-Lucent 5520 AMS

Technical specifications

Full service platform

- Multiservice access support
 - IPTV services
 - Multimedia service
 - High-speed Internet access (HSIA)
 - Business access
 - Cell-site backhaul G.987.1: XG-PON1 service requirements
- LT support
 - 4-port 10G PON line card
 - 8-port GPON line card
 - 8-port Ethernet PON (EPON) line card
 - 32-port high-density point-to-point-fiber line card
 - Cell site backhaul G.987.1: XG-PON1 service requirements
- NT support: Alcatel-Lucent ISAM FANT-F NT
 - 480 Gb/s switching matrix (bi-directional)
 - Active-active redundancy
 - 4 configurable 10 Gb/s or 1 Gb/s network links
 - Small Form Factor Pluggable (SFP)+ cages

Management

- Fully managed by the Alcatel-Lucent 5520 AMS

Eco-sustainability

- Product lifetime maximized by modular, shelf-based concept and by implementing new features and functionalities through remote software download
- Power consumption targets CoC power-consumption limits
- Compliant with the European directive 2002/95/EC on the restriction of the use of certain hazardous substances (RoHS)
- Product collection and treatment under Alcatel-Lucent responsibility complies with the national laws on product treatment applied at the end of life for Wastes from Electrical and Electronic Equipment (WEEE), implementing the European Directive (2002/96/EC)
- Product-packaging materials are free from Hydrochlorofluorocarbon (HCFC)
- Plastic product-packaging material is marked according to ISO 11469, referring to ISO 1043 (97/129/EEC)

Standards compliance

- Environmental
 - ETS EN 300 019-1-1 storage – Class 1.1 weather-protected, partly temperature-controlled locations
 - ETS EN 300 019-1-2 transport – Class 2.3 public transportation
 - ETS EN 300 019-1-3 stationary use – Class 3.1E and Class 3.3 (assuming no condensation and icing)
 - GR-63-CORE
 - TP76200MP
 - GR-3108-CORE

- Powering
 - ETS EN 300 132-2
- Protection
 - ITU-T K.20 enhanced and K.45 basic
- Safety
 - IEC 60950, EN60950 Class 1, AS/NZS 60950.1
 - UL/CSA 60950-1-03
 - EN 60950-1
- EMC
 - ETS EN 300 386 for telecommunications center installation environment
 - ETS ES 201 468
 - GR-1089-CORE
 - FCC part 15 Class A
 - EN 55022
- Acoustic noise
 - ETS 300 753

Operating conditions

- Operating temperature range: -40°C to +65°C (-40°F to +149°F)
- Relative humidity: 5% to 93% (non-condensing)
- Over-temperature sensors and over-temperature shutdown

Power

- Input
 - 48/60 V DC nominal
 - Fully redundant power feeding (branch A and B)

Dimensions

- FX-16
 - Height: 600 mm (23.62 in.) (~14 RU)
 - Width: 500 mm (19.68 in.); can be used in ETSI-sized 600 x 300 mm racks
 - Depth: 280 mm (11.02 in.); can be used in ETSI-sized 600 x 300 mm racks
- FX-8
 - Height: 360 mm (14.17 in.) (8 RU)
 - Width: 445 mm (17.52 in.); can be used in 19-in. racks
 - Depth: 280 mm (11.02 in.)
- FX-4
 - Height: 223 mm. (8.77 in.) (5 RU)
 - Width: 445 mm (17.52 in.); can be used in 19-in. racks
 - Depth: 280 mm (11.02 in.)
- Rack-mounting pitch of 25 mm (0.984 in.)

Construction based on FX-16

- 16 wire-speed LT slots
- 64 10G XG-PON ports per shelf: 4 ports x 16 slots
- 128 GPON ports per shelf: 8 ports x 16 slots

Alcatel-Lucent 7342 ISAM FTTU

I-24X INDOOR OPTICAL NETWORK TERMINAL (ETSI/ANSI)

The Alcatel-Lucent I-24x Indoor Optical Network Terminal (ONT) with 4 Gigabit Ethernet, 2 POTS and optional RF interfaces is part of the industry leading Alcatel-Lucent 7342 ISAM FTTU product family. It is designed to deliver triple play services with high bandwidth capacity to homes where multiple Ethernet ports are required, and terminates a Full Service Access Network (FSAN)-compliant GPON fiber interface.



Features

- Supported interfaces: 4 Gigabit Ethernet (with 10/100/1000Base-T auto-negotiation), 2 POTS RJ-11 interfaces and optional RF interface (Type F coaxial)
- IP video with multistage IGMPv3 or IGMPv2 for channel change
- VoIP software client (SIP and H.248) for legacy POTS interworking
- All ports can be independently turned on or off
- Support for MAC and IP anti-spoofing support
- Connectivity Fault Management as defined in IEEE 802.1ag for continuity check, loopback and trace-route functions as well as AIS reporting
- Dynamic bandwidth management and prioritization per port, per service

Benefits

- Large number of Gigabit Ethernet ports allows service per port configurations
- Can be readily used as the demarcation point in an open/wholesale business model
- Multistage IGMP processing enables faster IPTV channel changes, and reduces the upstream control message flow and access bandwidth requirements.
- Supports smooth migration from legacy TDM voice to VoIP
- Advanced performance management and security features
- Fine control of bandwidth and QoS for the best subscriber experience.

Applications

The Alcatel-Lucent 7342 ISAM FTTU I-240 ONT provides four RJ-45 Gigabit Ethernet Interfaces with 10/100/1000Base-T auto-negotiation and two POTS (RJ-11) interfaces. The I-241 has an additional coaxial port (75 W F connector) for RF video distribution. Both variants are designed to deliver ultra-high bandwidth to users who need multiple Ethernet ports for port-based service separation.

This ONT is ideal for open/wholesale business models with one operator providing basic Ethernet connectivity and multiple service providers on different ports. Along with data, the Alcatel-Lucent 7342 ISAM FTTU I-24x ONT provides two legacy voice interfaces. The voice service is emulated over the GPON network and can be terminated in a Class 5 switch via the PSTN gateway. In addition, the

ONT supports SIP-based VoIP clients, and lets voice services be terminated by an NGN switch.

Both RF video overlay, using a coax interface, as well as IPTV service architectures, are supported. IPTV is supported on all Ethernet interfaces with IGMP snooping to assure banding efficiency and secure multicasting.

Technical specifications

GPON interface

- 2.488 Gb/s line rate downstream and 1.244 Gb/s line rate upstream
- Class B+ optics with 28 dB optical link loss and nominal 20 km reach
- 1490 nm wavelength downstream, 1310 nm wavelength upstream, optional 1550 nm wavelength for RF overlay
- Single mode fiber (SC/APC connector)
- GEM mode support for IP/Ethernet service traffic transport
- G.984.3 compliant dynamic bandwidth reporting
- G.984.3 compliant Advanced Encryption System (AES) with operator enable/disable on a per port-id level
- G.984.3 compliant Forward Error Correction (FEC) in both upstream and downstream
- OMCI management and provisioning.

POTS interface

- Voice ports compliant with GR-909-CORE
- Two RJ-11 connectors
- Loop start signaling
- DC supervisory range: 750 Ohm loops
- Minimum on-hook voltage -43 V

- Nominal loop current 25 mA
- G.168 echo cancellation
- Balanced sinusoidal ring signal with 18 V DC offset: 42 VRMS

Gigabit Ethernet interfaces

- IEEE 802.3 compliant 10/100/1000 Base-T ports
- 4 RJ-45 connectors
- Full/duplex operation
- Auto-negotiation or manual setting by operator of Ethernet interface line rate
- 802.1Q support
- 802.1p support
- Up to four QoS classes for traffic prioritization per Ethernet port using 802.1p
- Layer 3 DSCP to 802.1p mapping allows Layer 3 CoS over the Layer 2 network. Mapping is operator provisionable.
- IEEE 802.1x port-based authentication with enable/disable by operator

IP video service

- IGMPv3 and IGMPv2 snooping
- G.984.3 compliant multicast using a single GEM Port-ID for all video traffic (as mandated by G.984.3)
- Up to 64 video multicast streams shared by 4 GE ports

RF video service interface

- Optional coaxial port (75 W F connector)
- Operating wavelength range: 1550 nm to 1560 nm
- Operating RF bandwidth: 47 MHz to 870 MHz
- Video output power: 18 dBmV at 450 MHz

Voice adaptation and signaling

- Voice loop emulation over GPON with Megaco/H.248 signaling between PSTN gateway and ONT
- Interworking with Genband PSTN gateway with V5.2/GR-303 signaling with Class 5 switch
- SIP client software for NGN-based voice

Power

- Local powering with 12 V DC input
- External power supply: 110/220 V AC input
- Up to 8 hours with optional battery backup
- Visual status indicator
- Max power consumption: 15W
- Typical power consumption: 12W

Dimensions

- Height: 25.32 cm (9.97 in.)
- Width: 19.21 cm (7.56 in.)
- Depth: 4.18 cm (1.65 in.)
- Weight: .95 kg (33.51 oz.) (production weight)

Environment

- Operating temperature range: 0°C to +40°C (32°F to 104°F)
- Maximum operating altitude: 3,048 m (10,000 ft.)
- Maximum non-operating altitude: 12,192 m (40,000 ft.)
- Relative humidity (non-condensing) range: 5% to 93%

Regulatory/standards approvals

- CE approved and marked

ALCATEL-LUCENT ISAM NGLT-C 8-PORT GPON LINE CARD

The Alcatel-Lucent Intelligent Services Access Manager (ISAM) NGLT-C is a Gigabit Passive Optical Network (GPON) line termination card, with eight GPON interfaces that can serve up to 1024 Optical Network Terminals (ONTs) per card and up to 512 UNIs per PON. The NGLT-C is available in ISAM FD and ISAM FX. When used in a shelf equipped with dual Active-Active controllers, the NGLT-C supports a total non-blocking capacity of 20 Gb/s.



Each PON interface delivers 2.5 Gb/s in downstream and 1.2 Gb/s in upstream, and has a reach of up to 60 km (37.3 miles), which makes this card ideal for cost-effective delivery of high-bandwidth IP services to residential and business users.

KEY FEATURES

- 8-port GPON line card
- Class C+ optics (32 dB link loss budget) and B+ optics (28 dB link loss budget)
- Pluggable optics
- Received Signal Strength Indicator (RSSI) capable optics; Optical Time Domain Reflectometer (OTDR) HW-ready through SFP swap
- Supports IPTV and RF overlay
- Supports 1:128 split; support for 30 km/60 km (18.6 miles/37.3 miles) reach with B+/C+ optics
- Type B PON protection
- OISGV2 and TR-156 compliant for ONT Management and Control Interface (OMCI) interoperability
- Industrial hardened

KEY BENEFITS

- High-density deployments due to eight ports and 1:128 split ratio
- Long reach enables wide coverage area for CO consolidation and CAPEX/OPEX savings
- Flexible deployments (B+ or C+ optics) enabled by pluggable optics
- OPEX savings with extensive RSSI troubleshooting capabilities and evolution to embedded OTDR
- Indoor/outdoor deployments

TECHNICAL SPECIFICATIONS

External interfaces

- 8-port GPON interfaces, using pluggable B+ or C+ optics, allowing 28 dB or 32 dB optical loss budget respectively, based on:
 - G.984.1 (GPON service requirements)
 - G.984.2 (GPON PMD Layer)
 - G.984.2 (GPON PMD Layer) Amendment 1
 - G.984.3 (GPON TC Layer – GEM based)
 - G.984.3 (GPON TC Layer) Amendments 1 and 2
 - G.988 (GPON OMCI) Appendixes I and II
 - TR-156
- Support for:
 - Advanced Encryption Standard (AES)
 - Forward Error Correction (FEC)
 - Dynamic Bandwidth Allocation (DBA)
 - Configurable Delay Tolerance



Forwarding

- L2 Forwarding – Generic: Ethernet packet types include Ethernet II Encapsulation on Ethernet and LLC/SNAP on Ethernet; any combination of untagged/priority/single-tagged packets; selective IPoE/PPPoE protocol filtering; VLAN assignment for untagged/priority-tagged packets based on port- and protocol-default VLAN, Multi-VLAN support at UNI
- L2 Forwarding – CC mode: VLAN stacking (S-VLAN CC and S-VLAN/C-VLAN CC)
- L2 Forwarding – RB mode: VLAN stacking (S-iBridge), selective broadcast
- L3 Multicast: High-performance Internet Group Management Protocol (IGMP) processing, IGMP proxy, immediate leave, source-specific multicast/any-source multicast (SSM/ASM)
- Active-Active load sharing for up to 2 x 10 Gb/s bidirectional aggregate

Protocols

- Management using SNMP, CLI, and TL1
- Provisioning and surveillance interface between Optical Line Terminal (OLT) and ONT is assured using standard OMCI
- User access protocols: ARP, IEEE 802.1X authentication, DHCP Option 82 insertion, PPPoE relay tag

QoS

- QoS classification based on L2/L3/L4 multi-field classification
- Priority bit (re)marking
- Connection Admission Control (CAC) at various levels of aggregation
- Policing
- Flexible Traffic Manager combining TD/WRED buffer admission, SP/WFQ scheduling and shaping at various levels
- In-field upgradable, fully programmable packet processing
- Advanced Traffic Management capabilities for SLA execution

Security

- Protection against malicious MAC-move
- Assignment of virtual MAC address
- Proxies to avoid downstream multicast/broadcast (ARP)
- IPv4/IPv6 address anti-spoofing for user data packets/ARP/IGMP/DHCP
- Access Control List (ACL) based on L2/L3/L4 multi-field classification
- Rate control of control packets

Standards compliance

Environmental

- ETS 300 019-1-1 storage – Class 1.1 (weather-protected, partly temperature-controlled locations)
- ETS 300 019-1-2 transport – Class 2.3 (packed, public transportation)
- ETS 300 019-1-3 stationary use – Class 3.1E (temperature-controlled locations), when used in fully populated ISAM FD racks
- ETS 300 019-1-3 stationary use – Class 3.3 (not temperature-controlled locations), when used in standalone ISAM shelves

Protection

- ITU-T K.20/K.45

Safety

- IEC 60950-1/EN 60950-1
- EMC and ESD: ETS 300 386 V1.3.3 (2005-04) for telecommunication network equipment
- European directive 2002/95/EC on the restriction of the use of certain hazardous substances (RoHS)

Operation conditions

- -5°C to +45°C (23°F to 113°F) inlet/ambient temperature range, when used in fully populated ISAM racks (with more than one shelf)
- -40°C to +65°C (-40°F to +149°F) inlet/ambient temperature range, when used in standalone ISAM shelf
- Over-temperature sensors and over-temperature shutdown
- Humidity: 10% to 95% (non-condensing)

Dimensions

- Height: 405 mm (15.94 in.)
- Width
 - Top: 225 mm (8.85 in.)
 - Bottom: 205 mm (8.07 in.)
- Board-to-board pitch: 25 mm (0.98 in.)