



Lincoln County Feasibility Study

Abstract

Located between Spokane and Grant County, two highly populated counties with access to urban broadband speeds and competitive pricing through multiple providers, the lower populated Lincoln County is experiencing the opposite. Few options for service and a lack of infrastructure investment limit the broadband accessibility for most of the residents in Lincoln County. Elected officials recognized the potential of an open-access fiber infrastructure model and through Community Economic Revitalization Board funding, commissioned this feasibility study.

Petrichor Broadband, LLC
March 2021

Contents

- Executive Summary..... 2
- Existing Efforts to Improve Broadband in Lincoln County 3
- Vision..... 3
- Community Support..... 4
- Project Focus..... 4
- Local Broadband Needs and Goals 8
- Existing Broadband Infrastructure Assets and Gap Analysis 10
 - Infrastructure Needed to Serve Eight Communities (Phase I)..... 14
 - Infrastructure Needed to Serve Rural Residents (Phase II) 16
 - Hawk Creek Case Study..... 17
 - Framework for Incentivizing Broadband Investment in Lincoln County 19
 - Business and Operating Model 19
 - Municipal and County Procedures, Policies, Rules and Ordinances..... 20
- Financial Commitment and Budget 21
 - Public Investment and Strategy 21
 - Potential Funding Sources 22
- Management Plan..... 24
- Benefits of Broadband to the Community..... 26
 - Health and Safety Benefits..... 26
 - Education Benefits 26
 - Digital Inclusion..... 28
- Unserved and Underserved Areas 28
- Acknowledgments..... 29

Executive Summary

Lincoln County recognized the importance of broadband over a decade ago. In 2012, the county adopted an Economic Development Strategy that included broadband as a planned infrastructure investment. As a result of this action plan and a 2013 Local Technology Planning Team grant, a broadband action team was formed. It is led by the county's Economic Development Council. The 2013 grant compiled an inventory of existing infrastructure, which identified only the infrastructure resulting from a \$5 million fiber project funded by the Broadband Technology Opportunities Program (BTOP). This project, constructed by Northwest Open Access Network (NoaNet), met the criteria of the funding and building of backbone fiber through Lincoln County with connections to the anchor institutions (libraries, health care facilities and schools), but did not reach beyond the 19 BTOP funded sites. Unfortunately, the fiber infrastructure in Lincoln County has changed little in the past decade.

A general description of Lincoln County's broadband needs in the eight municipal areas studied would be classified as underserved as defined by the Federal Communications Commission (FCC). Current FCC policies define unserved as areas that do not have access to fixed broadband at speeds of at least 25/3 Mbps. The populated areas of Lincoln County that are served have several different types of providers. There is one incumbent local exchange carrier (ILEC), cable television companies and multiple internet service providers (ISPs) serving customers. Most of the offerings are fixed wireless and over \$100/month for the best speeds, and none are advertised as symmetrical. The State's goal of 150 symmetrical by 2028 will require additional fiber infrastructure.

We recommend an open access model, where the County builds the necessary fiber infrastructure and leases it the private sector companies that want to provide services in the County. This includes a fiber extension to Almira and FTTH builds in Almira, Creston, Davenport, Harrington, Odessa, Reardan, Sprague and Wilbur. A pro forma for these builds is included in the study. For the rural residents outside of these communities, the County should work with interested ISPs to build strategic fiber extensions to alleviate choke points in their networks that limit the amount of bandwidth they can deliver through wireless technologies.

Existing Efforts to Improve Broadband in Lincoln County

Lincoln County has a long history of exploring broadband in the County (Attachment A - Broadband Timeline for Lincoln County). In 2013, the county received a Local Technology Planning Team grant to inventory the county's existing providers and services, map existing infrastructure and survey stakeholders (Attachment B - Local Technology Planning Team Broadband Project Report). Through this project, a broadband action team formed.

Led by the Lincoln County Economic Development Council (EDC), the Lincoln County Broadband Action Team consists of the following members:

Margie Hall, Executive Director	<i>Lincoln County Economic Development Council</i>
Kevin Hansen, Owner	<i>Davenport Family Foods</i>
Rex Harder, Partner	<i>Golden West Cattle Company</i>
Jan Hoogstad, Davenport Operations Manager	<i>Avista Corporation</i>
Scott Hutsell, Commissioner	<i>Lincoln County</i>
Staci Moses, Vice President	<i>US Bank Loan Documentation Division Manager</i>
Don Phillips, Wheat Farmer	
Dale Swant, Board President	<i>Lincoln County Economic Development Council</i>
Kelly Watkins, Undersheriff	<i>Lincoln County</i>
Joyce Mings, Administrative Assistant	<i>Lincoln County Economic Development Council</i>

In 2018, the broadband action team partnered with the NTIA's Broadband USA program to perform an assessment of broadband access, adoption and community (Attachment C - Connecting Lincoln County). This assessment identified the following "next steps" for the broadband action team:

- Improve broadband availability
- Explore use of public assets
- Improve understanding of broadband needs for precision ag
- Connect with the State broadband office (if re-established by legislators)
- Continue broadband data collection and verify accuracy
- Increase digital literacy through libraries

In 2019, the EDC and County submitted an application for a Community Economic Revitalization Board (CERB) broadband grant to perform this feasibility study.

Vision

The broadband action team continues to pursue better broadband for the county. The group's efforts are guided by its vision statement:

"Provide the broadband infrastructure necessary to compete, recruit, and position Lincoln County for growth."

Community Support

On July 13, 2020, the broadband action team held an online public meeting to gather stakeholder input. Prior to the public meeting, a press release was issued to inform the community and stakeholders of the study's purpose (Attachment D - Press Release). An email invitation with the details of the public meeting was sent to providers (Attachment E – Broadband Community Meeting Invitation).

The meeting focused on the broadband feasibility study underway (Attachment F - Community Meeting Agenda). Attendees included Lincoln County Commissioners, members of the broadband action team and representatives from local cities, school districts, hospital districts, libraries, Avista Utilities, Inland Power and Light, Washington State University Extension Office, local internet service providers and stakeholders including ATT, HughesNet, LocalTel, Comcast, Ptera, Pacific Northwest Gigapop and NoaNet (Attachment G - Meeting Participants). After the meeting, participants received a survey based on affiliation (end-user or provider) (Attachment H - Surveys). All end-user responses identified an existing broadband need not being met (Attachment I - Survey Responses).

“Only 1/3 of our students have access to reliable internet.”

- Superintendent Reardan-Edwall School District

“A recent fire took out fiber to hospitals and schools in both Odessa and Ritzville, a branch of NoaNet fiber with no redundancy.”

- Public Health District 1 Representative

“...speeds are slow and inconsistent. Speed lags when there are more than two people on the network. Occasionally shuts down for a short time.”

- Mayor, Town of Wilbur

“CenturyLink is basically my only choice at my home/office. It is sluggish and often not working at all.”

- Almira Resident

Only three providers responded to the survey: Ptera Inc., LocalTel Communications and HughesNet. Out of these three, only Ptera responded to the actual survey; the other two sent flyers advertising speeds and pricing. None of the providers supplied maps of service areas, existing infrastructure or plans for service expansion.

Project Focus

Lincoln County lies on the Big Blend Plateau in the eastern part of Washington State, as illustrated in Figure 1. The population estimate for Lincoln County was 10,939 in July 2019.¹ This makes Lincoln County the fifth least populated county in Washington State. The population of Lincoln County was 17,539 in 1910. The population has lowered greatly as the agricultural industry has replaced workers with mechanization. Lincoln County is 2,310 sq miles with an average of 4.6 people per square mile. There are eight

¹<https://www.census.gov/quickfacts/lincolncountywashington>

communities in the county included in this study: Almira, Creston, Davenport, Harrington, Odessa, Reardan, Sprague and Wilbur. The demographics for these eight communities are seen on the following two pages.

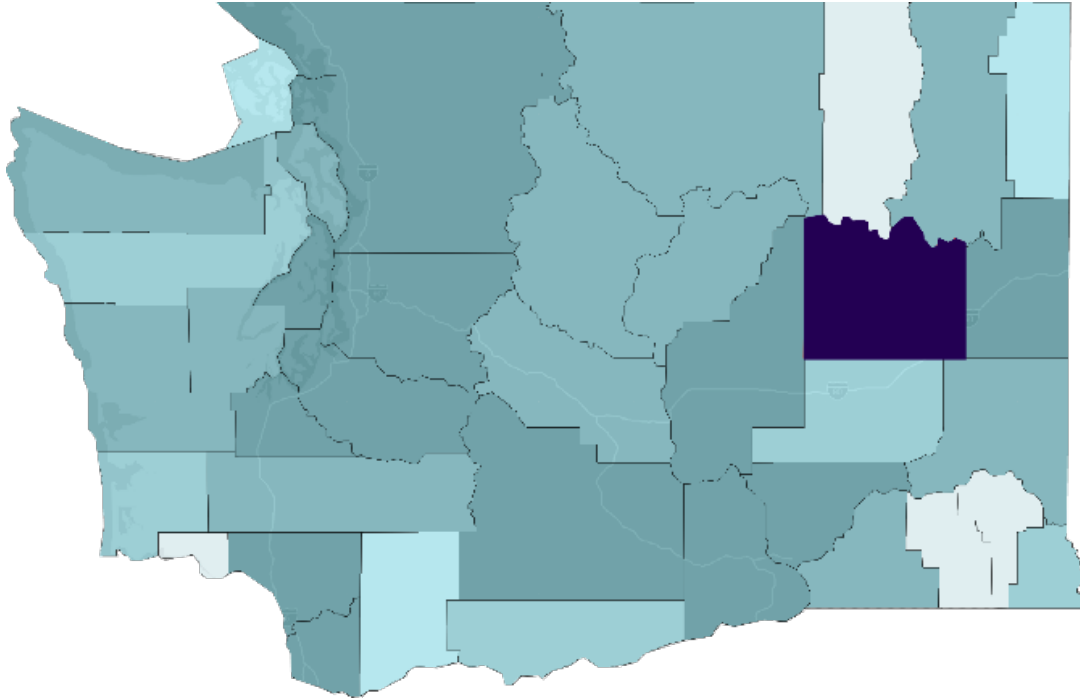


FIGURE 1 - WASHINGTON STATE COUNTIES



ALMIRA, WA

Population (2018): 276

Median Household Income (2018): \$54,792

Largest Industries: Agriculture, Forestry, Fishing & Hunting; Educational Services and Public Administration



CRESTON, WA

Population (2018): 262

Median Household Income (2018): \$38,750

Largest Industries: Health Care & Social Assistance, Educational Services and Accommodations & Food Services



DAVENPORT, WA

Population (2018): 1,717

Median Household Income (2018): \$54,663

Largest Industries: Health Care & Social Assistance, Construction and Educational Services



HARRINGTON, WA

Population (2018): 413

Median Household Income (2018): \$35,050

Largest Industries: Retail Trade; Agriculture, Forestry, Fishing & Hunting and Construction



ODESSA, WA

Population (2018): 946

Median Household Income (2018): \$50,556

Largest Industries: Health Care & Social Assistance, Accommodation & Food Services and Other Services, Except Public Administration



REARDAN, WA

Population (2018): 584

Median Household Income (2018): \$40,685

Largest Industries: Health Care & Social Assistance, Educational Services and Other Services, Except Public Administration



SPRAGUE, WA

Population (2018): 452

Median Household Income (2018): \$32,813

Largest Industries: Educational Services, Retail Trade and Other Services, Except Public Administration



WILBUR, WA

Population (2018): 807

Median Household Income (2018): \$47,823

Largest Industries: Public Administration, Health Care & Social Assistance and Construction

This study includes an overview of the existing telecommunications services in Lincoln County. It encompasses assessment of existing broadband capacity, if publicly available, including a list of current providers. The study identifies gaps in coverage and possible solutions to address these service gaps, including alternatives, such as new construction or expansion of existing networks. In addition to fulfilling the broadband planning requirement set forth by CERB (Attachment J - Broadband Planning Minimum Requirements) the study addresses two key components. The first key component is a cost analysis of designing and building a middle-mile broadband network that would include high-speed fiber connections to businesses and homes in eight incorporated cities and towns (Phase I) and an ancillary middle-mile broadband network that would bring high-speed broadband to the unincorporated areas of Lincoln County (Phase II). The second key component is to develop a management plan for both networks.

Local Broadband Needs and Goals

Since the creation of the Rural Electrification Administration in 1936, policymakers have known that public investment and policy are necessary to solve the problem of bringing electrification and telecommunications to rural communities. The economics of providing services in rural areas has become increasingly difficult with a declining population base, posing a challenge for telecommunications providers aiming to provide services while seeking a return on investment.

Broadband is no longer a socially desirable good, but an economic necessity. Without access to broadband, citizens in Lincoln County cannot participate in the digital economy or take advantage of the opportunity broadband brings for better education, healthcare, civic and social engagement.

Through [SSB 5511 \(2019\)](#), the legislature set broadband deployment goals for the State of Washington based on the following assumptions:

- (1) Access to broadband is critical to full participation in society and the modern economy;*
- (2) Increasing broadband access to unserved areas of the state serves a fundamental governmental purpose and function and provides a public benefit to the citizens of Washington by enabling access to health care, education, and essential services, providing economic opportunities, and enhancing public health and safety;*
- (3) Achieving affordable and quality broadband access for all Washingtonians will require additional and sustained investment, research, local and community participation, and partnerships between private, public, and nonprofit entities.*

Figure 2 shows Washington State's Broadband goals² for businesses to reach speeds of 25 Mbps upload and 3 Mbps download by 2024 and 150 Mbps symmetric service by 2028. The timeline to meet these goals falls far short of what businesses in Lincoln County, and arguably all of Washington State, need to become and/or remain competitive and/or expand markets.

² <https://data.wa.gov/stories/s/Broadband-in-Washington/irv9-b275/>

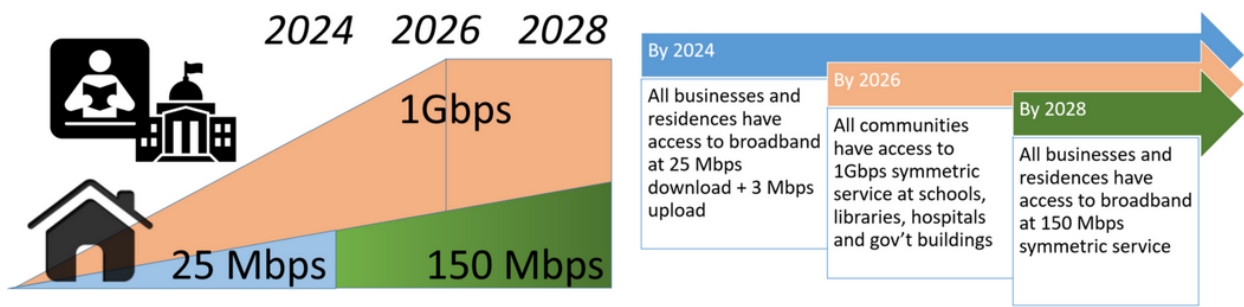


FIGURE 2: WASHINGTON STATE BROADBAND

According to the FCC’s Household Broadband Guide,³ homes with more than one high-demand application running at the same time need more than 25 Mbps. Any business conducting online transactions, utilizing integrated software systems, and multiple users on high demand applications (such as video streaming, multiparty video conferencing or telecommuting) will clearly not have their broadband needs met through the State’s goals. These businesses need 150 Mbps symmetrical broadband services today to stay relevant and compete with businesses that already benefit from urban rate services.

A general description of Lincoln County’s broadband needs in the eight municipal areas studied would be classified as underserved as defined by the Federal Communications Commission (FCC). Current FCC policies define unserved as areas that do not have access to fixed broadband at speeds of at least 25/3 Mbps. The FCC set the minimum requirements for broadband services under CAF Phase II for voice and broadband services.⁴ These minimum requirements for speed, latency, usage allowance and pricing are listed below:

- Broadband at speeds of at least 10 megabits per second (Mbps) downstream and 1 Mbps upstream
- Network latency (the time it takes for a data packet to travel through a network) cannot be higher than 100 milliseconds round trip.
- At least one plan offering with a minimum usage allowance of at least 150 gigabytes (GB) per month or a monthly usage allowance that reflects the average usage of a majority of fixed broadband customers as announced by the Wireline Competition Bureau annually, whichever is higher. Or, offering a usage allowance that is at or above the usage level for 80 percent of their broadband subscribers if it is at least 100 GB.
- Service at rates reasonably comparable to rates in urban areas

As stated in the FCC press release on January 30, 2020, “The Rural Digital Opportunity Fund auction will prioritize networks with higher speeds, greater usage allowances, and lower latency. Bidders must also

³ <https://www.fcc.gov/consumers/guides/household-broadband-guide>

⁴ <https://www.fcc.gov/consumers/guides/connect-america-fund-phase-ii-faqs>

commit to provide a minimum speed more than double than was required in the CAF Phase II auction.”⁵ Most of Lincoln County would be considered underserved by the CAF and RDOF minimum requirements.

Existing Broadband Infrastructure Assets and Gap Analysis

The populated areas of Lincoln County that are served have several different types of providers. There is one incumbent local exchange carrier (ILEC), cable television companies and multiple internet service providers (ISPs) serving customers. The local ISP companies serve customers primarily with wireless connections.

In evaluating existing infrastructure and services in Lincoln County, data was collected from FCC Part 477 mapping, as well as research on commercial broadband aggregator websites that providers use to sell services. One of the commercial broadband websites utilized was BroadbandNow. The company publishes independent research on broadband in the United States. This includes a dataset of internet plans, pricing, and availability by zip code. The data comes from the federal government (FCC, FTC, NTIA, etc.), local and state governments and other publicly available or open-source data sets (Pew Research, Measurement Lab, Cisco, Broadband Commission, ISP websites, etc.) and refined with data provided directly by ISPs. The company verifies plans and pricing monthly. When available, information was also obtained from retail provider websites advertising services in Lincoln County. There is no evidence of urban rate services and pricing in the served areas (1 Gig for \$100/month or less). The minimum speeds acceptable to the FCC are 25/3 Mbps currently. In urban markets, 250 Mbps to 1 Gigabit for \$100 per month is a competitive standard. Lincoln County has similar pricing and services as other markets that are rural designated as unserved or underserved by FCC definitions. A summary of the data compiled for each of the eight communities follows.

Below are the best speeds offered and the availability of those speeds in zip code, according to BroadbandNow. The NCI Datacom offering of 100 Mbps, is only available in 5.8% of the Almira area. The technologies used will not meet the State’s broadband goal of 150 Mbps symmetrical without an infrastructure investment. The majority of the offerings are fixed wireless and over \$100/month for the best speeds, though none are advertised as symmetrical. Additionally, the offerings are not all available in the entire zip code. The breakdown of offerings by city and availability is included as Attachment K - Lincoln County Providers.

⁵ <https://www.fcc.gov/document/fcc-launches-20-billion-rural-digital-opportunity-fund-0>

Provider	Technology	Best Speed	Mo. Price	Almira	Creston	Davenport	Harrington	Odessa	Reardan	Sprague	Wilbur
Century Link	DSL	40/2	\$ 49.00	X	X	X	X	X	X	X	X
Viasat	Satellite	35/3	\$ 89.99	X	X	X	X	X	X	X	X
Hughes Network	Satellite	25/3	\$ 49.99	X	X	X	X	X	X	X	X
LocalTel (SkyFi)	Fixed Wireless	25/3	\$ 57.90	X	X	X	X	X	X	X	X
NCI Datacom	Fixed Wireless	100/unk	\$ 45.00	X							
Air Pipe	Fixed Wireless	30/unk	unlisted		X	X	X		X	X	
WIFIBER	Fixed Wireless	50/8	\$ 160.00			X					
Desert Winds Wireless	Fixed Wireless	25/5	\$ 99.99					X	X		
Ptera	Fixed Wireless	25/8	\$ 109.00						X		
Wind Wireless	Fixed Wireless	12/unk	\$ 99.95						X		
Inland Cellular	Fixed Wireless	50/unk	unlisted								X
Western Elite	Fixed Wireless	50/10	\$ 89.99								X

TABLE 1 - BROADBAND OFFERINGS IN LINCOLN COUNTY

There has been a lack of private sector investment/action in the rural areas of the county that are harder to serve. The lack of broadband infrastructure makes the county far from 5G ready. The monopolistic forces and privately owned infrastructure tend to sideline ISPs and entrepreneurs that often have a vested interest in improving the broadband access in both the populated and more rural markets. Awards of Connect America Fund II (CAF II) and the Rural Utility Opportunity Fund (RDOF) happened in the last few years. This infrastructure is starting to be deployed in Lincoln County currently by at least two providers with the goal of obtaining 25/3 service through wireless access points with a completion date of 2028. These are 10-year programs that allow eight years to fully deploy services. Outside of these communities, the options are even more limited, and the speeds often go down and the prices go up. One wireless company advertises plans for customers with a clear line of site to one of the company’s mountain top tower sites at the following rates:

Basic	4/2 Mbps	\$39.99
Standard	6/4 Mbps	\$69.99
Standard	8/4 Mbps	\$79.99
Extreme	10/5 Mbps	\$99.99
Extreme	12/6 Mbps	\$119.99

Without an investment in infrastructure, these rural areas will never see urban speeds or prices.

Current broadband offerings in Lincoln County provide relatively high-cost services because of monopolistic market forces (low competition and limited customer choice). These high-cost offerings providing low bandwidth or inconsistent speeds (“up to...”) are common in rural areas. While there has been some private sector investment in the deployment of broadband infrastructure, it has been limited in scope and slow to roll out due to the cost. There are not extensions of urban rate services to lower density areas, especially outside of city limits. There remains a lack of ubiquitous broadband access and capacity. In selecting posted speeds on the Washington State Broadband Office map, locations with the best results are shown in Table 2.

TABLE 2 - BROADBAND SPEEDS REPORTED BY STATE BROADBAND OFFICE

Community	Download speed Mbps	Upload Speed Mbps
Almira	19.5	3.29
Creston	6.78	.24
Davenport	30.1	1.93
Harrington	3.8	.89
Odessa	45.7	31.9
Reardan	10.46	.56
Sprague	3.18	1.02
Wilbur	17.5	5.3
Rural Area Avg	1.0	.8

Figure 3 shows the survey results collected by the Washington State Broadband Office through February 2021.

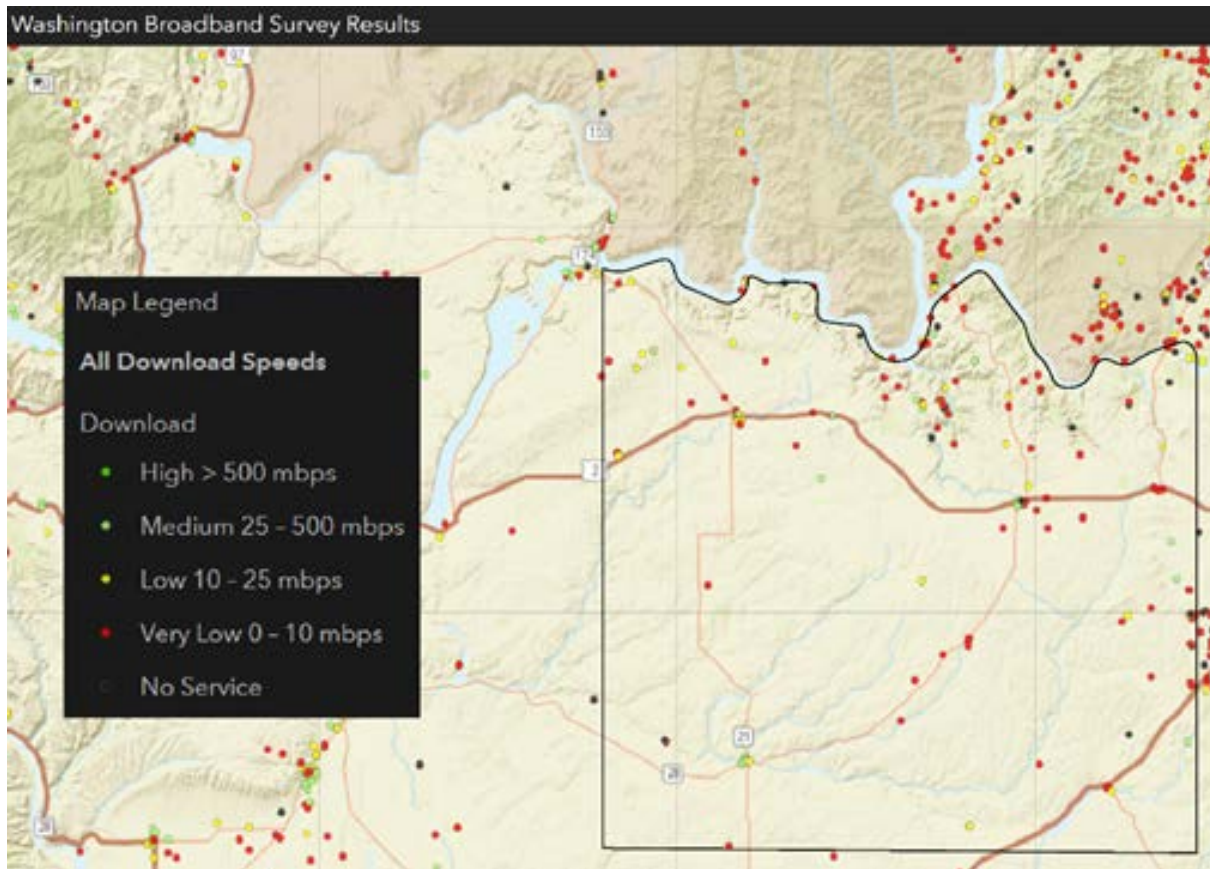


FIGURE 3 - WASHINGTON STATE BROADBAND SURVEY RESULTS FOR LINCOLN COUNTY

There are multiple companies with fiber backbones that run through Lincoln County. Through BTOP, a fiber backbone connects, Wilbur, Creston, Davenport, Reardan, Harrington and Odessa. As part of BTOP

requirements, anchor institutions in these towns are connected to the fiber (Figure 4). Unfortunately, the fiber has not been utilized much beyond that. Limited access to these systems and higher-priced wholesale rates has slowed the competitive retail environment in Lincoln County.

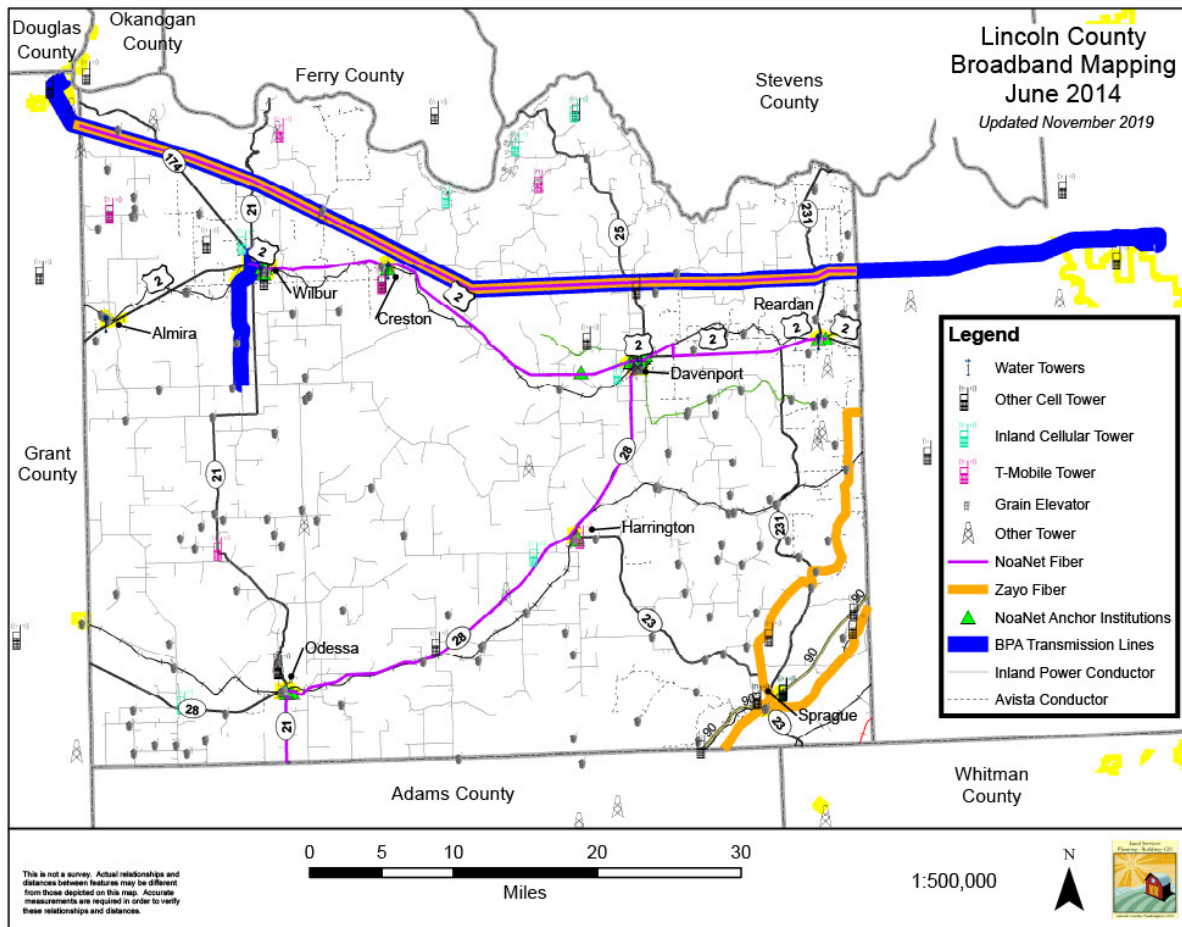


FIGURE 4 - EXISTING TELECOMMUNICATIONS INFRASTRUCTURE

T-Mobile and Inland Communications both own tower and wireless assets in rural parts of the northern county. The rural higher populated areas in the north county near the Columbia River have tower assets that stretch east to west. T-Mobile started a test market delivering services from tower sites to customers in the north county. Inland Communications is also looking at ways to enhance the market.

Wireless Internet Service Providers (WISP) are not as prevalent in the north county and many of the rural areas of Lincoln County. The main reason for this is backhaul. There is no fiber infrastructure to use as backhaul. Wireless carriers are using microwave radio point to point hops to deliver backhaul. These microwave hops are one of the limiting factors to deployment and service level speeds that can be delivered to subscribers.

Other limiting factors for Wireless Internet Service Providers (WISP) include:

- **Facility leases.** WISP companies need to lease space at existing facilities or build facilities in rural areas to provide broadband services to customers. Often, this is facilitated by a landowner who needs services themselves and is motivated to allow a retail provider to install facilities on their land. When this is not the case, the WISP is viewed by the land or structure owner as a monetary transaction. While this is a fair market transaction, people often assume that rates paid by the big wireless carriers along interstate highways and urban areas is the going price for a lease. In rural areas where there are often less than 10 potential customers per mile, the economics do not work out as they do in urban settings. As a result, many WISP companies are unable to expand.
- **Use of public structures.** In Lincoln County, wireless carriers have experienced mixed messages, with some communities not returning calls or following through with requests to use public structures to expand services.

Investment in fiber to the home and rural fiber distribution to alleviate backhaul congestion for wireless service providers is needed for Lincoln County to obtain urban rates and services.

Infrastructure Needed to Serve Eight Communities (Phase I)

The southern portion of the county has a mix of wireless towers and fiber optic cable that includes both private and publicly owned networks. Recent pricing for Internet and transport have become more in line with urban rates and services from existing wholesale service providers. This allows retail service providers more options to offer competitively priced services. Leasing of dark fiber is still not available for the most part; for some retail providers, this is a preferred option that holds back opportunities in the county for urban rate pricing and service offerings.

To serve the eight municipalities in this study, a plan has been created that leverages the networks of existing companies and identifies the telecommunications infrastructure that needs to be built to bring urban rate services and pricing to rural markets. In developing a plan that utilizes grant and low-interest loan dollars to build infrastructure that can be leveraged by private sector companies providing retail services in Lincoln County, the risk of investment is kept as low as possible for potential funding agencies to this project. Figure 4 shows all communities in this study have fiber backhaul, except for Almira. As previously stated, cost competitive wholesale services are essential for a retail provider to aggregate need or purchasing power to deliver urban rate services to customers. Currently, in many of these communities, the fiber build runs through a town, only stopping to deliver services to anchor institutions such as schools, hospitals and government offices. The company that owns the fiber is not in the retail “fiber to the premise” (FTTP) business. Other companies in the area are not willing to take on the financial investment of the FTTP build in the community. As a result, companies only invest in those communities that demonstrate a reasonable risk and return on investment for the capital they are willing to spend. This can be seen in the evaluation of existing infrastructure. Conversely, when the fiber plant is owned by a municipal entity eligible to receive grants and low-interest loans, a longer return on investment can be accounted for in the business model.



FIGURE 5 - MID-MILE BUILD FROM WILBUR TO ALMIRA

The mid-mile infrastructure gap can be filled with an 11.2-mile underground build (Figure 5). Table 3 shows the estimated construction cost for a mid-mile build of fiber to Almira and FTTP construction for the businesses and homes in the eight communities. The architecture for the FTTP would be “home-runs” provisioning one strand of fiber from a determined point-of-presence (POP) to each premise. Because the build would include all premises in the city limits, all anchor institutions and businesses would be included in the build (Attachment L - Anchor Institutions). To determine construction cost estimates, measurements were taken of the distribution routes that would need to be built to bring fiber to the premise. Construction costs for recently built FTTP systems were used to develop a build-per-foot cost for aerial and underground distribution of fiber. Vetro fiber mapping software was used to determine the number of premises passed in the build. A cost-per-home-passed model and a construction-cost-per-premise model were developed to understand the higher costs of building in areas with longer fiber runs.

TABLE 3 - CONSTRUCTION COST ESTIMATE SUMMARY

Towns	Construction			
	Cost	Passings	Aerial	Underground
Almira	\$ 498,978	173	19,333	1,029
Creston	\$ 412,800	140	17,200	-
Davenport	\$ 1,443,310	798	53,515	4,675
Harrington	\$ 547,692	223	19,667	2,226
Odessa	\$ 862,580	373	30,549	3,806
Reardan	\$ 626,972	233	25,135	698
Sprague	\$ 838,954	280	23,939	7,777
Wilbur	\$ 1,060,910	447	35,026	6,479
TOTAL	\$ 6,292,196	2,667	224,364	26,690

Mid-Mile Segments	Miles	\$45,000/mi
Wilbur to Almira	11.21	\$ 504,450

Preliminary analysis suggests that fiber-to-the-premise (FTTP) offers the only solution that can achieve Washington State’s goal of 100% coverage of high-performance broadband at speeds of 150 symmetrical by 2028. While capital costs for FTTP will be higher than other options, the operating costs will be lower, and the useful life measured in decades. Fiber-based solutions frontload costs with high capital construction commitments. The revenues, on the other hand, build over time. The cost to provide fiber termination and related equipment for a customer seeking the lowest tier connectivity varies little from the cost of providing a gigabit connection. As the broadband services improve the economic conditions of the region, appetite for bandwidth will increase and revenues will rise. Such impacts may take a generation to fully play out. The construction of this fiber network greatly broadens the potential for providers to reach customers; quickly utilizing an open-access, nondiscriminatory network, companies can come into the community to compete and offer services.

This model of building FTTP is currently in use in communities across Washington State. The town of Pomeroy, WA provides a recent example. Pomeroy had lost its cable television provider; the local incumbent telephone company was not making an investment in the community selling only DSL services; and most people were served by wireless internet service providers. The Port of Garfield County stepped up and built the FTTP fiber plant and began leasing dark fiber to retail service providers who compete and sell services to the customers. The retail providers provide their own networks and electronics so each company can differentiate their services and compete. Today, there are three companies competing at selling service in Pomeroy on the fiber system and two additional companies delivering backhaul. Urban rate services, such as 1 Gbps for under \$100 per month, are now available in Pomeroy.

Infrastructure Needed to Serve Rural Residents (Phase II)

Additional fiber extensions could be developed for rural area wireless internet service providers (WISP) use to alleviate backhaul issues. Telecommunications service providers in rural Lincoln County are using wireless point to access point connections in a hub and spoke arrangement to reach rural residences. As more access points are deployed to reach additional customers, a choke point or bottleneck in the system

appears. This can be overcome with additional point to point microwave radios or by deploying fiber optic cable runs from communities extending into rural areas. The fiber backbone extension deployment has worked well for wireless providers in other parts of the region that are also affected by the rolling Palouse hills and other geographic barriers separating the few rural customers available in Lincoln County from line-of-sight wireless access points. The business case to support building fiber extensions can be strengthened by partnering with companies in the region who will also lease or purchase part of the fiber route for their own use. Inland Light and Power has expressed an interest in deploying fiber to rural power substations. Inland's service area covers the majority of the rural areas in Lincoln County and would make a natural partner in successful rural deployment (Attachment M - Inland Service Areas). Wireless 4G, and LTE phone services also would use this fiber as backhaul from their rural tower sites (Attachment N - Cell Tower Sites). More detailed modeling of this approach would require proprietary information from the private sector. These conversations should take place after the county decides to commit financially to this type of build. The Port of Whitman County is building six fiber extensions in this model, which includes partnerships with two different providers. One of those providers also serves residents in Lincoln County and expressed interest in utilizing this model to improve its network capacity if/when the county is ready.

Hawk Creek Case Study

The Hawk Creek area has a housing development with 170 home sites. To date, 55 five homes have been built in the area. This development is approximately 11 air miles north of Davenport. A fiber build from Davenport along Highway 25 to this development and continuing to the Columbia River would create a backbone to serve the entire northern region of Lincoln County. The terrain of the north county with its canyons and valleys does not lend itself to being served with wireless technology very easily.

A combination of public efforts in applying for grants and low-interest loans (Public Works Trust Fund .0025% loans) to service rural areas could be combined with private sector commitments to lease the fiber to service customers. Many models of this type of arrangement exist. In Sandpoint, Idaho, citizens bonded a loan payback arrangement and worked with a provider that built a fiber-to-the-home network and now provides services in the community. There is adequate housing density to explore this type of arrangement in the northern sections of Lincoln County.

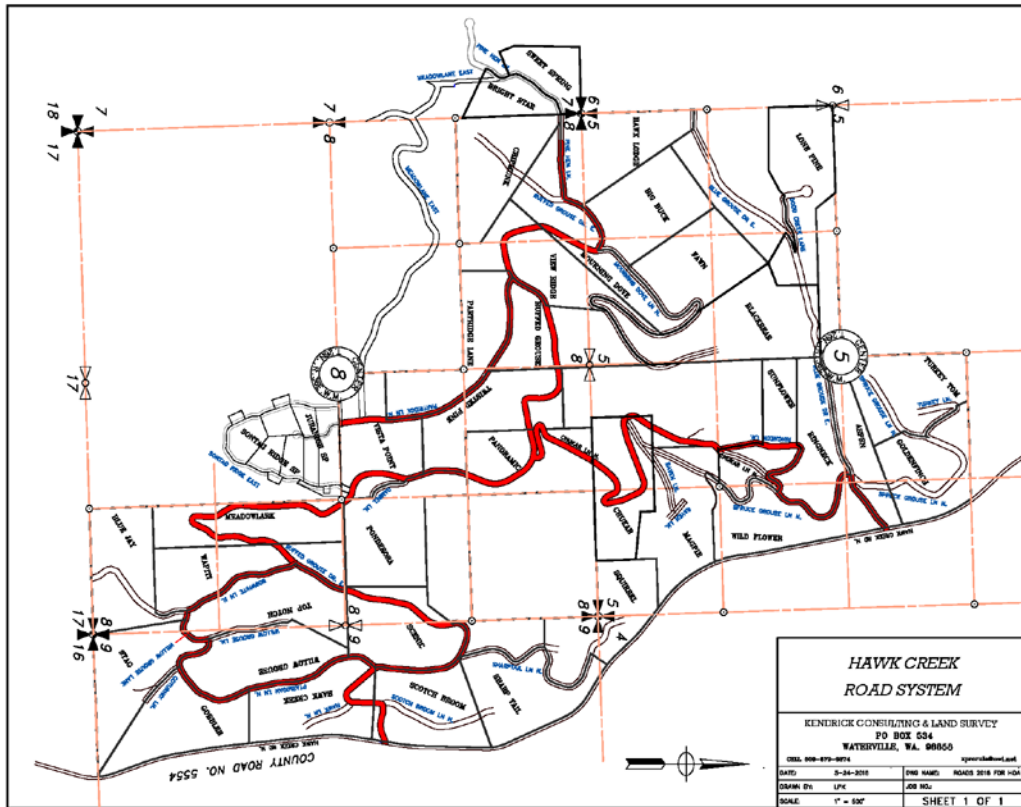


FIGURE 6: HAWK CREEK ROAD SYSTEM

The constructions costs for this area are low. The backbone from Creston to the Hawk Creek development would be 13 miles of aerial construction on Inland Power and Light poles, passing one of its substations. The recommended approach would be a partnership with the utility that reduced the design and make-ready costs for this portion of the build. Within the Hawk Creek Development, there is an existing conduit that could be used to pass each lot. There would need to be construction from this conduit to each individual home. A portion of this cost could be passed on to the HOA or homeowner. The estimated construction cost for this build is \$809,480 (Table 4).

TABLE 4 - CONSTRUCTION COST ESTIMATE SUMMARY FOR HAWK CREEK DEVELOPMENT

Segment	Cost Estimate
Creston to Hawk Creek Development (1 substation)	\$343,200
Hawk Creek Development FTTx	\$401,280
Make-ready	\$65,000
Total Construction Cost	\$809,480

Framework for Incentivizing Broadband Investment in Lincoln County

If there are possible opportunities for partnerships to improve rural broadband access in Lincoln County, these should be explored. These partnerships can accelerate fiber deployment and local broadband market development through public investment in additional fiber infrastructure and strategic last mile builds to wireless tower sites to serve the geographically hard-to-reach customer. Socially responsible infrastructure investment, ownership and public accountability would bring competition to existing markets and serve the high-cost customers in the rural areas of the county, rather than the high-cost companies our current regulated environment has created. Open-access infrastructure leasing would support private sector competition, allow multi-service provider environment, and encourage better pricing, service quality and access. This activity would also promote additional private sector investment in connectivity. Often, a partnership is necessary to ensure an adequate investment for timely network construction.

Through the exercises conducted as part of this study, including community meetings and discussions with providers, several conceptual models were evaluated to deliver broadband to the hardest-to-serve constituents in Lincoln County. There are at least two identified business plans that are bringing forth telecommunications infrastructure because of the activity generated while producing this study. This activity is beyond the scope of this report. Discussions about that work will be left to individual companies and a possible infrastructure builder if one is identified at a later date. As stated in this report, Washington State set goals to achieve 150 Mbps symmetrical internet service to all its citizens by 2028. Investment of public money, which can take a longer return on investment, will be needed to reach these goals. Federal programs such as Connect America Fund (CAF) and the Rural Development Opportunity Fund (RDOF) have been used by companies to reach customers in Lincoln County. Neither of these programs will achieve the state's goal of 150 Mbps symmetrical for the county's citizens by 2028. Private sector service providers and utility companies in the region have expressed an interest in working together to solve broadband deployment issues. Communities such as Hawk Creek have expressed an interest in aggregating need to build a business case for fiber deployment in their community. A public investment would lower the risk and cost of entry.

Business and Operating Model

The recommended operating model is to build an open-access, free-trade platform for all companies to compete and sell telecommunications services to constituents. Unlike other models, building the necessary infrastructure for all companies to use eliminates the long-term return-on-investment (ROI) that inhibits private sector investment in rural areas. In other areas of Washington State, this model has proven that companies desire to own their individual networks, which they can control and maintain. The ability to lease dark fiber, rather than ride over a public-entity-controlled lit network, provides the control critical to allow companies to offer a service-level agreement to their customers. For that reason, an open-access model where companies always have a choice between lit or dark networks is recommended. In this model, the private sector competes to sell services, while investing in employees and equipment to grow their business in these rural communities.

The first consideration retail providers will address as they consider entering a market is how to create revenue by introducing new revenue streams, differentiation strategies and innovation. Having readily available fiber to use allows providers to differentiate their services and attract customers. Today,

increasing numbers of larger and smaller communications providers are expanding their revenue sources to better serve their customers' needs for always-on connectivity. For example, service providers are developing premium content packages with content partners, based on the interests of their target audience. Customized services can be offered to target customer groups, such as work-at-home professionals and gamers who are willing to pay for very high-performance symmetry, latency and uptime. This allows service providers to differentiate their services from competitors, while staying ahead of new developments in technology.

Although communications providers have typically viewed costs exclusively in terms of capital expenses (CapEx) and operating expenses (OpEx), they are now realizing that cost models should not focus on getting the network in place and passing homes or businesses, but also factor in the cost and speed of making individual connections. In a rural area such as Lincoln County, having the fiber plant already constructed saves time and money for the private sector to deploy. The costs of offering services, equipment, labor, permissions, maintenance and power also need to be considered. Retail providers will consider the total cost of ownership (TCO). Although it might initially look like it makes sense to minimize CapEx when making a buying decision, a high OpEx could negatively impact the profitability of the overall operation. Organizations that see success budget for other factors influencing the overall outcome and are optimized for the future network lifecycle. Many public entities leasing dark fiber have experienced the benefits and economic impacts of having multiple retail providers expand services with competitive pricing in their communities by creating an infrastructure model that works for the retail providers in their CapEx/OpEx modeling.

Risks associated with this model are minimal. The infrastructure is futureproof, and currently there are no limits to the capacity for fiber. The model has been employed statewide and providers in the region have built successful business plans utilizing this type of infrastructure. Termination of fiber leases in other areas have been rare and with a rare exception, a new lease is signed by a competing provider before the cancellation is received. Current risks to be mitigated include the lead time on fiber and materials. At the time of this report, fiber lead times are six to nine months, depending on cable size. It is anticipated that fiber construction across the country will continue over the next several years and increase the demand on both materials and labor.

Municipal and County Procedures, Policies, Rules and Ordinances

There are no requirements that would impede this project or any municipal fiber construction. A sample franchise agreement is attached (Attachment O – Sample Franchise). A few of the towns already partner with providers to facilitate access to municipal structures for wireless facilities, including provision of power at these locations.

The City of Davenport provides a local example of an entity that has worked well with companies to expand services and taken care of the public interest at the same time. In the city's municipal code, Chapter 15.10, there are standards for development telecommunications services in the city. Towers and antennas are the primary focus of this policy. The policy provides an opportunity for the private sector to work with the city to improve the wireless facilities.

Financial Commitment and Budget

Public Investment and Strategy

Lincoln County has a Public Utility District (PUD) that is filed with the State of Washington. Active as a name-only public corporation in Lincoln County, it has three elected officials and holds one meeting per year to stay valid. While the PUD has an elected board, it performs an annual meeting, does not tax the citizens and performs no services currently. This public entity could be used to build telecommunications infrastructure in Lincoln County. Currently, there does not appear to be an interest in the county to have the PUD take on an active role in public telecommunications infrastructure building or maintenance and operations of broadband infrastructure. However, this type of public organization – one that can invest local money, enter public-private partnerships, and receive grant funding – is highly recommended. The longer return on investment associated with building telecommunications infrastructure in rural areas is the chief reason hindering private investment. This reality needs to be realized to build infrastructure and find solutions (gap funding) to solve the rural broadband accessibility problem our country – and Lincoln County – face. There is a business case with a reasonable return on investment that has been proven over a 20-year time frame in rural Washington State.

The service locations used for revenue projections are based on Vetro fiber mapping software and were checked against a water meter count received from the Lincoln County ADO. The comparison showed the Vetro passings number to be more conservative at 2,667 compared to 2,813 water meters. For the revenue model we used a penetration rate of 50%. The One-Call estimates are based on underground footage. Pole attachment fees are based on the total estimate aerial footage of the proposed grid segments divided by 175 feet per span. The construction cost estimates include a 10% contingency for materials/labor cost fluctuations, 5% for splicing costs and 10% overhead for engineering/design costs.

The revenue and expense model assumes that the customers will be on a single fiber from a telecommunications facility located in the community to the premise. Pole attachment fees and locate fees are included as expenses.

TABLE 5 - REVENUE EXPENSE MODEL

REVENUE MODEL					
Segments	Number of Subscribers	Number of Strands	Run Length (miles)	Monthly Fee	Gross Annual Revenue
Wilbur to Almira		4	11.21	\$50.00	\$26,904.00
Almira	87			\$20.00	\$20,760.00
Creston	70			\$20.00	\$16,800.00
Davenport	399			\$20.00	\$95,760.00
Harrington	112			\$20.00	\$26,760.00
Odessa	187			\$20.00	\$44,760.00
Reardan	117			\$20.00	\$27,960.00
Sprague	140			\$20.00	\$33,600.00
Wilbur	224			\$20.00	\$53,640.00
Totals					\$346,944.00
OPERATING EXPENSE MODEL					
Expense	Unit Cost	Units	Quantity	Total Cost	
Management Fees				\$52,041.60	
Pole Attachment Fees	\$25.00	per pole	1300	\$32,500.00	
One Call System and Locate Fees	\$15.00	per mile	16	\$2,927.69	
Total Annual Expenses				\$87,469.29	

The project costs were capitalized with no grants. Funding sources such as the Community Economic Revitalization Board’s Rural Broadband Program and the Public Works Board’s Broadband Program should be explored, as well as critical partnerships to launch the project. The pro forma shows an annual net revenue of \$259,474. The following attachments provide additional financial information:

- Attachment P - Budget Plan
- Attachment Q - Income Statement
- Attachment R - Balance Sheet
- Attachment S - Cash Flow

Potential Funding Sources

In Washington State public entities could apply for USDA Reconnect and NTIA. Charter cities could qualify as ETCs; therefore, they could apply for all. Private carriers can apply for all. Major limitations to these programs include their definition of unserved as 25/3 and the lengthy application process.

- FCC Rural Development Opportunity Fund: \$20B (*Requires to be Unserved 25/3*)
- FCC Connect America: \$1B (*Requires to be Unserved 25/3*)

- FCC Lifeline: \$2B (*Low-income subsidies for served areas*)
- USDA Reconnect: \$600M (*Unknown currently but likely to be unserved 25/3*)
- NTIA: \$300M (*Unknown currently but likely to be unserved 25/3*)

Lincoln County currently has two active federal funding programs in place with Internet Service Providers (IPS): RDOF and CAF II funding. Unfortunately, these programs take these census blocks in Lincoln County out of circulation for other types of federal funding, such as Reconnect funds. The Washington State Broadband office has hired consultants and offered matching money to communities and local economic development offices. The overlap of federal programs takes away these tools, as communities wait for companies to build out their awarded areas. This could take years. The FCC has both a CAF contract and an RDOF contract awarded for Lincoln County.

In 2020, there were two state broadband funding programs under the Department of Commerce: Community Economic Revitalization Board (CERB) and Public Works Trust Fund (PWTF). Current state level funding levels for both programs are being discussed in the 2021 legislative session. Both programs support broadband build outs with loans and grant monies and require matching funds (Table 6). The proposed build outs could be broken into segments to apply for funding under either program.

TABLE 6 - COMPARISON OF STATE BROADBAND FUNDING PROGRAMS

	CERB Rural Broadband Program⁶	Public Works Board Broadband Program⁷
Total Funds Available	TBD	TBD
Maximum Fund Request	TBD	TBD
Application Due Date	TBD	TBD
Anticipated Award Date	TBD	TBD
Match Requirement	25% of project cost	50% project cost
Grant Availability	Up to 50% of award, determined by underwriting process and debt service coverage ratio	Distributed by project rank
Loan Interest Rates	1-3%	Standard: 0.87% Distressed: 0.44% Severely Distressed: 0.22%
Loan Term	Up to 20 years	15 years, or the life of the improvement, whichever is less, including four years for completion

⁶ <https://www.commerce.wa.gov/building-infrastructure/community-economic-revitalization-board/rural-broadband/>

⁷ <https://www.commerce.wa.gov/building-infrastructure/pwb-broadband/>

Management Plan

Six ports in Washington State formed Petrichor Broadband, LLC to help communities realize their goals of urban rate services in rural communities (Attachment T - Petrichor Broadband Introduction). Petrichor Broadband would like the opportunity to compete for management of the Lincoln County fiber project. If selected, Petrichor could contract with the Lincoln County public entities to provide support and management services if needed. These services could include fiber system mapping, construction project management or technical assistance on funding applications. Petrichor Broadband formed under the authority of the Interlocal Cooperation Act (RCW 39.34.030) to jointly provide wholesale telecommunications facilities. Its collective goals include enabling communication services to unserved or underserved areas; creating economic opportunities, including sustainable community wage jobs; consolidating administrative and operating functions for efficiency; reducing administrative layering; and reducing administrative costs, to the extent consistent with the State of Washington's legislative policy as set forth in RCW 53.08.370.

Petrichor Broadband brings together a collective experience of over 20 years' work on broadband policy and construction of broadband infrastructure. Petrichor Broadband currently manages fiber systems for five other port districts. As part of the agreement for operations and management, Petrichor would provide the following services:

- (1) Fiber and facility mapping, including cut sheet documentation;
- (2) One-Call management services;
- (3) An option to contract for locate services in accordance with standards in the industry;
- (4) Emergency restoration management in accordance with standards in the industry;
- (5) Review of construction design;
- (6) Oversight of Network Operations Center (NOC) contracted services; and
- (7) Management of service order summaries with providers (Figure 6).

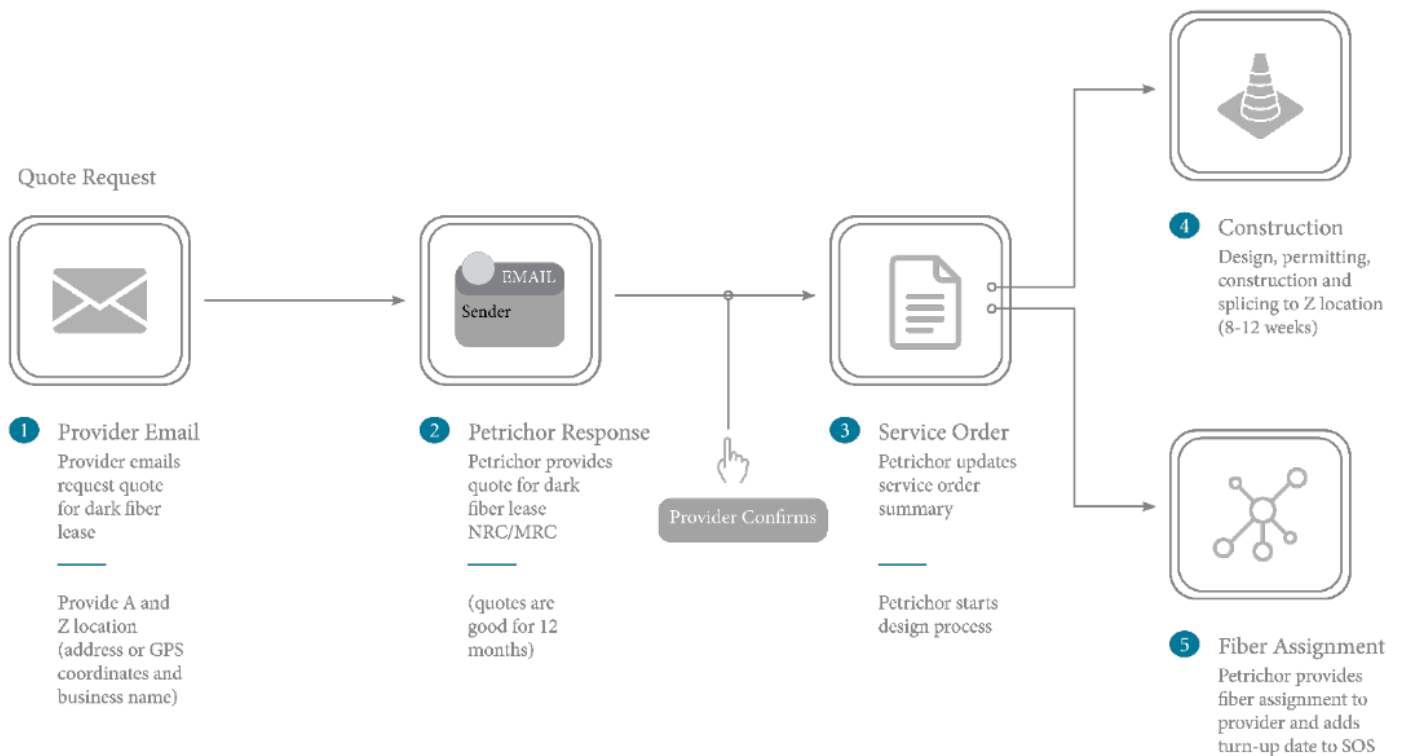


FIGURE 6 - FIBER MANAGEMENT WORKFLOW

The Owner would be responsible for administration of billing and collection; and the collection and remittance of applicable taxes as directed by the State of Washington (Attachment U - Sample Agreement for Fiber Management Services). The costs associated with these services are 15% of the Owner’s gross revenues.

If selected to manage the fiber construction project, Petrichor shall provide the following services for the Project:

- (1) Design process overview and recommendations;
- (2) Assistance with permitting, pole contact agreements, and franchise acquisition;
- (3) Invitation to bid documents and process management;
- (4) Construction oversight;
- (5) Mapping of the project as-built;
- (6) Public outreach guidance as needed; and
- (7) On-site meetings or visits as required.

A sample agreement for these services is shown in Attachment V - Sample Agreement for Construction Oversight Services. The cost for these services would be negotiated depending on timeline of the project and the execution of a fiber management contract.

Benefits of Broadband to the Community

Health and Safety Benefits

Improved broadband access would benefit Lincoln County’s Communications Center, Sheriff’s Office, two police departments, the National Park Service and seven Lincoln County Fire and EMS Districts by ensuring the latest public safety information is readily available.


Essentially, high-speed broadband enables these emergency response personnel to access the right information at the right time. For instance, the Lincoln County Sheriff’s Office has a new smartphone app that allows members of the public to submit crime tips and utilize easy one-touch calling for non-emergency calls. Improved broadband speeds would allow for faster app downloads and better utilization of the program, which in turn, would increase two-way communication between law enforcement and Lincoln County residents. Americans check their cell phones 96 times a day – about once every 10 minutes, according to global tech care company Asurion. This makes public safety apps highly effective for non-emergency crime reporting.

Education Benefits

Washington State’s top education officials recognize that reliable internet is necessary for students and families to experience education equitably. During a 2020 press conference, Washington State Superintendent of Public Instruction Chris Reykdal likened broadband to an essential utility.


“If there’s anyone today who does not see telecom and connectivity as an essential utility, much like water and clean air, then I would challenge them to think about our history,” Reykdal said. “Right now, we must sew the seeds of complete innovation in connectivity for families. It is the way we will learn. It is the way of the future.”

Each of the school districts in Lincoln County employ a variety of online learning resources. For example, the Wilbur-Creston School Districts issue a Chromebook or iPad to their students for use at both school and home. The Davenport School District uses a school management software system, Skyward, that tracks daily attendance, grades and more. Parents/guardians receive a log-in to monitor their student(s) progress throughout the school year. The district also offers a fully accredited, private virtual school for their students in grades 3-12. Odysseyware Academy allows students to recover credits or catch up, complete courses to help them graduate early or participate in athletics or fine arts programs and enroll






Stay informed with current updates from the Lincoln County Sheriff's Office on your smartphone.

Download for FREE!



Scan the QR code and install.

If you are unable to scan the code, type 'Lincoln County Sheriff WA' in the search box of your App Store.



Form #100-2, rev 6/14, Lincoln County Sheriff WA 1457

in courses their school does not offer. Many of the Lincoln County school districts also encourage use of third-party education resources at home, such as Google Classroom, Scholastic Learn from Home, Khan Academy and others.

High-speed, reliable broadband ensures education continues outside the confines of the classroom. This project would support education access for all students in Lincoln County. Focusing on education in communities and rural areas of Lincoln County will help in facilitating companies to grow and expand services. Figure 6 shows the school pickup points for students in schools districts in Lincoln County. There is much work to be done to deliver services to rural areas, especially in these pandemic times when parents and school-age children are both at home using the Internet.

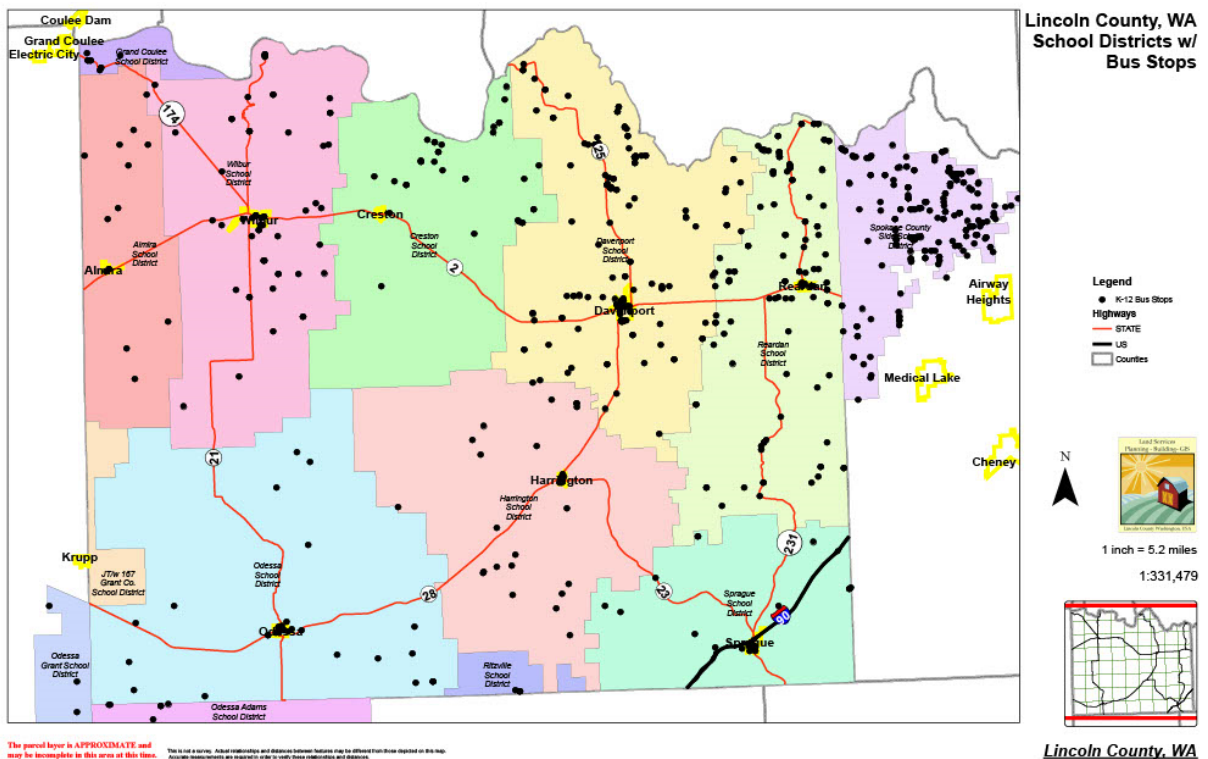


FIGURE 7 - LINCOLN COUNTY SCHOOL DISTRICTS WITH BUS STOPS

Northwest Lincoln County’s opportunities for broadband delivery include options from fiber networks in Grant and Douglas counties. Grant County PUD has fiber builds to the county feeding residential areas in the Grand Coulee School District. An education and incentive program encouraging providers to use these assets could greatly enhance the number of providers, cost, and level of service in the Grand Coulee, Almira, and Wilbur school districts. Discussions with both Grant and Douglas PUD show an interest in providers building upon PUD assets to service Lincoln County. Currently, there is at least one company working on this business strategy.

Digital Inclusion

Each of the five libraries in Lincoln County offers public computers with free WiFi and Microsoft Office software, e-readers available for checkout, digital downloads such as ebooks and audiobooks and digital literacy programs to teach patrons how to best utilize technology. Library locations include Sprague, Davenport, Wilbur, Reardan and Odessa.

Each library offers extensive research databases covering K-12 education, social sciences, science and technology, literature and language, health and medicine, world and local news, business and more. These internet resources are provided equally to all patrons.

In addition, the Lincoln County libraries offer access to online courseware for technology training at no cost through the Washington State Library and Microsoft Imagine Academy. Microsoft's digital literacy program has easy multimedia courses on computer basics, the Internet and online safety – no sign-in required. Advanced users are able to take course that qualify for Microsoft Certification testing. Course topics span the gamut of advanced IT use, from database classes to developer programs.

Together, the Lincoln County libraries offer a robust collection of programs and courses designed to improve the digital literacy of those they serve.

Unserved and Underserved Areas

As part of its Auction 904 Rural Digital Opportunity Fund (RDOF), the FCC mapped the homes and businesses in census blocks that are “entirely unserved by voice and broadband with download speeds of at least 25 Mbps.”⁸ While the RDOF reverse auction can provide rural markets with broadband services there are many unintended consequences with the auction. Unfortunately, it is anticipated that the \$222,768,533 awarded in Washington will be less effective than it could be due to funding of short-term and partial solutions and financial incentives for abandoning sparsely populated areas. In Lincoln County, low earth orbit (LEO) satellite technology (SpaceX) is the first-round winner for much of the territory (Figure 5). LEO satellites appear to deliver broadband speeds adequate for consumer needs in 2020, yet credible analysis suggests that this technology will struggle to meet its 100 Mbps obligation under RDOF as soon as 2028.⁹ To get and keep rural areas of Lincoln County ahead of the broadband demand curve, infrastructure investment must support long-term anticipated growth need for Gigabit speeds by 2030. Under the RDOF award, there will be no investment in telecommunications infrastructure in the area to support public safety, medicine or anchor institutions and private sector companies who require bandwidth for e-commerce. This will leave these areas underserved in terms of the State's broadband goals of 150 symmetrical by 2028. The areas outside of the RDOF territories face similar infrastructure problems. There are more options in Davenport, but the other cities are limited by the ILEC's aging copper infrastructure and satellite options.

⁸ <https://www.fcc.gov/auction/904>

⁹ https://ecfsapi.fcc.gov/file/10208168836021/FBA_LEO_RDOF_Assessment_Final_Report_20210208.pdf

RDOF Winners - Lincoln County, WA

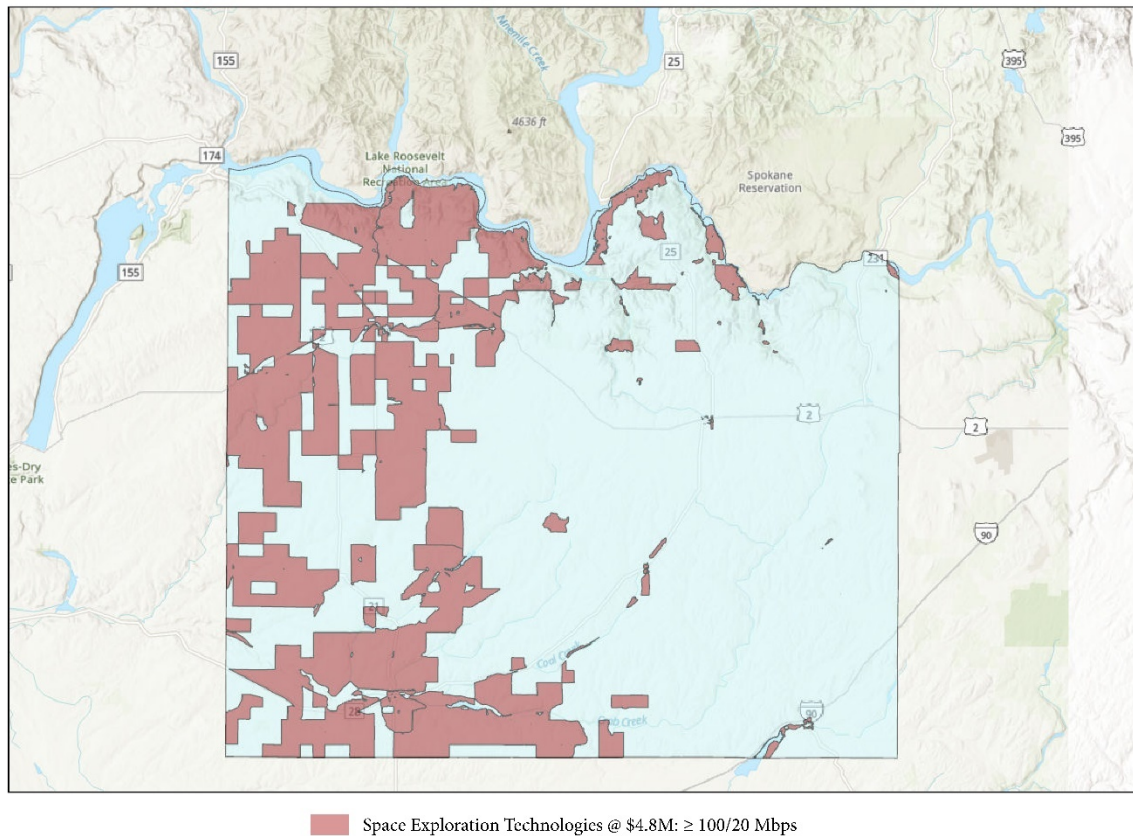


FIGURE 8 - FCC AUCTION 904 MAP

Acknowledgments

During the timeline of this study, our nation has been greatly impeded both socially and economically by COVID-19. The usual methods of networking face-to-face and conducting on-the-ground analysis were not able to take place during this timeline. In this new world we live in, conference calls, electronic communications and video conferencing facilitated the work. Petrichor Broadband, LLC would especially like to thank Lincoln County Commissioner Scott Hutsell and Margie Hall of the Lincoln County Economic Development Council for their invaluable leadership and persistent vision to improve the broadband in Lincoln County.

ATTACHMENT A

BROADBAND TIMELINE FOR LINCOLN COUNTY, WASHINGTON



The 2009 American Recovery & Reinvestment Act (ARRA) included funding to expand access to broadband services. Northwest Open Access Network (NoaNet) received two ARRA grants totaling \$138.8 million to bring high-speed broadband fiber to anchor institutions in rural communities throughout Washington. Lincoln was one of the counties where NoaNet installed the fiber – a \$5 million investment. The following list chronicles the steps taken since the EDC learned that NoaNet was coming.

2021

- As of January 1, the estimated completion date for the CERB-funded planning project is March 31.

2020

- Lincoln County was awarded the CERB grant in January. At the same time, Coronavirus was hitting Washington. A state of emergency was called by the end of February and businesses were closed by the end of March. Schools struggled to move education online in a large, rural county with inadequate options.
- Virtual meetings kept communication flowing for some. Zoom's prevalence enabled a grant-required Community Meeting to take place with over 50 broadband consumers and providers from across the state. Lincoln County and Petrichor Broadband were able to talk about the grant project and get feedback on the plan. Unfortunately, Zoom also separated the rural from the remote rural and half the city halls in the county struggled to Zoom on their 10 down/3 up DSL.

2019

- The Mayor of Harrington was asked to speak in Olympia during an event where Governor Inslee introduced his broadband proposal for the coming biennium.
- The Economic Development Council hosted the Eastern Washington Rural Broadband Workshop in Davenport. The event brought together over a hundred broadband stakeholders to share best practices for the delivery of broadband to rural communities.
- During the 2019 session, the Legislature passed new broadband policy that 1) funded a statewide broadband office; 2) defined and set standards for broadband; 3) established broadband deployment goals; and 4) provided funding for a competitive broadband grant and loan program to be administered by the Public Works Board.
- Partnering with Lincoln County, the EDC submitted an application for a CERB broadband planning grant in November. Petrichor Broadband was the proposed consultant.
- Odessa Office Equipment was purchased by LocalTel Communications at the end of 2019. OOE founder Marlon Schafer will continue to manage the office and staff in Odessa throughout the transition.

2018

- The Harrington PDA's broadband project came to the attention of the State Senate's Committee for Economic Development and International Trade who invited PDA members to talk about the project during a Senate hearing. Eight months later the EDC hosted a policy meeting in Harrington with Governor Inslee's advisor on rural broadband.
- An update to the Lincoln County Comprehensive Plan added Policy 6.14 – *Encourage developers to install the infrastructure necessary for broadband and phone when installing other utilities (Broadband Conduit Deployment Act of 2015)*.
- LocalTel Communications, a provider of fiber internet and phone out of North Central Washington, won the bid for Lincoln County in the Connect America Fund Phase II auction. As the winning bidder, LocalTel will receive \$684,709 to build out fixed broadband to a minimum of 25 Mbps download and 3 Mbps upload speeds with low latency over the next six years. Lincoln County will follow LocalTel builds in Grant and Adams counties and the EDC will work with LocalTel to ease and expedite the process.
- The EDC surveyed Lincoln County business owners about their internet use and needs. Fifty-nine businesses responded and of those businesses, 35 were located within a downtown business district; 15 were located in town, but outside a downtown business district; 8 were located outside of a municipality; and 1 did not use the internet.

Highlights from the survey are:

- 18 (30.5%) find their current internet to be adequate while 41 (69.5%) find their current internet to be inadequate.
- Of the 41 who find their current internet inadequate, the number one complaint was connection is too slow followed by inadequate upload speeds; the slowdown that comes with unlimited data; and the fees associated with data caps.
- 46 of 59 (78%) say that super-fast download and upload speeds will be "very important" to the success of their business in the next few years.

2017

- Lincoln County was invited to participate in a National Telecommunications and Information Administration (NTIA) Connectivity Assessment project. The project enabled Lincoln County to develop a countywide broadband assessment that will support infrastructure funding requests. The project also enabled the NTIA to gain a better understanding of access and adoption in rural areas and greater awareness of discrepancies within the FCC data regularly used by government decision makers.

The assessment resulted in the following "next steps":

- Improve Broadband Availability: Explore white space; utility partnerships; increase hot spots in communities and along highways; derive more value from ARRA-funded fiber.
- Use of Public Assets: How can we streamline access to rights of way, especially on state lands, and tower access?
- Farming & Precision Ag: Improve understanding and support for precision ag for both farmers and Olympia. How much bandwidth is needed for precision ag?
- State Support: Connect with the State broadband office if re-established by legislators.
- Broadband Data Collection and Accuracy: Need way to get local ground truth on broadband availability – house by house. Consider "boots on the ground" crowd source model for house to house survey. Develop a map from the results.
- Digital Skills: Are there opportunities to increase access to digital skills training for adults and businesses? At libraries? Who should lead the process?

Project results are summarized in a report available on the EDC website LincolnEDC.org under the Broadband tab.

- A mid-year meeting with a CenturyLink representative brought more bad news: CenturyLink has no plans in place to expand, replace, or otherwise improve their copper wire network in Lincoln County. Phone lines remain available, but there are no DSL connections available to new customers in several communities unless an existing customer leaves and closes their account.

2016

- The Harrington Public Development Authority (PDA) connected their business district to NoaNet fiber. The PDA purchased the equipment and partnered with internet service provider Spectrum Online Services (now owned by LocalTel Communications) on the installation.
- CenturyLink was awarded financial support through the FCC's Connect America Fund to expand services to Fort Spokane, Seven Bays, Lakeview Ranch Estates, Lincoln, and Deer Heights. By July of 2017, 40 MB service was enabled to all five locations. Since this grant commitment was finalized, no further investment has been reported from CenturyLink.

2015

- T-Mobile installed seven cell towers throughout the county with financial support from FCC Mobility Funds.
- After a couple years of deteriorating service, CenturyLink customers in the northern part of the county reported experiencing bandwidth exhaust. This was confirmed by CenturyLink, who did not have plans to add any new customers or to upgrade service.

2014

- Three service providers pursued contracts to utilize the new NoaNet fiber: Odessa Office Equipment, Spectrum Online Services (purchased by LocalTel in 2017); and an eRate provider from western Washington who serves only the Davenport Library. Odessa Office Equipment is the only one of the three that continues to expand their service area in Lincoln County.

2013

- NoaNet expanded their connections beyond original anchor institutions, adding several schools that were not included in the initial build.
- The County and the EDC partnered on an application for a Local Technology Planning Team grant and it was awarded. The grant was provided by the State Broadband Office, which has since closed. A planning team was formed to 1) Inventory the existing broadband infrastructure in the county; 2) Assess current and potential future broadband access and use; and 3) Evaluate the Lincoln County Public Utility District (PUD) as a middle mile provider by evaluating the models being used by Stevens, Okanogan, Pend Oreille, Douglas, and Chelan counties. Project results are summarized in a report available on the EDC website LincolnEDC.org under the Broadband tab.

2012

- Lincoln County and NoaNet signed mutual inter-local agreements to locate NoaNet's fiber optic hub in the County's datacenter in Davenport.
- The county's first Economic Development Strategy was adopted and included *Broadband Expansion* as a planned infrastructure investment. *Establishing a Broadband Planning Team* and *Implementing a Broadband Expansion Plan* were included in the action plan. The County's Comprehensive Plan will also incorporate those strategies.

2011

- Lincoln County EDC hosted the statewide NoaNet Project launch and a regional Broadband Roundtable in Davenport. Later, a workshop was held for Commissioners, Mayors and Public Works Directors to facilitate communication throughout the install. Because the fiber connections were housed in several libraries, the County's Librarians began working with the Washington State Library to plan for their new fiber connections.

2010

- Lincoln County EDC learned that the county would be included in NoaNet's fiber build. Fiber would be installed to libraries, health care facilities, and schools in six Lincoln County cities and towns. Lincoln County Commissioners and their Information Services & Public Works Departments began meeting with NoaNet in advance of the build to assure that their fiber installation went smoothly.

ATTACHMENT B

**Lincoln County Local Technology Planning Team
Broadband Project Report
June 30, 2014**



ACKNOWLEDGEMENTS

This report was prepared by LCLTPT project staff Margie Hall, Lincoln County Economic Development Council, and Monica Babine, Washington State University Extension Program for Digital Initiatives. The project staff would like to thank:

Funders

Washington State Broadband Office, Washington State Department of Commerce
US Department of Commerce, Nat'l Telecommunications & Information Administration (ARRA)
Lincoln County

Local Technology Planning Team

Lincoln County Commissioners Mark Stedman (Chair,) Scott Hutsell and Rob Coffman
Lincoln Co. PUD Commissioners Jerry Sheffels, Stephen Krupke and Loren Rux
Brad Hudson, Lincoln County Information Services
Will Saunders and Frieda Ray, WA State Broadband Office
Monica Babine, WSU Extension Program for Digital Initiatives
Margie Hall and Joyce Mings, Lincoln Co. Economic Development Council
Jamie Manchester; Librarian, Sprague-Lamont School District
Robert Wyborney, Mayor, Town of Wilbur
MaryJo Krause, Davenport Library Board
Steve Aubuchon, Avista Utilities
Chris Cable, Inland Power
Tom Villani, Northwest Open Access Network

Project Supporters

USDA Rural Development
Washington State University
Lincoln County Information Services, Land Services & Public Works
Lincoln Hospital & Northside Medical Clinics
Odessa Memorial Healthcare Center & Rural Clinic
The Wheatland Rural Libraries & the Washington State Library
School District Superintendents of Lincoln County
Stacey Nash & Students of Wilbur High School
Chelan, Douglas, Okanogan, Pend Oreille & Stevens County Public Utility Districts
Washington Public Utility District Association
Halme Construction
Odessa Office Supply
Chamber of Commerce Members from Davenport, Harrington, Odessa & Wilbur
The businesses that took the LCLTPT's survey.

EXECUTIVE SUMMARY

The Lincoln County Local Technology Planning Team (LCLTPT) project was a planning project to increase broadband awareness, access and adoption in Lincoln County Washington. Lincoln County secured a grant from the Washington State Broadband Office (WSBO) in June 2013 and hired the Lincoln County Economic Development Council (LCEDC) and Washington State University Extension Program for Digital Initiatives (WSU) to staff the project. The LCLTPT included representatives from local government, education, libraries, utilities and economic development.

Since July 2013, the LCLTPT has completed tasks associated with four goals:

- Goal 1: Establish and facilitate the Lincoln County Local Technology Planning Team
- Goal 2: Inventory existing infrastructure
- Goal 3: Assess current and potential future broadband access and use
- Goal 4: Evaluate the Lincoln County Public Utility District (PUD) as a middle mile service provider

During Goal 1 of this project five LCLTPT meetings were held where members provided input to project activities and reviewed findings. Subcommittees were identified and assisted with project tasks. Presentations about federal, state and local broadband efforts and opportunities were provided by staff from WSBO, USDA, Stevens County PUD and NoaNet. Participation was in-person as well as through the use of audio conferencing, Skype and two-way video, including a new interactive video conferencing system and high speed broadband available at the County Courthouse.

Goal 2 included an inventory of Community Anchor Institutions (CAI) to determine use of ARRA-funded fiber and provide input to the WSBO broadband state map. Staff gathered information about fiber use through a survey instrument and onsite interviews with professionals representing 19 locations. An inventory of broadband service providers initially identified 13, based on those reported on the WSBO map, but at the conclusion of the project, the list had grown to 27 providers. The Lincoln County Land Services Department offered in-kind support for the project through the development of a countywide broadband map. This offered a more detailed snapshot of broadband services and potential assets for future expansion than previously available on the WSBO map.

Assessing current and potential broadband access and use in Lincoln County was the focus of Goal 3. This was accomplished through a business and a community assessment. Thirty-two businesses responded to a survey which identified the need for additional awareness building about the business benefits of broadband and indicated an interest in skills training. To slow the outmigration of young people from the County and to address limited educational opportunities beyond K-12, the community assessment focused on the education community.

A focus group and survey gathered information from school leaders about youth outmigration, Internet access at home and online opportunities for post-secondary education.

Even with a \$5 million investment of ARRA-funded fiber, portions of Lincoln County still lacked access to broadband resulting in Goal 4, an evaluation of the Lincoln County PUD as a middle mile service provider. Tasks included research regarding regulatory requirements related to PUDs and broadband, identification of Washington PUDs currently providing broadband services and interviews with five of those PUDs to help evaluate this as a solution for Lincoln County.

Project activities provided new information and insights about current and potential future broadband efforts for the County. Lessons learned will help leaders identify next steps related to increasing broadband availability and use.

INTRODUCTION

Background

Lincoln County is the seventh largest county in Washington State at 2,311 square miles of land and has a population of 10,570 which averages less than five people per square mile. Half of the population lives outside of the eight municipalities, either on farms and ranches or in unincorporated communities. This makes the availability of broadband a challenge, evidenced by the fact that the Washington State Broadband Office (WSBO) *Broadband in Washington 2012 Annual Report* reported Lincoln County as the eighth most un-served county in a state of 39 counties.

In 2010, Lincoln County learned that new high-speed Internet was coming as part of an expansion of middle mile fiber through the American Recovery & Reinvestment Act (ARRA). The US Department of Commerce Broadband Technology Opportunities Program (BTOP) awarded grant money to Northwest Open Access Network (NoaNet) to bring high-speed broadband fiber to rural counties in Washington. This included a \$5 million investment in Lincoln County. The announcement of this, along with ongoing activities of the Lincoln County Economic Development Council (LCEDC), led to a series of events that are summarized on the *History of Broadband Planning in Lincoln County* document (Appendix 1).

As the fiber network was being built, the County and LCEDC began working on efforts to take full advantage of this infrastructure. A planning workshop was facilitated by Washington State University Extension Program for Initiatives (WSU) on April 15, 2013 to identify gaps, goals and determine next steps. This led to submittal of a proposal for funding to the WSBO Local Technology Planning Team (LTPT) program. Lincoln County was successful in the application and the one-year project began on July 1, 2013.

The project focused on four major goals:

- Goal 1: Establish and facilitate the Lincoln County Local Technology Planning Team
- Goal 2: Inventory existing infrastructure
- Goal 3: Assess current and potential future broadband access and use
- Goal 4: Evaluate the Lincoln County Public Utility District (PUD) as a middle mile service provider

This report provides a summary of the LCLTPT activities and findings. Sections of the report are dedicated to each goal and the associated tasks.

GOAL 1: ESTABLISH AND FACILITATE A LOCAL TECHNOLOGY PLANNING TEAM

TASK A & B: FINALIZE MEMBERSHIP AND ESTALISH QUARTERLY MEETING SCHEDULE

Background

Lincoln County's successful receipt of a round two WSBO planning grant provided an opportunity for local leaders to address broadband challenges and opportunities in the region. The first goal of this Lincoln County Local Technology Planning Team (LCLTPT) project was to "Establish and facilitate a local technology planning team".

Process

In July 2013, eighteen stakeholders came together to form the LCLTPT. During the course of the project, five LCLTPT meetings were held where team members provided input to project activities and reviewed project findings. Subcommittees were identified and assisted with project tasks. Presentations about federal, state and local broadband efforts and opportunities were provided by staff from WSBO, USDA, Stevens County PUD and NoaNet. Participation was in-person as well as through the use of audio conferencing, Skype and two-way video, including a new interactive video conferencing system and high speed broadband available at the County Courthouse.

GOAL 2: INVENTORY EXISTING INFRASTRUCTURE

TASK A: COMMUNITY ANCHOR INSTITUTIONS INVENTORY

Background

This section focuses on Task 2A, the Community Anchor Institutions (CAI) inventory.

During 2011 and 2012, Lincoln County received a \$5 million ARRA-funded broadband fiber optics installation by Northwest Open Access Network (NoaNet). This middle mile project built fiber to libraries, medical facilities and government buildings. The investment was seen as an opportunity to address economic and educational challenges in the County. It supported a key business strategy in the Lincoln County Economic Development Strategy, “Provide the telecommunications infrastructure necessary to increase economic opportunity and quality of life”. (Appendix 2)

Development of the infrastructure was a critical step but it must be used to be valuable to the residents and businesses of Lincoln County. To determine if this new broadband investment was in use the LCLTPT identified the need to follow up with CAIs that were recipients of the fiber. The purpose of this inventory effort was to assess current broadband access and use as well as barriers needing to be addressed in order to fully use broadband service at CAIs that had been recipients of ARRA fiber optics.

Process

After reviewing CAI broadband tools from around the country, customized surveys were developed for each type of CAI – library (Appendix 3), municipal (Appendix 4) and medical facilities (Appendix 5). Given the ARRA broadband investment, each version included questions to verify that the fiber had been built to facilities, determine if it was operational and if not, identify why it was not in use. Additional questions were developed that identified the broadband service provider, details about current service (type, cost, satisfaction, etc.), broadband applications in use by staff and customers, as well as a discussion about possible funding sources. Both hardwire and wireless speed tests using the Washington State Broadband Office (WSBO) speed test tool were completed at each facility where interviews were held.

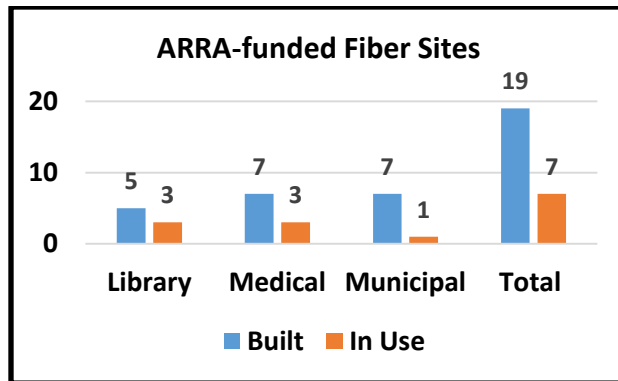
The LCEDC identified the staff member at each organization who could best answer questions about broadband access and use. A personalized email was sent to request an interview. A copy of the survey was attached to the email. It provided background about the LCLTPT project and the interview process. A 30 minute, in-person interview was requested with options for a phone call or returning the completed survey through email or regular mail if that was the preferred method of completing the survey. Follow up calls were made by LCEDC staff to schedule appointments.

Most CAI representatives opted for an in-person interview with one returning the survey via email. The interviews were completed by the LCEDC Executive Director along with either the WSU consultant or a member of the LCLTPT. During March, eight interviews were held with representatives from libraries, Lincoln County and the medical community. Interviews were

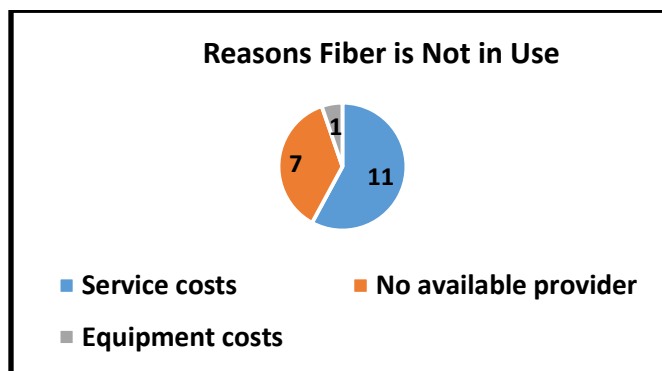
conducted with librarians (five branches), the County IS Director (on behalf of seven locations) and staff from medical facilities (representing two hospitals, four clinics and one assisted living unit). In total, this inventory includes results from 19 CAIs in Lincoln County that received NoaNet fiber. One library that was not included in the ARRA-fiber build out was also included in the interview process. Respondents answered all questions and most interviews were over an hour in length.

Survey and Interview Responses

Since the primary purpose of this inventory effort was to determine if the ARRA-funded broadband fiber in Lincoln County was installed and in use, several questions related to this were included in all three versions of the survey. Of the 19 CAIs, all had fiber built to locations by NoaNet or NoaNet subcontractors. Five libraries have fiber on premise, three of which have last mile providers using the ARRA-funded fiber. Of the seven County facilities, ARRA-funded fiber is only in use at the courthouse/administrative offices. During the LCLTPT project, only three medical locations were using fiber built with ARRA funds.



Facilities where the fiber was not in use were asked, “What is prohibiting you from using the fiber?” Respondents were allowed to choose multiple answers from a list of options. “Need for funding to pay ongoing costs” was selected by four respondents (representing 11 locations). Three, representing 7 facilities, selected “No provider is available to support the service”. One identified “Need funding to pay for equipment needed to (fully) use the service” and several comments during interviews indicated this was a barrier.



Conversations during interviews and since those meetings indicate that some of the facilities using this fiber are still experiencing challenges. For the County, although the courthouse and some administrative offices are using NoaNet, several county facilities continue to use their current provider until a long-term access agreement is in place with NoaNet and a retail service provider. During the NoaNet build out in Lincoln County there was a need for a permanent place to house the NoaNet data center. The County agreed to do this to off-set costs of the fiber use. This has allowed the courthouse to take advantage of the fiber. It has offered increased capacity and new opportunities such as the addition of a new big screen projector that is used by staff, commissioners and others including the LCLTPT. The County is continuing to work with NoaNet to determine appropriate pricing so the annexes will also be able to use the fiber.

When asked about Internet service at the three medical facilities where the fiber was in use staff stated they were “very satisfied” with speed and reliability and “satisfied” with price. However a WSBO speed test conducted during the interview resulted in a download speed of 4.53 Mbs and upload of 35.36 Mbs. Tests by hospital staff reported 2.27 Mbs download and 1.72 Mbs upload on March 26 and 2.34 Mbs down and 0.34 Mbs up on April 28th. Staff was also asked, “What challenges do you have with your current Internet service?” the response was “Too expensive”. Interviewees commented that when invited to participate in the build out they were told the expense would be similar to rates prior to installation of the fiber. Once the new service was available, broadband service increased from \$600 to \$1000 per month. Further discussion about the price of service led to an expression of concern about the ability to continue using the fiber due to potential funding issues as the current rate is subsidized by the Critical Access Hospital Network (CAHN). Since that meeting LCLTPT project staff has been working with hospital staff and NoaNet to address current speed limitations and service sustainability issues.

For libraries to take full advantage of this high speed broadband, e-rate funding is typically required to offset the costs and funding for equipment is also needed. Three of the five libraries have received a Washington State Library (WSL) grant to help purchase the necessary equipment to use the fiber. One has secured e-rate funding approval, purchased equipment with a WSL grant and began using the fiber this spring. Two other branches receive service from a local ISP that is contracting with NoaNet to provide retail service. When the remaining three libraries were asked about the challenges to their DSL Internet service, all selected “Too slow”. However, the speeds seem to match the monthly subscription fees. Two other challenges were identified during the interviews – the need for new hardware and software. An additional challenge is that these libraries are only open 6-10 hours per week.

Whether the CAI was using fiber, T-1s or DSL, Internet access was in use at all locations. Although the list of applications varied dependent on the CAI, when asked, “What do staff use broadband for at this location?”, each selected multiple general uses (communications, professional development/training, etc.) as well as those relevant to the CAI (telehealth, checking out books/cataloging books, applying for licenses/permits, etc.). WiFi was also available for use by staff and customers at all CAIs.

Since funding is often an issue for CAIs, each interview included a discussion of potential public, private and non-profit broadband funding sources. CAI staffs were familiar with some resources but not all options listed in the survey. Each identified additional needs that would require funding and welcomed an opportunity to receive information about sources when available. When WSL and USDA Distance Learning and Telemedicine funding programs were announced, the LCLTPT project staff provided information to the CAIs.

TASK B: INVENTORY OF BROADBAND SERVICE PROVIDERS

Background

Task 2B challenged the LCLTPT to search out all broadband providers serving Lincoln County and to survey them regarding their services, the challenges faced, and plans for the future.

Process

Staff began this task with an inventory of Lincoln County's Internet providers using the 13 providers listed on the Washington State Broadband Office (WSBO) interactive map as of July 29, 2013:

1. Air-Pipe
2. AT&T Mobility LLC
3. CenturyLink (CenturyTel, Inc.)
4. HughesNet (Hughes Network Systems)
5. Inland Cellular LLC
6. Odessa Office Equipment
7. Skycasters
8. Spectrum Online Services LLC
9. StarBand Communications, Inc.
10. StarTouch Broadband Services
11. T-Mobile USA, Inc.
12. ViaSat, Inc.
13. Verizon Wireless (Cellco Partnership)

By the end of the grant year the provider list had grown to 27. Additions include providers that are new to the county; providers staff were unaware were already providing service; and known providers that were not included on the WSBO map. These included:

1. airFiber
2. Asisna
3. Bonneville Power Administration
4. Coulee Internet Services
5. DTMicro
6. EchoStar Communication
7. First Step Internet
8. NoaNet (middle mile only)
9. Noel Communications
10. Ptera
11. PocketiNet
12. RitzCom
13. Sprint
14. Zayo Group

A survey was developed to collect information from these providers about current service offerings and plans for expansion in the future. (Appendix 6) The goal stated in the introduction to the survey was "...to determine current and planned broadband services in

Lincoln County.” Providers were asked to identify the communities in Lincoln County that they serve; whether they serve residential or commercial customers or both; what telecommunications services they provide; and what they see as challenges to providing service within Lincoln County. The survey went on to ask if they had formed a partnership with NoaNet and if they would consider a partnership with the County’s Public Utility District if the opportunity were to present itself. Lastly, it asked providers if they would contribute to the countywide broadband infrastructure map described in Goal 2, Task 2C: Develop a countywide infrastructure broadband map.

The LCLTPT chose to conduct two provider surveys in person. CenturyLink, the leading provider in Lincoln County and an important partner of NoaNet, was interviewed by Monica Babine and Margie Hall through a phone conference on December 6, 2013. Odessa Office Equipment, Lincoln County’s local provider, was interviewed by Monica and Margie on March 26, 2014. The remaining last mile providers were contacted by email, provided with a summary of our broadband planning project, and asked to take the same survey and return it to the LCLTPT. The survey saw a 25% return rate.

Survey Responses

The following is a summary of responses, reported in aggregate:

Q1: Please identify where in Lincoln County you currently provide high speed Internet/broadband services.

Lincoln County’s eight municipalities and eight unincorporated lake and farm communities were listed. All of the municipalities were served by two or three of the providers with the exception of Sprague, which had just one. All unincorporated areas were served by two providers, with the exception the farm communities of Irby, Lamona and Mondovi which had one provider.

Q2: Please identify the types of customers you serve.

All providers reported serving both business and residential customers. Half provide service to Government and one has smaller providers as customers.

Q3: What types of telecommunications services do you provide?

SERVICE TYPES	PROVIDERS
Dial Up/DSL	100%
Cable	0%
Fiber	80%
T1/T3	60%
Ethernet	60%
Wireless – Fixed	80%
Wireless – Mobile	0%
Satellite	0%
Transport	40%

Q4: What are the challenges to providing broadband in Lincoln County?

Several cited population density as a barrier to expansion, the revenue not justifying the cost. The greatest geographic barrier identified was elevation (hills and valleys) and the impact elevation changes have on line-of-sight fixed wireless providers. Wireless providers also cited large areas without access to power as a barrier. The cost to extend power currently excludes some locations from receiving fixed wireless service. Another barrier cited was the growing number of competitors.

Q5: What broadband expansion plans do you have for Lincoln County (within 1-5 years)?

Responses ranged from countywide expansion to no plans to expand. Customer demand was cited as a factor in determining expansion for half of the responders.

Q6: Are you currently partnered or do you have service agreements with NoaNet or any other broadband providers to service customers in Lincoln County?

The surveys showed that 80% of providers have either partnered with NoaNet in the past or are partnering with them now, with the remaining 20% interested in partnering with them. One provider has a partnership with a larger ISP.

Q7: At the request of the Lincoln County Commissioners, the LCLTPT is investigating the potential for the Lincoln County PUD to provide broadband services in the County. If a decision is made to move forward with this, is your company interested in exploration of providing last mile services in partnership with the PUD?

The surveys showed that 80% of providers would be interested in investigating a PUD partnership.

Q8: As part of this WSBO funded project, Lincoln County GIS is developing a more granular broadband map than that available through WSBO or the national broadband map. Would you provide input to this local map?

Responders did provide service area information, but chose not to share infrastructure details.

New Providers & Services

As of May 31, 2014 NoaNet had reached agreements with two providers to utilize their fiber to service Harrington, Odessa and Wilbur. Negotiations continue with another provider that is interested in offering service in the Davenport area. Additionally, the Davenport City Library went live with their NoaNet fiber connection in May, 2014. The library worked with the Washington State Library system to secure the E-Rate discount program and contracted with an E-Rate eligible provider from the west side of the state. The west side provider was their only option. The library's patrons are now enjoying broadband speeds in the 25 Mbps range and 24/7 wi-fi inside and outside.

A fixed wireless Internet provider from Spokane County began to serve the northeast corner of the county during the grant period. They plan to expand south into the county. A second new provider of fixed wireless Internet is promoting service to communities in the northwest corner of the county. The company is utilizing PUD fiber and Ubiquiti Networks microwave technology.

We also learned that T-Mobile was a successful bidder in the Federal Communications Commission (FCC) Mobility Fund Phase I Auction (901.) The company was awarded over \$3.3 million to provide 3G or better mobile voice and broadband services covering 2040 road miles within Lincoln County by 2015. Winning areas in the auction are mapped and posted on the FCC's website. (Appendix 7) On February 14, two LTPT members met with a representative from 52 Eighty, the firm that is doing the tower work for T-Mobile, and learned of their plans to install six new towers and co-locate on three existing towers. On June 19, 2014 the Davenport Times printed Public Notices for the first three towers to be constructed by 52 Eighty. One of the announcements included the following description "...a 301-foot overall height guyed-type telecommunications structure..." The towers are proposed for the Creston, Egypt and Harrington areas. [A notice for a tower near Wilbur has since been published.]

Utility Provider Survey

During the course of the completion of the grant tasks, staff learned about utilities that were partnering on broadband projects or leasing their infrastructure to broadband providers. Staff interviewed Lincoln County's two utility providers, Avista Utilities and Inland Power & Light, to determine if they are providing, or considering providing, any broadband services. Avista Utilities, an investor-owned utility headquartered in Spokane, provides electric service to Lincoln County's eight municipalities and is the County's only natural gas provider. Inland Power and Light, a cooperative that provides electric service to 13 counties in eastern Washington and northern Idaho, serves Lincoln County's unincorporated areas. On December 3, 2013 interviews were conducted with representatives from each company, both of which were members of the LCLTPT. We learned that neither utility is currently involved in the provision of broadband beyond the infrastructure that they use for their own purposes. Avista Utilities does lease power pole space to providers for hanging fiber or cable. Neither representative was aware of any plans to become involved in providing broadband services to their customers in the near future.

Shortly after conducting the utility interviews, the FCC Internet Protocol Technology Transitions Policy Task Force presented the FCC Commissioners with a set of recommendations that would enable utilities to deliver rural broadband with support from the Connect America Fund (CAF). The LCLTPT forwarded the Task Force's recommendations to both Avista and Inland Power so that they would be aware of the potential opportunity to participate in the CAF program. The Lincoln County Economic Development Council (LCEDC) also submitted a formal Expression of Interest in support of the FCC CAF IP Technology Transition Docket 10-90 voluntary experiments. (Appendix 8) Exploration of this new funding option was important as only 36.8% of NoaNet's anchor facilities in Lincoln County are using the ARRA-funded fiber. One of the primary reasons is that service providers are hesitant to invest in the last mile because of the County's low population. The LCEDC believes the Task Force's recommendations would address this.

Dig Once

During interviews with utility representatives both were asked if their companies support a Dig Once policy. Inland Power and Light does not bury utilities and thus has not found Dig Once policies to be necessary. Avista is aware of the Dig Once effort; however we learned that Avista uses subcontractors for excavation projects. We were told that trenching agreements would likely need to be worked out with them, not with Avista. While Lincoln County's utilities may not be ready to coordinate their projects with broadband build-out, some at the Washington State Department of Transportation (WSDOT) are. They see the benefits of coordinating their own communications infrastructure with the communications infrastructure required of emergency responders such as the State Patrol. The LCLTPT began talking to the County's elected officials about the Dig Once idea early on in the grant period and will continue to do so after it is over.

TASK C: BROADBAND INFRASTRUCTURE MAP

Background

Lincoln County's Broadband Infrastructure Map was included in the LCLTPT's scope of work under Goal 2: Inventory existing infrastructure. The objective of Task 2C was to map the ARRA-funded NoaNet fiber, the anchor institutions connected to it, and all other telecommunication infrastructure in the county. The map can be found at the end of this report. (Appendix 9)

Process

Lincoln County's GIS Department was asked to create a county map that included the following:

- NoaNet Fiber and Anchor Institutions
Maps showing fiber locations and the anchor institutions connected to it were provided by NoaNet.
- Other Live and Dark Fiber
A map of Zayo Group's fiber was available on their website. Bonneville Power Administration fiber resides on their transmission lines. The Touch America fiber map was available through Lincoln County. Others declined to have their fiber included.
- Utility Infrastructure
Avista, Bonneville Power Administration and Inland Power infrastructure maps were available through Lincoln County and the utilities.
- Roads
WSDOT roadways are included because WSDOT has included the goal "Improve information system efficiency to users and enhance service delivery by expanding the use of technology." in *Results WSDOT*, the agency's strategic plan for 2014-2017.
- Rail (BNSF & EGR/WSDOT)
Burlington Northern Santa Fe is installing fiber and erecting telecommunication towers along their rail corridor. It is not known if infrastructure exists or is planned for the Eastern Gateway Railroad corridor at this time, but it was included as owner WSDOT could invest at a later date as the railway continues to be upgraded.
- Telecommunication Towers (existing and planned)
Existing towers are identified with a different icon than the 52 Eighty (T-Mobile) towers going through the permitting process now.
- Water Towers and Grain Elevators
Several wireless providers lease space on grain elevators and municipal water towers to install antennas.

The LCLTPT will encourage the County to maintain and update the broadband map as information becomes available.

GOAL 3: ASSESS CURRENT AND POTENTIAL FUTURE BROADBAND ACCESS AND USE

TASK A: BUSINESS ASSESSMENT

Background

The third project goal was to “Assess current and potential future broadband access and use”. Goal 3 included two tasks, a business assessment and a community assessment. Task 3B was to develop and implement a broadband business assessment. A survey was developed to learn what Lincoln County businesses need from high-speed broadband in order to thrive. A LCLTPT business assessment subgroup reviewed several sample surveys to develop a survey that fit our project. A draft was presented to the full LCLTPT committee for review and feedback and was also distributed to a few select businesses for evaluation. The final assessment tool consisted of 19 questions followed by an opportunity to add further comment. (Appendix 10) All questions were optional and those taking the survey could remain anonymous if they chose to. This was an online survey and was available on the EDC website for the month of October, 2013.

Process

The survey was promoted in several ways. A press release was published in the County’s four newspapers. (Appendix 11) The LCEDC distributed a request through their listserv and through their Facebook page. The survey was presented to the Chambers of Commerce who forwarded it to their members; presented to several town and city councils; at the annual Farm Bureau meeting; and flyers were distributed at every opportunity. It was estimated that news of the survey reached a minimum of 300 businesses which, if using that estimate, resulted in close to a ten percent (32 completed surveys) response rate.

Survey Results

In order to get an idea of who responded, four questions related to business location, type and size were included. One survey question asked “In what part of Lincoln County is your business/organization located?” From this question we learned that while the number of responses was small, they came from a good cross section of our 2,200-square-mile county. Approximately three-quarters came from urban areas with all of Lincoln County’s eight municipalities represented with responses. One-quarter came from unincorporated areas – a mix of agricultural regions and communities along Lake Roosevelt. It is common knowledge that these rural areas are underserved.

The survey also asked respondents about their type of business. Those responses can be found in the table at right.

Next, it queried, “Do you or any of your staff use the Internet to work from home?” From 29 multiple choice responses, this is a glimpse of what we learned:

- 31% have staff that work from home part-time
- 13% work from home for another company
- 17% run a full-time, home-based business
- 17% run a part-time, home-based business
- 7% of respondents run a full-time farm business from home
- 15% don’t work from home or have staff that work from home

Q17: Please list your type of business.	
	#
Ag Related	5
Education	1
Health Services	2
Internet Related	2
Manufacturing	1
Non-Profit	1
Retail	5
Service	4
Tourism Related	3
Wholesale	1

Lastly, to determine the size of the businesses that responded a question asked was “Counting yourself, what number of full or part-time employees are in your business?” Businesses ranged from 1 employee to 170. Fifteen businesses had 1 or 2; nine had 3 to 6; two had 7 to 10 employees; and one business each had 20, 44, 45, 90 and 170 employees.

One quarter of the questions explored the current Internet use of the business. The first asked about the visibility of the business on the Internet (Q1.) Results showed that the businesses had a combined 62 online presences. A website was the most widespread at 96% of responders with Facebook second at 53%. Use of Google+, Twitter, YouTube and LinkedIn all came in under 25% and four of the businesses indicated that they had no Internet presence by skipping the question as instructed.

In addition to questions that explored Internet presence, the survey asked responders to identify which of a dozen Internet services were currently in use at their business.

Q2. Please identify which of these Internet services are currently in use at your business. Mark all that apply.		
	Number of Response(s)	Response Ratio
Email	32	100.0%
Research	21	65.6%
Banking	24	75.0%
Placing orders	22	68.7%
Selling products or services	15	46.8%
Providing customer services	18	56.2%
Receiving payments	12	37.5%
Streaming medias (ex: audio or video from	11	34.3%

websites)		
Education/Training	12	37.5%
Uploading/downloading large files (ex: data, photos)	18	56.2%
Video conferencing (ex: GoToMeeting)	8	25.0%
Video chat (ex: Skype)	3	9.3%
Cloud computing (ex: online backup, network storage, Google Apps)	11	34.3%
Other	2	6.2%

When asked how difficult these activities are to complete, respondents had the most difficulty with uploading or downloading large files, video chat applications such as Skype, video conferencing with applications such as GoToMeeting, and streaming audio or video.

Question #4 asked “How important do you think high-speed Internet access is to the success of your business over the next five years?” All 32 businesses responded and the results show:

- 65.6% feel high-speed Internet access will be *extremely important*
- 25.0% feel high-speed Internet access will be *very important*

If a respondent selected either *extremely important* or *very important*, as over 90% of the businesses did, they were asked to comment on how high-speed Internet would help them be successful. Over half said their business is becoming increasingly dependent on the Internet. Some reported that their lack of high-speed Internet causes a loss in revenue. Many remote businesses find the Internet to be critical because they don’t have reliable cell service.

Businesses were asked about their current Internet service. They were asked to select their provider from a list of the Internet Service Providers (ISP) available in Lincoln County (Q5). CenturyLink was the clear leader, providing connectivity to 23 of the 32 respondents (72%); 6 use Odessa Office, Asisna or RitzCom fixed wireless; 2 use ATT and Inland Cellular wireless cellular; and 1 uses HughesNet satellite service.

Responders were asked how much they pay per month for their business Internet service now and if they would pay more for upgraded service:

Comparison of Q7 & Q11: Price of Internet Service		
	Pay Now	Willing to Pay
Less than \$50	5	6
Between \$50 and \$100	17	17
Between \$101 and \$200	6	3
Between \$200 and \$500	1	1
Between \$501 and \$1,000	0	0
Over \$1,000	1	0
Don’t know	2	5

Survey takers were asked how satisfied they were with their provider’s price, speed, reliability and customer service. They were also asked to rate their overall satisfaction. For Overall Satisfaction, the majority of responses fell within the neutral range. However, when ranking the four categories individually, the count peaked at “Dissatisfied” for Price, Speed and Reliability:

Q8. How satisfied are you with your Internet service?					
1 = Very Satisfied, 2 = Satisfied, 3 = Neither Satisfied or Dissatisfied, 4 = Dissatisfied, 5 = Very Dissatisfied					
	1	2	3	4	5
Price	4	7	9	10	1
Speed	3	6	6	14	3
Reliability	3	6	6	11	5
Customer service	3	11	11	5	2
Overall satisfaction	3	5	14	8	2

A pair of questions were directed at download and upload speeds (Q9 & Q10.) The first asked for advertised speeds and the second asked responders to link to the Washington State Broadband Office website and take a speed test to determine their actual Internet speed. Results show that actual speeds appear slower than advertised speeds.

We learned that twelve businesses use the Internet for training (Q2) and four feel their current Internet service limits the training they can provide for their employees (Q12). The final training-related question is shown in the table below:

Q13. If resources can be made available, which topics would you or your staff benefit from? Please check all that apply.		
	Response(s)	Ratio
Internet basics (Ex: email, search)	10	33.3%
Selling online	12	40.0%
Building a website	9	30.0%
Getting website found by search engine	11	36.6%
Online advertising	13	43.3%
Cloud computing	13	43.3%
Using social media for my business (Twitter, Facebook, LinkedIn)	13	43.3%
Setting up online payments on my website	11	36.6%
Marketing my website	14	46.6%
Optimize website for mobile devices (Ex: iPad, smartphone)	13	43.3%
Telework/ telecommuting	8	26.6%
Other	2	6.6%
Total	30	100%

TASK B: COMMUNITY ASSESSMENT

Background

In the grant application, Lincoln County chose to target the parents of school-age children for the community assessment, hoping to learn something that might help the county address concerns regarding youth outmigration and a lack of educational opportunities beyond K-12. The task would be achieved through a partnership with the area School District Superintendents who would rely on students to take the survey home to their parents.

Process

After experiencing the resistance of the business community to be surveyed about their broadband use, it was determined that a third-party survey was likely to be ineffective. After consulting with the Superintendents, they agreed that a survey sent home to parents would likely get a poor response. When asked if teachers would be the next best alternative most did not want their teachers surveyed. Some additional ideas were shared, including a survey of students, before it was determined that the LCLTPT would work directly with the Superintendents.

The Superintendents agreed to meet as a focus group with the EDC Director. If unable to attend the focus group, they agreed to provide information through a survey. (Appendix 12) A few Superintendents asked their career counselors take the survey as well.

Focus Group & Survey Results

On March 20, 2014 a focus group of Superintendents met at the Northeast Washington Educational Service District 101 administration building. Superintendents representing school districts for Almira, Creston, Harrington, Reardan, Sprague and Wilbur were present. Two Superintendents from neighboring counties joined the group, the Lamont Superintendent (Whitman County) from the Sprague-Lamont School District and the Superintendent for the Lind-Ritzville School District (Adams County) which shares sports teams with Sprague-Lamont School District.

A survey was emailed to Superintendents who were unable to attend the focus group. Two Superintendents and two Career Counselors responded to the survey. The responses gathered from both the focus group and the surveys are reported in aggregate:

Q1: Please identify the percentage of your students do not have Internet access at home.
Responses ranged from 10% to 55%.

Q2: Of those who do not have Internet access at home, what are the most likely reasons?
Unaffordable or unreasonable cost, no provider available, service not worth the cost, and religious reasons were the reasons given.

Q3: What are the key reasons that our youth leave Lincoln County after high school?
Most common responses were to get a job, to go to college or trade school, and to enter the Military.

One commented that there would need to be business growth bringing more employment opportunities plus better housing options to keep our young people from moving on after graduation. Another relayed that many students feel they have to go to Spokane in order to find jobs and employers who are willing to hire youth. The cost of commuting to Spokane for job and educational opportunities can be prohibitive and public transportation is extremely limited, was another response.

Q4: If a high school student does not plan to go to college, what types of opportunities do they hope to find locally?

One participant commented, "Without training, very few. With training, lots of opportunities exist."

Other responses included work on a family farm, work at a family trade or work for a local farmer or business owner.

Q5: Do you believe that access to high speed Internet would lead to an increase in the number of students who would take post-secondary classes online?

Most respondents said yes. One was unsure because their school has high speed Internet and this has not increased the use of online coursework. He questioned whether availability of high speed Internet in the community would substantially increase participation in classes online for those who have already graduated. The career counselors, however, reported addressing a lot of inquiries about online coursework and how it works.

NoaNet in Lincoln County Schools

Public schools were not a requirement of the federal ARRA grants that NoaNet received. When NoaNet was making initial decisions regarding build out to anchor institutions, Lincoln County schools were not included. However, during the LCLTPT process staff received a list from NoaNet of all locations within Lincoln County that received fiber during the ARRA build out. The list included six schools that were considered infill by NoaNet and were connected at a later date. When staff asked NoaNet if the schools were using the fiber, the response was that all have "services turned up." This does not necessarily translate to using the fiber, but rather to the fiber being ready to use. These schools are:

- Creston School District (K-12)
- Harrington School District (K-12)
- Davenport Elementary/Middle School
- Davenport High School
- Odessa Elementary/ High School
- Wilbur School District (K-12)

TASK B: STUDENT OUTREACH PROJECT

Background

Task 3B included a second activity, a student outreach project. Section 4 of the WSBO grant application asked, “Does this proposal include methods that provide an innovative approach...to broadband deployment or adoption issues?” Lincoln County’s response was:

Our innovative approach to community needs assessment is to partner with our school districts and focus our community outreach on their students and their families. Targeting this audience would provide a direct link back to our SWOT survey and the findings about youth outmigration and our lack of postsecondary educational opportunities. We will promote participation among parents by linking broadband access and adoption to the very threats and weaknesses they identified through our SWOT survey. We will promote participation among students by sponsoring a competition or contest or both.

Process

The LCEDC teamed with Business Instructor Stacey Nash and the Senior Class of Wilbur High School to participate in Global Entrepreneurship Week. The students created business plans for business start-ups *in Wilbur* and were encouraged to include *unlimited access to the high speed NoaNet fiber* that cuts through their town. In early January fifteen students presented ten business plans.

Only two of the businesses were dependent on high speed broadband – a resource center and a senior health services provider. Even though only a few students made high speed broadband integral to their plan, staff had their attention and talked about the project to get access to the NoaNet fiber that cuts through town. Interestingly, several students did not know about the new fiber or they saw the project going on, but did not know that it was Internet related. All of the students used Facebook and Twitter in their marketing plans. What they did not include in their marketing plans was a website. When asked why they didn’t they said, “We won’t need one.” In response to a follow up question about why they explained that no one uses websites. They can find everything they need on Facebook. That was enlightening. Not only was the project featured on the front page of The Wilbur Register (Appendix 13 & 14), it was submitted to the Washington State Department of Commerce to represent Lincoln County in their StartUp Washington Global Entrepreneurship Week event.

GOAL 4: EVALUATE PUBLIC UTILITY DISTRICT AS A MIDDLE MILE SERVICE PROVIDER

TASK A & B: IDENTIFY AND INTERVIEW PUD BROADBAND PROVIDERS

Background

The first task, 4A, was to identify Washington PUDs currently providing broadband service and develop a tool/process to gather information from these PUDs. Task 4B was to conduct phone interviews or site visits and to summarize the findings from this investigation.

As stated earlier in this report, Lincoln County is the seventh largest county in Washington State at 2,311 square miles of land and has a population of 10,570 which averages less than five people per square mile. Half of the population lives outside of the eight municipalities, either on farms and ranches or in unincorporated communities. It would be extremely difficult to make the business case that would result in a private sector company offering broadband services to many of the more sparsely populated areas of the County. Given this situation, the Lincoln Board of County Commissioners identified that a potential solution for countywide connectivity was to have the Lincoln County PUD provide broadband services. Although an inactive PUD, the PUD Commissioners were interested in helping meet this need.

Process

At the first LCLTPT meeting members were invited to join various committees in support of the project. A PUD Evaluation Committee was formed and included representation by a LC County Commissioner, LC Information Systems staff, three LCPUD Commissioners, staff from two electrical power providers and NoaNet. This committee performed advisory and resource roles for the evaluation task.

Research about Washington PUDs began with a review of applicable legislation. In 2000, the Legislature authorized the state's PUDs to provide wholesale telecommunications services.

RCW 54.16.330

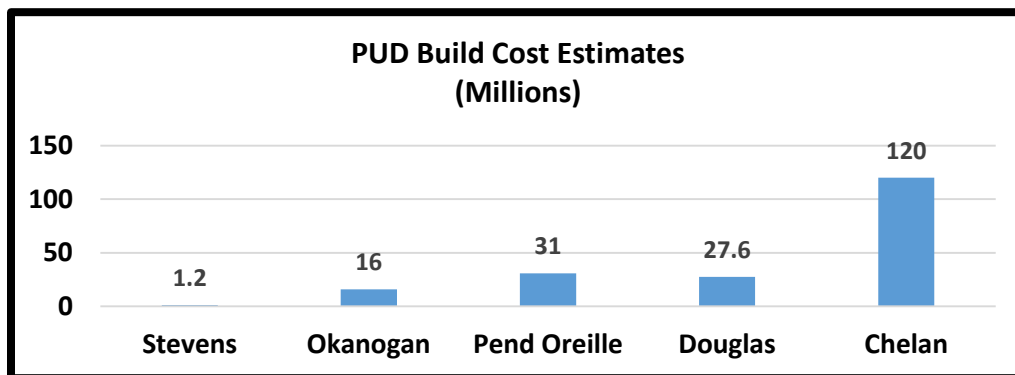
A PUD in existence on June 8, 2000, may construct, purchase, acquire, develop, finance, lease, license, handle, provide, add to, contract for, interconnect, alter, improve, repair, operate, and maintain any telecommunications facilities within or without the district's limits for the following purposes:

- (a) For the district's internal telecommunications needs; and
- (b) For the provision of wholesale telecommunications services within the district and by contract with another public utility district.

Two LCPUD Commissioners joined the LCEDC and WSU Extension PDI staffs to conduct telephone interviews on October 30th with Chelan and Okanogan PUD telecom engineering staff. This team also held in-person interviews on the same day with Pend Oreille and Stevens PUD broadband operations staff. LCEDC and WSU Extension PDI performed a phone interview on November 6th with the Douglas County Community Network Coordinator. An initial summary of the interviews was presented to the LCLTPT at the December 2nd quarterly meeting.

Highlights from the *Broadband Background and Planning* questions include that broadband services for the five PUDs interviewed began between 1999 and 2013 and were already providing other services (five water and four electrical). Four of the five PUDs initially deployed fiber for internal communications and data transmission needs.

When asked about *Broadband Infrastructure Development*, the type of network supported all five answered “Ethernet transport”, four offered “fiber to the premise” and “dark fiber” and three provide “Internet to the premise” and “wireless to the premise”. The estimated broadband infrastructure builds ranged from \$1.2 million (serving two communities, Colville and Kettle Falls) to \$120 million (approximately 12,000 customers).



Multiple funding sources were needed to support broadband construction for all five PUDS. Three received federal grants/loans, three had revenue from other PUD services/reserves, two used local bonds and other sources included County .09 Sales and Use Tax monies, electrical power sales, internal loans, leasing of fiber and storage of equipment. In addition, existing assets PUDS were able to leverage in construction of broadband networks included four that used/shared Right of Ways (ROW) and pole attachments, two used conduit and one was able to use towers.

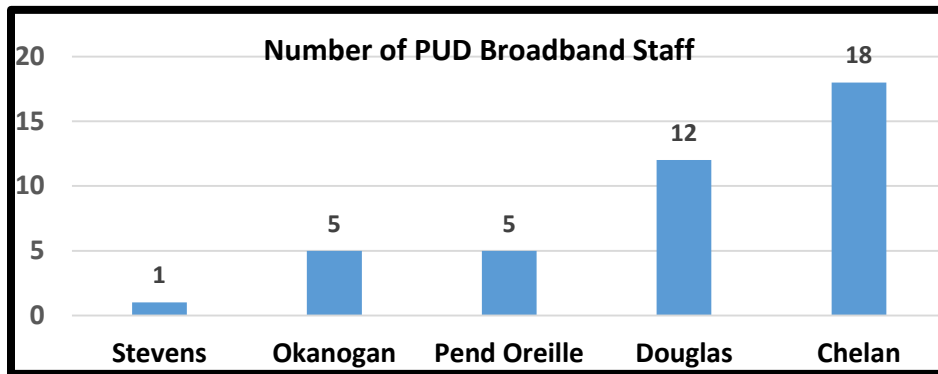
A few “fast fact\$” provided by interviewees about costs included:

- Fiber costs about .41 per foot to purchase but labor is 99% of the expense.
- Cost to deploy overhead fiber was \$30,000 per mile (including approximately 20 poles per mile). If you invest in your own poles, the cost will be closer to \$40,000 per mile.
- From Lincoln County, a 1G pipe will be needed to Spokane. Cost will be \$3000 per month.

When asked about *Broadband Services and Operations*, services offered included wholesale fiber, wire and wireless broadband, data centers and transport. Customer base ranged from 6 to 12,000. One respondent noted, “If not for the carrier customers, the 1700 customer hook-ups would not cover it (expenses).” Each PUD had a limited number of last mile providers and the quality of those providers was critical to the success of broadband efforts.

“Your system is only as good as your last mile providers.”

All noted that during construction and ongoing maintenance required use of staff resources from other departments. The number of dedicated broadband staff ranged from 1-18, with broadband skills critical for some positions.



Each interviewee was asked to provide *General Feedback* and the following were highlights from the responses.

- Need a vision and need to engage the community.
- Learn the true costs of owning, operating, upgrading and maintaining your own system.
- A strictly subscriber model will not cover ongoing monthly operation expenses.
- Get your customers to put some skin in the game.
- Don't get caught up on, “build it and they will come”.

SUMMARY AND NEXT STEPS

Summary and Next Steps: Anchor Institutions

Up from 26% reported at the May LCLTPT meeting, by mid-June 36.8% of the 19 CAIs surveyed were using ARRA funded fiber. To help increase the use of this federal investment, LCLTPT project staff will continue to:

- Provide information to WSBO staff to address issues related to leveraging use of the fiber.
- Participate in ongoing communications with NoaNet about challenges such as speed, high cost, lack of retail service providers, etc.
- Engage and identify retail service providers to help meet last mile needs.
- Share new information with CAIs about broadband funding sources when available.
- Identify resources for CAI staff to increase awareness about broadband benefits and training for greater use.

Summary and Next Steps: Internet Service Providers

Considering the influx of last mile providers interested in serving the area, the LCEDC could continue to track new providers and their services.

Summary and Next Steps: Dig Once Policy

Staff learned that many counties are requiring infrastructure installers to conform to a Dig Once policy. Local governments could look into these policies as a low cost way to build out their networks.

Summary and Next Steps: Broadband Map

The WSBO map will no longer be accessible when that office closes in December. LCLTPT staff strongly recommends the county continue to maintain and update the broadband map created during this project.

Summary and Next Steps: Businesses

While the low number of responses to the business survey precludes any true statistical analysis, we feel that some simple deductions can be made:

- Business stakeholders need to experience the opportunities that high speed broadband can offer before they can determine how they will benefit or what they would pay.
- Business stakeholders are open to learning new skills related to broadband adoption.
- The survey responses, in particular those regarding the importance of high speed broadband in the future, highlight the need for the LCLTPT to continue to network with our business stakeholders.

During the project the LCEDC offered a WordPress class and social media training. LCEDC will continue to identify resources to provide broadband technical assistance and training for businesses in the region. Working with WSU, LCEDC supported submission of a USDA AFRI proposal to provide broadband-related training for rural businesses in nine states.

Summary and Next Steps: Student Project

The Global Entrepreneurship Week business plan competition held at Wilbur High School was a success. The instructor has invited the LCEDC back to repeat the challenge in 2015. The LCINTERNETEDC has accepted and should consider expanding the project to other schools in the county.

Summary and Next Steps: PUD Evaluation

Based on the results of this PUD study, it appears that for the currently inactive PUD to succeed in the broadband business, it would require a significant amount of capital investment, staff with broadband and customer service experience, a diverse product line/monthly revenue stream and strong support from residents of Lincoln County.

Following review of the PUD survey findings, the WPUDA Executive Director offered these thoughts for consideration if Lincoln County decides to proceed with PUD broadband services:

1. *Key Questions:*
 - a. *The PUD should establish a clear policy for **why** they are getting into the business (unserved, underserved populations?)*
 - b. *The PUD should adopt a resolution establishing the policy.*
 - c. *Do they have public buy-in?*
 - d. *They need a very **realistic** business plan.*
 - e. *Do they have sufficient sustainable retail service providers in their PUD service territory?*
 - f. *What happens if the service providers go out of business, what's their backup?*
 - g. *How will they fund the development of the business plan, the construction and operation, future losses during startup?*
 - h. *How many years do they think they have until the business can support itself?*
 - i. *Will they use the PUD general taxing powers to support the business?*
2. *He does not expect any major new funding sources for PUD telecom activities. He also does not see any appetite to changed state policy related to PUD telecom authority. He would make sure that the plan does not assume any changes.*
3. *Next steps should include evaluating the items identified in question #1.*

Although many of these items were addressed in this report, a review of the considerations along with data gathered during other tasks of the project is a logical next step for the LCLTPT project staff and the Lincoln County Commissioners. At that point, a decision can be made regarding if the LC PUD should begin steps to offer broadband services.

ATTACHMENT C

CONNECTING LINCOLN COUNTY



1/30/2018

Lincoln County Broadband Assessment



Connecting Lincoln County

LINCOLN COUNTY BROADBAND ASSESSMENT

Table of Contents

INTRODUCTION	2
COMMUNITY CONNECTIVITY FRAMEWORK	2
BROADBANDUSA CONNECTIVITY ASSESSMENT TOOL.....	3
LINCOLN COUNTY BROADBAND ASSESSMENT TEAM	4
SECTION 1: COMMUNITY CONTEXT	5
COMMUNITY PRIORITIES	5
LEADERSHIP.....	8
STAKEHOLDER ENGAGEMENT	9
POLICY AND ENVIRONMENT	11
SECTION 2: ACCESS - INFRASTRUCTURE & AVAILABILITY	14
BROADBAND ACCESS.....	14
MOBILE ACCESS.....	19
PROVIDER ENGAGEMENT	21
PUBLIC ASSETS	24
SECTION 3: ADOPTION — INCLUSION & SKILLS	27
ADOPTION AND USE	27
DIGITAL INCLUSION	29
DIGITAL SKILLS.....	30
DEVICE OWNERSHIP	32
ACTION PLAN.....	33
RESOURCE LIST.....	34
LINCOLN COUNTY BROADBAND MAP.....	35

Introduction

Broadband is a necessity. Broadband increases the productivity of businesses, enriches education, expands access to health services, supports civic engagement, and drives innovation.

Affordable, reliable access to high-speed broadband is critical to economic growth and competitiveness. Broadband gaps and digital divides cause businesses and families to relocate and limits opportunities. Broadband connectivity and digital proficiencies are critical to community development and sustainability.

Recognizing the importance of connectivity, the Lincoln County Broadband Planning Team accepted an invitation to participate in a national pilot project to test a new online assessment tool. The team’s goal was to use the assessment to update their 2014 broadband study by establishing the current state of broadband in the county and identifying opportunities for improvements.

This report includes the team’s responses to the BroadbandUSA Connectivity Assessment Tool, a tool developed by the National Telecommunications and Information Administration. The assessment scope combines national data with local insights across a range of topics related to broadband infrastructure and assets, adoption and skills, and community context and policies. This is a living document which will be changed and updated to reflect evolving priorities, plans, and progress.

COMMUNITY CONNECTIVITY FRAMEWORK

The assessment is based on a comprehensive planning framework known as the community connectivity framework, which includes:

- Community— Leadership and Context
- Access — Broadband Infrastructure and Availability
- Adoption — Digital Inclusion and Workforce Skills

The framework, which includes 12 modules and over 150 detailed questions, is based on analysis and integration of nearly a dozen major broadband measurement tools and an NTIA-led co-design process that engaged over 800 people and organizations.

Each assessment module aims to address a fundamental question related to community connectivity.



Community— Leadership and Context

- **Community Priorities:** What issues draw us to take action to improve broadband?
- **Leadership:** How is our community organized to take action and improve broadband?
- **Stakeholder Engagement:** Who are our stakeholders? Which stakeholders have interest or influence on the broadband project?
- **Policy Environment:** Are there regional or state resources or regulations that impact local planning and investment?

Access — Broadband Infrastructure and Availability

- **Broadband Access:** What wireline and fixed wireless broadband services are available in the area?
- **Mobile Access:** What cellular technology and coverage is available in the area?
- **Provider Engagement:** Are there opportunities to further strengthen partnerships with existing and new service providers?
- **Public Assets:** How do local policies support the use of public assets, enhance advanced telecommunications and serve the public good?

Adoption — Digital Inclusion and Workforce Skills

- **Adoption and Use:** Who is using the Internet? Are there digital divides?
- **Digital Inclusion:** What proactive measures are we taking to ensure digital inclusion?
- **Digital Skills:** Do programs provide an opportunity for residents to gain digital proficiencies - from basics to coding?
- **Device Ownership:** Do people have access to the devices they need to learn, create and participate?

BROADBANDUSA CONNECTIVITY ASSESSMENT TOOL

The National Telecommunications and Information Administration (NTIA) developed the BroadbandUSA Connectivity Assessment Tool (BCAT) as a tool for local leaders to assess their community connectivity and build actionable plans for improvement. The Assessment Tool localizes national data from the U.S. Census Bureau, Federal Communications Commission, and the NTIA Computer and Internet Survey and invites community stakeholders to conduct deep local assessment across the 12 modules of the Community Connectivity Framework. The report structure includes all questions from all 12 modules.

LINCOLN COUNTY BROADBAND PLANNING TEAM

Broadband Assessment Team

The members of Lincoln County's broadband assessment team:

- Margie Hall – EDC Director, Member of County Broadband Planning Team, & BCAT Project Lead. Representing economic development.
- Joyce Mings – EDC Staff in charge of Tourism & Technology & member of County Broadband Planning Team. Representing small cities.
- Rob Coffman – County Commissioner, Business Owner, & member of County Broadband Planning Team. Representing county government.
- Jamie Manchester – K-12 Technology Coordinator for Davenport School District & member of County Broadband Planning Team. Representing education.
- Rex Harder – CPA, large scale Rancher, & EDC board member. Representing the agricultural industry.
- Steve Goemmel – Davenport City Administrator, tower space contractor, & NoaNet / E-Rate customer. Representing larger cities.
- Marlon Schafer – Owner of Odessa Office Equipment, Lincoln County Internet Provider & NoaNet Contractor. Representing internet providers.

Broadband Planning Background

Lincoln County was one of several eastern Washington counties to receive high speed fiber from an American Recovery & Reinvestment Act infrastructure project in 2011 & 2012. The fiber was built to several anchor institutions in the county (libraries, medical facilities, and schools) and was made available for contract use by last mile internet service providers.

Following the fiber build, Lincoln County received a grant from the Washington State Broadband Office to form a broadband planning team that researched the state of broadband in the county and began defining ways to extend the fiber's benefits beyond anchor institutions. That 2013-14 planning project was the first step toward reaching the county's goal of providing the infrastructure necessary to support businesses and families that require broadband to live and work in Lincoln County.

This BroadbandUSA project was the next step toward achieving that goal.

SECTION 1: COMMUNITY CONTEXT

The Community Sector of the Assessment explores four major questions as indicated here and in the following sections:

- **Community Priorities:** What issues draw us to take action to improve broadband?
- **Leadership:** How is our community organized to take action and improve broadband?
- **Stakeholder Engagement:** Who are our stakeholders? Which stakeholders have interest or influence on the broadband project?
- **Policy Environment:** Are there regional or state resources or regulations that impact local planning and investment?

SECTION 1 – MODULE 1: COMMUNITY PRIORITIES

Question: Areas of Concern

Choosing from a prepared list of concerns that often motivate broadband assessment and planning and improve community connectivity, the team selected the following:

- **Broadband service is not available in all or some parts of our locality.**
- **Mobile wireless coverage is spotty/inadequate.**
- **Broadband services are unreliable and slow in small cities and on farms. Speeds don't meet needs.**
- **Better broadband is needed to attract business; work from home; support telemedicine; support local and distance learning; and drive economic development.**
- **Some broadband providers are too expensive for services offered.**
- **Lack of digital access or skills is creating an opportunity gap for some residents.**
- **Some people who need broadband cannot afford to get the services they need.**
- **We need better broadband in order to offer better government services.**
- **Our workforce needs strong digital skills to be work ready.**

Question: Community Priorities

Provided with a prepared list of community purposes, the team chose those they felt were most important:

- **Citizen Engagement**
- **Economic Development & Innovation**
- **Education & Continuous Learning**
- **Health & Wellness**
- **Public Safety**
- **Government Services**
- **Community Sustainability & Improvement**
- **Transportation**
- **Internet of Things**

Question: Community Goals and Objectives

Taking into consideration these community priorities, what are Lincoln County's broadband-supported community goals and objectives?

Team responses:

Small Cities: My highest priority goal would be to make reliable, fast and affordable broadband available to all residents in Lincoln County. This would make all residents and businesses capable of telecommuting, doing business, fulfilling orders, accessing extended living, accessing telemedicine opportunities, and many more "luxuries" that are taken for granted in high population areas. It would also make the county more attractive to future residents and businesses.

County: Provide reliable service to underserved areas.

Largest Cities: The City of Davenport would like to be able to connect other municipal buildings with high speed internet to allow for security and connection benefits between departments.

Agriculture: Create the infrastructure that will allow technologically skilled people to live in the community.

EDC: Referring to Lincoln County as the community, the EDC gives high priority to Citizen Engagement (Example: Internet access is the most effective alternative to engage in many activities such as keeping up on government regulation that affects the farm); Economic Development (Example: We lost a large employer in 2015 because they could not get the bandwidth the growing business required); Education & Continuous Learning (Example: Lincoln Co. has no post-K12 educational institutions-without online learning a majority of students must leave to learn); Health & Wellness (Example: The population is aging and we need to help them age in place - broadband communication & care coordination can help); Community Sustainability & Improvement (Example: Broadband can slow population decline by allowing telecommuters to move here); and Public Safety (Providing broadband coverage for emergency communications for law enforcement and fire fighters is a critical issue in our rural area. Broadband can provide a base platform for deploying state of the art Emergency Communications systems that would not otherwise be possible.)

Question: Assessment of Data on Broadband Use

The team was provided with state and national data on broadband use by people ages 15 and older [See Appendix Table 1] and was asked if they felt it was representative of Lincoln County.

On a scale of 1 to 7 with 1 being *Representative of Lincoln County to a large extent* and 7 being *Not at all representative of Lincoln County*, the team gave the data an aggregate rating of 4.

The team was asked if there are other key internet uses for Lincoln County residents, businesses, and institutions.

Team response:

Team representatives suggested adding Entertainment (Netflix, Amazon TV, etc.); Precision Farming; Technical Repair Support; and Marketing.

Note: In 2014 Lincoln County surveyed businesses about their Internet use. Key uses were: email, research, banking, purchasing, sales, and providing customer service. We asked how important they felt high speed Internet would be to the success of their business in five years - 65.6% said extremely important. The results of the survey can be found in Lincoln County's 2014 broadband study (See LTPT-2014 link in the Resource List at the end of this report.)

Question: Community vision

The team members were asked if they had an overall vision for their community.

Team responses:

"A region where municipalities, industry leaders, and citizens work together to capitalize on our economic strengths and opportunities, benefitting all who live, work, and play in Lincoln County."

"Diverse Industrial/Commercial growth, supplemented by safe, clean, inviting residential neighborhoods."

Question: Broadband Vision

The team members were asked if they had a vision for a broadband planning effort.

Team responses:

"The world for tomorrow is flat. Everybody needs to be connected."

"That one and all have access to decent and affordable internet service and that no business would ever move out of the area or take us out of consideration due to the lack of."

"To act as a backbone infrastructure to the improvements and growth of the City of Davenport and for other towns in Lincoln County who are planning for it."

"To build on the broadband study we produced in 2014. This assessment project is a good next step in producing that plan. The plan will delineate how we will provide the telecommunications infrastructure necessary to increase economic opportunity and improve quality of life."

Question: Importance of Broadband in Achieving Community Priorities

The team was asked to rate the importance of broadband as a means or component of achieving community priorities.

On a scale of 1 to 7 with 1 being *Not important* and 7 being *Vital*, the team's aggregate rating was 7.

Question: Broadband's Role in the Community

The Team members were asked if they had additional comments about the relationship between broadband goals and broader community goals.

Team comments:

“In today's fast paced business environment reliable high-speed broadband will benefit municipalities, county government and businesses to meet their planning goals and objectives.”

“Broadband must be affordable.”

SECTION 1 – MODULE 2: LEADERSHIP

Question: Broadband Champion

Team members were asked if there is someone in the community who they would describe as a Broadband Champion.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 5. Two leaders were identified. The City Administrator does the broadband planning for Davenport and the EDC does the broadband planning for the county.

Question: Broadband Planning Team

Team members were asked if their community has a formal or informal broadband planning team.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

Note: The county formed a broadband planning team in 2014 that represented most sectors of our community. The City of Davenport also does broadband planning. The team is unaware of any other municipal broadband planning taking place. Internet service providers strategize for expansion.

Question: Needs Assessment

Team members were asked if they have ever asked residents, business leaders, nonprofits and other community stakeholders about their community connectivity needs and interests.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

When asked how outreach was accomplished, responses included:

- **We track input from constituents.**
- **We have conducted community surveys or meetings to discuss community connectivity.**

Note: The County's 2014 study included surveys of anchor institutions; broadband service providers; utility providers; businesses; School District Superintendents; and regional Public Utility Districts who are middle mile providers. [See LTPT-2014 in Resource List].

Question: Broadband Plan

Team members were asked if their community had a broadband plan.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 3.

To support the question, the team was provided with a list of broadband plan scenarios. Their responses were:

- We conduct broadband assessments and planning at least every two years.
- We have done an extensive evaluation of our broadband system.

Note: The EDC plans to use this assessment as the base for a countywide broadband plan.

Question: Community Broadband Leadership

The team was asked how they would describe their community's leadership on topics related to broadband access, adoption, and use.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Extraordinary*, the team's aggregate rating was 3.

The team was asked what changes they would like to see over the next one to two years in the way that their locality is organized to improve broadband service and how to better engage providers, partners, and constituents to improve community connectivity.

Team responses:

The representative for larger cities commented that when costs come down, more will connect to our existing fiber network.

The Economic Development Council director commented that the county has been more focused on access than adoption and use. The EDC would welcome a champion for adoption and use; possibly a community college from a neighboring county. Lincoln County has no post-K12 educational opportunities other than Internet based options.

SECTION 1 – MODULE 3: STAKEHOLDER ENGAGEMENT

Question: Stakeholder Identification

Team members were asked if they had identified broadband planning project stakeholders.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 6.

The team was provided with scenarios for identifying project stakeholders and asked which apply to their locality. Responses were:

- We have a list of stakeholders.
- Stakeholder list includes representatives from a broad cross-section of our community.
- Stakeholder list includes potential contributors, partners, or vendors.

Note: The stakeholders involved in earlier broadband planning included representation from County Commissioners, PUD Commissioners, County Information Services, WA State Broadband Office, WSU Extension Program for Digital Initiatives, Lincoln County Economic Development Council, municipal government, Davenport School District, Lincoln County Public Libraries, utility providers Avista & Inland Power, and Northwest Open Access Network (NoaNet).

Question: Stakeholder Outreach

The team was asked if they have developed and implemented outreach efforts to learn from and engage stakeholders.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 5.

The team was provided with several scenarios for engaging with stakeholders and were asked to identify those that applied to their localities. Responses were:

- We have contacted many of the stakeholders on our list.
- We have advisors that provide insight and direction on broadband projects.
- Our meetings are open to the public.
- Planning documents and meeting notes are publicly available.
- Stakeholder feedback is documented.
- Project plans are regularly adjusted to reflect input from stakeholders.
- Our stakeholder plan includes regular engagement with people or groups that have concerns or may be critical of our efforts.
- Ongoing stakeholder engagement activities are tuned to each audience based on their interest and influence levels.

Note: The County's 2014 study included surveys of anchor institutions; broadband service providers; utility providers; businesses; School District Superintendents; and regional Public Utility Districts who are middle mile providers. Some of these responses refer back to that planning project. [See LTPT-2014 in Resource List.]

Question: Public-Private Partnerships

The team was asked if public-private partnerships are part of broadband planning and project implementation plans.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

Note: See stakeholder list in previous question.

Question: Assessment of Stakeholder Engagement and Partnerships

The team was asked how they would describe the effectiveness of their stakeholder and partnership engagement programs.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Extraordinary*, the team's aggregate rating was 4.

If team members saw greater potential to use stakeholder and partnership engagement programs to strengthen outcomes over the next one to two years, they were asked to comment on the changes they would like to see in those efforts.

Team response:

Stakeholder engagement has improved since the NoaNet fiber build and the subsequent LTPT broadband planning project was implemented. This assessment will fuel even stronger, more informed partnerships moving forward.

SECTION 1 – MODULE 4: POLICY AND ENVIRONMENT

Question: Regulations Pertaining to Broadband

The team was asked if they were knowledgeable about state laws and regulations that pertain to broadband projects in their jurisdiction.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

The team was provided with scenarios regarding laws and regulations and were asked to identify those that apply. Responses were:

- We understand the laws and regulations that restrict/guide local government broadband purchasing.
- My state has laws or regulations that restrict/guide cable franchise agreements.
- State laws or regulations on cable franchise agreements restrict local franchising authority on cable telecommunications providers.
- My state has laws or regulations that restrict/guide government investments in broadband infrastructure.
- My state has laws or regulations that put market restrictions on government broadband networks.

Team member comment: There are some interesting and not always friendly laws and rules on the books for access to public facilities, i.e. rooftops, park lands (hill or mountain tops). Nothing in the current price structure takes into account the size or revenue capabilities of the requesting party. A small entrepreneur is expected to pay the same price as a multinational communications conglomerate.

Question: State & Regional Broadband Funding

The team was asked if their state government provided planning support or funding for local broadband projects.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 2.

Note: At one time Washington State had a broadband office with a grant program to fund planning efforts. The office was closed in 2014, but a bill is currently in front of Legislators that aims to re-establish it. The Washington State Library, under the Office of the Secretary of State, often offers grants that support internet in public libraries.

The team was provided with scenarios for state government planning and funding support and asked which apply to their locality. *The responses assume that the broadband office will be re-established:*

- **We have a state broadband office.**
- **Our state conducts a statewide assessment of broadband availability.**
- **Our state maps broadband availability.**
- **The state broadband office or associated partners provides planning and/technical support for local efforts.**
- **Our state Economic Development office considers broadband a key foundation for economic growth and provides support for broadband projects.**
- **Our state has a statewide e-Rate coordinator that supports school and library e-Rate applications.**

The team members were asked if they were aware of other regional or state programs that support broadband planning or projects.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 3.

The team was asked to identify other known regional or state programs that support broadband planning or projects. Responses were:

- **University Extension offices support broadband planning and projects.**
- **Rural Development offices support broadband planning and projects.**
- **County Commissioners support broadband planning and projects.**
- **The regional Council of Governments supports broadband planning and projects.**
- **Local Economic Development Authorities support broadband planning and projects.**
- **Local cities and towns support broadband planning and projects.**

Question: Consideration of Previous Broadband Efforts

The team was asked if they had considered how previous broadband plans and projects inform current efforts.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 5.

The team was provided with scenarios for considering planning and funding support and asked to identify those that inform current efforts. Responses were:

- **Our locality produced a broadband plan some time ago.**
- **Our locality has completed broadband projects.**

- We have reviewed previous broadband plans and projects to identify accomplishments and lessons learned.
- We have reviewed previous plans and projects to identify risks and jeopardies.
- Other – Lincoln County developed a team that evaluated the current state of broadband in our county. [See LTPT-2014 in Resource List.]

Question: Assessment of Policy and Support Structure

The team members were asked how they would describe the state or regional environment supporting local broadband efforts.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Extraordinary*, the team's aggregate rating was 3.

The team was asked to identify changes they would like to see over the next one to two years in the regulatory, legal or support structure around broadband.

Team response:

The EDC would like to see the State of Washington re-establish a broadband office with a grant program. Federal grants are available, but they are restrictive regarding eligibility, are highly competitive, and often require a prohibitive financial match.

The local provider believes rules need to appropriate to risk. The small entrepreneur with few customers should not be held to the same rules as large corporations with significant staffing. It's important to foster new innovative companies. DSL is a technology from the 1960s that didn't gain popularity until innovators had access to it. Incumbents were forced to share the facilities that were often tax payer (or USF as the case may be) or otherwise publicly funded. Government facilities should be easily accessible for any legitimate business at cost based rates. If the facility is no cost or originally built for other functions, there is no need for the government to try to squeeze every penny out of a company that's spending its own money to improve the facilities available to the local residents. I would suggest that any "nailed down" infrastructure with an expected life span of say 10 years should be abandoned in place if the company ever leaves. This way the government would inherit towers, buildings etc. at no additional cost.

SECTION 2: ACCESS - INFRASTRUCTURE & AVAILABILITY

The Broadband Access sector of the Assessment explores four major questions as indicated here and in the following sections:

- **Broadband Access:** What wireline and fixed wireless broadband services are available in the area?
- **Mobile Access:** What cellular technology and coverage is available in the area?
- **Provider Engagement:** Are there opportunities to further strengthen partnerships with existing and new service providers?
- **Public Assets:** How do local policies support the use of public assets, enhance advanced telecommunications and serve the public good?

SECTION 2 – MODULE 1: BROADBAND ACCESS

Question: Local Assessment of National Data

Local realities are critical to putting together a meaningful action plan. The team was asked to evaluate Federal Communications Commission (FCC) 477 data regarding local provider speeds and technology.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was 3.

Note: The FCC data regarding provider speeds and technology can be found in the Appendix, Tables 2,3,4 & 5.

The team was asked to explain the ways their experience with broadband availability differed from the FCC 477 data:

Team response:

The 2014 LTPT broadband planning project used data from the Washington State Broadband Office interactive map as the starting point for identifying internet providers in Lincoln County. The map identified 13 providers. By the time that study was completed, 14 *additional* providers marketing internet services to Lincoln County had been identified. That list can be found by following the LTPT-2014 link in the Resource List. In comparison, the 2016 FCC list identified only 9. Regardless of the number of providers listed, the team’s representative for the county’s smaller, more isolated communities gave this response:

“There are only two reasonably good choices and one requires line-of-site.”

Satellite is a last-choice option that is generally not considered unless those two options – the land line telecom and a fiber subcontractor with equipment within eye sight - have been eliminated.

The EDC learned from both studies that there is not always truth in advertising service areas and that services promised are not always the services delivered. The team’s independent line-of-site provider agreed that several providers are misleading when advertising their coverage area; listing the same

number of census tracts as satellite companies. Yet there are entire communities that are not accessible to their towers and the providers have no customers there. The independent provider also found the FCC data limited with a surprisingly large number of Wireless ISPs not filing the form 477. There are two from Spokane and one from Moses Lake that are not listed, plus an increasing number of "hobby" level providers that simply take a connection from someone else and then repeat that connection to other locations. The team's independent provider estimated that between 10 and 25 percent of the broadband customers in the Lincoln County market are serviced by providers that are not filing a 477.

Also noted was how many people now use cell phones for their internet access making it important to include cell phone networks when talking about wireless internet. This is true of the team's agriculture representative, who relies heavily on his phone due to the remoteness of his farm. He is not alone. With 73% of Lincoln County in agricultural production, the farms that drive Lincoln County's economy often face the fewest options and highest costs and rely heavily on cell phones.

During the assessment process the representative from the Office of the Chief Information Officer shared that anecdotally, residents of Lincoln County report that CenturyLink is unable to accept new subscriptions in some communities due to a condition called "exhaust" where the company has more potential subscribers than their local central office equipment can accommodate. Indeed, speed test data from [mLab](http://viz.measurementlab.net/location/nauswadavenport?isps=AS11398x) (<http://viz.measurementlab.net/location/nauswadavenport?isps=AS11398x>) suggests that actual download speeds experienced by CenturyLink customers in Davenport are lower than advertised speeds. Offered speeds are 4 Mbps and above, but tests indicate actual subscriber experience as low as 1.6 Mbps. The EDC office had received complaints from residents regarding the deteriorating quality of CenturyLink's service as long ago as 2016. By the time this assessment was complete that rumor had been confirmed. The EDC learned from a CenturyLink representative that the cost to replace copper phone lines with fiber is prohibitive considering the number of customers served. The representative explained that the company does not anticipate any upgrades without government subsidies or incentives.

Question: Local Consumer Broadband Priorities

The team was provided with state and national level data ranking residential consumer's broadband service priorities. The table can be found in the Appendix Table 6. Both state and national data showed the top priority to be reliability followed by a tie between affordability and speed. Knowing the data may or may not be relevant to Lincoln County, the team was asked to identify the greatest concerns of residents in their localities:

Team response:

Access: Large dark spots where access is not available remain in between populated areas.

Reliability: A team member commented that reliability is a common complaint for one provider's customers, adding that *"Speed means nothing when you have no internet."*

Speeds: End users of one provider's services feel they are stuck with service that is slow, frustrating, and incapable of supporting movies or video. Indeed, speed tests indicate inconsistency in the customer

experience with broadband service. Even if the customer's experience is due to local conditions or configurations, the unpredictability negatively affects the perception of reliability.

Regarding the state data, team members would have guessed that speeds would have been a bigger concern for our state since technology drives a good portion of western Washington's economy.

Question: Local Business Broadband Priorities

The FCC data only considered *home use* of the internet. The team was asked to provide key broadband priorities or concerns in the local business community:

Team response:

The team's independent provider finds that reliability is the top concern for business, followed by price. Customer service is becoming more important as businesses increasingly experience issues with their service. A growing number of business customers are using multiple providers along with routers that will offer auto failover. This gives customers nearly 100 percent reliability; has proven to be affordable; and is anticipated to increase in use in the future.

The team's agriculture representative reiterated that our farms, who suffer from some of the least satisfactory service options, are small businesses. In fact, the majority of rural businesses are small businesses and many have limited broadband training and resources. This can result in outsourcing to urban areas.

The team's K-12 technology education representative has seen Lincoln County businesses suffer inefficiencies from slow service.

The representative from the OCIO notes that cybersecurity has been described as a key issue affecting businesses and their willingness to spend on broadband service. The communities of Lincoln County would like to recruit new businesses to the area - not just retain the existing business community. In recruitment of new businesses (especially small and home-based business) disparity between Lincoln County and its neighbors (Grant & Spokane counties) is likely a barrier.

In 2014 the EDC surveyed local businesses about their current and future use of broadband. Thirty-two surveys were completed. The responses indicated:

- 1) Business stakeholders need to experience the opportunities that high-speed broadband can offer before they can determine how they would benefit or what they would pay; and
- 2) Business stakeholders are open to learning new skills related to broadband adoption.

Details of the survey are available by following the LTPT-2014 link in the Resources List.

Question: Local Broadband Pricing

The team was asked for information on local broadband pricing.

Team response:

The team's independent provider reports that retail broadband prices are all over the board. CenturyLink advertises as low as \$20 per month. The WISPs are mostly in the \$50 to \$70 range. Satellite service is in

the \$80 to \$120 range. Any less and the satellite service is all but unusable. Most of the independent provider's business customers pay \$50 to \$100 per month depending on the data threshold they need. Wholesale pricing also varies, but is high. The provider pays \$1,600 for 50 megs plus \$350 per connection via NoaNet, a 2012-2013 ARRA-funded fiber installation that reached underserved communities throughout Washington State. That's much lower than NoaNet's competitor for private wholesale fiber in Lincoln County, CenturyLink. In Douglas County and Grant County to the east he pays \$5.00 and \$5.50 per meg respectively. Urban neighbor Spokane County sees prices under \$3.00 per meg and the State's largest city, Seattle, sees prices closer to \$.25 per meg.

Another team member shared their CenturyLink residential charges for May 2017: \$78.23. The breakdown is \$59.95 for the "package" plus \$11.98 for broadband (HIS up to 3.0 M). The Broadband Services includes a \$9.99 router equipment fee and \$1.99 Broadband Cost Recovery Fee. The "package" is the cost of a landline connection that must be purchased to get broadband.

The team was also asked to relay their insights or concerns about broadband pricing and value in their localities.

Team response:

Team members representing agriculture, K-12 education, and smallest, most isolated cities all noted concern with experiencing few ISP choices, all perceived to charge too much for spotty & unreliable coverage. In other words, the price of plans is high considering the low quality of service they receive. It is especially frustrating for residents who live near the Grant County line, Lincoln County's neighbor to the west. Grant County PUD provides their customers with some of the fastest speeds in the nation.

The team's representative for K-12 noted that families with access to different levels of service may have a hard time affording the higher speeds. Some families can't afford even the slowest speed from the least expensive provider.

The team's local provider is concerned about price variation. "It is unclear how USF/CAF funds affect prices and it is frustrating to see so much competition out here and still have to compete against government funded competition. Under the FCC rules a provider must offer absurdly high speeds and data thresholds and offer voice services to be considered served. In nearly all of Lincoln Co. there are three cell phone companies with 3G or LTE and multiple fixed wireless companies. The FCC doesn't consider an area served properly until people can get 25/3 and 150 gigs of data. The only reason that truly stands up to those standards is TV viewing. So the FCC has set a threshold that funds the incumbent so that the consumer can have cheap entertainment. In June of 2017 out of 1070 devices on our network (including servers and large business customers with multiple PCs) the average per month usage was 29.5 gig downloaded and 5 gig uploaded. Granted, people that want to watch a lot of TV tend to use other providers. That just further illustrates the point that high data use is always about the video, not everything else."

Question: Local Assessment of Broadband Availability

The team was asked how they would rate the availability of broadband services in their locality.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Excellent*, the team's aggregate rating was 4. The scores ranged from 1 to 7 with 1 coming from the small cities representative and 7 from the independent provider. The rest of the team landed in the middle.

The team was asked what changes they would like to see in the next one to two years in the broadband services that are available to residents, businesses, and community anchor institutions in your locality.

Team response:

The EDC would like to see more residents and businesses benefitting from the ARRA funded fiber that was installed through Lincoln County in 2012, including the anchor institutions who received fiber. Greater financial support of our municipal libraries is needed before those anchor institutions can take full advantage of their ARRA fiber. This will require expanding library hours (most average only 10 hours a week); providing technical training for librarians; providing adoption resources for residents; and providing Wi-Fi access outside the libraries when closed. The EDC would also like to see greater support of the two independent providers who have contracts to access the fiber.

Being offered a choice of providers is not always enough to convince people to switch. Residents who have been with a carrier for a long time can be hesitant to leave for fear of ending up with less satisfactory service or higher costs. This is likely common in many rural areas where viable options have only recently (5 years +/-) been entering the market. Another deterrent is the necessary investment in a home antenna when switching to a line-of-sight provider, even though the investment is often recouped in less than a year.

Agriculture, small cities, and OCIO representatives mention the importance of farms having faster, more reliable internet. Farmers, ranchers, and their industry support services depend on GPS and other digital resources more and more. Lincoln County needs to assure that the crop and livestock producers so important to the economy are able to utilize technological advancements. More hot spots are needed from wireless vendors. One farmer in our county is currently participating in a white space pilot program with Microsoft. We hope it will result in new viable options for farms.

Looking at the near future, the team's local provider points out, "We always want higher speeds, better reliability, and lower prices. Realistically, I think speed and reliability are pretty good at the wholesale level." He anticipates prices will come down as fiber investments are paid off over time. At the consumer level, speeds and reliability will continue to go up as equipment and wholesale services get better and cheaper.

In addition to more reliable internet service on farms, the team's OCIO rep would like to see:

- 1) at least 1 gbps in all schools with more than 100 students;**
- 2) nobody gets a "no" when they call to order internet (refer to competitors or publish a sales engineering case that would work (term/volume/price commitment)).**

Lastly, he makes this suggestion, “Six months of ‘Business Class’ service for \$60 for any current subscriber - let people try a higher level of service and see if they like it.”

The team’s K-12 rep would like to see more ISP’s, competitive pricing, and higher speeds. She emphasizes the disparity of service provision in Lincoln County. One customer can get 8.0 Mbps while another a quarter mile away gets 1.5 Mbps, yet both pay the same amount. The K-12 rep would also like to see more wireless hotspots in our towns to provide options for residents who either can’t afford or can’t get access from home.

SECTION 2 – MODULE 2: Mobile Access

Question: Mobile Coverage in Your Area

The team was asked to review the following resources:

Note: All facilities-based broadband providers are required to file data with the FCC twice a year (Form 477) on where they offer Internet access service at speeds exceeding 200 kbps in at least one direction. Mobile providers file maps of their coverage areas for each broadband technology (e.g., 2G, 3G, 4G Non-LTE, 4G LTE).

- Learn more about [477 data resources](#)
- Nation map for [LTE Coverage by Number of Providers](#)
- National map for [Mobile Wireless 3G or Better Coverage by Number of Providers](#)
- National map for [LTE Coverage](#)
- National map for [Mobile Wireless Coverage](#)
- Download the [latest data for your state](#)
- The FCC’s [Mobile Wireless Competition Report](#) provides an annual snapshot of the mobile wireless coverage and technology.
- [Nationwide coverage maps](#) are available at the FCC.
- [Nationwide coverage maps](#) are available at the FCC.

The team was asked if they felt that this information accurately reflects cellular coverage in their locality.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was 4.

The team was asked to highlight the key differences between their experience of cellular coverage and the reported data.

Team responses:

Note: The Mobile Coverage module was not working when the tool was first released so some of the team members were unable to access the resources or respond to the questions.

The rep for small cities was unable to access the resources, but provided a comment: “I don't know what reported data this is referring to. However, while there are many options for cellular service in our town, not one of them is reliable. In Almira, Inland Cellular is probably your best chance of not having to find the best spot and stand on one foot with foil on your head. However, if you drive out of town a few miles, there is a great chance of calls dropping, no broadband etc. Very few people in my circle have kept landlines and I miss being able to have an uninterrupted conversation. It seems like we are going backwards in phone technology.”

Another team member commented, “Local terrain blocks signals and the data needed today is greater than when assessed. You need to understand how fast chip processing and data collection have accelerated.”

Question: Commentary on Cellular Price/Value

The team was asked to comment on the affordability and value of wireless services available to local residents and businesses in their locality.

Team response:

The agriculture rep commented on how quickly the market changes and how often provider contracts lock users into high cost plans.

The county rep feels price and value are standard for the region.

The rep for K-12 reiterated that cell phone service is spotty. Her locality can only get Inland Cellular or AT&T. Inland Cellular has a more limited plan, so most people go with AT&T. “Cell phone plans are expensive and we often have many lost days of service. Sometimes we experience this every month. There are not enough towers to support the county's needs.”

Question: Assessment of Mobile Broadband Availability

Note: The Mobile Coverage module was not working when the tool was first released so some of the team members were unable to respond to the questions.

The team was asked to describe the availability of mobile broadband (data) services in their community.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Excellent*, the team's aggregate rating was 3.

The team was asked how mobile access and associated gaps in service impact their community and what changes they would like to see in cellular services in their region over the next one to two years.

Team response:

The agriculture rep commented that gaps in availability make it hard for businesses to plan for the future. It seems there could be more community based broadband access for limited skills/income people. Access to job opportunities and learning needed skills are critical.

The K-12 rep commented that better coverage is needed in the remote areas of the county and feels

more providers are needed. Sprint and Verizon will not provide services to some of our zip codes. Those that do provide services do not have enough towers to support their customer's needs.

SECTION 2 – MODULE 3: PROVIDER ENGAGEMENT

Team members were asked if they were actively engaged with service providers to understand their current and future plans, aggregate and articulate demand, and enable deployment.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 3.

When provided with a list of engagement scenarios, responses included:

- **We know the service providers that operate in our locality.**
- **We cultivate strong relationships with providers.**
- **Other: We often get reports from providers *after* they have completed upgrades to their service areas.**

Question: Local Assessment of Provider Coverage Data

Two tables of FCC data – one listing ISPs serving the local residential market and one for the business market – were provided to the team members. (See the Appendix Tables 7 & 8.) The team was asked if they felt the tables represent a comprehensive and accurate view of the service provider coverage in their area.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

Question: Open Communications with ISPs

The team was asked if there was open and frequent communications between local broadband champions and service providers in their area.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

The team was provided with scenarios for gaging communication between local broadband champions and service providers in their area. Responses were:

- **We have reviewed the list of residential/business providers that serve our locality.**
- **We have met with some of the residential/business providers that serve our locality at least once.**
- **We have regular open communication with at least one residential/business provider that serves our locality.**

Team response:

Three team members responded to Provider Engagement questions – a county government rep, a city government rep, and the director of the EDC. All three have reviewed the list of residential and business providers serving the locality and all three have met with at least some of them. The county government rep and the EDC director participated in the county’s 2014 Local Technology Planning Team grant and continue to have open communication with some providers of residential and business service. The 2014 grant project also involved a survey of providers with questions about coverage areas, services provided, and challenges to service provision. (See the LTPT-2014 link in the Resources List.)

Question: Demand Aggregation

The team was asked if local leaders assess current and future broadband needs and communicate those needs to engaged providers.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was 2.

The team was provided with criteria to gage the level at which leaders assess current and future broadband needs and communicate those needs to engaged providers. Responses were:

- **We have some awareness of the current and future needs for broadband connectivity in our business community.**
- **We have documented the current and future broadband needs of area businesses.**
- **We have some awareness of the current and future needs for broadband connectivity in our community anchor institutions.**
- **We have documented the current and future broadband needs of community anchor institutions.**
- **We have some awareness of the current and future needs for broadband connectivity among residents and people considering relocating to our community.**

Question: ISP Deployment Plans and Challenges

The team was asked if local leaders engage providers to understand deployment plans, deployment projections, and challenges.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was 3.

The team was provided with criteria to gage the level to which local leaders engage providers to understand deployment plans, deployment projections, and challenges.

Responses were:

- **Our leadership has conveyed what services, speeds, and coverage is needed in this locality.**
- **Residential providers have shared deployment plans and timelines.**
- **Business providers have shared deployment plans and timelines.**

- For providers in our locality that receive e-Rate funding, we understand service contracts and upgrade plans.
- For providers in our locality that receive Connect America Funding, we understand their deployment commitments and timeframes.

Additional Comments:

Lincoln County has two ISPs that serve 95% (estimate) of the county. One is local and we are in frequent communication. The other is a multi-state land line ISP that recently stopped accepting new broadband customers.

Lincoln County requires fiber-related projects to seek right-of-way approval before building. Providers work with local governments to lease antennae space on municipal water towers. To the best of our knowledge only one provider has received CAF funds. Initially they were undecided as to whether or not to accept the funds because of the related expense to them. They did eventually accept the funds and we learned where they would be invested when the provider was ready to build. The rep for larger cities utilizes e-Rate for the NoaNet fiber connection at the local library.

Question: Contract Management

The team was asked if government leaders manage contracts and leaseholds to ensure that those agreements continue to meet the needs and interests of the public.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 1.

The Larger Cities rep commented that their leases and agreements with providers include clearly defined public benefits.

Question: Assessment of Service Provider Engagement

The team was asked to rate the effectiveness of communications, agreements, and partnerships with their service providers.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Extraordinary*, the team's aggregate rating was 3.

The team was asked what changes they would you like to see in the next one to two years in the way that their locality works with service providers.

Team response:

The EDC would like to see support for expanding access to NoaNet fiber, both from contracting ISPs expanding their services and from residents and businesses utilizing their services. Lincoln County's largest provider and only land line telecomm has recently begun to turn down new broadband customers. This presents an opportunity for NoaNet ISP's to grow their markets, however both are line-of-sight providers so are not an option for everyone.

When the EDC reached out to a representative of the land line telecomm we were told that the cost to replace their copper phone wire with fiber is prohibitive considering the number of customers served. The representative explained that the company does not anticipate any upgrades without government subsidies or incentives. (Oct. 2017) It is important to learn what their strategy is moving forward.

The Larger Cities rep would like to develop and maintain an updated list of services to provide to current and future residents and businesses.

SECTION 2 – MODULE 4: PUBLIC ASSETS

Question: Asset Inventory

The government-related team members were asked if they maintain a publicly-accessible inventory of assets. Given a list of criteria specific to publicly-accessible assets, the responses were:

- **Our community has identified the types of public assets that could be used for advanced telecommunications.**
- **Our community maintains an asset inventory - a directory of public assets that could be used for advanced telecommunications.**
- **Providers have told us in the past that location of their fiber is proprietary.**
- **Other: Our asset inventory includes information on asset type, geo-location, and ownership, but is limited to only the NoaNet line.**

Question: Policies for Use of Public Assets

The team was provided with scenarios for developing and managing policies and regulations that facilitate the use of public assets.

Only the larger cities team member responded:

- **Our agency has well-defined policies and procedures that regulate the use of public assets.**
- **Policies have been updated to include considerations for siting wireless infrastructure such as antennas, towers, small cells and outdoor Distributed Antenna Systems.**

Question: Policies about Rights-of-Ways

The team was asked if policies and regulations streamline access to public rights-of-way and support the public interest.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 3.

The government-related team members were provided with scenarios for policy and regulation streamlining access to public rights-of-way in support of the public interest. The responses were:

- **Our community has identified the regulatory or policy jurisdictions for rights-of-way in our locality.**
- **Our agency has identified the state, county, federal, tribal, commercial, and other regulations that apply to rights-of-way in our locality.**
- **For rights-of-way within our management scope, our agency has well-defined policies and procedures that regulate use.**

- **Our jurisdiction has implemented a dig once policy that requires public notice for all trenching or major construction.**
- **Our government actively works to coordinate construction interests to facilitate telecommunications infrastructure deployment as part of construction projects.**
- **We are aware of the rights-of-way regulations on county and state roads and lands in our jurisdiction. Information is accessible in our offices and websites.**
- **We are aware of the rights-of-way regulations on federal roads and lands in our jurisdiction. Information is accessible in our offices and websites.**
- **Policies and procedures that regulate rights-of-way proactively consider requirements for advanced wireless in communities.**

Question: Contract Management

The government-related team members were provided with scenarios for managing contracts and leaseholds to ensure that those agreements continue to meet the needs and interests of the public. Responses were:

- **Leases and agreements with providers are a matter of public record.**
- **Leases and agreements with providers include clearly defined public benefits.**

Question: Use of Government Telecom Infrastructure

The government-related team members were provided with scenarios for leveraging government telecommunication infrastructure to improve broadband services to government agencies, institutions, businesses, and consumers. No scenarios applied.

Question: Public Wi-Fi

Team members were provided with scenarios for providing access to free public Wi-Fi. Responses were:

- **Our community offers free wireless access at public libraries.**
- **Our community offers free wireless access at government buildings [only a few].**
- **We have a fluid directory of Wi-Fi coverage in our geography.**
- **Other: The City of Davenport provides access to free Wi-Fi at the Davenport Municipal Airport.**

Question: Local Assessment of Public Asset Use

The team was asked how they would describe the effectiveness of local policies that promote the use of public assets, enhance telecommunications competition, and serve the public good.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Excellent*, the team's aggregate rating was a 2.

The team was asked what changes they would like to see in the next one to two years in the way that localities manage public assets to advance broadband and community connectivity.

Team response:

While some saw no need for change, the local ISP representative had the following comment:

Public lands and/or facilities are often very hard to deal with, especially for smaller entrepreneurial companies. As an example I have a customer that's got a few trees (less than a dozen I think) in the way in order for him to get perfect line of site to the broadcast site in his area. Nearly all of those trees are on state ground. Not only is he unwilling to cut down an insignificant number of trees (should be specifically allowed to cut x number of trees for fire break, falling safety zone, cell phone coverage, road encroachment or whatever) he's not even willing to ask the state if it would be OK. I can't say if the state would allow the cutting of a few trees in a case like this or not. It's pretty sad when people are so convinced that they'll be told no that the public won't even waste the time to ask. The state should be seen as a supportive friend of the voters, not an opponent who's not approachable or likely to be helpful.

SECTION 3: ADOPTION — INCLUSION & SKILLS

The Adoption Sector of the Assessment explores four major questions as indicated here and in the following sections:

- Adoption and Use: Who is using the Internet? Are there digital divides?
- Digital Inclusion: What proactive measures are we taking to ensure digital inclusion?
- Digital Skills: Do programs provide an opportunity for residents to gain digital proficiencies - from basics to coding?
- Device Ownership: Do people have access to the devices they need to learn, create and participate?

SECTION 3 – MODULE 1: ADOPTION AND USE

Question: Local Assessment of National Data

Team members were provided with national and state level data specific to internet use by adults and school-aged children (see Appendix Tables 9 & 10). The team was asked if they felt the national and state figures squared with their experience of local adoption levels.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was a 4.

Question: Local Commentary on Broadband Adoption and Use

The team was asked to comment on how their experience or data on broadband adoption and use in their localities differed from the national and state level data.

Team response:

The team’s agriculture rep noted that state and national level data is probably skewed because urban areas have far more users and more active users than rural areas.

Both the EDC and the rep for small cities questioned the percentage of people in WA that use the internet at work. With companies like Boeing, Microsoft, and Amazon in the top five employers, 35.9% sounded low.

Both the EDC and the rep for small cities also questioned the percentage of school age children using the internet at school, with 49.3% sounding low. The small cities rep commented on her home town, which has a population of 275:

“In Almira, all of the children use the internet at school and most do at home and have a smart phone. From 6th grade on, all homework is done on the internet. I think most jobs include broadband, also. Even most clerks and servers use a point of sale system. Farmers are using broadband. No longer is the desk job the only place where internet is part of the job.”

The team was asked if they had local data. Lincoln County businesses were surveyed for access and use as part of the county’s 2014 broadband study. (See 2014 LTPT in the Resource List.)

Question: Local Commentary on Broadband Adoption/Divides

For this question, the team was provided with two maps. The first showed Home Broadband Subscription Rates (i.e. adoption rates) by Census Tract *based on information submitted to the FCC* by Internet Service Providers. The second showed Households in Poverty (i.e. non-adopters) based on the 2016 U.S. Census Bureau American Communities Survey. The data in the tables that followed (Appendix Tables 11, 12 & 13) is based on trends at the state and national levels, and may or may not be relevant to Lincoln County. The team was asked to indicate which trends – and gaps – are of the greatest concern to their localities.

Team response:

Regarding the first map, the EDC believes countywide adoption is more consistent than indicated and reminds the NTIA that data based on FCC reporting for Lincoln County does not reflect all providers. Regarding the second map, the EDC would agree that 10-20% is accurate. According to 2016 U.S. Census data, the poverty rate for Lincoln County was 12.5% compared to the state level of 11.3%. Regarding adoption, the 37.8% of adult citizens who "don't need the Internet" in the first table must be the same 65+ group that "don't use the Internet" in the second table. It is increasingly difficult to go through day to day life without needing to access the Internet for something - a phone number, a required farm form, to submit a resume for a job are examples. Everyone "needs the Internet." They likely have help from family, friends or some other resource when they have no alternative to going online.

Of greatest concern for the agriculture rep is the lack of education and affordable access for the lower income community. It is moving in the wrong direction.

Note: In 2014 the EDC surveyed School District Superintendents about student access at home, online education use, and youth outmigration. (See LTPT-2014 in the Resource List.)

The team was asked what changes they would like to see in the next one to two years regarding broadband use and to describe how broadband adoption levels and associated divides impact their communities.

Team response:

The definition of adoption in the BCAT user guide is "The use of broadband in places where it is available, measured as the percentage of households that use broadband in such areas."

The EDC pointed out that the county's libraries are the primary broadband resource outside of homes. Library access is free, but in most libraries it is limited to the hours they are open - 10 hrs. a week on average. The number of computers available in the libraries is low and units are often second hand. Increased support of local libraries would enable a greater level of access by those who do not have internet at home.

The agriculture rep commented that Lincoln County needs robust community based access; similar to the 2-hour free access at airports. Also, affordable subscriptions that do not count access to learning sites.

SECTION 3 – MODULE 2: DIGITAL INCLUSION

Question: Outreach to Under-Served Populations

The team was asked if any organizations or groups in their communities regularly identify, seek out, and understand the needs of under-served individuals/populations.

The team was aware of no organizations or groups who identify, seek out, and understand the needs of under-served adults. The public school system would be the only group that would understand the needs of the county's under-served youth.

Question: Digital Literacy Training

The team was asked if digital literacy training and support are available to residents – either as a stand-alone service or as part of other programs, such as those for education, housing, justice, or workforce development.

Team response:

The team was not aware of any formal digital literacy training taking place. The EDC commented that while five libraries in Lincoln County did receive NoaNet fiber connections in 2012, the librarians did not receive training in digital literacy. Thus there are libraries where there is no 'trainer' available to assist with digital literacy.

Question: Broadband Affordability for Low-Income Households

The team was provided with a list of scenarios for promoting discount or subsidy programs that lower the cost of broadband access for low-incomes individuals and households. The responses were:

- **Our community works to ensure that broadband access services including high-quality Wi-Fi networks are available for residents.**

Comment: Most of our under-funded public libraries turn off their free Wi-Fi at night due to service cost.

The only program that is locally advertised that ensures community members can access affordable internet services is through our only land line telephone/internet provider CenturyLink. They participate in the Lifeline program to make telephone or broadband service more affordable to eligible low-income individuals and families. Their ad states that eligible subscribers can qualify for "reliable home high-speed Internet service up to 1.5Mbps for \$9.95 per month for the first 12 months of service." Up to 1.5Mbps speeds impede personal or community-wide outcomes in my opinion.

Links to CenturyLink's Lifeline program are in the Resource List.

Question: Access to Devices for Low-Income Individuals

The team was asked if their communities take affirmative steps to make sure that low-income individuals have access to appropriate computing devices. Responses from a list of scenarios were:

- **There are physical spaces in our community that provide open access to computers and the Internet. This may include public libraries, educational institutions, government offices, or other community or business centers.**
- **Our community participates in a local or national computer refurbishing program - by encouraging that computing devices be recycled and refurbished.**
- **Other: Lincoln County provides free collection of computing devices for recycling at the solid waste transfer station.**

Question: Accessibility for People with Disabilities

The team was asked if their communities take affirmative steps to ensure that websites and technology programs are accessible to people with disabilities.

Public facilities are ADA-compliant.

Question: Sustainable Funding for Inclusion

The team was asked if their communities have sustainable funding to promote digital inclusion.

Outside of the municipal funding of public library internet and computers, there is no funding for digital inclusion that the team is aware of. One could question if even library funding is sustainable in smaller communities.

Question: Assessment of Community Digital Inclusion Programs

The team was asked what changes they would like to see over the next one to two years in the way that their localities promote digital inclusion and equity and whether or not they feel that uneven digital participation impedes personal or community-wide outcomes.

Team response:

The team is not aware of any formal Digital Inclusion Programming in Lincoln County.

The most likely place for programming to take place would be the public libraries. Training for our librarians would be a step toward promoting inclusion and equity. They need to be trained before they can effectively train others. We would like to see our libraries open more than 10 hours a week, possibly through a partnership with school libraries. Some of our libraries have antiquated computers; some have a single computer, most have two. Library service contracts do not include unlimited access. Library Wi-Fi is free to the public, but it is not 24/7. Only one library leaves their wireless connection on when closed.

SECTION 3 – MODULE 3: DIGITAL SKILLS

Question: Digital Literacy Training and Support

The team was asked if their communities provide digital literacy training and support.

Online resources such as Microsoft Academy are available and can be accessed at home or at public libraries. Public schools provide resources for students. Beyond that, the team is aware of no formal Digital Literacy Training and Support programming.

Question: Training in Job Search and Workforce Skills

The team was asked if their communities provide training in digital job search and work competencies such as research and information literacy, productivity software, and the professional use of social media.

The EDC has talked with librarians about learning how to use job search sites so that they can help residents and the EDC has hosted free public workshops for businesses and start-ups to develop a website, get found on Google, or promote their products or services online through social media. They are unaware of any other training being offered.

Note: Lincoln County has no brick & mortar post-K12 facilities.

Question: Training in Collaboration and Content Creation

The team was asked if their communities provide opportunities for students and adults to learn the skills and responsibilities necessary to collaborate and create content online.

The team is not aware of any structured training for collaborating and creating online content for adults. There is some training in the public schools, however the team is unaware of the extent of that training. Microsoft Academy offers access to free courses.

Question: Training in Coding and Computer Science

The team was asked if students and adults have opportunities to learn coding skills, computer science, application development, and related skills.

The team is not aware of any structured training for coding skills, computer science, application development, and related skills for adults. There is some training in the public schools, however the team is unaware of the extent of that training. Microsoft Academy offers access to free courses.

Question: Training in Privacy and Online Safety

The team was asked if their communities affirmatively address privacy, security, and online safety.

The team is not aware of any structured training in Privacy and Online Safety. There may be training in the public schools, however the team is unaware of any.

Question: Assessment on Local Information and Technology Skills

The team was asked if Lincoln County is building an information savvy and tech-aware culture.

On a scale of 1 to 7 with 1 being *Initial stages* and 7 being *Info and tech savvy*, the team's aggregate rating was a 1.

The team was asked what changes they would like to see over the next one to two years in the way that their localities invest in creating/strengthening digital skills.

Team response:

Rural Lincoln County does not have a workforce development office; an employment security office; a Small Business Development Center; or a community college - the resources found in urban area that typically provide IT training. Talks are currently taking place for Community Colleges of Spokane to offer adult GED classes in county. Ideally, we would like to see that expand to other adult literacy training, including digital.

SECTION 3 – MODULE 4: DEVICE OWNERSHIP

Question: Device Ownership

The team was provided with a table that gave state and national level data on ownership of internet-enabled devices that Americans have in their homes (see Appendix Table 14). The team was asked if the data squares with their experience of local device ownership levels.

The local provider is likely to have the most accurate picture of device ownership in Lincoln County. On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the local provider rated the data a 4.

Question: Device Access for Low-Income Individuals

The team was asked if their communities take affirmative steps to make sure that low-income individuals have access to appropriate computing devices.

Low-income individuals have access to computers at public libraries. Students have access to computers and tablets in the public schools. The team does not know if other devices are available.

ACTION PLAN FOR LINCOLN COUNTY

Summary of pain points specific to Lincoln County

1. Lincoln County has a population of less than 5 people per square mile.
2. There are limited choices for customers in the unincorporated areas.
3. Service speeds are low, even in Lincoln County's urban areas.
4. Low speed connections make it difficult for municipalities to link buildings and departments.
5. Some outlying areas served by copper phone lines are over-allocated, leaving customers choked out.

Note: The same copper phone lines are now preventing one provider from accepting new broadband customers.

6. Pain points affect more than residents and brick-and-mortar businesses. They jeopardize valuable solutions for rural areas including home-based businesses; telecommuting; farmers using technology for agricultural purposes; and online learning.
7. Mobile access faces similar problems to broadband.

Next Steps

1. Improve Broadband Availability: Explore white space; utility partnerships; increase hot spots in communities and along highways; derive more value from ARRA-funded fiber.
2. Use of Public Assets: How can we streamline access to rights of way, especially on state lands, and tower access?
3. Digital Skills: Are there opportunities to increase access to digital skills training for adults and businesses? At libraries? Elsewhere? Who could lead?
4. NTIA Support: Don Williams is available for Technical Assistance.
5. Farming and Precision Ag: Improve understanding and support for precision ag for both farmers and Olympia. How much bandwidth is needed for precision ag? *"If our farms fall behind, our county falls behind."*
6. State Support: Connect with the State broadband office and grant program if re-established by legislators.
7. Broadband data collection and accuracy: Need way to get local ground truth on broadband availability – house by house. Consider 'boots on the ground' crowd source model. House to house survey. Consider local map.

RESOURCE LIST

LTPT-2014 Lincoln County's 2014 Local Technology Planning Team Report

<http://lincolnedc.org/businessresources/broadband/>

<http://lincolnedc.org/wp-content/uploads/2013/07/Lincoln-County-Broadband-Infrastructure-Map.pdf>

City of Davenport

<http://www.davenportwa.us/%20%20>

Legislation regarding Public Utility Districts and the provision of wholesale broadband

<https://app.leg.wa.gov/rcw/default.aspx?cite=54.16.330>

Harrington Millennials Make Broadband A Priority. Story of an innovative project that brought high speed broadband to the business district of a Lincoln County WA town with a population of 450.

<http://lincolnedc.org/businessresources/broadband/>

2011 Annual Report on Broadband in Washington (Produced by the Washington State Broadband Office)

https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=2011BBAnnualRptFINAL_9fb9071e-b3b9-4843-a318-a3ace0234926.pdf

2012 Annual Report on Broadband in Washington (Produced by the Washington State Broadband Office)

https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=Broadband-2012-Report-FINAL_565a117f-e5ee-49d0-85d2-8e8398d85c18.pdf

WA State broadband data (from old state broadband office). Privacy/Data office will post new data here.

<https://data.wa.gov/browse?tags=broadband>

<http://privacy.wa.gov/broadband-maps%20%20https://data.wa.gov/browse?tags=broadband>

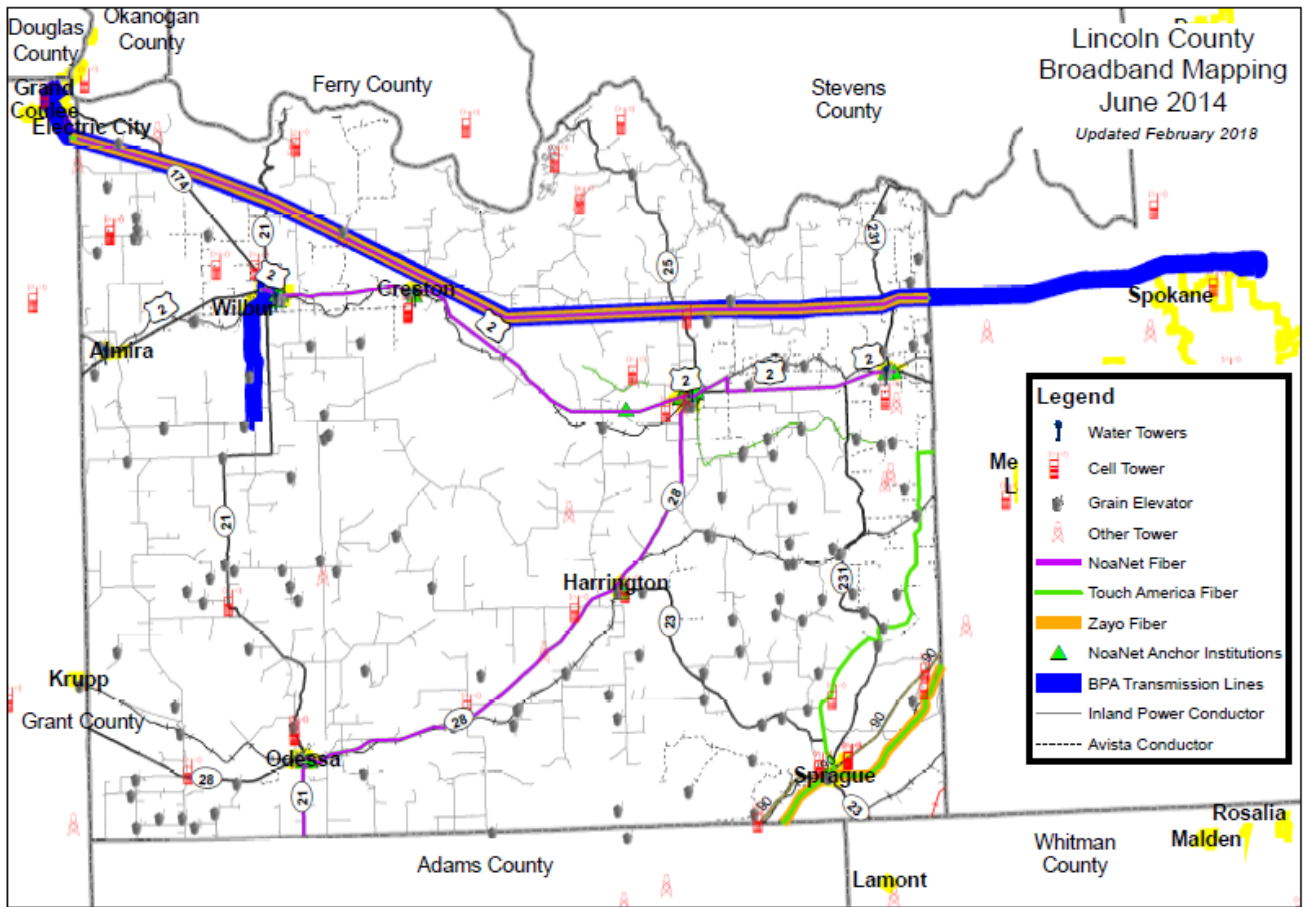
Open source for internet service measurement

<http://viz.measurementlab.net/location/nauswadavenport?isps=AS11398x%20>

The links included in an advertisement for CenturyLink's Lifeline program:

<http://www.centurylink.com/lifeline%20and%20www.centurylink.com/internetbasics%20and%20www.lifelinesupport.org/lis/change-my-company.aspx>

LINCOLN COUNTY BROADBAND MAP



ATTACHMENT D

FOR IMMEDIATE RELEASE

Margie Hall
Executive Director
Lincoln County Economic Development Council
303 6th St., Davenport WA 99122
(509) 368-7085 / Margie@LincolnEDC.org

LINCOLN COUNTY BROADBAND EXPANSION GROWS CLOSER TO REALITY

(Davenport, WA, July 7, 2020.) Washington State's Community Economic Revitalization Board (CERB) recently awarded Lincoln County a broadband planning grant to study and design countywide broadband expansion options. Key components of the project include building a minimum 1 Gbps fiber-to-the-premises network in Lincoln County's eight incorporated communities, eliminating coverage gaps in unincorporated areas, and evaluating a management plan that would include a long term partnership with the County's project consultant, Petrichor.

Petrichor Broadband, a new broadband cooperative of six Washington Port Districts, brings the legislated ability to manage the network and provide publically operated high-speed middle-mile infrastructure to ISPs. Petrichor Broadband's model shares the cost of fiber over multiple ISPs, lowering their cost of doing business. Lower overhead costs will attract more ISPs and that brings more options to Lincoln County citizens.

A publically operated network is a strategy to position Lincoln County for growth. With increasing industrial development in west Spokane County and the expansion of the federal government cluster in Grand Coulee to the east, a high-speed Lincoln County will be the ideal location for commercial, industrial, and residential development.

This project builds on years of planning initiated by the installation of ARRA fiber through Lincoln County in 2012. Since then, Lincoln County Commissioners and the Economic Development Council have prioritized high-speed broadband for all. This study is a major milestone toward construction. For more information contact Margie Hall, Director of the Economic Development Council at Margie@LincolnEDC.org.

ATTACHMENT E

Zoom Invitation: Lincoln Co. Broadband Expansion Project - Message (HTML)

File Message Tell me what you want to do...

Ignore Delete Reply Reply All Forward More

WWSBEG To Manager Reply & Delete

Team Email

Create New

Move OneNote Actions

Mark Unread Follow Up

Translate Find Related Select

Zoom

Zoom

Thu 7/2/2020 9:28 AM

Margie Hall <margie@lincolnedc.org>

Zoom Invitation: Lincoln Co. Broadband Expansion Project

To 'Margie Hall'

Bcc Brian.Tucci@t-mobile.com; brianf@inlandcell.com; chriscc@inlandpower.com; cwalker@noanet.net; dchase@wifiber.net; hermans@localtel.com; info@wow-tel.com; james.prop@zayo.com; janet@cougarwireless.com; jedwards@inlandcell.com; jeffj@inlandcell.com; john@localtel.com; keith@startouch.com; kevin.bennett@hughes.net; ksmith@ptera.com; mark.gustafson@avistacorp.com; ronj.prwgp@gmail.com; sandz.hinrichs@centurylink.com; tmoore@asisna.com; ww348j@att.com

To the telecommunication and utility providers serving Lincoln County, Washington:

Lincoln County Commissioners, the Lincoln County Economic Development Council, and project consultant Petrichor, a broadband cooperative of six WA Port Districts, invite you to join them for a Community Broadband Meeting. This meeting is in support of Lincoln County's CERB-funded broadband planning grant to develop a design-cost analysis for both a 1-gigabit fiber-to-the-home network within Lincoln County's eight municipalities and a high-speed broadband network to serve the unincorporated areas of the county. **The Zoom Meeting will be Monday, July 13 from 9:00 to 10:30 AM.** The meeting invitation link is below.

We hope that you will join us to learn about Lincoln County's plans. If there is a member of your organization that should also be invited please send their contact info to Margie@LincolnEDC.org. Thank you in advance for your interest and participation.

Margie Hall

Topic: Community Broadband Meeting
Time: Jul 13, 2020 09:00 AM Pacific Time (US and Canada)

Join Zoom Meeting
<https://us02web.zoom.us/j/88479536617>

Meeting ID: 884 7953 6617
One tap mobile
+12532158782,,88479536617# US (Tacoma)
+16699009128,,88479536617# US (San Jose)

Dial by your location

Type here to search

10:23 AM 7/2/2020

ATTACHMENT F

LINCOLN COUNTY COMMUNITY BROADBAND MEETING TOPIC: BROADBAND FEASIBILITY STUDY

JULY 13, 2020

AGENDA

Welcome – Scott Hutsell, Lincoln County Commissioner

Project Information – Margie Hall, Director, Economic Development Council

Project Scope of Work – Kara Riebold, Petrichor Broadband LLC

Benefits to High Speed Broadband for Businesses and Residents

The Pandemic and our Schools

Feedback and Suggestions

Closing

ATTACHMENT G

Lincoln County Community Broadband Meeting Attendees

July 7, 2020

Affiliation	Attendee	Title	Contact Information
Petrichor	Kara Riebold	Project Consultant	Kara@PortWhitman.com
Lincoln County	Rob Coffman	Commissioner	rcoffman@co.lincoln.wa.us
Lincoln County	Scott Hutsell	Commissioner	shutsell@co.lincoln.wa.us
Lincoln County	Mark Stedman	Commissioner	mstedman@co.lincoln.wa.us
Lincoln County	Andrew Rustad	Information Services Director	arustad@co.lincoln.wa.us
Lincoln County	Courtney Thompson	Planner & GIS	cthompson@co.lincoln.wa.us
Lincoln County EDC / BAT	Margie Hall	Exec. Director	margie@lincolnedc.org
Lincoln County EDC / BAT	Joyce Mings	Administration	joyce@lincolnedc.org
Lincoln County EDC / BAT	Jamie Manchester	Board	jamiemanchester4206@gmail.com
Lincoln County EDC / BAT	Don Phillips	Board	donphillips68@gmail.com
Lincoln County EDC / BAT	Rex Harder	Board	harderoc@icloud.com
Lincoln County EDC / BAT	Kelly Watkins	Board	kwatkins@co.lincoln.wa.us
City of Harrington	Justin Slack	City Council	justin.slack@gmail.com
Town of Wilbur	Melissa Bulger	Deputy Clerk	tow@wilburwa.com
Almira S.D. (K-6)	Shauna Schmerer	Superintendent	sschmerer@almirasd.org
Davenport S.D. (K-12)	Jim Kowalkowski	Superintendent	jimkowalkowski@davenport.wednet.edu
Harrington S.D. (K-12)	Wayne Massie	Superintendent	wmassie@harringtonsd.org
Reardan-Edwall S.D. (K-12)	Eric Sobotta	Superintendent	esobotta@reardansd.net
Sprague-Lamont S.D. (7-12)	Bill Ressel	Superintendent	bressel@sprague.wednet.edu
NE WA Educ. Service District 101	Matt Feilder	Network Service Analyst	mfeider@esd101.net
Lincoln Hospital Dist #1 - Odessa	Marcus Horak	Special Services/HIM Director	HorakM@omhc.org
Lincoln Hospital Dist #3 - Dav.	Tyson Lacy	CEO	lacyte@lhd3.org
WA State Library	Carolyn Peterson	Library Development	carolyn.petersen@sos.wa.gov
Reardan Public Library	Suzanne Shultz	Librarian	library@townofreardan.com
Avista Utilities	Paul Kimmell	Business & Public Affairs	paul.kimmell@avistacorp.com
Avista Utilities	Mark Gustafson	Dir. Innovation & Strategy	mark.gustafson@avistacorp.com
Avista Utilities	David Schafer	Innovation Program Mgr.	david.schafer@avistacorp.com
Inland Power & Light / BAT	Chris Cable	IT Director (called after meeting)	chris@inlandpower.com
WSU Ext. Digital Initiatives / BAT	Monica Babine	Consultant on LTPT Grant	babinem@wsu.edu
Odessa Office Equipment / BAT	Marlon Schafer	ISP	marlons@localtel.com
Stevens County BAT Lead	Debra Hanson	WSU Ext. Director	debra.hansen@wsu.edu
Innovia	Kylee Dickinson	Research Intern	dickinkr@plu.edu
ATT (Wireless)	John LoGreco	Tech Sales/Gov. & Education	13602607031

Lincoln County Community Broadband Meeting Attendees
July 7, 2020

HughesNet (Satellite)	Kevin Bennett	Business Sales - Gov't	kevin.bennett@hughes.net
LocalTel (Wireless-CAF II winner)	Herman Schreven	Reg. Manager for LC	hermans@localtel.com
LocalTel (Wireless-CAF II winner)	Bob Iverson	ISP	bobi@localtel.com
ATT (Wireless)	Rob Waites	Client Solutions Exec.	ww348j@att.com
Comcast	Kevin Yamashiro	Enterprise Sales Mgr. (Tigard OR)	kevin_yamashiro@cable.comcast.com
Ptera Inc.	Kevin Smith	ISP	ksmith@ptera.com
Pacific NorthWest GigaPop	Ron Johnson	CEO	ronj.pnwgp@gmail.com
NoaNet	Chris Walker		cwalker@noanet.net
NoaNet	Claire Ward		claire.ward@noanet.net
unknown	15033144593		Oregon Number
unknown	12084769829		Clearwater County, ID Economic Development
unidentified	15099880560		
unidentified	15097933544		
unidentified	Geo		
unidentified	S-SE		
unidentified	iPhone		

ATTACHMENT H

LINCOLN COUNTY CERB BROADBAND PLANNING GRANT

BROADBAND USER SURVEY

Your Name:

Organization Name:

Email Address:

Phone Number:

Mailing Address:

Broadband Provider:

How do you use telecommunication AT YOUR PLACE OF WORK?

Email Social Media Video/Zoom/GoToMeeting

Distance Learning Telecommuting e-Commerce

Land Line Telephone (DSL) Mobile Phone VOIP Phone Text

For our mapping purposes, please describe the region(s) in Lincoln County where you use broadband:

Does your existing broadband access meet your needs? Please elaborate.

If not, in what ways does it fall short? Please elaborate.

What else do you want us to know about broadband in Lincoln County?

If you are an anchor institution (education, health or library) please expand on the effects of COVID-19 on education as it relates to broadband in Lincoln County:

Do you have any further comments or suggestions regarding the planning grant scope of work?

THANK YOU for attending our Community Broadband Meeting and for taking our follow-up survey.

Margie Hall, Director, Lincoln County Economic Development Council

Margie@LincolnEDC.org / 509-368-7085 / P.O. Box 1304, Davenport WA 99122

**LINCOLN COUNTY CERB BROADBAND PLANNING GRANT
PROVIDER SURVEY**

Provider Business Name: _____

Respondent's Name: _____

Respondent's Contact Information

Email Address: _____

Phone Number: _____

Mailing Address: _____

Website: _____

What telecommunication services does your company provide?

Which of those services do you provide to Lincoln County?

What areas of Lincoln County do you reach?

Does your company plan to expand services in Lincoln County? Please elaborate.

Do FCC maps accurately reflect your coverage in Lincoln County? Please elaborate.

Do you have products that would be helpful to schools during COVID-19 & the resulting need for distance learning from student's homes? If so, include that information here.

THANK YOU for attending our Community Broadband Meeting and for taking our follow-up survey.

Margie Hall, Director, Lincoln County Economic Development Council

Margie@LincolnEDC.org / 509-368-7085 / P.O. Box 1304, Davenport WA 99122

RESPONDER	LOCATION	PROVIDER INFO / SERVICES
Ptera Inc.	HQ Liberty Lake	Ptera provides internet service through fixed wireless and fiber. Limited to eastern most side of the county, single family dwellings that have line of site to their towers. Looked in to providing to Davenport a few years ago, but didn't get traction. "I think things have changed with current need and would really like to revisit and provide our services. This would be a practical opportunity for us since we have resources already close by...can reach remote locations...can also build out fiber being the last mile provider." Very interested in being a partner in this project. No map or pricing provided.
LocalTel Communications	HQ Wenatchee. Regional office in Moses Lake. Local office in Odessa.	Sent a flyer instead of taking the survey. Advertising "SkyFi High Speed internet option for areas without fiber.* Speed up to 25m down and 3m up. 300 Gigabyte cap limit." (*SkyFi may not yet be available in your area.) Packages start at \$55.95 + \$1.95 tower access fee. [SURVEYOR'S NOTE: LocalTel purchased the widest reaching line of sight wireless network in Lincoln Co. from Odessa Office Equipment in 2019. No map provided. LocalTel was the high bidder for Lincoln Co. in the FCC's CAF2 auction.]
HughesNet	HQ in Maryland.	Sent flyers instead of taking the survey. Advertising "HughesNet Gen5 with 25 Mbps download speed, Unlimited data - If you exceed your plan data, stay connected at reduced speeds, typically 1-3 Mbps. " No pricing or map provided.

LINCOLN CO. BROADBAND
SURVEY RESPONSES - USERS

CONNECTION	LOCATION	PROVIDER INFO	MEETS NEEDS?
<p>Superintendent, Reardan-Edwall School District</p>	<p>Reardan</p>	<p>Unknown (very new to position)</p>	<p>"Not at all. Only 1/3 of our students have access to reliable internet. We need, for the simple sake of equity, for all of our students to have the opportunity to learn. They all need reliable internet....it is urgent."</p>
<p>Superintendent, Sprague School District</p>	<p>Sprague</p>	<p>K-20 Network In-School, CenturyLink for residents & businesses. Cellular hot-spots. HughesNet satellite.</p>	<p>"In-building, most of the time. Outside the building, not always. Being a small school, our in-building broadband generally runs smoothly with all our students & staff online simultaneously. However, outside of our building not all of our students or staff have connectivity, generally due to their rural locations. The largest effect of COVID-19 on our school district was the need to move to an entirely online classroom environment...it is vital that we improve on connectivity for all of our students."</p>
<p>Onsite Support through ESD101 for five Lincoln Co. school districts.</p>	<p>Countywide</p>		<p>All the schools are now upgraded to 500 mb connectivity and this typically supports student counts that exceed existing enrollments. Distance learning: In town the majority of students had access, typically at the lower end of acceptable. The larger issue for staff and students is the outlying areas. The schools provided a few hot spots (LTE/4G cellular wifi) to students to continue learning where there was no broadband service available - they worked where there was cellular service. While cellular is more prevalent than traditional broadband there are still many locations where cellular service does not work. Some have too slow of speeds due to older technology (DSL) or due to expense of higher speeds. Some are connecting from cars outside the school or libraries. The schools extended network coverage as much as possible. USB drives were delivered to students without enough upload ability.</p>

LINCOLN CO. BROADBAND
SURVEY RESPONSES - USERS

Public Health District 1	Odessa	Primary provider is Jamestown Network (NoaNet); secondary back up is LocalTel.	Currently supports workflow. As we add services such as CT, telehealth & cloud based health records we may need to increase speed on our fiber Ethernet circuit vendor in Spokane. We leverage VPN to allow remote workers to log into the network, leaving more for in-hospital staff. [Overhead fiber was sited as a problem. A recent wildfire took out fiber to hospitals and schools in both Odessa and Ritzville, a branch of NoaNet fiber with no redundancy.]
Mayor, Town of Wilbur	Wilbur	Town Hall uses LocalTel.	No. The [provider's] equipment is outdated and speeds are inconsistent and slow. Speeds lag when there are more than two people on the network. Occasionally shuts down for a short time.
CPA, Cattle Rancher	Sprague (outside city limits)	None	No.
Telecommuter	Almira	CenturyLink (DSL)	Often does not meet needs. CenturyLink is basically my only choice at my home/office. It is sluggish and often not working at all. Very frustrating. I feel I have to work 5 hours to book 4 toward my job because of how slow it is. [Providers] don't provide what is actually available in Lincoln Co. If they do it can be cost prohibitive. We are too sparsely populated to be profitable and I understand that.
Retired wheat farmer	Harrington	CenturyLink (DSL)	Somewhat.

ATTACHMENT J

Broadband Planning Minimum Requirements

The feasibility study **must** meet the following minimum requirements. Please provide a response to each of the items below, in the format outlined.

1. Community Support
 - a. Create a Community Broadband Team
 - i. Provide list of members, including name and title
 - b. Hold at least one Community Broadband Meeting
 - i. Send emails to broadband providers currently serving your community and invite them to the community meeting.
 - ii. Questions for attendees:
 1. Which providers are currently serving your community?
 2. Which providers attended your meeting?
 3. How does the mapping results compare with members' actual experiences? (if there is mapping available)
 4. Does existing broadband access meet your needs?
 5. If it is inadequate, in what ways does it fall short?
 6. If you have broadband, how do you use it now?
 - iii. Provide documentation showing meeting dates, notes, agenda and number of attendees, emails to providers and responses to the questions above.
2. Project Focus
 - a. Defines local broadband needs and goals.
 - b. Inventory existing broadband infrastructure assets within the community.
 - c. Includes a gap analysis defining the additional broadband infrastructure necessary to meet the identified goals.
 - d. Include one or more potential network designs, cost estimates, operating models and business models.
 - e. Include an assessment of municipal procedures, policies, rules and ordinances that impact or influence broadband infrastructure deployment.
 - f. Digital Inclusion
 - i. Affordable Internet –Describe how community will address providing affordable internet options.
 - ii. Affordable Equipment - Describe how community will expand the availability of affordable equipment to low-income residents.
 - iii. Digital Literacy Training – Describe how community will teach people to use technology.
 - iv. Public Computer Access –Describe how community will increase public computer access locations.
3. Create a Vision Statement
 - a. A Vision Statement is created by Community Broadband Team with input from the public at the Community Broadband Meeting, with the goal to take a first step toward being able to set a direction for the community's future broadband efforts.
 - b. The statement should describe the role broadband would play in the community's future.
 - i. Identify specific priority areas (*e.g.*, connecting community anchor institutions, ensuring older citizens can age in place, closing the "homework gap", providing affordable high-speed connections to a business park).
 - c. Explain how this effort conforms to other planning documents/published visioning efforts on other issues in your community.

Broadband Planning Minimum Requirements

4. Financial Commitment and Budget
 - a. Submit a budget for the plan aligned to significant project plan milestones, costs and tasks.
 - b. Submit Pro Forma Income Statement and Expenses.
 - i. Income Statement
 - ii. Balance Sheet
 - iii. Cash Flow
 - c. Identify potential sources of funding for the broadband infrastructure.
 - d. Include letters of commitment for community funding.
 - e. Include letters of commitment from any Internet Service Providers.
5. Identify Key Documents/Existing Efforts
 - a. Does the municipality use broadband to deliver municipal services? Describe the services, and how broadband is used to deliver these services.
 - b. Is there local or regional economic development plans in which broadband could play a role? If so, provide a list of these documents.
 - c. Are there any on-going community projects focusing on the digital divide or information technology (public access through schools or libraries, training, improving access to broadband, etc.?)
6. Identify potential Community Anchor Institutions and Businesses
 - a. Provide a list of potential community anchor institutions*.
 - b. Provide a list of businesses** that could benefit from lower cost, higher bandwidth, and/or improved reliability of broadband.
 - i. Including the level of broadband improvements needed by the business to become and/or remain competitive and/or expand markets.
7. Development of a Management Plan
 - a. Define (or refine) the broadband plan. The plan should have a clear definition of roles and responsibilities, partners required, levels of effort and associated costs, and a timeline. Plans and actions must include promotion and community awareness, and extend beyond the initial deployment.
8. Complete Readiness Self-Assessment
9. Evaluate how the project would benefit health and safety for the community.
10. Evaluate how this project would benefit education access (for all ages).
11. Identify if the community unserved or underserved (defined by the Board).
 - a. Provide evidence of how this was determined.

** Community Anchor Institutions definitions: includes facilities such as libraries, township halls, fire and police stations, city halls, county buildings, state facilities, public safety locations, hospitals and nursing homes, and educational institutions.*

***Business definitions: all business types; includes farms & home-based businesses, and work-at-home/telecommuter use of broadband.*

ATTACHMENT K - LINCOLN COUNTY PROVIDERS

Almira - 99103

Provider	Technology	Mbps Down	Mbps Up	Monthly Rate	Availability
Century Link	DSL	40	2	\$ 49.00	74.5%
Viasat	Satellite	35	3	\$ 89.99	100.0%
Hughes Network	Satellite	25	3	\$ 49.99	100.0%
LocalTel (SkyFi)	Fixed Wireless	25	3	\$ 57.90	100.0%
NCI Datacom	Fixed Wireless	100	NA	\$ 45.00	5.8%

Creston - 99117

Provider	Technology	Mbps Down	Mbps Up	Monthly Rate	Availability
Century Link	DSL	40	2	\$ 49.00	69.5%
Viasat	Satellite	35	3	\$ 89.99	100.0%
Hughes Network	Satellite	25	3	\$ 49.99	100.0%
LocalTel (SkyFi)	Fixed Wireless	25	3	\$ 57.90	100.0%
Air Pipe	Fixed Wireless	30	NA	unlisted	17.3%

Davenport - 99122

Provider	Technology	Mbps Down	Mbps Up	Monthly Rate	Availability
Century Link	DSL	60	2	\$ 49.00	70.0%
Viasat	Satellite	35	3	\$ 89.99	100.0%
Hughes Network	Satellite	25	3	\$ 49.99	100.0%
WIFIBER	Fixed Wireless	50	8	\$ 160.00	100.0%
WIFIBER	Fixed Wireless	100	30	\$ 300.00	business core
Air Pipe	Fixed Wireless	30	NA	unlisted	54.5%
LocalTel (SkyFi)	Fixed Wireless	25	3	\$ 57.90	100.0%

Harrington - 99134

Provider	Technology	Mbps Down	Mbps Up	Monthly Rate	Availability
Century Link	DSL	20	2	\$ 49.00	70.9%
Viasat	Satellite	35	3	\$ 89.99	100.0%
Hughes Network	Satellite	25	3	\$ 49.99	100.0%
LocalTel (SkyFi)	Fixed Wireless	25	3	\$ 57.90	100.0%
Air Pipe	Fixed Wireless	30	NA	unlisted	28.3%

Odessa - 99159

Provider	Technology	Mbps Down	Mbps Up	Monthly Rate	Availability
Century Link	DSL	20	2	\$ 49.00	73.2%
Viasat	Satellite	35	3	\$ 89.99	100.0%
Hughes Network	Satellite	25	3	\$ 49.99	100.0%
LocalTel (SkyFi)	Fixed Wireless	25	3	\$ 57.90	100.0%
Desert Winds Wireless	Fixed Wireless	25	5	\$ 99.99	5.4%

Reardan - 99029

Provider	Technology	Mbps	Mbps	Monthly	Availability
Century Link	DSL	20	2	\$ 49.00	79.4%
Viasat	Satellite	35	3	\$ 89.99	100.0%
Hughes Network	Satellite	25	3	\$ 49.99	100.0%
Air Pipe	Fixed Wireless	30	NA	unlisted	99.7%
Ptera	Fixed Wireless	25	8	\$ 109.00	49.7%
Wind Wireless	Fixed Wireless	12	NA	\$ 99.95	15.5%
LocalTel (SkyFi)	Fixed Wireless	25	3	\$ 57.90	100.0%
Desert Winds Wireless	Fixed Wireless	25	5	\$ 99.99	5.4%

Sprague - 99032

Provider	Technology	Mbps Down	Mbps Up	Monthly Rate	Availability
Century Link	DSL	20	2	\$ 49.00	80.9%
Viasat	Satellite	35	3	\$ 89.99	100.0%
Hughes Network	Satellite	25	3	\$ 49.99	100.0%
LocalTel (SkyFi)	Fixed Wireless	25	3	\$ 57.90	100.0%
Air Pipe	Fixed Wireless	30	NA	unlisted	26.9%

Wilbur 99185

Provider	Technology	Mbps Down	Mbps Up	Monthly Rate	Availability
Century Link	DSL	40	2	\$ 49.00	76.1%
Viasat	Satellite	35	3	\$ 89.99	100.0%
Hughes Network	Satellite	25	3	\$ 49.99	100.0%
LocalTel (SkyFi)	Fixed Wireless	25	3	\$ 57.90	100.0%
Inland Cellular	Fixed Wireless	50	NA	unlisted	67.0%
Western Elite	Fixed Wireless	50	10	\$89.99 per month	

ATTACHMENT L - ANCHOR INSTITUTIONS AND BUSINESSES

Highline Grain Grower	509-639-2431	506 N. Railroad, Almira	AGRICULTURE
Nutrien Ag Solution	509-639-2461	113 Main, Almira	AGRICULTURE
McKay Seed Co.	509-639-2293	39355 Sorensen N, Almira	AGRICULTURE
Ag Link	509-639-2421	207 N Railroad, Almira	AGRICULTURE
Shorts Septic Service	509-639-2393	3350 Williams Rd E, Almira	CONTRACTORS & TRADES
Old Coulee 'QUE	509-641-0742	34258 Old Coulee Rd N, Almira	FOOD & DRINKS
Back Roads CrossFit	509-639-2355	17 S 3 rd , Almira	SERVICES
Highline Grain Growers	509-647-5510	280 NW Watson, Creston	AGRICULTURE
McGregor Company	509-636-2014	20501 E Hills, Creston	AGRICULTURE
Olympic Growers	206-498-8502	35100 Miles Creston N, Creston	AGRICULTURE
Coulee Dam FCU	509-636-2645	290 NW Watson, Creston	BANKS & CREDIT UNIONS
Copenhaver Construction	509-636-2800	22393 SR 2 E, Creston	CONTRACTORS & TRADES
Corner Cafe	509-636-2233	100 Watson St NW, Creston	FOOD & DRINKS
Creston Equine Center	360-266-7627	34041 Redwine Canyon, Creston	SERVICES
Ag Link	509-725-3321	39100 Sunset Hwy E, Davenport	AGRICULTURE
Rainier Seed	509-725-1235	1404 4 th , Davenport	AGRICULTURE
Highline Grain Growers	509-725-7081	1206 10 th , Davenport	AGRICULTURE
Highline Grain Growers	509-725-4873	28516 Mondovi Rd N, Davenport	AGRICULTURE
Highline Grain Growers	509-253-4673	39787 O'Conner Rd E, Davenport WA	AGRICULTURE
Highline Grain Growers	509-725-4393	41104 SR 25 N, Davenport	AGRICULTURE
Highline Grain Growers	509-725-0471	25032 Rocklyn, Davenport	AGRICULTURE
McGregor Company	509-725-4769	48 Morgan, Davenport	AGRICULTURE
Nutrien Ag Solutions	509-725-3241	1315 13 th , Davenport	AGRICULTURE
Stockland Livestock Exchange	509-725-1101	1505 12 th , Davenport	AGRICULTURE
Art's Body Shop	509-725-2472	1305 Monroe, Davenport	AUTOMOTIVE
FNA Performance	509-290-4400	Unknown, Davenport	AUTOMOTIVE
Pinpoint Repair Service	509-998-0649	Unknown, Davenport	AUTOMOTIVE
Van Sickle Diesel Repair	209-549-8302	37438 SR 2 E, Davenport	AUTOMOTIVE
NAPA Auto	509-725-5101	624 Morgan, Davenport	AUTOMOTIVE
Les Schwab Tires	509-725-4321	310 Morgan, Davenport	AUTOMOTIVE

Mike's Auto	509-725-1765	23623 SR 28 N, Davenport	AUTOMOTIVE
Wheatland Bank	509-725-0211	600 Morgan, Davenport	BANKS & CREDIT UNIONS
Horizon Credit Union	509-725-1011	1112 Morgan, Davenport	BANKS & CREDIT UNIONS
US Bank	509-725-5011	626 Morgan, Davenport	BANKS & CREDIT UNIONS
Daystar Child Care	509-721-0404	Confidential, Davenport	CHILD CARE
Holly McDaniel Daycare	509-758-0506	Confidential, Davenport	CHILD CARE
Halme Builders	509-725-1200	27241 SR 25, Davenport	CONTRACT TRADES
Halme Electric & Pump	509-725-3500	39035 Olson Hills Rd E, Davenport	CONTRACTOR & TRADES
CDB Construction	509-725-0445	25862 Buck Flats Rd N, Davenport	CONTRACTOR & TRADES
DW Excavating	509-904-1313	215 Park, Davenport	CONTRACTOR & TRADES
Tarbert Drilling	509-725-0703	34700 Teel Hill Rd, Davenport	CONTRACTORS & TRADES
Kysar Mechanical	509-725-5900	504 Morgan, Davenport	CONTRACTORS & TRADES
Leipham Excavating	509-725-6543	29473 Level Rd N, Davenport	CONTRACTORS & TRADES
Max Energy	509-936-2822	PO Box 115, Davenport	CONTRACTORS & TRADES
Midland Electric	509-725-7005	1006 Jefferson, Davenport	CONTRACTORS & TRADES
Big Bend Excavating	509- 725-6543	40495 Olson Hills Rd E, Davenport	CONTRACTORS & TRADES
Foreman Construction	509-380-1578	Unknown, Davenport	CONTRACTORS & TRADES
JR Massie Co.	509-725-0098	201 Morgan, Davenport	CONTRACTORS & TRADES
Gitter Done Const.	509-721-1891	Unknown, Davenport	CONTRACTORS & TRADES
Todd Anderson Exc.	509-796-3030	26054 Bennett Rd N, Davenport	CONTRACTORS & TRADES
Northstar Contracting	509-725-1919	38560 Porcupine Bay Rd, Davenport	CONTRACTORS & TRADES
Dean's Excavation	509-721-1020	Unknown, Davenport	CONTRACTORS & TRADES
Edna's Drive In	509-725-1071	302 Morgan, Davenport	FOOD & DRINKS
Subway	509-725-0740	621 Morgan, Davenport	FOOD & DRINKS
Tribune Smokehouse	509-725-8509	502 Morgan, Davenport	FOOD & DRINKS
El Ranchito	509-725-2030	1325 Morgan, Davenport	FOOD & DRINKS
Romriell Family Dentistry	509-725-6281	100 3 rd #3, Davenport	HEALTH
House Call Chiropractic	509-721-0384	100 3 rd #2, Davenport	HEALTH
Christine Anderson, MA	509-215-0990	43054 Miles Creston Rd N, Davenport	HEALTH
Lincoln Hospital Dist. 3	509-725-2112	10 Nicholls, Davenport	HEALTH
Peak Fitness Physical Therapy	509-725-7325	506 Morgan, Davenport	HEALTH
North Basin Medical Clinic	509-725-7501	100 3 rd , Davenport	HEALTH

Serene Meadows Adult Home	509-721-0877	9 Marshall, Davenport	HEALTH
NE WA Alliance Counseling	509-725-3001	1211 Merriam, Davenport	HEALTH
Hearts & Hands Massage	509-348-0293	100 3 rd #2, Davenport	HEALTH
Davenport Vision Source	509-725-2000	506 8 th , Davenport	HEALTH
AAG Insurance	509-725-0756	509 Morgan, Davenport	INSURANCE
Farmer's Insurance Group	509-725-1241	549 Morgan, Davenport	INSURANCE
HUB International	509-725-0756	408 Morgan, Davenport	INSURANCE
Black Bear Motel	509-725-7700	30 Logan St, Davenport	LODGING & CAMPING
Lake Roosevelt Adventures	509-725-3251	1250 Marina Dr, Davenport	LODGING & CAMPING
Turkey Ridge Ranch	509-725-0830	43054 Miles Creston Rd N, Davenport	LODGING & CAMPING
Davenport Motel	509-725-7071	1205 Morgan, Davenport	LODGING & CAMPING
Davenport Retirement Village	509-725-2535	505 Nicholls, Davenport	MISCELLANEOUS
Miles Mobile Marine Service	509-725-2121	32510 Winterwood Ln, Davenport	MISCELLANEOUS
Parks Print/Lincoln Adv.	509-725-8007	701 12 th , Davenport	PUBLISHING
Huckleberry Press	844-344-8344	PO Box 141, Davenport	PUBLISHING
Davenport Times	509-725-0101	1150 Morgan, Davenport	PUBLISHING
Katz Realty	509-725-1701	835 Morgan, Davenport	REAL ESTATE
Davenport Family Foods	509-725-1061	516 Morgan, Davenport	RETAIL
Davenport Food Mart	509-725-4600	1131 Morgan, Davenport	RETAIL
Marlow's Metal Buildings	509-348-0222	Unknown, Davenport	CONSTRUCTION
Lightning Nuggets	509-725-6211	604 Logan, Davenport	RETAIL
Grant Zahajko Auctions	509-725-5600	510 Morgan, Davenport	RETAIL
Davenport Pharmacy	509-725-1151	525 Morgan, Davenport	RETAIL
Hardy Hardware & AB Paints	509-725-7131	801 Morgan, Davenport	RETAIL
Country Touch Floral	509-725-8830	525 Morgan, Davenport	RETAIL
Fort Spokane Store & Rest.	509-725-5783	45371 SR 25, Davenport	RETAIL
Safeway	509-725-7151	1220 Morgan, Davenport	RETAIL
Trader's Express Gas	509-725-0265	312 Morgan, Davenport	RETAIL
Davenport Sporting Goods	509-215-0267	712 Morgan, Davenport	RETAIL
Chapman Armory	509-919-2812	712 Morgan, Davenport	SERVICES
Wheatland Tree Service	509-434-4709	Unknown, Davenport	SERVICES
Davenport Senior Center	509-725-7055	728 Morgan, Davenport	SERVICES

The Potty Barn	509-348-0239	6738 Kieffer, Davenport	SERVICES
Davenport Veterinary Clinic	509-725-7448	1202 Monroe, Davenport	SERVICES
Wheatland Veterinary Clinic	509-725-1164	707 Logan, Davenport	SERVICES
Leffel, Otis & Warwick	509-725-3251	513 6 th , Davenport	SERVICES
Magic Moments Photography	509-725-3842	537 Morgan, Davenport	SERVICES
Advantage Taxidermy	509-725-5678	29701 Telford Rd N, Davenport	SERVICES
Avista Utilities	509-725-1680	327 Morgan, Davenport	SERVICES
Phase II Hair Design	509-725-4241	401 Morgan, Davenport	SERVICES
R & I Trucking	509-725-4902	1205 Monroe, Davenport	SERVICES
Frontier Title & Escrow	509-725-4663	407 Morgan, Davenport	SERVICES
Pioneer Title	509-725-3161	403 Logan, Davenport	SERVICES
Mike's Computer Repair	509-638-9064	Unknown, Davenport	SERVICES
Carpenter, McGuire, DeWulf	509-725-3101	503 Morgan, Davenport	SERVICES
Strate Funeral Home	509-725-4151	505 10 th , Davenport	SERVICES
Brock Law Firm, P.S.	509-725-3101	529 Morgan, Davenport	SERVICES
Dave Hoppes, CPA	509-725-1888	701 12 th , Davenport	SERVICES
Davenport Laundry	509-725-8989	201 6 th , Davenport	SERVICES
Stow-Away Storage	509-725-8989	1406 12 th , Davenport	STORAGE
Flatlander RV & Boat Storage	509-725-2228	44300 SR 25, Davenport	STORAGE
Molecule Cannabis	509-725-9333	206 Morgan, Davenport	RETAIL
Natural Green Cannabis	509-725-0941	51 Morgan, Davenport	RETAIL
Kathy's Hair Port	208-413-1483	16423 Star Barn Rd, Davenport	SERVICES
Wheatland Veterinary	509-725-1164	707 Logan St, Davenport	SERVICES
Grange Supply of Harrington	509-253-4384	500 N 3 rd , Harrington	AGRICULTURE
Highline Grain Growers	509-253-4324	207 S. 3 rd , Harrington	AGRICULTURE
Highline Grain Growers	509-253-4592	30398 Mohler Rd, Harrington	AGRICULTURE
Nutrien Ag Solutions	509-253-4311	400 N 2 nd , Harrington	AGRICULTURE
The Studebaker Garage	509-595-5255	9 N 3 rd , Harrington	AUTOMOTIVE
Johnson Family Towing	509-964-5786	33435 SR 28, Harrington	AUTOMOTIVE
Harrington Truck and Auto	509-253-4700	502 W Main, Harrington	AUTOMOTIVE
US Bank	509-253-4321	1 N 3 rd , Harrington	BANKS & CREDIT UNIONS
Wolf Creek Contracting	509-319-9025	PO Box 286, Harrington	CONTRACTORS & TRADES

B&B Septic	509-253-4352	301 W Glover, Harrington	CONTRACTORS & TRADES
The Post and Office	509-769-5917	2 S 3 rd , Harrington	FOOD & DRINK
Harrington Golf & Cafe	509-253-4308	700 S 2 nd , Harrington	GOLF COURSE
Hideaway RV Park	509-253-4788	208 W Adams, Harrington	LODGING & CAMPING
Harrington Opera House	509-253-4345	502 W Main, Harrington	MISCELLANEOUS
Harrington Food Mart	509-253-4534	7 N 3 rd , Harrington	RETAIL
The Wild Hair Salon	208-882-6563	9 N 3 rd , Harrington	SERVICES
Leffel, Otis, Warwick-C.P.A.	509-253-4737	4 S 3 rd , Harrington	SERVICES
Overmyer Trucking	509-253-4225	PO Box 446, Harrington	SERVICES
Ott Insurance	509-253-9304	4 S 3 rd , Harrington	SERVICES
Ag Swag	509-253-0009	Online, Harrington	RETAIL
Studio 1 on 3rd	509-358-0272	7 S 3 rd , Harrington	RETAIL
North Basin Seed	509-982-2975	3984 SR 21, Odessa	AGRICULTURE
Odessa Trading Company	509-982-2661	9 E 1 st , Odessa	AGRICULTURE
Walter Implement	509-982-2644	1105 E Dodson, Odessa	AGRICULTURE
Kush Valley Cannabis	509-345-0157	5004 Weishaar Rd E, Odessa	AGRICULTURE
Odessa Grange Supply	509-982-2693	202 W Railroad, Odessa	AGRICULTURE
Seed Rite	509-982-2400	3970 WA-21, Odessa	AGRICULTURE
Highline Grain Growers	509-982-2691	2 N Division, Odessa	AGRICULTURE
Highline Grain Growers	509-982-2191	23179 Parker Rd E, Lamona	AGRICULTURE
NAPA Auto	509-982-2627	10 W 1 st , Odessa	AUTOMOTIVE
LL Custom	509-982-0396	PO Box 641, Odessa	AUTOMOTIVE
Costlow Services	509-982-2285	4 S Division St, Odessa	AUTOMOTIVE
Wheatland Bank	509-982-2641	22 E 1 st , Odessa	BANKS & CREDIT UNIONS
BS Enterprises, LLC	509-988-0294	12787 Gies Rd E, Odessa	CONTRACTORS & TRADES
Voise Sausage	509-982-2956	7 S 1 st St, Odessa	FOOD & DRINKS
Chiefs Bar and Grill	509-982-2999	17 E 1 st Ave, Odessa	FOOD & DRINKS
Grannie Bar Bar Cookies	509-982-2784	1358 SR 21 N, Odessa	FOOD & DRINKS
Rocky Coulee Brewing Co.	509-982-7921	N 1 st St & E Railroad Ave N, Odessa	FOOD & DRINKS
JonathINN's Country	509-982-2059	2913 Lesser Rd, Odessa	FOOD & DRINKS
Odessa Golf & Café	509-982-0093	13080 WA-28, Odessa	GOLF COURSE
Odessa Memorial Healthcare	509-982-2611	502 E Amende, Odessa	HEALTH

Odessa Rural Clinic	509-982-2614	510 E Amende, Odessa	HEALTH
Quail Court Assisted Living	509-982-2271	506 Amende, Odessa	HEALTH
Odessa Dental Clinic	509-982-2605	20 W 1 st , Odessa	HEALTH
Eldridge Chiropractic	509-982-2231	18 W 1 st Avenue, Odessa	HEALTH
Schmidt Insurance Services	509-982-2991	6 W 1 st Avenue, Odessa	INSURANCE
Ott Insurance	509-982-0122	17 W 1 st Avenue, Odessa	INSURANCE
Lakeview Ranch (USBR)	509-536-1200	Lakeview Ranch Loop N, Odessa	LODGING & CAMPING
La Collage Inn	509-982-2412	609 E 1 st Avenue, Odessa	LODGING & CAMPING
Odessa Record	509-982-2632	1 W 1 st Avenue, Odessa	PUBLISHING
Katz Realty	509-989-0761	835 Morgan Street, Odessa	REAL ESTATE
Century 21	509-982-2283	116000 Zagelow Rd N, Odessa	REAL ESTATE
Odessa Foods	509-982-2893	112 W 1 st , Odessa	RETAIL
Odessa Hardware	509-982-2602	5 W 1 st , Odessa	RETAIL
Odessa Drug	509-982-2541	19 W 1 st , Odessa	RETAIL
D & D Appliance	509-988-0116	102 E 1 st Avenue, Odessa	RETAIL
J.R. Newhouse & Co. CPA	509-982-2370	11 S Alder Street, Odessa	SERVICES
Leffel, Otis & Warwick-C.P.A.	509-982-2922	207 W 1 st Avenue, Odessa	SERVICES
Hair Haus	509-982-2901	8 W 1 st Avenue, Odessa	SERVICES
Technical Language Specials	509-982-2884	1101 Dobson Rd E, Odessa	SERVICES
Iverson Law Office	509-982-2656	24 W 1 st Avenue, Odessa	SERVICES
Carpenter, McGuire & DeWulf, P.S.	509-982-2672	9 E 1 st Ave, Odessa	SERVICES
Ag Link	509-796-3301	860 W Broadway, Reardan	AGRICULTURE
Highline Grain Growers	509-796-3301	125 N Aspen, Reardan	AGRICULTURE
Reardan Seed Company	509-796-2575	29768 WA-231, Reardan	AGRICULTURE
Nutrient Ag Solutions	509-796-2601	28563 SR 231 N, Reardan	AGRICULTURE
Colville's Garage Inc.	509-796-3011	110 Broadway Avenue, Reardan	AUTOMOTIVE
US Bank	509-796-2201	100 W Broadway, Reardan	BANKS & CREDIT UNIONS
Todd Anderson Excavation, Inc.	509-796-3030	26054 Bennett Rd N, Reardan	CONTRACTORS & TRADES
Dean's Drive In	509-796-3911	210 W Broadway St, Reardan	FOOD & DRINKS
Speed Trap Tap House	509-530-9997	245 E Broadway St, Reardan	FOOD & DRINKS
HWY Cafe	509-796-2298	305 Broadway St, Reardan	FOOD & DRINKS
North Basin Medical Clinic	509-796-2737	550 Broadway Avenue, Reardan	HEALTH

Heeling Hands Massage, LLC	509 215-0068	235 Broadway Avenue, Reardan	HEALTH
Inland Empire Railway Museum	509-796-2102	27300 Sprinkle Rd, Reardan	MISCELLANEOUS
CS Treasure Recovery	509-796-3952	88 N Stroup Rd, Reardan	MISCELLANEOUS
R Store, Groceries	509-796-2221	140 S Lake St, Reardan	RETAIL
Stitch Quilt Shop	509-990-7670	243 Broadway Ave, Reardan	RETAIL
Country Cabin Creations	509-796-3567	50800 Whispering Pines Dr E, Reardan	RETAIL
Falk Financial Services	509-796-2695	255 W Spokane Ave, Reardan	SERVICES
Ruff Cuts	509-413-6578	500 W Broadway St, Reardan	SERVICES
Barr-Tech	509-590-0437	9117 Kallenberger Rd N, Sprague	AGRICULTURE
Highline Grain Growers, Inc	509-796-2195	310 N East St, Sprague	AGRICULTURE
Viking Drive Inn	509-257-2482	209 E 4 th St, Sprague	FOOD & DRINKS
Sprague Motel & RV Park	509-257-2615	312 1 st St, Sprague	LODGING & CAMPING
Wool Works	509-990-1182	403 N D St, Sprague	MISCELLANEOUS
Sprague Chevron/Coleman Oil	509-257-2241	316 Colfax St, Sprague	RETAIL
Kathy's Market	509-257-2681	201 W 1 st St, Sprague	RETAIL
Bold Machine & Tool	509-257-2928	216 W Railroad, Sprague	SERVICES
Ag Enterprise Supply	509-647-5365	555 NE Main Ave, Wilbur	AGRICULTURE
Ag Link, Inc.	509-647-5586	13978 SR 2 E, Wilbur	AGRICULTURE
Greg's Crop Care	509-647-2441	11086 Wilbur Rd E, Wilbur	AGRICULTURE
Highline Grain Growers, Inc.	509-647-5510	204 SE Bell, Wilbur	AGRICULTURE
Wilbur Auto Parts/NAPA	509-647-5521	4 SW Broadway St, Wilbur	AUTOMOTIVE
A+ Auto	(509) 647-2206	15 NE Main Ave, Wilbur	AUTOMOTIVE
Wheatland Bank	509-647-5518	8 SE Main, Wilbur	BANKS & CREDIT UNIONS
Key Bank	509-647-5533	4 NW Division St, Wilbur	BANKS & CREDIT UNIONS
Golden Rule Child Care Center/Preschool	509-647-5352	306 SE Trinity Ave, Wilbur	CHILD CARE
Kuch Electric	509-988-0710	8627 Douglas Rd E, Wilbur	CONTRACTORS & TRADES
Warrington's Flooring	509-647-2341	11 NE Main St, Wilbur	CONTRACTORS & TRADES
Alibi Spirits & Eatery	509-647-2649	4 SW Main, Wilbur	FOOD & DRINKS
Rendezvous Coffee House	509-647-2477	304 SE Main St, Wilbur	FOOD & DRINKS
Billy Burger Drive In	509-647-5651	804 SE Main St, Wilbur	FOOD & DRINKS
Doxie's Diner	509-647-5544	523 NW Main, Wilbur	FOOD & DRINKS
Big Bend Golf & Country Club	509-647-5664	899 NW Cole St, Wilbur	GOLF COURSE

Wilbur Chiropractic	509-647-5500	107 NE Main Ave, Wilbur	HEALTH
Vista Manor	509-464-9486	700 SE Brace St, Wilbur	HEALTH
Wilbur Family Dentistry	509-647-5681	5 SW Railroad Ave, Wilbur	HEALTH
North Basin Medical Clinic	509-647-5321	214 SW Main St, Wilbur	HEALTH
LIBKE Insurance Associates, Inc.	509-647-5761	6 NE Main Ave, Wilbur	INSURANCE
Pure Country Insurance	509-647-2714	15 SE Division St, Wilbur	INSURANCE
Rux/Schmidt Insurance	509-647-5516	203 NW Main Ave, Wilbur	INSURANCE
Willows Motel	509-647-2100	303 NE Main Ave, Wilbur	LODGING & CAMPING
River Rue RV Park	509-647-2647	44892 SR 21, Wilbur	LODGING & CAMPING
Eight Bar B Motel	509-647-2400	718 NW Main, Wilbur	LODGING & CAMPING
Country Lane Campground, RV Park & Catering	509-647-0100	14 NW Portland St, Wilbur	LODGING & CAMPING
Goose Creek RV Park and Campground	(509) 647-5888	712 SE Railroad Ave, Wilbur	LODGING & CAMPING
Wilbur Register	509-647-5551	110 NW Main Ave, Wilbur	PUBLISHING
Sandy's Family Foods	509-647-2800	509 NW Main Ave St, Wilbur	RETAIL
Crimson & Clover Co.	509-647-5751	12 SW NW Main Ave, Wilbur	RETAIL
Pop-Up Coffee and Comics	(509) 647-0400	10 NE Mai Ave, Wilbur	RETAIL
Manntiques Antiques	509-647-2456	13550 SR 2 E, Wilbur	RETAIL
Highline Grain Growers Hardware Store	509-647-5510	204 SE Bell St, Wilbur	RETAIL
Tom's Boat Shop	509-647-5757	213 NE Main Ave, Wilbur	RETAIL
Conoco Wonder Gas & Mini-Mart	509-647-2282	314 SW Main Ave, Wilbur	RETAIL
Wilbur Senior Center Thrift Shop	509-647-5503	101 NE Main, Wilbur	RETAIL
Agape Dance Studio	509-620-4018	4 SE Division St, Wilbur	SERVICE
CFMA Karate	509-828-3756	2 NE Main St, Wilbur	SERVICES
Golden Rule Child Care	509-647-5352	306 SE Trinity Ave, Wilbur	SERVICES
Hazel's Barber & Style Shop	509-647-5363	541 NE Main Ave, Wilbur	SERVICES
Main Street Power Wash	509-647-2123	314 SW Main Ave, Wilbur	SERVICES
Wilbur Senior Center	509-647-5503	101 NE Main Ave, Wilbur	SERVICES
Cut 'N Curl	509-647-2231	3 NE Main Ave, Wilbur	SERVICES
Josh Grant, P.S. Attorney	509-647-5578	6 NE Main Ave, Wilbur	SERVICES
A Personal Touch Pet Parlor	360-654-0246	114 W Main Ave, Wilbur	SERVICES
Leffel, Otis & Warwick-C.P.A.	509-647-5555	7 NE Main Ave, Wilbur	SERVICES
Magic Mirror Beauty Salon	509-647-5541	16 NE Main Ave, Wilbur	SERVICES

Hen House Hair and Tanning 509-647-2464 604 Bruce St SW, Wilbur

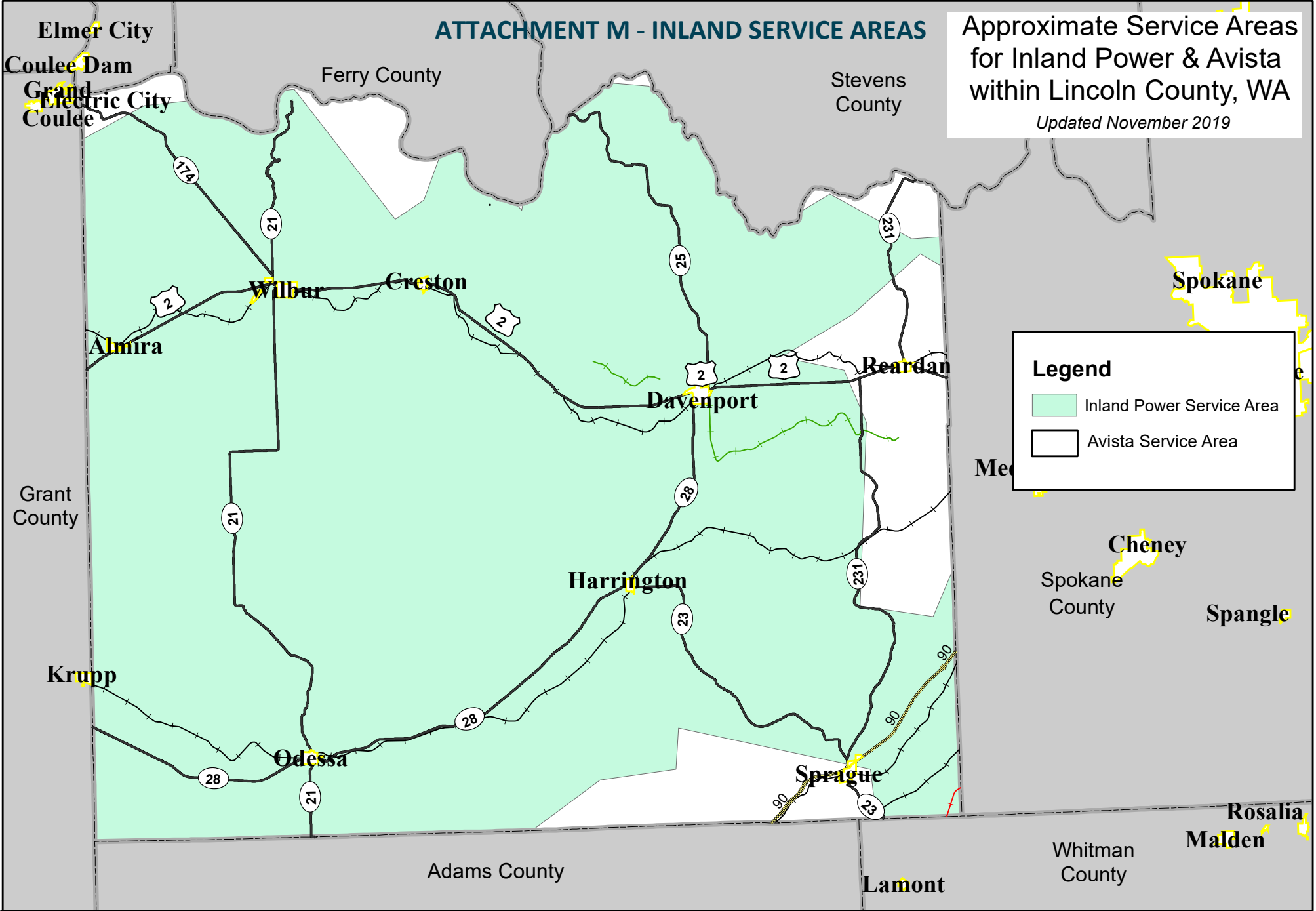
SERVICES

Highline Grain Growers, Inc 509-647-5510 204 SE Bell St, Wilbur

AGRICULTURE

ATTACHMENT M - INLAND SERVICE AREAS

Approximate Service Areas
for Inland Power & Avista
within Lincoln County, WA
Updated November 2019



Legend

- Inland Power Service Area
- Avista Service Area

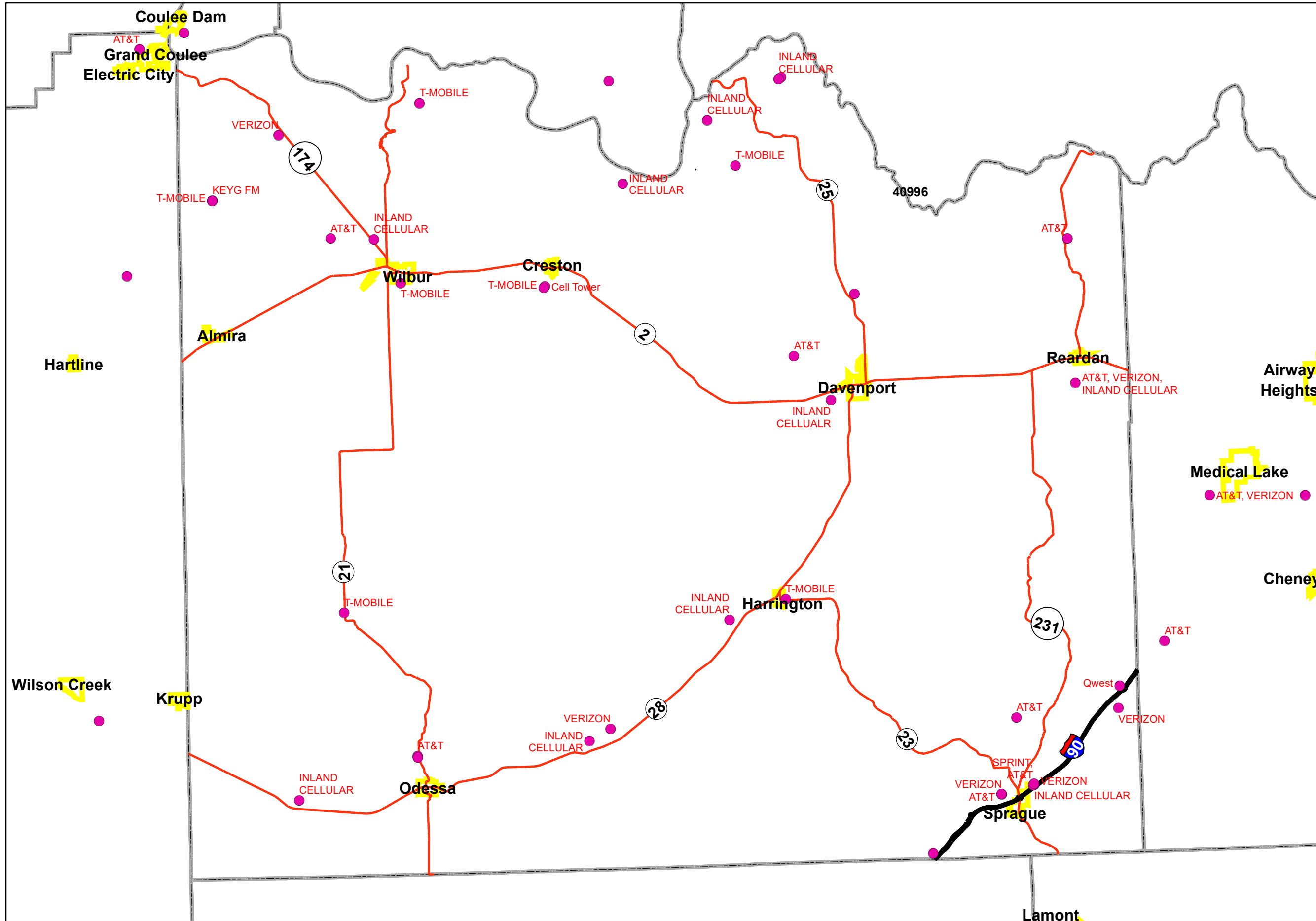
This is not a survey. Actual relationships and distances between features may be different from those depicted on this map. Accurate measurements are required in order to verify these relationships and distances.



1:500,000

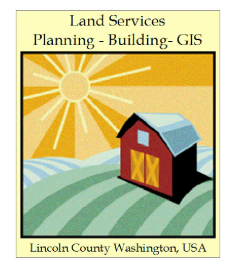


ATTACHMENT N - CELL TOWER SITES

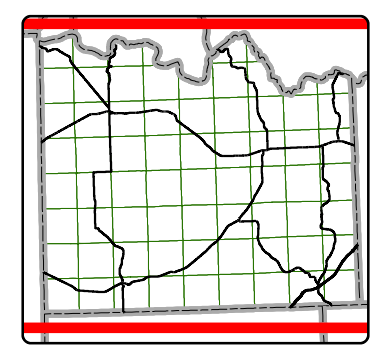


Legend

- Cell Tower
- Highways**
- STATE
- US
- Counties



1 inch = 28,551.5 feet
1:342,617



The parcel layer is APPROXIMATE and may be incomplete in this area at this time.

This is not a survey. Actual relationships and distances between features may be different from those depicted on this map. Accurate measurements are required in order to verify these relationships and distances.

Lincoln County, WA

ATTACHMENT O - SAMPLE FRANCHISE

Ordinance No.
TOWN OF SPANGLE WASHINGTON

AN ORDINANCE OF THE TOWN OF SPANGLE, WASHINGTON, GRANTING A NONEXCLUSIVE TELECOMMUNICATIONS FRANCHISE TO THE PORT OF WHITMAN AND OTHER MATTERS PROPERLY RELATING THERETO.

An Ordinance granting a franchise (the “franchise” to the Port of Whitman, a municipal corporation organized under the laws of the State of Washington (hereinafter referred to as “Grantee”). To locate, construct, operate and maintain poles, wires, fiber optics line, underground cables and appurtenances over, under, along and across all of the Grantor’s rights of way and public property in the Town of Spangle, State of Washington, and setting forth conditions accompanying the grant of Franchise; and,

WHEREAS, the Grantor duly fixed the time and place for hearing said application and due and timely notice of said hearing on such application was given pursuant to statute and ordinance, and hearing on said application having been held as prescribed by law, and the Grantor having been fully advised in the premises and having determined that it is in the public interest to grant such Franchise in the manner herein set forth; and,

WHEREAS, Grantee is authorized to engage in the business of providing wholesale telecommunication services to customers consistent with applicable laws and regulations, and Grantor has determined it is in the interest of the persons and businesses in this jurisdiction to have access to Grantee’s services; and,

WHEREAS, the Town Council has determined that it I sin the best interest of and consistent with the convenience and necessity of the Town to grant a Franchise within the confines of the Town to the Franchisee, and on the terms and conditions hereinafter set forth.

NOW THEREFORE BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF SPANGLE, WASHINGTON, as follows:

ARTICLE I. DEFINITIONS

For the purpose of this Franchise the following terms, phrases, words, and their derivations shall have the meanings given herein. When not inconsistent with the context, words used in the present tense include the future, words in the plural number include the singular number, and words in the singular number include the plural number, and the use of any gender shall be applicable to all genders whenever required. The word “shall” is mandatory and “may” is permissive. Words not defined shall be given their common and ordinary meaning.

- A. “Town” is the Town of Spangle, Washington, a town in the State of Washington.
- B. “Town Council” shall mean the governing body of the Town.
- C. “Franchisee” means the Port of Whitman, the grantee of rights under this Franchise ordinance or its lawful successor, transferee or assignee.

- D. "Easement" shall be limited to those Rights-of-way owned or controlled by the Town.
- E. "Facilities" means any and all fiber optic line, equipment and related appurtenances in any way comprising a part of the System.
- F. "*Force Majeure*" means any delays caused by reason of (1) civil commotion; (2) riots; (3) Acts of God and nature, including but not limited to floods, earthquakes, ice storms and tornadoes; (4) strikes or labor unrest; (5) the inability to secure materials; and (6) any other event or circumstances reasonable beyond the control of the Franchisee.
- G. "Franchise" means the initial authorization, or renewal thereof, issued by the Town, whether such authorization is designated as a franchise, permit, license, resolution, contract, certificate, agreement, or otherwise, which authorizes the construction or operation of the System in, on and under the Town's Rights-of-Way.
- H. "Franchise Area" shall mean the area within the Town limits of the Town of Spangle, Washington, including areas annexed during the term of this Franchise.
- I. "Rights-of-Way" or "Right-of-Way" means the surface, the air space above the surface, and the area below the surface of any public street, highway, lane, path, alley, sidewalk, boulevard, drive, bridge, tunnel, easement or similar property in which the Town holds any property interest or exercises any rights of management or control and which, consistent with the purposes for which it was acquired or dedicated, may be used for the installation and maintenance of the System. No reference in this Franchise to a "Right-of-Way shall be deemed to be a representation or guarantee by the Town that interests or other rights in such property are sufficient to permit its use for the installation and maintenance of the System, and the Franchisee shall be deemed to gain only those rights which the Town has the right and power to give and only to the extent necessary to carry out the purposes of this Franchise.
- J. "System" means the poles, wires, fiber optic lines and all necessary or desirable appurtenances for the purpose of a wholesale communications business in accordance with applicable Law.

ARTICLE II. GRANT OF FRANCHISE

SECTION 1. Grant.

- A. There is hereby granted to the Franchisee a non-exclusive right, privilege, and Franchise to have, acquire, construct, reconstruct, maintain, use and operate within the corporate limits of the Town, the System and to have, acquire construction, reconstruct, maintain, use and operate in, over, under, along, and across the present and future Rights-of-Way all necessary or desirable wires, cables, underground conduits, manholes and other structures and appurtenances in connection with the System.
- B. Limited Rights. This Franchise is intended to convey limited rights and interests only as to those Rights-of-Way in which the Town has an actual interest. It is not a warranty of title or interest in any Right-of-Way; it does not provide the Franchisee with any interest in any particular location within the Right-of-Way; and it does not confer rights other than as expressly provided in the

grant hereof. This Franchise does not deprive the Town of any powers, rights or privileges it now has, or may later acquire in the future, to use, perform work on or to regulate the use of and to control the Town's Rights-of-Way covered by this Franchise, including without limitation the right to perform work on its roadways, streets or appurtenant drainage facilities, water and waste water facilities including construction, altering, paving, widening, grading or excavating such streets.

SECTION 2. Term.

- A. The Franchise granted hereunder shall be for a term of twenty-five (35) years from and after the effective date of this ordinance, unless otherwise lawfully terminated in accordance with the terms of this Franchise.

SECTION 3. Franchise Subject to Other Laws.

This Franchise is subject to and shall be governed by all applicable provisions of law. Notwithstanding any other provisions of this Franchise to the contrary, the Franchisee shall at all times comply with all laws and regulations of the state and federal government or any administrative agencies thereof. Provided, however, if any such law or regulations shall require the Franchisee to perform any service, or shall permit the Franchisee to perform any service, or shall prohibit the Franchisee from performing any service, in conflict with the terms of this Franchise, Town ordinance, or any regulation of the Town Council, then as soon as possible following knowledge thereof, the Franchisee shall notify the attorney for the Town of the point of conflict believed to exist between such regulation or law and regulations of the Town Council, the Town's ordinance or this Franchise.

SECTION 4. Other Franchises.

This Franchise shall not be construed as any limitation upon the right of the Town to grant to other persons rights, privileges, or authorities similar to the rights, privileges, and authorities herein set forth, in the same or other Rights-of-Way, public ways or public places. The Town specifically reserves the right to grant at any time during the term or this Franchise or renewal thereof, if any such additional Franchises as it deems appropriate, upon similar material terms and conditions to this Franchise.

SECTION 5. Waivers.

- A. The failure of the Town on one or more occasions to exercise a right or to require compliance or performance under this Franchise, or any other applicable law shall not be deemed to constitute a waiver of such right or a waiver of compliance or performance by the Town, nor shall it excuse the Franchisee from complying or performing, unless such right or such compliance or performance has been specifically waived in writing by the Town.
- B. No waiver by the Town of any breach or violation or any provision of this Franchise or any ordinance shall be deemed to be a waiver or a continuing waiver by the City of any subsequent breach or violation of the same or any other provision. Neither the granting of the Franchise, nor any provision herein, nor any action by the Town hereunder shall constitute a waiver of or a bar to the exercise of any governmental right or power of the Town, as provided for under state and federal law, including without limitation the right of eminent domain.

- C. No waiver of any provisions of this Franchise shall be effective unless authorized in writing by the Town.

SECTION 6. Franchise Acceptance; Prior Franchise Superseded and Repealed.

- A. Upon adoption of this Franchise and acceptance hereof by the Franchisee, the Franchisee agrees to be bound by all the terms conditions contained herein, which acceptance shall constitute an absolute and unconditional acceptance of the Franchise and promise to comply with and abide by all its provisions, terms and conditions. The Franchisee's signature at the end of this Franchise shall constitute compliance with this section.
- B. By accepting the Franchise, the Franchisee: (1) acknowledges and accepts the Town's legal right to issue and enforce the Franchise; (2) accepts and agrees to comply with each and every provision of this Franchise; and (3) agrees that the Franchise was authorized pursuant to processes and procedures consistent with applicable law, and that it will not raise any claim to the contrary.

SECTION 7. Police Powers.

In accepting this Franchise, the Franchisee acknowledges that is rights hereunder are subject to the police powers of the Town to adopt and enforce general ordinances necessary to the safety and welfare of the public, and the Franchisee agrees to comply with all generally applicable laws and ordinances enacted by the Town pursuant to such power that do not alter the Franchisee's material obligations under this Agreement.

Any conflict between the provisions of this Franchise and any other present or future lawful exercise of the Town' police powers shall be resolved in favor of the latter, except that any such exercise that is not of general application in the jurisdiction or applies specifically to the Franchisee or which contains provisions inconsistent with this Franchise shall prevail only if upon such exercise, the Town finds an emergency exists constituting a danger to health, safety, property or general welfare or such exercise is mandated by law.

SECTION 8. Permits Required.

In addition to this Franchise, in order for the Franchisee to be allowed to occupy or use the Rights-of-Way of the Town, the Franchisee shall obtain all other required authorizations, certificates, licenses and permits, in accordance with federal, state and local law. The Town shall not unreasonable withhold any permits requested by the Franchisee as determined by applicable law.

ARTICLE III. STANDARDS FOR USE OF RIGHT OF WAY

SECTION 1. Uses of Rights-of-Way.

- A. Non-exclusive Grant. This grant for the use of all Town Rights-of-Way is nonexclusive and does not establish priority for use over other franchise holders, permit holders and the Town's own use or public property. Additionally, Franchisee shall respect rights and property of the

Town and other authorized users of the Rights-of-Way. Disputes between the Franchisee and other entities over the use of the Rights-of-Way shall first be submitted to the Director of Public Works of the Town for possible resolution.

- B. Interference with Persons and Improvements. The Franchisee's System shall be located, erected and maintained so that none of its facilities shall endanger or interfere with the lives of persons, or interfere with any improvements the Town may deem proper to make, or unnecessarily hinder or obstruct the free use of Rights-of-Way or other public property. The Town shall have power at any time to order and require the Franchisee to remove and abate any pole, wire, cable, or other structure that is dangerous to life or property, and in case Franchisee, after notice fails or refuses to act within a reasonable time, the Town shall have the power to remove or abate the same at the expense of the Franchisee.
- C. Relocation of the Facilities. In the event that at any time during the period of this Franchise the Town shall elect to alter or change the grade of any Right-of-Way, the Franchisee, upon reasonable notice by the Town, shall begin removing and/or relocating as necessary, its poles, wires, cables, underground conduits, manholes and other fixtures at the Franchisee's expense, provided if Franchisee's wires, cable, or other fixtures are placed within or attached to conduit, poles, or appliances owned or maintained by others, such as utility poles of a public utility pursuant to a pole attachment agreement, Franchisee shall undertake such removal or relocation in cooperation with the public utility. If Franchisee fails or refuses to act within thirty days (30), of notice from the Town the Town shall have the power to remove or abate the same at the expense of the Franchisee.
- D. Interference with Utilities. The Franchisee with the consent of the Public Works Director shall place poles, equipment or other fixtures in such a manner that does not unreasonable interfere with existing gas, electric or telephone facilities, traffic control signalization, street lights, fire alarm lines or communications lines, or obstruct or hinder in any manner the various utilities serving the Town.
- E. Additional Easements. If additional private easements are necessary it shall be the Franchisee's responsibility to secure the same. The grant of this Franchise is limited to the Town's control of its Rights-of-Way and does not extend to any other public or private property.
- F. Cooperation with Building Movers. The Franchisee shall, at the request of any person holding a building-moving permit issued by the Town, temporarily raise or lower its wires to permit the moving of buildings. The expense of such temporary removal, raising or lowering of wires shall be paid by the person requesting the same, and the Franchisee shall have the authority to require such payment from such person in advance. The Franchisee shall be given not less than four (4) calendar days advance notice to arrange for such temporary wire changes.

G. Construction and Maintenance; Excavation

1. Engineering plans for construction in Rights-or-Way shall be submitted to the Town prior to construction.
2. Except in an emergency, the Franchisee shall comply with generally applicable Town ordinances, policies and rules pertaining to notification when excavating pavement in any Right-or-Way.

H. Coordination or Placement of Manholes. The Franchisee shall coordinate the placement of its manholes, if any, with the affected Town Departments.

I. Movement of Facilities During Emergencies. During emergencies, the Town may move the Franchisees Facilities, but shall first make reasonable attempts to notify the Franchisee.

J. Payment of the Town's Locate Costs. The Franchisee shall only pay for the Town's locate costs that specifically relate to the Franchisee and so long as those costs are not already included in the permit fees. The Franchisee shall be required to obtain verifiable locates prior to any digging, trenching or excavation.

K. Acquisition of Facilities. Upon the Franchisee's acquisition of Facilities in any Right-or-Way, or upon the addition or annexation of any area in which the Franchisee owns or operates any Facility, the Franchisee shall, at the Town's request, submit to the Town a statement describing all Facilities involved, whether authorized by the Franchise, permit, license or other prior right, and specifying the location of all such Facilities to the extent the Franchisee has possession of such information. Such Facilities shall immediately be subject to the terms of this Franchise.

L. Disconnecting Use of Facilities. Whenever the Franchisee intends to discontinue using any Facility within the Rights-or-Way, the Franchisee shall submit for the Town's approval a complete description of the Facility and the date on which the Franchisee intends to discontinue using the Facility. The Franchisee may remove the Facility or request that the Town permit it to remain in place. Notwithstanding the Franchisee's request that any such Facility remain in place, the Town may require the Franchisee to remove the Facility from the Right-of-Way, or modify the Facility as a condition of its remaining in place to protect the public health, welfare, safety or convenience, or otherwise serve, the public interest. The Franchisee shall complete such removal or modification in accordance with a schedule to be mutually agreed upon in no event shall Franchisee fail to remove said facility within ninety (90) days of written demand by the Town. Until such time as the Franchisee removes or modifies the Facility, or until the rights to and responsibility for the Facility are accepted by another Person having authority to construct and maintain such Facility, the Franchisee shall be responsible for all necessary repairs and relocations of Facility, as well as maintenance of e Right-or-Way, in the same manner and degree as if the Facility were in the active use, and the Franchisee shall retain all liability for such Facility.

M. Hazardous Substances.

1. The Franchisee shall comply with all applicable local, state and federal laws, statues, regulations, ordinances and orders concerning hazardous substances relating to the Franchisee's System in the Rights-or-Way.
2. The Franchisee shall maintain and inspect its System located in the Rights-of-Way. At any time, the Town may inspect the Franchisee's Facilities in the Rights-or-Way to determine if any release of hazardous substances has occurred, or may occur, from or related to the Franchisee's System. In removing or modifying the Franchisee's Facilities as provided in this Franchise, the Franchisee shall also remove and properly dispose of all residue of hazardous substances related thereto.
3. The Franchisee shall indemnify and hold the Town harmless against any and all liability, claims, costs, and expenses, of any kind, whether direct or indirect, incurred by the Town arising out of a release of hazardous substances caused by the Franchisee's System in the Rights-of-Way.

- N. Completion of Work by the Town. On failure of the Franchisee to commence, pursue or complete any work required by law or by the provisions of this Franchise or any applicable permit to be done in any Right-or-Way, within the time prescribed and to the satisfaction of the Town, the Town may at its discretion cause the work to be done. The Franchisee shall pay to the Town the reasonable costs of the work in the itemized amount reported by the Town to the Franchisee within thirty (30) days after receipt of the itemized report.

SECTION 2. Use of the Franchisee Facilities.

The Town shall have the right, at no cost, during the life of this Franchise, to make additional use, for any public purpose, of any poles or conduits controlled or maintained exclusively by or for the Franchisee, providing that such uses do not unreasonably interfere with the operations of the Franchisee.

SECTION 3. Joint Use of Poles, Trenches, and Conduits.

- A. The Franchisee may be required to attach its wires to poles owned and maintained by another person or entity, or to permit the wires of another person or entity to be attached to the poles owned by the Franchisee, upon reasonable terms and for just compensation. All of the Franchisee's requirements pertaining thereto must be in accordance with applicable law.
- B. Lines shall be located on poles in compliance with applicable safety standards and shall not interfere with the erection, replacement, operation, repair, or maintenance of the wires and appurtenances of the persons or entities occupying the poles.
- C. The Franchisee may be required by the Town to share trench space with another person or entity for the placement of facilities underground. Compensation to the Franchisee as well as terms or sharing trench space shall be resolved between the affected entities. Ducts, cables, or wires shall

be placed in tranches in compliance with applicable safety standards and, pursuant to the space allocation plan of the City.

SECTION 4. Changes for Governmental Purposes.

- A. Whenever by reason of changes in the grade of any Right-of-Way or in the location or manner of construction any water pipe, gas pipe, sewer or other underground or overhead structure for any governmental purpose whatsoever, it shall be deemed necessary by the Director of Public Works of the Town to remove, alter, change, adapt, or conform the underground or overhead facilities of the Franchisee, such alterations or changes shall be made as soon as practicable by the Franchisee an begin within thirty (30) days of notice from the Town, without claim for reimbursement or damages against the Town; provided, however, if said requirements impose a financial hardship upon the Franchisee, the Franchisee shall have the right to present alternative proposals for the Town's consideration, provided, further if Franchisee's wires, cable, or other fixtures are placed within or attached to poles, conduits, or appliances owned or maintained by others, such as utility poles of a public utility pursuant to a pole attachment agreement, Franchisee shall undertake such removal, alteration, change or adaption in cooperation with the public utility. Franchisee shall be reimbursed for the costs of such removal or alteration on the same terms and conditions as other utilities. Except for Franchise revocation or termination of System abandonment, the Town shall not require Franchisee to remove its facilities entirely from a Right-or-Way unless suitable alternatives are available for relocation at a reasonable cost. If Franchisee fails or refuses to begin such alterations or changes within such thirty (30) day period Franchisee the Town shall have the power to remove or abate the same at the expense of the Franchisee, all without compensation or liability for damages to the Franchisee.
- B. In cases of emergency the Town may require relocation of the Franchisee's facilities at the Franchisee's expense in the event the emergency creates an immediate threat to the public safety, health and welfare.

SECTION 5. Work by Others.

- A. The Town reserves the right to lay, and permit to be laid, sewer, electric, phone, gas, water, and other pipelines, cables, conduits and related appurtenances, and to do and permit to be done any underground or overhead work in, across, along, over, or under a Right-of-Way or other public place occupied by the Franchisee. The Town also reserves the right to construct new streets and to alter the design of existing streets. In performing such work, the Town shall not be liable to the Franchisee for any damages so occasioned by nothing herein shall relieve any other person or entity from the responsibility for damages to the facilities of the Franchisee.
- B. In the event that the Town subsequently authorizes someone other than the Franchisee to occupy space under the surface of a Right-of-Way, such grant shall be subject to the rights herin granted or heretofore obtained by the Franchisee In the event that the Town shall close or abandon any

Right-of-Way which contains existing facilities of the Franchisee, any conveyance of land within such closed or abandoned Right-of-Way shall be subject to the rights herein granted of heretofore obtained by Franchisee; provided that the Franchisee may be ordered to vacate any land so conveyed if an alternate route is practicable and if the Franchisee is reimbursed by the person to whom the property is conveyed for the reasonable costs of service disruptions, removal and relocation of facilities.

- C. If the Town shall require the Franchisee to adapt or conform its facilities or in any way or manner to alter, relocate, or change its facilities to enable any other entity or person, except the Town, to use, or use with greater convenience, said Right-or-Way, the Franchisee shall not be bound to make any such changes until such other entity or person shall have undertaken, with good and sufficient bond, to reimburse the Franchisee for any costs, loss, or expense which will be caused by, or arise out of such change, alteration, or relocation of Franchisee's property; provided, however, that the Town shall never be liable for such reimbursement.

SECTION 6. Construction Provision.

- A. Standards. The Franchisee's System constructed within the Town shall comply with all applicable federal, state and local laws.
- B. Tree Trimming and Removal. To the extent permitted by law, the Franchisee shall have the authority after obtaining any consent legally required from any affected property owner to trim trees or other natural growth overhanging any of its Cable System in the Town so as to prevent branches from coming in contact with the Franchisee's wires, cables, or other equipment. The Franchisee shall be permitted to charge persons who own, or are responsible for, such trees or natural growth for the cost of such trimming, (except the Town) provided that similar charges are assessed by and paid to the utilities or the Town for Tree trimming. The Franchisee shall reasonably compensate the Town or property owner for any damages caused by such trimming, or shall, at its own cost and expense, reasonably replace all trees or shrubs damaged as a result of any construction, operation or maintenance of the System. The Franchisee shall make reasonable efforts not to harm such trees or shrubs. Any pruning or removal of trees or shrubs in the Town shall comply with practices outlined in the American National Standards Institute, Inc., (ANSI) Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices and Town Code Provisions, including licensing and permitting provisions.
- C. Inspections. The Town shall have the right to inspect all construction and installation work performed by the Franchisee pursuant to this Franchise as it shall find necessary to ensure compliance by the Franchisee. Such inspection shall be in accordance with the provisions of this Franchise.
- D. Restoration of Town Property. The Franchisee at its own cost and expense and in the manner approved by the Town shall replace and restore all Town property, including Right-or-Way, which is disturbed by the Franchisee's construction, installation, maintenance or operation of its Facilities, in accordance with the Town's Design Standards and the Standard Construction

Specifications. Nothing herein shall prevent the Town from charging the Franchise its usual and customary fees or general applicability for inspection of such restoration or replacement work. The Franchisee shall be solely responsible for protecting the public health, safety and welfare on such Town property from the time of disturbance until proper restoration. Failure of the Franchisee to replace or restore such Town property within a reasonable time period after written notification by the Town shall entitle the Town to cause the proper restoration to be made at the Franchisee's expense. The Franchisee shall pay to the Town the cost thereof, in the itemized amounts reported by the Town to the Franchisee, within thirty (30) days after receipt of such itemized report. Such payment shall not excuse a breach of the Franchise caused by the Franchisee's failure to commence, pursue or complete the required work.

- E. Restoration of Property. Whenever the Franchisee shall cause or any person acting on its behalf shall cause any disturbance, injury or damage to any private property or Town property by or because of the installation, maintenance or operation of its Facilities, such disturbance, injury or damage shall be remedied fully by the Franchisee at its expense. Further, the Franchisee shall, at its own cost and expense, replace and restore the respective property in accordance with the Town's Design Standards and Standard Construction Specifications within a reasonable time of the disturbance, injury or damage. Nothing in the paragraph shall be construed as requiring the Franchisee to replace or restore any trees, shrubs lying within the public utility easements, provided, however, that the Franchisee shall make reasonable efforts not to harm such trees and shrubs, and other property.
- F. Construction Necessary For Operation. Subject to applicable laws, regulations and ordinances of the Town and the provisions of this Franchise, the Franchisee may perform all construction necessary for the operation of its System. All construction and maintenance of any and all Facilities within the Right-of-Way incident to the Franchisee's Cable System shall, regardless of who performs the construction, be and remain the Franchisee's responsibility.
- G. Joint Trenching and boring. The Franchisee may make excavations in the Rights-of-Way for any Facility needed for the maintenance or extension of the Franchisee. Prior to doing such work, the Franchisee shall give the appropriate notice to the Town and the notification association in accordance with applicable law (namely the Northwest Utility Notification Center). When obtaining a permit, the Franchisee shall inquire in writing about other construction currently in progress, planned or proposed, in order to investigate thoroughly all opportunities for joint trenching or boring. Whenever it is possible and reasonable practicable to joint trench or share bores or cuts, the Franchisee shall work with other providers, licensees, permittees, and franchisees so as to reduce so far as possible the number of street cuts within the Town. If the Franchisee reasonably anticipates that trenching will encounter tree roots, the Franchisee shall consult with the Town prior to trenching.
- H. Emergency Repairs. In the event that emergency repairs are necessary to any part of its System, the Franchisee shall immediately notify the Town of the need for such repairs. The Franchisee may initiate such emergency repairs, and shall apply for appropriate permits within seventy-two (72) hours after discovery of the emergency. The Franchisee shall comply with all applicable

Town regulations relating to such excavations or construction, including the payment of permits or license fees.

I. Location of Facilities. The Franchisee shall be a member of the Northwest Utility Notification Center. After any Town department, franchisee, licensee, permittee notifies the Franchisee of a proposed street excavation, in accordance with the rules applicable to such a member, the Franchisee shall, at the Franchisee's expense:

1. Mark on the surface all of its locatable underground Facilities within the area of the proposed excavation;
2. Notify the excavator or any unlocatable underground Facilities in the area of the proposed excavation, or
3. Notify the excavator that the Franchisee does not have any underground Facilities in the vicinity of the proposed excavation.

J. Restoration of Streets. If the Franchisee excavates the surface of any Right-of-Way, the Franchisee shall be responsible for restoration of the Right-of-Way in accordance with generally applicable regulations of the Town.. The Town may, after providing notice to the Franchisee, resurface any opening made by the Franchisee in the Right-of-Way, and the expense thereof shall be paid by the Franchisee. The Town may, after providing notice to the Franchisee, remove and/or repair any work done by the Franchisee which, in the determination of the Town, is inadequate or unsatisfactory. The cost thereof, including the costs of inspection and supervision, shall be paid by the Franchisee. All of the Franchisee's work under this Franchise, and this Section, in particular shall be performed and completed in strict compliance with all generally applicable rules, regulations and ordinances of the Town.

K. Reservation of Town Rights. Nothing in this franchise shall prevent the Town from construction or establishing any public work or improvement. All such work shall be done, insofar as practicable, so as not to obstruct, injure or prevent the use and operation of the Franchisee's System. However, if any of the Franchisee's System unreasonably interferes with the construction, maintenance or repair of any public improvement, the Franchisee's System shall be removed or replaced.

Any and all such removal or replacement shall be at the expense of the Franchisee. Should the Franchisee fail to remove, adjust or relocate its Facilities by the date established by the Town's written notice to the Franchisee, the Town may affect such removal, adjustment or relocation, and the expense thereof shall be paid by the Franchisee.

L. Building Codes.

1. The Franchisee shall strictly adhere to all building and zoning codes currently or hereafter in effect. The Franchisee shall arrange its lines, cables, and other appurtenances, on both public and private property, in such a manner as to cause no unreasonable

interference with the use of said public or private property by any person. In the event of such interference, the Town may require the removal or relocation of the Franchisee's lines, cables, and other appurtenances from the property in question.

2. All plans for aerial crossings near existing or proposed traffic signals, signs, flashers, or other traffic control devices shall be submitted to the Town for approval. No crossings shall be permitted that obstruct traffic signals or other official traffic control devices.

M. Undergrounding and Overhead Construction.

1. Preference for Underground Installation. In all sections of the Town where the cables, wires, utilities or other like facilities are placed underground, the Franchisee shall place its wires, cables, utilities or other like facilities anywhere in the Town shall be changed from an overhead to an underground installation, the Franchisee shall, convert its facilities to an underground installation. If Franchisee's wire, cable, utilities or other facilities are to be placed underground in a common trench or bore shared by others, Franchisee shall share equally the expense of the trenching and/or boring in proportion to the number of joint users. The Franchisee shall pay for all cable, wire conduit, or facilities installed for the Franchisee's own use. If the Franchisee owns the aerial supporting structures, the additional incremental cost of undergrounding compared to the aerial inlocation will be paid by the Town. Where no overhead poles, exist, all wires and facilities shall be constructed underground.
2. Overhead. In the areas of the Town where electrical or telephone systems are installed on poles above ground, the Franchisee shall have the option of installing its System in like manner above ground or, alternatively, underground.

N. Rights-of-Way Occupancy.

1. Nothing in this Franchise shall give the Franchisee the right to attach its Cable System to structures or poles owned by the Town without consent of the Town.
2. The Franchisee shall:
 - a. Locate and install all transmission lines, equipment and structures so as to cause minimum interference with the rights and reasonable convenience of property owners;
 - b. Keep and maintain all transmission lines, equipment and structures in a safe condition, and in good order and repair;
 - c. Employ professional care;

- d. Place any fixtures in any Right-of-Way in such manner as not to interfere with the usual travel of the Right-or-Way or cause unsafe conditions of any sort,
 - e. Submit a traffic control plan to the Town for approval and receive such approval at least 48 hours prior to commencing construction except in the case of emergency. Such traffic control plan shall be available for public inspection on the construction site at all times; and
 - f. Notify adjacent property owners, businesses, residents, and others specified by the Town prior to construction and major maintenance projects.
3. The Franchisee shall not make street cuts or curb cuts unless absolutely necessary and only after a permit has been obtained from the Town under such conditions as the Town shall in its sole discretion determine.
 4. Before beginning any excavation or other construction activity on a Right-or-Way which crosses or abuts any private property, the Franchisee shall clearly mark and delineate with flags, stakes or non-polluting water-soluble spray paint the boundaries of that Right-of-Way where it abuts or crosses private property. After such excavation or other construction activity, the Franchisee shall restore such property to not less than the Town's standards.
 5. The Franchisee shall locate, mark and map any of its installed System for the Town at no expense to the Town. The Franchisee shall install underground warning tape with a metallic tracer at least twelve (120 inches above all feeder and trunk lines and above all fiber optic cable.

O. Stop Work.

1. On notice from the Town that any work is being performed contrary to the provisions of this Franchise, or in an unsafe or dangerous manner as determined by the Town, or in violation of the terms of any applicable permit laws, regulations, ordinances, or standards, the work may immediately be stopped by the Town.
2. The Town shall issue a stop work order which shall be:
 - a. In writing or, in the case of an emergency, verbally given;
 - b. Given to the individual doing the work, or posted on the work site;
 - c. Sent to the Franchisee by overnight delivery at the address given herein;
 - d. Indicate the nature of the alleged violation or unsafe condition; and

- e. Establish conditions under which work may be resumed.
- P. Franchisee's Contractors. The Franchisee and its contractors shall be licensed and bonded in accordance with the Town's ordinances, regulations and requirements for any contractors working in the Rights-or-Way. Any act or omission of any contractor of the Franchisee which violates any provision of this Franchise shall be considered an act or omission of the Franchisee for the purposes of this Franchise.
- Q. Private Property. Except in the case of an emergency involving public safety or service interruption to a large number of subscribers, the Franchisee shall give reasonable notice to the property owners or legal tenants prior to entering upon any private premises, and said notice shall specify the work to be performed; provided that in the case of construction operations, such notice shall be delivered or provided at least forty-eight (48) hours prior to entry. If any damage is caused by any Franchisee activity or omission, the Franchisee shall reimburse the property owner one hundred percent (100%) of the cost of the damage or replace the damaged property. In the case of an emergency, the Franchisee shall attempt to contact the property owner or legal tenant in person, and shall leave a door hanger notice in the event personal contact is not made.

ARTICLE IV. ADMINISTRATION AND REGULATION

SECTION 1. Transfer of Ownership or Control.

- A. This Franchise shall not be assigned or transferred, leased or disposed of either in whole or in part by voluntary sale or involuntary sale, merger, or consolidation, either legal or equitable or any right, interest or property therein, pass to or vest in any person, or entity without prior written consent of the Town Council, which consent shall not be unreasonable withheld. No consent will be required for a transfer in trust, mortgage, or other hypothecation as a whole or in part to secure an indebtedness.
- B. The Franchisee shall promptly notify the Town of an actual or proposed change in, or transfer of, or disposition of or acquisition by any other party of, control of the Franchisee. The word "control" as used herein is not limited to major stockholders but includes actual working control in whatever manner exercised. Every change, transfer, or acquisition of control of the Franchisee shall make the Franchise subject to cancellation unless and until the Town Council shall have consented thereto, which consent will not be unreasonable withheld. For the purpose of determining whether it shall consent to such change, transfer, disposition, or acquisition of control, the Town Council may inquire into the qualifications of the prospective controlling party, and the Franchisee shall assist the Town Council in any such inquiry.
- C. The proposed assignee must show its legal and technical qualifications and its financial responsibility as determined by the Town Council and must agree to comply with all the provisions of the Franchise. Unless the Franchisee and the Town Council otherwise agree on an extension of time, the Town Council shall be deemed to have consented to a proposed transfer or assignment in the event it has not acted within ninety (90) days of notice.

- D. The consent or approval of the Town Council to any transfer of the Franchise shall not constitute a waiver or release of the right of the Town in and to the Rights-of-Way, and any transfer shall by its terms, be expressly subordinate to the terms and conditions of this Franchise.
- E. By its acceptance of this Franchise, the Franchisee specifically agrees that any such transfers occurring without prior approval of the Town Council shall constitute a violation of this Franchise by the Franchisee. In no event shall a transfer of ownership or change of control be approved without the successor in interest becoming a signatory to this Franchise.
- F. Within 20 days of any transfer or sale and upon request, if approved or deemed granted by the Town, the Franchisee shall file with the Town a copy of the deed, agreement, or other written instrument evidencing such sale or transfer of ownership or control, certified and sworn to as correct by the Franchisee.
- G. Standards. The Town may inquire into legal, technical and financial qualifications of the prospective controlling party or transferee, and the Franchisee shall assist the Town in so inquiring. The Town may condition said sale or transfer upon such terms and conditions as it deems reasonably appropriate; provided, however, the Town shall not unreasonable withhold its approval and any such terms and conditions so attached shall be related to the legal, technical, and financial qualifications of the prospective controlling party or transferee and to the resolution of outstanding and unresolved issues of noncompliance with the terms and conditions of this Franchise by the Franchisee.
- H. Common Control Exemption. Notwithstanding anything to the contrary in this Section, the prior written approval of the Town Council shall not be required for any sale, assignment or transfer of the Franchise, the System or ownership to an entity controlling, controlled by, or under the same common control as the Franchisee.

ARTICLE V. FINANCIAL AND INSURANCE REQUIREMENTS

SECTION 1. Liability Insurance.

- A. General Requirement. The Franchisee must have adequate insurance during the entire term of the Franchise to protect against claims for injuries to persons or damages to property which in any way relate to, arise from or are connected with this Franchise or involve the Franchisee, its agents, representatives, contractors, subcontractors and their employees.
- B. Verification of Coverage. If requested, the Franchisee shall furnish the Town with certificates of insurance and endorsements or a copy of the page of the policy reflecting blanket additional insured status. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements for each insurance policy are to be on standard forms or such forms as are

consistent with standard industry practices. The Franchisee hereby warrants that its insurance policies satisfy the requirements of this Franchise.

- C. Other insurance. The Franchisee shall also provide Workers Compensation Insurance as required by Washington law.
- D. Insurance - No Limitation. The Franchisee's maintenance of insurance policies required by this Franchise shall not be construed to excuse unfaithful performance by the Franchisee or to limit the liability of the Franchisee to the coverage provided in the insurance policies or otherwise to limit the Town's recourse to any other remedy available at law or in equity.

SECTION 2. Indemnity.

The Franchisee shall, at its sole cost and expense, indemnify and hold harmless the Town, Town Council, and any officers, employees and agents who have acted in their official capacities, boards, and commissions, (collectively referred to as the "City" in this Section) and shall pay all damages and penalties which the City may be legally required to pay as a result of any act or omission by the Franchisee in the operation of the System throughout the term of this agreement. Such damages and penalties shall include, without limitation, damages arising out of the copyright infringements, and the construction, erection, operation, maintenance and repair of the System, whether or not any act or omission complained of its authorized, allowed or prohibited by this Franchise. If legal action is filed against the Town, to recover for any claim or damages as a result of any act or omission by the Franchisee in the operation of the System, the Franchisee, upon notice to it by the Town, shall defend the Town against the action. The Franchisee shall have the right to defend, settle, or compromise any claims arising hereunder. In the event of a final judgment being obtained against the Town as a result of any act or omission by the Franchisee in the operation of the System, the Franchisee shall pay the judgment and all costs and hold the Town harmless therefrom. Nothing in this Franchise shall be interpreted to abridge or otherwise affect the Town's right to intervene or participate in any suite, action or proceeding involving any provisions of this Franchise. The Franchisee shall pay all expenses incurred by the Franchisee and the Town in defending with regard to all damages as set forth in this Section. These expenses shall include, without limitation, all out-of-pocket expenses, reasonable attorneys' fees, witness and discovery costs and the reasonable value of any services rendered by the Town Attorney and its office, and any other agents and employees of the Town.

The Franchisee will not be required to indemnify the Town for negligent act of the Town of its officials, boards, commissions, agents, or employees. The Town will indemnify and hold the Franchisee harmless from any claims or causes of action arising from any acts by the Town involving the Town's use of the access channel(s) or emergency alert system.

ARTICLE VI. ENFORCEMENT AND TERMINATION

SECTION 1. Forfeiture and Termination.

- A. In addition to all other rights and powers retained by the Town under this Franchise or otherwise, the Town reserves the right (after notice and the opportunity to cure as provided by Subsection C, below) to forfeit and terminate the Franchise and all rights and privileges of the Franchisee hereunder in the event of a material breach of this Franchise's terms and conditions. A material breach by the Franchisee shall include, but shall not be limited to the following:
1. Violation of any material provision of the Franchise or any material rule, order, regulation or determination of the Town Council made pursuant to the Franchise;
 2. Attempt to evade any material provision of the Franchise or practice any fraud or deceit upon the Town;
 3. The Franchisee abandons the System or terminates the System's operations;
- B. The foregoing shall not constitute a breach if the violation occurs but it is without fault of the Franchisee or occurs as a result of circumstances beyond the Franchisee's control. The Franchisee shall not be excused by mere economic hardship nor by misfeasance or malfeasance of its director's officers or employees.
- C. The Town shall make a written demand that the Franchisee comply with any such provision, rule, order, or determination under or pursuant to this Franchise. If the violation by the Franchisee continues for a period of thirty (30) days following such written demand without written proof that the corrective action has been taken or is being actively and expeditiously pursued, the Town Council may appoint a hearing examiner to take under consideration the issue of termination of the Franchise. The Town shall cause to be served upon the Franchisee, at least twenty (20) days prior to the date of such hearing, a written notice of intent to request such termination and the time and place of the hearing. Public notice shall be given of the hearing and issue(s) which the Town Council or hearing examiner is to consider.
- D. The Town Council or hearing examiner, if appointed, shall hear and consider the issue(s) and hear any person interested therein, and determine in its discretion, whether or not any violation by the Franchisee has occurred. The Franchisee shall be entitled to participate fully in the hearing process, including a presentation or evidence and questioning of witnesses, so that the record will include all information pertaining to the alleged violation.
- E. If the Town Council or hearing examiner, if appointed, shall determine the violation by the Franchisee was the fault of the Franchisee and within its control, the Town Council or hearing examiner, if appointed, shall determine if the violation can be cured. If the violation cannot be cured, the Franchise may be forfeited or terminated. If the violation can be cured, the Town Council or hearing examiner, if appointed, shall specify the action or actions to be taken by the Franchisee to cure the violation and set a compliance date. If there is no compliance within the

period stated, then the Town council may terminate the Franchise. Such determination shall be subject to judicial review.

SECTION 2. Foreclosure.

Upon the foreclosure or other judicial sale of all or a substantial part of the System, or upon the termination of any lease covering all or a substantial part of the System, the Franchisee shall notify the Town of such fact, and such notification shall be treated as a notification that a change in control of the Franchisee has taken place, and the provisions of this Franchise governing the consent of the Town Council to such change in control of the Franchisee shall apply.

SECTION 3. Receivership.

The Town shall have the right to cancel this Franchise one hundred twenty (120) days after the appointment of a receiver, or trustee, to take over and conduct the business of the Franchisee, whether in receivership, reorganization, bankruptcy or other action or proceeding, unless such receivership or trusteeship shall have been vacated prior to the expiration of said one hundred twenty (120) days, or unless:

- A. Within one hundred twenty (120) days after the election or appointment of a receiver or trustee, such receiver or trustee shall have fully complied with all the provisions of this Franchise and remedied all defaults hereunder; and,
- B. Such receiver or trustee, within said one hundred twenty (120) days, shall have executed an agreement, duly approved by the court having jurisdiction in the premises, whereby such receiver or trustee assumes and agrees to be bound by each and every provision of this Franchise.

SECTION 4. Bankruptcy.

The Town shall have the right to cancel this Franchise immediately should the Franchisee liquidate, become insolvent, make a transfer for the benefit of creditors, or reorganize and enter into an arrangement for the benefit of creditors or file a voluntary petition in bankruptcy; or an involuntary petition in bankruptcy is filed against the Franchisee and is not dismissed within one hundred twenty (120) days after the filing.

SECTION 5. Removal of System.

At the expiration of the term for which this Franchise has been granted, or upon its lawful termination or revocation as provided herein, the Franchisee shall forthwith, upon notice by the Town, remove at the Franchisee's own expense all designated portions of the System from all Rights-of-Way within the Town, and shall restore said Rights-of-Way in accordance with the Town's Design Standards and Standard Construction Specifications; provided, however, the Franchisee shall have the right to sell its physical plant to a subsequent franchisee, subject to the Town approval as provided in Article IV, Section 2, in which case said plant need not be removed and the Franchisee shall continue to operate the

System during such interim period prior to the sale. If the Franchisee fails to commence removing or operating its Facilities within thirty (30) days of request and proceed diligently with the removal, the Town may perform the work at the Franchisee's expense. Any property of the Franchisee remaining in place in any Right-of-Way one hundred eighty (180) days after the expiration, termination or revocation of this Franchise shall be considered permanently abandoned and may become the property of the Town at the Town's discretion.

ARTICLE VII. MISCELLANEOUS PROVISIONS

SECTION 1. Notices.

All notices from the Franchisee to the Town pursuant to this Franchise shall be to the Mayor, Town of Spangle, City Hall, Spangle, WA 99031, or to another person as designated by the Town. All notices to the Franchisee pursuant to this Franchise shall be sent to:

Port of Whitman
302 N Mill Street
Colfax, WA 99111
Attn: Executive Director
Fax: 509-397-4758

or to such other person or address as designated by the Franchisee. The Franchisee shall maintain with the Finance Director, throughout the term of the Franchise, an address for service of notices by mail. The Franchisee shall also maintain with the Town, an office address and telephone number for the conduct of matters related to this Franchise during normal business hours. A new address and telephone number of the office shall be furnished to the Finance Director within fifteen (15) days after any change thereof.

SECTION 2. Time Limits Strictly Construed.

Whenever this Franchise sets forth a time for any act to be performed by the Franchisee, such time shall be deemed to be of the essence, and any failure of the Franchisee to perform within the allotted time may be considered a material violation of this Franchise and sufficient grounds for the Town to invoke any relevant remedy. However, in the event that the Franchisee is prevented or delayed in the performance of any of its obligations under this Franchise by reason of *force majeure*, the Franchisee's performance shall be excused during the force majeure occurrence and the Franchisee thereafter shall, under the circumstances, promptly perform the affected obligations under this Franchise or procure a substitute which is satisfactory to the Town.

SECTION 3. Cumulative Provision.

The rights and remedies reserved to the Town and the Franchisee by this Franchise are cumulative and shall be in addition to and not in derogation or any other rights or remedies which the Town and the Franchisee may have with respect to the subject matter of this Franchise, and a waiver thereof at any time shall have no effect on the enforcement of such rights or remedies at a future time.

Further, either the Town or the Franchisee may seek any legal or equitable relief allowed by law provided that if both parties agree, the Town and the Franchisee may seek methods of alternative dispute resolution.

SECTION 4. Compliance with Federal, State, and Local Laws.

The Franchisee, its contractors, subcontractors, employees, and agents shall comply with all applicable federal, state, and local laws, rules, and regulations issued pursuant thereto. The Franchisee and the Town have carefully reviewed this Franchise and believe that all provisions hereof are enforceable and in full compliance with all applicable local, state, and federal laws and regulations in effect on the date of execution. If the Franchisee shall discover that any significant aspect of the operation or of any provision of the plans, specifications, or configurations of the Franchisee's System is contrary to or inconsistent with any applicable law, ordinance, rule, or regulation, the Franchisee shall promptly report such fact to the Town in writing. The Franchisee and the Town shall also be entitled to all rights and be bound by all changes in applicable local, state, and federal law which in addition to all other rights and powers retained by the Town under this Franchise or otherwise, the Town reserves the right (after notice and the opportunity to cure as provided by Subsection C, below) to forfeit and terminate the Franchise and all rights and privileges of the Franchisee hereunder in the event of a material breach of this Franchise's terms and conditions. A material breach by the Franchisee shall include but shall not be limited to the following: h occur subsequent to the date of this Franchise. The Franchisee and the Town acknowledge that their rights and obligations under this Franchise are explicitly subject to all such changes.

SECTION 5. Captions.

The captions to sections and subsections contained herein are intended solely to facilitate the reading thereof. Such captions shall not affect the meaning or interpretation of the text herein.

SECTION 6. Construction of Agreement.

This Franchise shall be governed, construed, and enforced in accordance with the laws of the State or Washington (as amended), and any other applicable local, state, and federal laws, rules, regulations, legislation, or orders (as such now exist, are later amended or subsequently adopted).

SECTION 7. No Joint Venture.

Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the parties, and neither party is authorized to, nor shall either party act toward third persons or the public in any manner which would indicate any such relationship with the other.

SECTION 8. Entire Agreement.

This Franchise and all attachments represent the entire understanding and agreement between the parties hereto with respect to the subject matter hereof and supersede all prior oral and written

negotiations between the parties. This Franchise can be amended, supplemented, modified, or changed only by an agreement in writing which makes specific reference to this Franchise or to the appropriate attachment and which is signed on behalf of both parties.

SECTION 9. Actions of The Town or The Franchisee.

In any action by the Town or the Franchisee mandated or permitted under the terms hereof, it shall act in a reasonable, expeditious, and timely manner, Furthermore, in any instance where approval or consent is required under the terms hereof, such approval or consent shall not be unreasonably withheld.

SECTION 10. Severability, Preemption, and Precedence.

- A. If any section, subsection, sentence, clause, phrase, provision, or portion of this Franchise is for any reason held invalid or unenforceable by any court of competent jurisdiction, or any state or federal regulatory agency having jurisdiction thereof, the remainder of this Franchise shall not be affected thereby, and each remaining section, subsection, sentence, clause, phrase, provision, and portion of this Franchise shall be valid and enforceable to the fullest extent permitted by law.
- B. In the event that federal or state laws, rules or regulations preempt a provision or limit the enforceability of a provision of this Franchise, then the provision shall be read to be preempted to the extent and for the time required by law. In the event such federal or state law, rule or regulation is subsequently repealed, rescinded, amended or otherwise changed so that the provision hereof that had been preempted is no longer preempted, such provision shall thereupon return to full force and effect, and shall thereafter be binding on the parties hereto, without the requirement of further action on part of the Town or Franchisee, and any amendments to this Franchise negotiated as a result of such provision being preempted shall no longer be of any force or effect with respect to that provision.

SECTION 11. Venue.

Any action concerning a dispute arising under this Franchise shall be convened in Whitman County, Washington.

SECTION 12. Interpretation.

As a further condition of this Franchise, the parties acknowledge that this Franchise shall be deemed and construed to have been prepared mutually by both parties.

SECTION 13. Attorneys' Fees.

In the event that either party shall take action, whether judicial or otherwise, to enforce or interpret any of the provisions of this Franchise, the prevailing party shall be entitled to recover from the other party all expenses which it may reasonable incur in such action, including attorneys' fees and costs, whether incurred in a court of law or otherwise.

SECTION 14. Effective Date.

This Franchise shall be in full force and effect five (5) days after publication as required by law, and acceptance by the Franchisee.

PASSED BY THE TOWN COUNCIL OF THE TOWN OF SPANGLE, this _____ day of _____ 2011.

TOWN OF SPANGLE

Mayor

ATTEST:

Approved as to Form:

Town Attorney

Accepted this _____ day of _____ 2011, subject to applicable federal, state and local law.

PORT OF WHITMAN

By: Joseph R. Poire, Executive Director

STATE OF WASHINGTON

COUNTY OF WHITMAN

On _____, before me, a Notary Public in and for said State, personally appeared Joseph R. Poire, known to me to be the Executive Director of the Port of Whitman that executed the within Instrument, know to me to be the person who executed the within Instrument on behalf of the corporation therein named as Franchisee and acknowledged to me that such corporation executed the within Instrument pursuant to its by-laws or a resolution of its directors.

WITNESS my hand and official seal:

Notary Public In and for the State of Washington
Residing at: _____, Washington
My commission Expires: _____

ATTACHMENT P - BUDGET PLAN

BUDGET PLAN

Total Project Cost Breakdown		Timeline
Design/Engineering	\$ 500,000	12 mo.
Permitting	\$ 5,000	3 mo.
Cultural Resource Review	\$ 25,000	3 mo.
Construction	\$ 6,270,000	18 mo.
	\$ 6,800,000	

ATTACHMENT Q - INCOME STATEMENT

Income Statement	Year									
	1	2	3	4	5	6	7	8	9	10
INCOME										
Fiber Leases	\$ 347,544.00	\$ 351,019.44	\$ 354,529.63	\$ 358,074.93	\$ 361,655.68	\$ 365,272.24	\$ 368,924.96	\$ 372,614.21	\$ 376,340.35	\$ 380,103.75
GROSS PROFIT	\$ 347,544.00	\$ 351,019.44	\$ 354,529.63	\$ 358,074.93	\$ 361,655.68	\$ 365,272.24	\$ 368,924.96	\$ 372,614.21	\$ 376,340.35	\$ 380,103.75
EXPENSES										
Interest Expense on 2% loan	\$ 75,027.76	\$ 71,857.64	\$ 68,623.54	\$ 65,324.16	\$ 61,958.18	\$ 58,524.26	\$ 55,021.03	\$ 51,447.09	\$ 47,801.01	\$ 44,081.34
Management Fees	\$ 52,131.60	\$ 52,652.92	\$ 53,179.45	\$ 53,711.24	\$ 54,248.35	\$ 54,790.84	\$ 55,338.74	\$ 55,892.13	\$ 56,451.05	\$ 57,015.56
Pole Attachment Fees	\$ 32,500.00	\$ 32,500.00	\$ 32,500.00	\$ 32,500.00	\$ 32,500.00	\$ 32,500.00	\$ 32,500.00	\$ 32,500.00	\$ 32,500.00	\$ 32,500.00
Locate Fees	\$ 2,927.69	\$ 2,927.69	\$ 2,927.69	\$ 2,927.69	\$ 2,927.69	\$ 2,927.69	\$ 2,927.69	\$ 2,927.69	\$ 2,927.69	\$ 2,927.69
R&M	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
TOTAL EXPENSES	\$ 165,087.05	\$ 162,438.25	\$ 159,730.67	\$ 156,963.08	\$ 154,134.22	\$ 151,242.78	\$ 148,287.46	\$ 145,266.91	\$ 142,179.75	\$ 139,024.59
NET PROFIT	\$ 182,456.95	\$ 188,581.19	\$ 194,798.96	\$ 201,111.85	\$ 207,521.46	\$ 214,029.46	\$ 220,637.50	\$ 227,347.30	\$ 234,160.60	\$ 241,079.17

ATTACHMENT R - BALANCE SHEET

Balance Sheet	Year										
	0	1	2	3	4	5	6	7	8	9	10
ASSETS											
Current Assets											
Cash	\$ 6,796,646.00	\$ 25,398.79	\$ 53,751.71	\$ 85,088.29	\$ 119,438.37	\$ 156,832.09	\$ 197,299.89	\$ 240,872.50	\$ 287,580.97	\$ 337,456.66	\$ 390,531.24
Fixed Assets											
Land		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Facilities		\$ 6,796,646.00	\$ 6,796,646.00	\$ 6,796,646.00	\$ 6,796,646.00	\$ 6,796,646.00	\$ 6,796,646.00	\$ 6,796,646.00	\$ 6,796,646.00	\$ 6,796,646.00	\$ 6,796,646.00
TOTAL ASSETS	\$ 6,796,646.00	\$ 6,822,044.79	\$ 6,850,397.71	\$ 6,881,734.29	\$ 6,916,084.37	\$ 6,953,478.09	\$ 6,993,945.89	\$ 7,037,518.50	\$ 7,084,226.97	\$ 7,134,102.66	\$ 7,187,177.24
LIABILITIES											
Current Liabilities											
		\$160,228.28	\$163,462.38	\$166,761.76	\$170,127.74	\$173,561.66	\$177,064.89	\$180,638.83	\$184,284.91	\$188,004.58	\$191,799.33
Long-Term Liabilities											
	\$ 3,823,113.38	\$ 3,505,826.94	\$3,342,364.56	\$3,175,602.79	\$3,005,475.05	\$2,831,913.39	\$2,654,848.50	\$2,474,209.66	\$2,289,924.75	\$2,101,920.17	\$1,910,120.83
Total Liabilities	\$ 3,823,113.38	\$ 3,666,055.22	\$ 3,505,826.94	\$ 3,342,364.56	\$ 3,175,602.79	\$ 3,005,475.05	\$ 2,831,913.39	\$ 2,654,848.50	\$ 2,474,209.66	\$ 2,289,924.75	\$ 2,101,920.17
NET WORTH											
Cash Contribution	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50	\$ 1,699,161.50
Grant Proceeds	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13	\$ 1,274,371.13
Retained Earnings		\$ 182,456.95	\$ 371,038.14	\$ 565,837.11	\$ 766,948.96	\$ 974,470.42	\$ 1,188,499.87	\$ 1,409,137.37	\$ 1,636,484.68	\$ 1,870,645.28	\$ 2,111,724.45
Total Net Worth	\$ 2,973,532.63	\$ 3,155,989.58	\$ 3,344,570.77	\$ 3,539,369.73	\$ 3,740,481.58	\$ 3,948,003.04	\$ 4,162,032.50	\$ 4,382,670.00	\$ 4,610,017.30	\$ 4,844,177.90	\$ 5,085,257.07
TOTAL LIABILITIES AND NET WORTH	\$ 6,796,646.00	\$ 6,822,044.79	\$ 6,850,397.71	\$ 6,881,734.29	\$ 6,916,084.37	\$ 6,953,478.09	\$ 6,993,945.89	\$ 7,037,518.50	\$ 7,084,226.97	\$ 7,134,102.66	\$ 7,187,177.24

ATTACHMENT S - CASH FLOW

Cash Flow	Year		Year								
	0	1	2	3	4	5	6	7	8	9	10
CASH RECEIPTS											
Income from Sales											
Cash Sales	\$ -	\$ 347,544.00	\$ 351,019.44	\$ 354,529.63	\$ 358,074.93	\$ 361,655.68	\$ 365,272.24	\$ 368,924.96	\$ 372,614.21	\$ 376,340.35	\$ 380,103.75
Total Cash from Sales	\$ -	\$ 347,544.00	\$ 351,019.44	\$ 354,529.63	\$ 358,074.93	\$ 361,655.68	\$ 365,272.24	\$ 368,924.96	\$ 372,614.21	\$ 376,340.35	\$ 380,103.75
Grant Proceeds	\$ 1,274,371.13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Loan Proceeds	\$ 3,823,113.38	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equity Capital Investments	\$ 1,699,161.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Cash from Financing	\$ 6,796,646.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Cash Receipts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Cash Receipts	\$ 6,796,646.00	\$ 347,544.00	\$ 351,019.44	\$ 354,529.63	\$ 358,074.93	\$ 361,655.68	\$ 365,272.24	\$ 368,924.96	\$ 372,614.21	\$ 376,340.35	\$ 380,103.75
CASH DISBURSEMENTS											
Operating Expenses	\$ -	\$ 165,087.05	\$ 162,438.25	\$ 159,730.67	\$ 156,963.08	\$ 154,134.22	\$ 151,242.78	\$ 148,287.46	\$ 145,266.91	\$ 142,179.75	\$ 139,024.59
Capital Purchases	\$ -	\$ 6,796,646.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Loan Payments	\$ -	\$ 157,058.16	\$ 160,228.28	\$ 163,462.38	\$ 166,761.76	\$ 170,127.74	\$ 173,561.66	\$ 177,064.89	\$ 180,638.83	\$ 184,284.91	\$ 188,004.58
TOTAL CASH DISBURSEMENTS	\$ -	\$ 7,118,791.21	\$ 322,666.52	\$ 323,193.05	\$ 323,724.85	\$ 324,261.96	\$ 324,804.44	\$ 325,352.35	\$ 325,905.74	\$ 326,464.66	\$ 327,029.17
NET CASH FLOW											
Opening Cash Balance	\$ -	\$ 6,796,646.00	\$ 25,398.79	\$ 53,751.71	\$ 85,088.29	\$ 119,438.37	\$ 156,832.09	\$ 197,299.89	\$ 240,872.50	\$ 287,580.97	\$ 337,456.66
Cash receipts	\$ 6,796,646.00	\$ 347,544.00	\$ 351,019.44	\$ 354,529.63	\$ 358,074.93	\$ 361,655.68	\$ 365,272.24	\$ 368,924.96	\$ 372,614.21	\$ 376,340.35	\$ 380,103.75
Cash Disbursements	\$ -	\$ 7,118,791.21	\$ 322,666.52	\$ 323,193.05	\$ 323,724.85	\$ 324,261.96	\$ 324,804.44	\$ 325,352.35	\$ 325,905.74	\$ 326,464.66	\$ 327,029.17
Ending Cash Balance	\$ 6,796,646.00	\$ 25,398.79	\$ 53,751.71	\$ 85,088.29	\$ 119,438.37	\$ 156,832.09	\$ 197,299.89	\$ 240,872.50	\$ 287,580.97	\$ 337,456.66	\$ 390,531.24

Petrichor Broadband LLC

ATTACHMENT T - PETRICHOR BROADBAND INTRODUCTION

Petrichor Broadband LLC is a publicly owned corporation formed by six public port districts with over 20 years' experience creating open access networks. Petrichor works with other ports, tribes, counties, cities, public utility districts, industrial development zones and the Washington State Broadband Office to expand broadband access to underserved communities across Washington State. To accomplish this goal, we provide fiber optic planning and design, network management and local, state and federal policy development services.

We promote publicly owned, open-access, free trade platforms for the private sector to sell services. This public-owned infrastructure allows competition in markets where investments have not been made by the private sector, bringing urban-rate-priced services to all markets.

To serve rural customers, Petrichor members leverage public sector investment to build co-location and outside plant infrastructure for lease to telecommunications providers. Petrichor members also partner on joint builds with telecommunications service providers, lowering the costs to build and creating redundant networks in communities.



The founding members of Petrichor Broadband include Port of Kalama, Port of Ridgefield, Port of Bellingham, Port of Skagit County, Port of Pasco and Port of Whitman County.

This open-access model allows companies to choose between purchasing lit services or leasing dark fiber. In developing this model, ports learned repeatedly that companies desire to own individual networks, which they control and maintain. The ability to lease dark fiber provides companies the control necessary to offer a service-level agreement to their customers. By leasing the dark fiber plant to retail service providers at a price point that allows competitive retail pricing to consumers, this model facilitates economic development. The private sector competes to sell services, while investing in employees and equipment to grow their business in unserved communities.

Petrichor performs feasibility and planning studies for all entities based on this model. Consulting services include funding applications, design services, project management and fiber mapping and management.

ATTACHMENT U

INTERLOCAL COOPERATION AGREEMENT FOR TELECOMMUNICATION SERVICES

THIS INTERLOCAL COOPERATION AGREEMENT ("this AGREEMENT") entered into by PETRICHOR BROADBAND, LLC, a Washington interlocal limited liability company permitted by RCW 39.34.030, (hereinafter "PETRICHOR"), and the _____, a municipal corporation of the State of Washington, (hereinafter the "_____").

RECITALS

WHEREAS, PETRICHOR is a Washington interlocal limited liability company consisting of the following Ports as members: Port of Bellingham, Port of Kalama, Port of Pasco, Port of Ridgefield, Port of Skagit County, and Port of Whitman County; and

WHEREAS, the Port of Whitman County is the named Manager for PETRICHOR; and

WHEREAS, PETRICHOR contracts with public and private entities for the planning, development and operation of local and regional telecommunication facilities; and

WHEREAS, the PORT owns and operates telecommunication infrastructure ("the Facilities"), within and without its district for its own use and to provide wholesale telecommunication services within Asotin County; and

WHEREAS, the _____ has or intends to construct a fiber optic telecommunication network, which is the subject matter of this agreement (herein the "_____"); and

WHEREAS, this Agreement provides for certain services to be provided by PETRICHOR to the PORT in exchange for fees and revenue sharing as set forth below and the mutual benefits to be derived;

NOW, THEREFORE, IT IS HEREBY AGREED AS FOLLOWS:

INTERLOCAL COOPERATION AGREEMENT
FOR TELECOMMUNICATION SERVICES

(_____)

1. Management, Services and Expenses:

a. PETRICHOR shall provide the following services for the Facilities which are subject to the revenue sharing provisions of this Agreement:

- (1) Fiber and facility mapping, including cut sheet documentation;
- (2) One-Call management services;
- (3) _____ Will or _____ will not contract for locate services in accordance with standards in the industry;
- (4) Emergency restoration management in accordance with standards in the industry;
- (5) Review of construction design; and
- (6) Oversight of Network Operations Center (NOC) contracted services.

PETRICHOR may contract with third parties for the services to be provided.

b. _____ shall provide the following services for the Facilities which are subject to the revenue sharing provisions of this Agreement:

- (1) Administration of billing and collection;
- (2) Collection and remittance of applicable leasehold tax as directed by the State of Washington and franchise fees; and
- (3) Provide financial reports displaying monthly invoiced amounts by customer.

c. Expenses for the Facilities subject to the Revenue Sharing provisions of this Agreement will be allocated as follows:

- (1) Fiber and facility mapping, including cut sheet documentation will be provided by PETRICHOR;
- (2) One-call and locate services expenses shall be paid by the PORT;

(3) Emergency restoration service charges and expenses shall be paid by the PORT;

(4) Administration, billing and collection will be provided by the PORT; and

(5) NOC contracted services will be overseen by PETRICHOR and expenses shall be paid by the PORT.

2. Revenue Sharing and Fees:

All revenue derived from the _____ Facilities shall belong to the _____ and payment therefrom shall be as follows:

a. Commencing January 1, _____, payment for services will be on a revenue share basis whereby PETRICHOR will receive fifteen percent (15%) of monthly revenue, or Ten Thousand and no/100ths Dollars (\$10,000.00) per year, whichever is greater, derived from the Facilities, payable within thirty (30) days of month end. If at the end of the year, the total revenue paid to PETRICHOR is less than Ten Thousand and no/100ths Dollars (\$10,000.00), the _____ shall pay the difference between the revenue paid and Ten Thousand and no/100ths Dollars (\$10,000.00) within thirty (30) days.

b. The term "Revenue" as used in the Revenue Sharing provisions of this Agreement shall mean the gross amount invoiced/derived from the wholesale lease or grant of use of fiber optic lines. Non-reoccurring fees, fees for power charges, collocation fees, leasehold taxes, and franchise fees, shall not be considered Revenue for purposes of Revenue Sharing.

3. Leases and Contracts:

a. This Agreement shall apply to the wholesale lease or grant of use of the _____'s Facilities.

b. Lease, contracts, and agreements, to which this Agreement applies, shall be leases, contracts, and agreements of the PORT. Said leases, contracts, and agreements shall conform to and be consistent with the Master Service Agreement attached as EXHIBIT "A,"

or such other agreement as mutually agreed upon by PETRICHOR and the PORT.

c. No lease or contract subject to this Agreement shall extend beyond a period of twenty years from the date of execution, except as expressly authorized in writing by both parties. The Revenue from any leases, contracts, or agreements made during the term hereof and subject to this Agreement that have a termination date extending beyond the termination of this Agreement shall, belong to the PORT.

d. All rates, fees and charges for the use the Facilities shall be as mutually agreed upon with the goal of meeting each entity's revenue expectations. The initial rate structure is set forth in EXHIBIT "B".

e. Nothing herein shall be deemed to require the PORT to enter any lease, contract, or agreement for the use of its telecommunication lines or facilities.

f. Nothing herein shall prohibit the _____ from charging non-reoccurring fees for construction, relocation, or capital improvements to its Facilities, which fees shall not be considered Revenue, but will belong to the PORT.

4. Taxes, Fees and Assessments: The collection and payment of all taxes, fees, and assessments shall remain the responsibility of the PORT.

5. Term: The term of this Agreement shall begin January 1, _____, and terminate on the 31st day of December _____ (the "Initial Term"). Upon expiration of the Initial Term, this Lease shall automatically and successively renew for additional terms of one (1) year each, unless either party notifies the other in writing of its intent to terminate this Lease by giving one hundred eighty (180) days' notice prior to the end of the Initial Term, or any renewal thereof.

6. Development of Additional Facilities: It is understood and agreed that the _____ may wish to add to or expand its telecommunication fiber system, and nothing herein shall be deemed or considered as a restriction or prohibition on future development. However, any subsequent Interlocal Agreements which result in the management of additional fiber not owned by the PORT will require PETRICHOR's written consent.

7. Ownership on Termination: Upon termination of this Agreement and its non-renewal, all lines and facilities within the Clarkston Network shall remain the sole property of the PORT.

8. Relocation: In the event relocation of the Facilities which are subject to the Revenue Sharing provision of this Agreement is necessary, relocation costs and expenses shall be the sole responsibility of the PORT.

9. Annual Meeting: The _____ and PETRICHOR shall meet annually in the month of _____ at a date, time and location mutually agreeable to discuss financial reports, planning and budgeting.

IN WITNESS WHEREOF, the parties enter into this Agreement the _____ day of _____, _____, and the undersigned represent that he or she is authorized to sign this Agreement.

PETRICHOR BROADBAND, LLC, a _____, a municipal Washington interlocal limited liability company _____ corporation of Washington

By _____
Port of Whitman County, Manager

By _____,
Executive Director

ATTACHMENT V

AGREEMENT FOR PROJECT ADMINISTRATIVE SERVICES

THIS AGREEMENT ("this AGREEMENT") entered into by the PETRICHOR BROADBAND, LLC, a municipal corporation of the State of Washington, ("PETRICHOR"), and the ENTITY, a municipal corporation of the State of Washington, ("ENTITY").

RECITALS

WHEREAS, PETRICHOR owns and operates telecommunication facilities within and without its district for its own use and to provide wholesale telecommunication services within its district; and

WHEREAS, ENTITY owns and operates telecommunication facilities ("the Facilities"), within ENTITY County for its own use and to provide wholesale telecommunication services within its district; and

WHEREAS, ENTITY intends construct _____ ("the Project"); and

WHEREAS, this Agreement provides for certain services to be provided by PETRICHOR to ENTITY for a one-time fee as set forth below and the mutual benefits to be derived;

NOW, THEREFORE, IT IS HEREBY AGREED AS FOLLOWS:

1. Management Services:

a. PETRICHOR shall provide the following services for the Project:

- (1) Design process overview and recommendations;
- (2) Assistance with permitting, pole contact agreements, and easement acquisition;
- (3) Invitation to bid documents and process management;
- (4) Construction oversight;
- (5) Mapping of the project as-built;
- (6) Public outreach guidance as needed; and
- (7) An annual average of twelve on-site meetings or visits by Port of Petrichor personnel.

b. Project Expenses

All project expenses shall be paid by ENTITY.

2. Fees:

a. Payment for services will be made in _____ payments of _____ due upon invoice.

3. Term: The term of this Agreement shall begin _____ and terminate upon completion of the services to be provided but no later than the _____.

4. Ownership: Petrichor shall acquire no ownership or property interest in the Project lines or facilities.

IN WITNESS WHEREOF, the parties enter into this Agreement the _____ day of _____, _____, and the undersigned represent that he or she is authorized to sign this Agreement.

PETRICHOR, a municipal corporation of the State of Washington:

By _____
Executive Director

ATTEST:

By _____

ENTITY, a municipal corporation of the State of Washington:

By _____
Executive Director

ATTEST:

By _____