



**UTAH BROADBAND CENTER
CONNECTING UTAH**

**BEAVER COUNTY
LOCAL BROADBAND PLAN**





Table of Contents

Executive Summary	ii
1 Overview of the Local Broadband Plan	1
1.1 Vision	1
1.2 Goals and Objectives	1
2 Background	1
2.1 Scope of Broadband Plan	1
2.2 What is Broadband?	1
2.2.1 Broadband Network Distribution	1
2.2.2 Types of Broadband	2
2.2.3 Benefits of Broadband	3
3 Current State of Broadband and Digital access	5
3.1 Methods to Determine the Current State of Broadband	5
3.2 Existing Resources	6
3.3 Partnerships	7
3.4 Asset Inventory	8
3.4.1 Broadband Availability	8
3.4.2 Digital Access	8
3.4.3 Broadband Affordability	10
3.5 Needs and Gaps Assessment	10
3.5.1 Broadband Availability	10
3.5.2 Digital Access	10
3.5.3 Broadband Affordability	10
4 Obstacles or Barriers	11
5 Implementation Plan	11
5.1 Priorities	11
5.2 Planned Activities	11
5.3 Key Execution Strategies	11
5.4 Ongoing Stakeholder Engagement	11
5.5 Estimated Timeline for Universal Service	11
5.6 Estimated Cost for Universal Service	12
5.7 Alignment	12
5.8 Technical Assistance	12
6 Conclusion	12
Appendix A: Title Here	A



1. EXECUTIVE SUMMARY

Beaver County’s Digital Access plan is a combination of private and public partnerships that will allow the citizens of the county broadband access at affordable rates. It promotes the growth of private business offerings through utilization of public infrastructure and allows for further technological advances.

VISION	We see a future shaped by broadband connectivity that will bring economic development, education, wealth and connection. It will be equitable in its access across the diverse populations that call Beaver County home.
---------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

KEY BARRIERS	Availability	Affordability	Topographical	Geographical
	The opportunity to choose between various high speed and low-cost plans doesn’t exist.	With only one or two options for broadband connections, plans, devices and relevant software isn’t always affordable.	The wide variety of topographic variance within the county prohibits some regions from having access to broadband.	Divides are wide across the existing communities, along with throughout the entire county, making hardwired solutions difficult for providers.

COVERED POPULATIONS	Aging Individuals	Individuals living in households at or below 150% of the federal poverty line	Individuals who reside primarily in a rural area	Individuals who are members of a racial or ethnic minority group	Individuals with disabilities

GOALS	Connectivity	Devices & Technical Support Expansion	Expanded Privatization





KEY STRATEGIES

Private & public Wi-Fi in community-identified locations/areas.

Engaged use of Beaver County School District, and Five County Association of Governments' plans towards implementation.

Expanding existing programs for educating around device use and technical support.

Engage multiple private businesses to facilitate conversations about use of existing infrastructure.





1 OVERVIEW OF THE LOCAL BROADBAND PLAN

1.1 VISION

We see a future shaped by broadband connectivity that will bring economic development, education, wealth and connection. Broadband access will be equitable across the diverse populations that call Beaver County home.

1.2 GOALS AND OBJECTIVES

The goals and objectives for the Beaver County Broadband Plan are straight forward, with connectivity being paramount amongst them. In the last several years, Beaver County and the various governmental partners therein have worked diligently to accommodate general access through public access points, and with the use of mobile devices. These connections were primarily provided by local cities through their local libraries, and the Beaver County School District. Another goal would be to expand these kinds of services and educate the public on the use and availability of them. The gap that very clearly exists is the lack of private options in addition to these public options, and so attracting and engaging with Internet Service Providers outside of the few already established is going to be a key goal in the overarching project.

Our objectives for these goals are to identify the neighborhoods and communities that lack connectivity, expand and educate on the programs that offer devices for access, engage more internet service providers to utilize existing infrastructure for expansion of services, and participate with the Beaver County School District and Five County Association of Governments in their individual plans for broadband across the coordinating areas and populations.

2 BACKGROUND

2.1 SCOPE OF BROADBAND PLAN

Beaver County lies on the west side of Utah in what is known as the southwest part of the state. Its west border is the state line of the state of Nevada, and consists of low rolling hills punctuated by isolated mountains. The east edge of the county runs to the crest of a north-south-running mountain ridge. The terrain slopes to the west and north; its highest point is a mountain crest on its east border, at 12,011'. The county has a total area of 2,592 square miles.

The Tushar Mountains lie on the eastern boundary of the county, reaching to 12,000 feet in elevation and providing water for the farming communities of Beaver and Manderfield. To the west, barren desert valleys typify the scenery, separated by mountains lightly forested with junipers. There are three main cities/townships: Beaver City (the County Seat), Milford City, and



Minersville Town. Other unincorporated communities include Sulphurdale, Manderfield, North Creek, Adamsville, Greensville, and Frisco. Currently, there are two developing communities which can be found near the Eagle Point Ski Resort, and in the areas surrounding Kent's Lake.

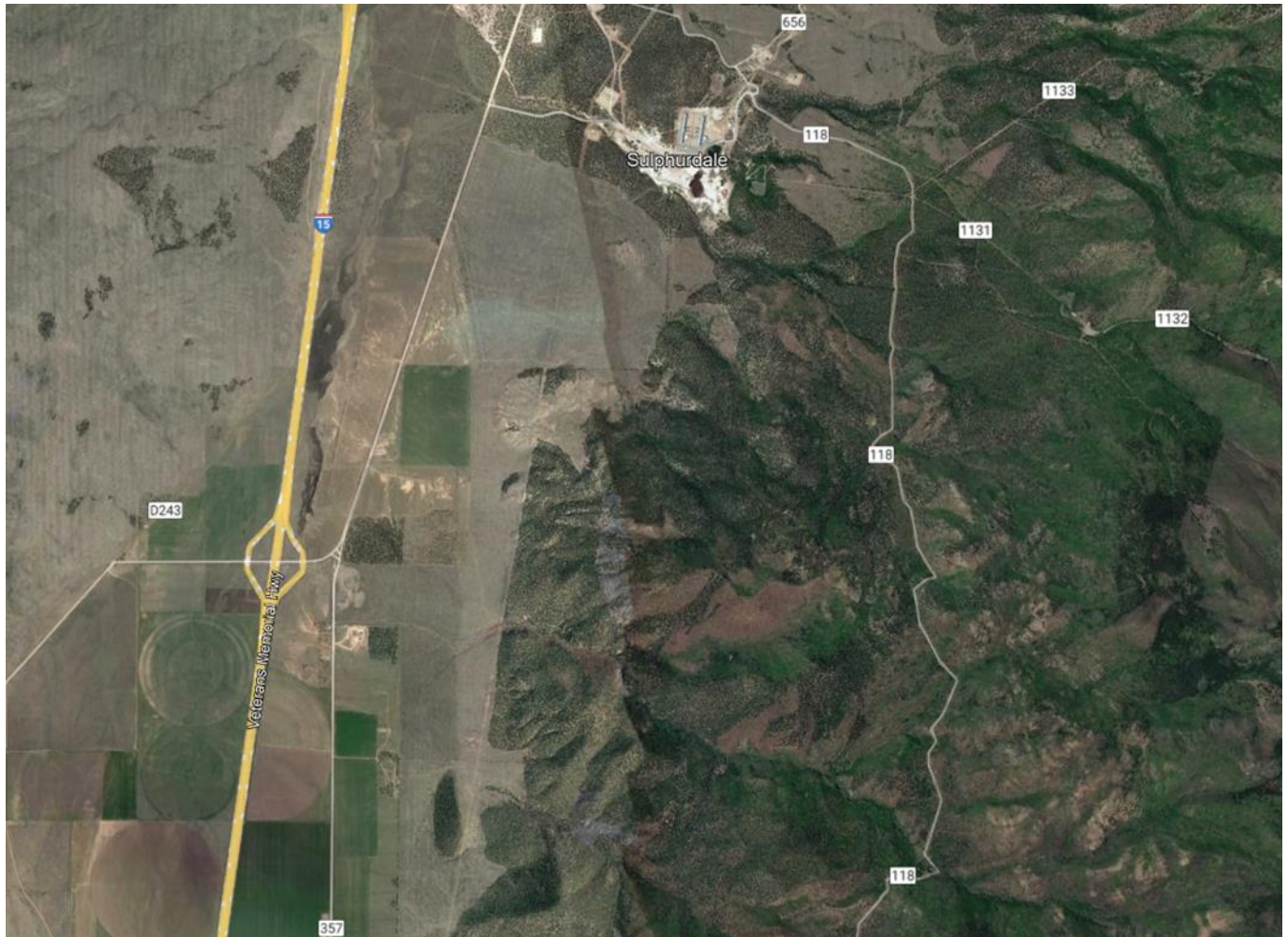
Map of Beaver County



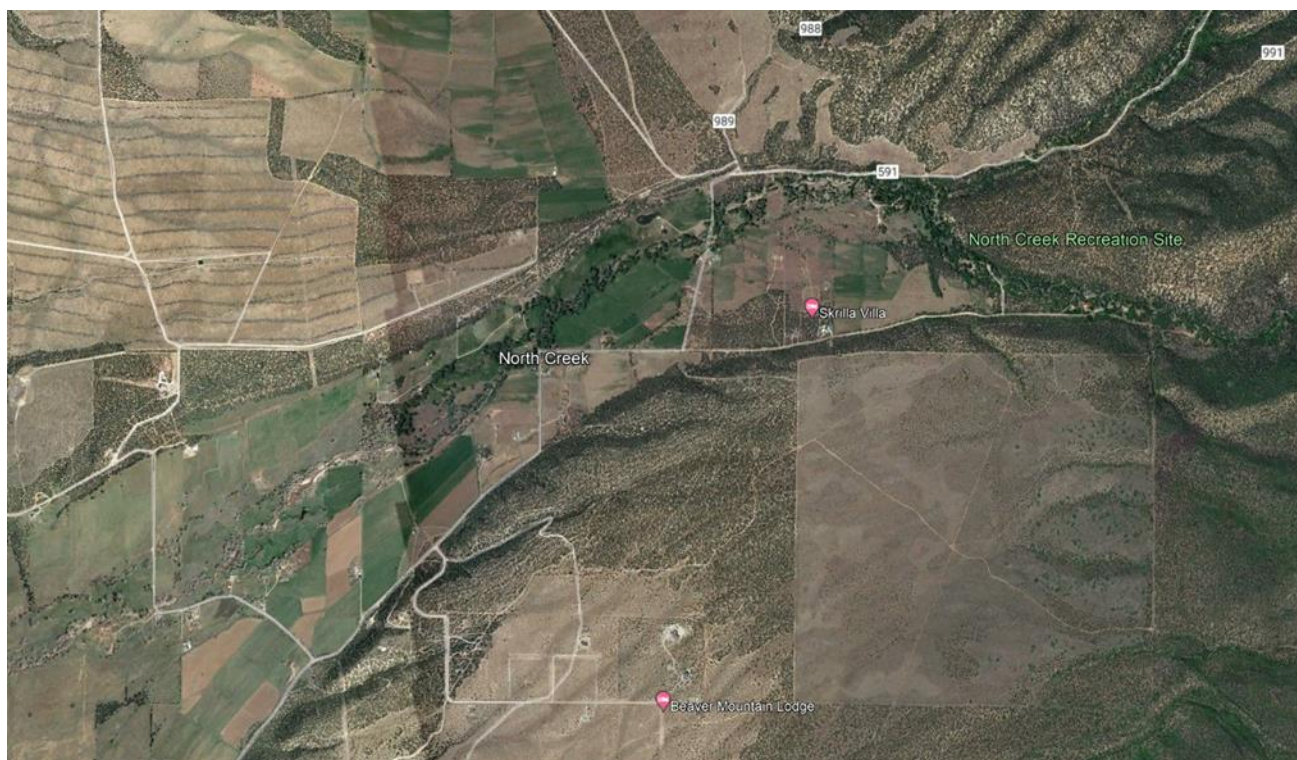
The county is home to just under 7,500 residents all of whom reside in rural communities. 41% of households in Beaver County have children under the age of 18 living in the home, and the average family size is 3.44. The median age of residents in the county is a young 31.9 years old and 17.9 percent of the population lives below the poverty line. These tough economics in addition to the tough geography make Beaver County unique. With the major interstates of I-15 and I-70 unction into I-15, small hometowns with steep rural culture would not necessarily be assumed. Longstanding economic traditions in the county have led to years of boom and bust economics in both mining and agriculture.

Map of developing communities within Beaver County

Sulphurdale currently has less than 200 residents, and only one business located in the area. However, that is set to change in the coming months, and well into 2024 when a bottling facility will be built and become fully operational. Suggested growth in the area contains plans for residential use as well as manufacturing growth.



North Creek was created initially by farming families who wanted to live on the outskirts of Beaver City. They have built residences, farms, and there is some light commercial use. We anticipate more growth with the establishment of an affluent subdivision having been created on the benches above existing farmland, and added recreation in the form of mountain biking trails in the area.



2.2 WHAT IS BROADBAND?

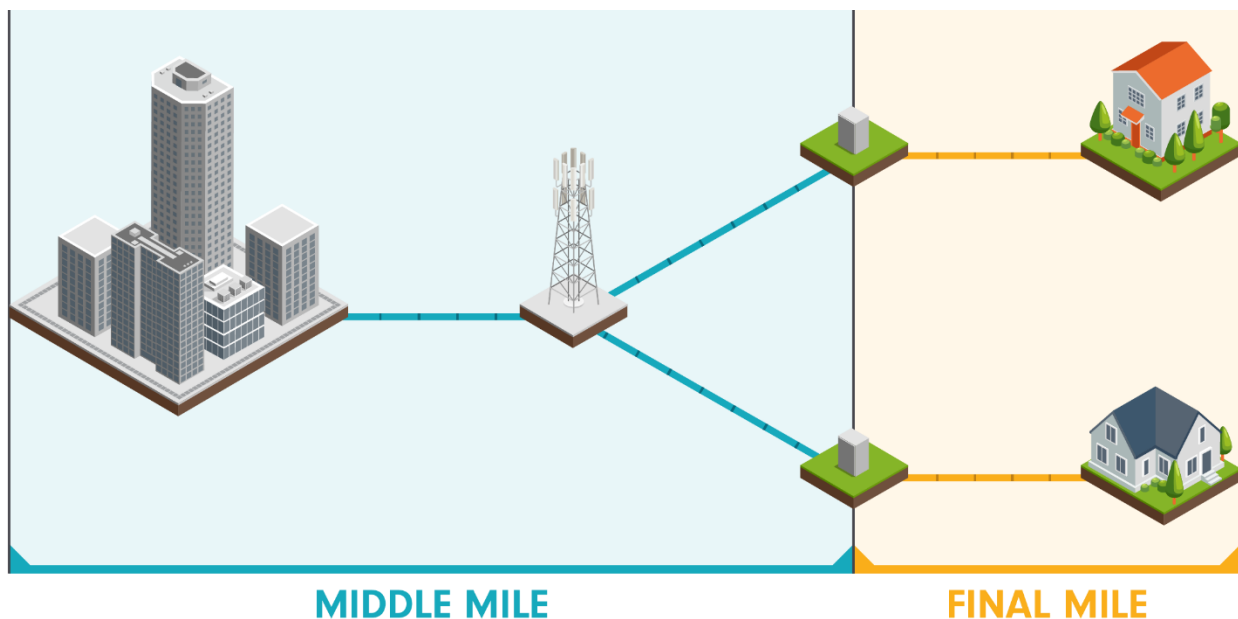
Broadband is a dedicated connection to high-speed internet. The threshold for what speed is defined as high-speed internet changes according to the standards presented by the Federal Communication Commission (FCC). Currently, broadband is defined as any speeds above 25 megabits per second (Mbps) download speed and 3 Mbps upload speed (25/3 Mbps). The Broadband Equity, Access, and Deployment (BEAD) Program defines households with less than 25/3 Mbps as unserved locations and those with less than 100/20 Mbps as underserved locations. Community anchor institutions with less than 1/1 gigabits per second (Gbps) speeds are also considered underserved, as defined by Section 60102 of the Infrastructure Investment and Jobs Act, which also sets forth the BEAD program.

2.2.1 Broadband Network Distribution

The infrastructure that data travels along is called a network. Similar to other public utilities such as roads or water pipes, the network infrastructure is carefully planned and then built according to how many people need to be served in both the present and the future. Within the network,



data is carried across fiber, wires, or radio signals in the air (wireless). These various means of carrying data have different capacities and speeds. The part of the network used to transport data between cities or across cities is known as Middle Mile infrastructure. The Middle Mile network connects to hubs built throughout a city. The part of the network that connects from a hub to the end user is called Final Mile or Last Mile infrastructure. End users can be businesses, residential homes, or individuals connecting to cell service.



2.2.2 Types of Broadband

There are various technologies that high-speed broadband internet can be served through, such as fiber optic, digital subscriber line (DSL), cable modem (Coax), and wireless technologies. Each form of technology has pros and cons.

2.2.2.1 Fiber Optic

Fiber optic technology sends digital signals carrying data as light through cables made of glass fibers. It provides the fastest, most reliable networks. Because fiber is a newer technology, many areas do not have fiber networks developed, so this type of network can require building new infrastructure. Fiber optic cables can be placed on existing power poles or can be placed inside conduit buried in the ground. If the network is designed and installed correctly, speeds can be up to 1 Gbps. **Fiber Optic is the gold standard for high-speed broadband internet**



as it provides the fastest speeds and can support emerging digital technologies into the future.

2.2.2.2 DSL

DSL uses existing copper telephone cables to transmit data. Speeds vary widely based on local providers, as they can be less than 1 Mbps or up to 100 Mbps. Households with this connection are typically considered “served” with high-speed broadband internet. With maximum DSL speeds at 100 Mbps, DSL does not meet the ever-growing needs of future technologies, so it is not a preferred option when building modern broadband infrastructure.

2.2.2.3 Cable Modem (Coax)

Cable Modem delivers similar speeds as DSL, but it uses the coaxial cables used for cable televisions to transmit broadband data. Like DSL, it is not a preferred option when building new broadband infrastructure, but it can be used where existing infrastructure is in place.

2.2.2.4 Wireless

Wireless broadband includes several technologies, including satellite broadband, Wireless Local Area Networks (WLANs), Wi-Fi, and cellular 4G, 5G, and LTE. These technologies use radio spectrum to transmit broadband data. Please note that BEAD funding can only be used to build wireless broadband technology when it is connected to a terrestrial Middle Mile network, and cannot be used on satellite broadband technologies.

Satellite Broadband – Satellite broadband involves satellites that orbit the earth transmitting long range signals. It is primarily a Middle Mile wireless solution. It is often used in rural locations where there are no other terrestrial networks available. Satellite broadband has a higher latency (also known as lag), making video calls extremely difficult on this type of broadband. When using satellite connection, speeds vary based on location, and weather can cause outages.

WLANs – WLANs are the Last Mile networks used at homes or businesses to distribute internet to phones, computers, and other devices through radio signals. Wi-Fi and hotspots are both examples of a WLAN. Connection speeds are dependent on the service provided at the access point.

Cellular 4G, 5G, and LTE – Cellular 4G, 5G, and LTE involve cell towers transmitting radio signals of high-speed broadband internet data, which are then picked up through the modems in cellular phones, mobile routers, cellular antennas, or various signal boosters. The cell towers are often connected to a Middle Mile fiber network and provide a Final Mile connection for anyone near the signal. The speeds can often reach speeds of 600 Mbps if specialized equipment is used to boost the signal. This is usually the fastest high-speed broadband internet



available for users that do not have access to fiber optic technology. Please note that BEAD funding can be used to build infrastructure for cell towers as long as they are connected to a terrestrial Middle Mile network.

2.2.3 Benefits of Broadband

High-speed broadband internet has become an integral part of society. It is critical for work, education, telehealth, and the completion of everyday tasks.

High-speed broadband internet has transformed the way the world does business. There are few businesses that can operate today without the internet, and while some can get by with a low-speed connection, high-speed internet is becoming more and more necessary. A [Pew Research Center survey](#) conducted in April 2021 found that 90% of adults surveyed considered internet “essential or important for them personally during the [COVID-19] pandemic.” High-speed broadband internet has allowed for remote work possibilities, which opens the possibility of highly skilled workers relocating to smaller communities and benefiting the economies of those communities. Readily available access to the internet has allowed businesses to widen their customer base to a global market. Beaver County’s primary business is agriculture, but emerging manufacturing and technological advancements across all sectors are on the rise. As such, high-speed broadband internet helps grow all sectors, but more importantly helps attract new sectors to locate in Beaver County. In today’s world, broadband can grow Beaver County’s economic outlook.

While high-speed broadband internet is benefitting many regions across the globe, it is important to ensure that Beaver County does not get left behind. There is a growing digital divide where those that do not have access to the internet do not learn the digital skills necessary for high paying jobs, pushing them further into poverty. Conversely, increasing high-speed broadband internet access increases economic opportunities for low-income families.

Developing digital skills at a young age has become increasingly important, as high-speed broadband internet is an integral tool in modern education and preparation for the future workforce. Access to online classes, homework submissions, and research opportunities can be lost if a reliable high-speed broadband internet connection is not secured. Many school districts are also utilizing online learning on snow days and other times when it isn't possible for students to gather at the school. Online classes can be made available for specialized subjects like foreign language or technological courses that do not have a local teacher available. Children without access to a broadband internet connection may be left out in these scenarios.

Other online resources are also becoming more important for communities. For example, telehealth is a tool that allows users to connect to doctors and medical providers online. With



one health provider in Beaver County, the need for appointments in other communities and counties increases the need for sufficient access for those appointments. In addition, some of the benefits of telehealth include decreased healthcare costs, access to specialists not available locally, travel time reductions, and reducing the risk of exposing others to viral infections. High-speed broadband internet is necessary when completing a video call with a health professional.

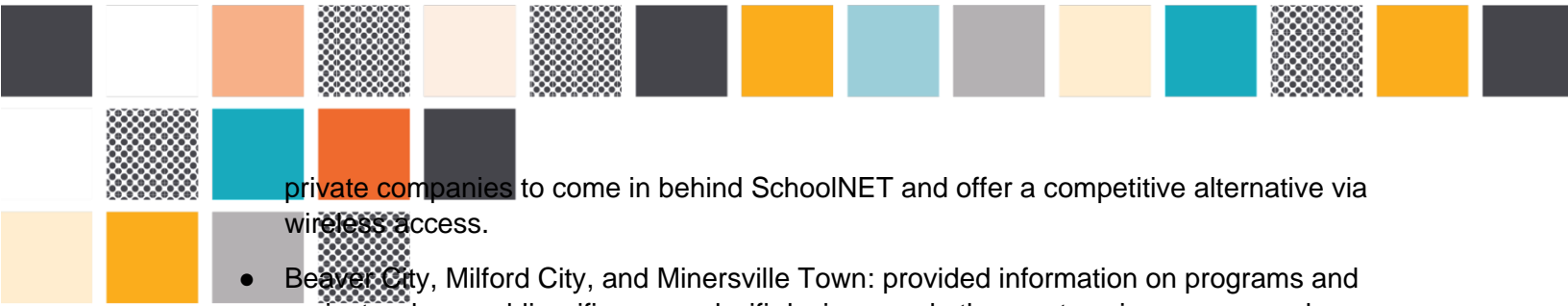
High-speed broadband internet has become increasingly essential for daily tasks. High-speed internet is used when paying bills, accessing banks and retirement accounts, and applying and interviewing for jobs. High-speed broadband internet is also vital when enjoying modern-day entertainment, such as video streaming, watching live sports, or playing live video games. It is used when communicating with family and friends, especially when making a video call. Even using a smartphone with 4G or 5G service involves broadband technology.

3 CURRENT STATE OF BROADBAND AND DIGITAL ACCESS

3.1 METHODS TO DETERMINE THE CURRENT STATE OF BROADBAND

The planning team took several steps to determine the current state of high-speed broadband internet in Beaver County. This planning team included the following individuals and/or organizations:

- Beaver County Economic Development Board: actively fed information from industry in the county to contribute towards the plan.
- Beaver County School District: actively contributed information about current broadband initiatives in Beaver County for school aged children, along with providing their plans for implementation of broadband services through partnerships with the Utah Education Network's SchoolNET system. SchoolNET does not provide full unrestricted internet access to the households it serves, nor does it allow parents/guardians to stream movies or simply "surf the net." SchoolNET provides the same content-filtered educational experience students have when using computers on their school campuses. In short, SchoolNET does not solve the problem of broadband access for everyone in the household, but it does provide essential digital equity broadband service to individual students. For this reason, SchoolNET cannot function as the sole provider of broadband services in Beaver County, however it will establish the necessary infrastructure for



private companies to come in behind SchoolNET and offer a competitive alternative via wireless access.

- Beaver City, Milford City, and Minersville Town: provided information on programs and projects where public wifi, personal wifi devices, and other cost savings programs have been implemented and are in use across Beaver county's three main cities/towns.
- Beaver County Commissioners & associated county staff: provided historical context, geographical information, and basic planning initiatives.

The activities performed included:

- **Public Outreach:** Through use of Social Media and disseminated print media we have tried to engage the public in discussions, and through calls to action to solicit information.
- **Public Surveys:** Five County Association of Governments conducted public surveys on our behalf and gathered information on speed, use, pricing, and availability.
- **Internet Speed Tests:** Separately, Beaver County Economic Development Board, Beaver County School District, and Five County Association of Governments each promoted speed tests at different times, using various methods of advertising.
- **Stakeholder Meetings:** Over the years, Beaver County has held several formal stakeholder meetings. Additionally, the Beaver County Economic Development Board used their monthly meetings to discuss any advances, development, or new/existing shortfalls.
- **Meeting With Internet Service Providers:** Over the years meetings have been held intermittently with the main Internet Service Provider in Beaver County. Additionally, Beaver County has been engaging in conversations for other types of Internet Service Providers, while also working out plans to attract other private companies who may gain financially from expanding within the county. All of these meetings have been held in conjunction with this planning effort.
- **Existing Assets Assessment:** The Beaver County School District has been working diligently and has identified and secured permissions from towers owned across the county that can be used for access.
- **Research:** Beaver County has begun the process of updating the Beaver County Strategic Plan. A portion of this plan will address broadband as it pertains to economic development to include the research portion of the plan that will need to be completed.
- **Geographic Information System (GIS) Mapping:** The Beaver County Geographic Information System office has been working closely on maps to dispute the FCC's most recently mapped locations identified by algorithmic run map production services.

3.2 EXISTING RESOURCES

Existing programs include all the programs and activities that Beaver County currently performs or has performed in the past.

Table 1. Current Broadband-Related Activities

Activity Name	Description	Intended Outcome(s)
Five County AOG Plan	Five County Association of Governments is in the process of planning broadband access for all five counties in the AOG.	Moving forward with plans for implementation to follow.
Beaver County School District Plan	The school district is developing a plan to utilize privately held towers for supplying broadband service.	The school district will be able to supply broadband service to almost all neighborhoods in Beaver County where school aged children live.
Beaver County Economic Development	Engaging with various private companies who provide alternative internet services.	The option of adding competitive services that are based in Beaver County will secure further development of the area and a wider access to service.

Table 2. Current and Planned Full-Time and Part-Time Employees

Current / Planned	Full Time / Part Time	Position	Description of Role
Current	FT	Strategic Development Director	Economic Development primarily; Tourism Marketing
Current	FT	Commission Secretary	Aids Economic Development initiatives

Table 3. Current and Planned Contractor Support

Current / Planned	Full Time / Part Time	Position	Description of Role
Planned	PT	Contracted Company/Private-Public Partnership	We hope to either obtain a contractor or enter into a private-public partnership for future development of this plan.



Table 4. Broadband Funding

Source	Purpose	Total	Expended	Available
Federal EDA funding options	Any Economic Development Administration funding streams that could help build redundancy, or expansion for ISP's would be applied for to build out this plan, along with the Beaver County School District's Plan.	\$1,000,000	\$0	\$1,000,000
Local BEAD Grant program	Funding for use of broadband plan development	\$30,000	\$30,000	\$30,000/applicant

3.3 PARTNERSHIPS

This section identifies existing and potential partners and community anchor institutions that Beaver County may engage for the development and implementation of the Local Broadband Plan. Such partners include organizations that are already engaged in issues related to broadband deployment and digital inclusion, such as local governments, college and university systems, school systems, faith-based organizations, foundations, chambers of commerce, and local internet service providers.

Table 5. Local Community Partners and Community Anchor Institutions

COMMUNITY PARTNER / ANCHOR INSTITUTION	Description of Current or Planned Role in Broadband Deployment and Adoption
Beaver County School District	The School district's current plan outlines and secures use of towers across the county that will supply broadband access through use of the Utah Education Network. Beaver County will work to attract private business to use redundant channels on those same towers for expansion of private services.
Beaver County Economic Development Board	The County's economic development board is primarily building this plan with responsibility to move forward any measurable steps that can be taken in its implementation, further development and any growth or expansion necessary with a growing workforce/expanding neighborhoods.

Beaver County Travel Council

As part of the economic sector in Beaver County, the Travel Council fulfills a critical role in the broadband plan through supplying information about how broadband planning and implementation is rolling out and what potential pitfalls and successes exist in the county.

Table 6. State-Wide Partners

Name	Contact information	Role in Broadband Deployment and Adoption
Rebecca Dilg	rdilg@utah.gov (801) 538-8681	Utah Broadband Center Director <i>Governor's Office of Economic Opportunity</i>
Claire Warnick	cwarnick@utah.gov (801) 450-6682	Utah Broadband Center Program Manager <i>Governor's Office of Economic Opportunity</i>
Teri Mumm	tmumm@utah.gov	Utah Broadband Center Digital Access Program Manager <i>Governor's Office of Economic Opportunity</i>
Lynne Yocom	yocom@utah.gov (801) 514-4565	Fiber Optics Manager <i>Utah Department of Transportation</i>
Liz Gabbitas	lgabbitas@utah.gov	Digital Access and Education Program Manager <i>Utah State Library</i>
Vikram Ravi	vravi@ntia.gov	Federal Program Officer for Utah <i>National Telecommunications and Information Administration</i>

3.4 ASSET INVENTORY

Broadband assets include hard assets (e.g., towers, buildings, and utility poles) and soft assets (e.g., programs, activities, strategies, skills, people) that can be leveraged to close the digital divide. Hard assets in Beaver County are described in section 3.4.1. Beaver County's soft assets are described in sections 3.4.2 and 3.4.3, below.

3.4.1 Broadband Availability

Beaver County School District's broadband connectivity plan outlines several privately held towers that are a large part of the school district and county's plan for offering broadband service. The School District will use one or two channels on each tower to partner with the Utah Education Network to offer broadband services to all school-aged children. The county's plan is to piggyback off of the existing towers which will have additional capacity that can be leased to private providers who want to expand their business model to households in Beaver County.

3.4.2 Digital Access

Table 7. Technology Available to Region's Population

CITY	Percent of Population				
	DSL	FIBER	CABLE	WIRELESS	OTHER
Beaver	93%	99%	99%	93%	99%
Milford	99%			78%	99%
Minersville	99%			99%	99%

Tables 8 through 11: Broadband Speed Tables

Below, Tables 8 and 9 show the *wireline speeds* available to residents throughout the region as advertised by current ISP's. Table 8 shows the wireline download speeds in the region, and Table 9 shows the wireline upload speeds in the region. Tables 10 and 11 show the *wireless speeds* available to residents throughout the region. Table 10 shows the wireless download speeds, and Table 11 shows the wireless upload speeds. It should be noted that these speeds are only advertised speeds and not actual speeds that users of the services actually access.

Table 8. Wireline Broadband Availability: Download Speeds

DOWNLOAD SPEED	Percent of Community Population With Available Download Speeds				
	Beaver	Milford	Minersville	Sulpherdale	Manderfield
3 Mbps	100	100	100	*	*
10 Mbps	91	91	91	*	*
25 Mbps	87	87	87	*	*
100 Mbps	35	35	35	*	*
1 Gbps					

Table 9. Wireline Broadband Availability: Upload Speeds

UPLOAD SPEED	Percent of Community Population With Available UPLoad Speeds				
	Beaver	Milford	Minersville	Sulpherdale	Manderfield
3 Mbps	100	100	100	*	*
10 Mbps	91	91	91	*	*
20 Mbps	87	87	87	*	*
100 Mbps	35	35	35	*	*



Table 10. Wireless Broadband Availability: Download Speeds

Percent of Community Population With Available Download Speeds					
DOWNLOAD SPEED	BEAVER	MILFORD	MINERSVILLE	SUPHERDALE	MANDERFIELD
3 Mbps	100	100	100	*	*
10 Mbps	91	91	91	*	*
25 Mbps	87	87	87	*	*
100 Mbps	31	31	31	*	*
1 Gbps					

Table 11. Wireless Broadband Availability: Upload Speeds

Percent of Community Population With Available Upload Speeds					
UPLOAD SPEED	BEAVER	MILFORD	MINERSVILLE	SUPHERDALE	MANDERFIELD
3 Mbps	100	100	100	*	*
10 Mbps	91	91	91	*	*
20 Mbps	87	87	87	*	*
100 Mbps	35	35	35	*	*
1 Gbps					

All of these data points come from ISP provided data, and not from garnered speed test results. These tests, and their results, are part of the gap analysis that needs to be conducted in the county for future development of this plan. Further, the * in the Supherdale and Manderfield columns highlight that those communities are not built out to a point where speeds can be accurately reflected, nor advertised other than to match those found in Beaver City.

3.4.3 Broadband Affordability

Table 12. Providers and Prices

Provider	Price	DESCRIPTION OF SERVICE TIER, ADVERTISED SPEEDS, AND AFFORDABILITY	Participates in Affordable Connectivity Program?
South Central	\$45	1 gig	Yes
Century Link	\$50	Up to 100 mbps	Yes
Hughes Net	\$50	Downloads up to 25 mbps	

3.5 NEEDS AND GAPS ASSESSMENT

Beaver County’s next steps will be further validation of the lack of speeds as advertised. As recently as May of 2022 Beaver County School District was able to send a speed test out on school owned devices when they were connected to home/private connections. The discrepancies in service are widespread through out the county and show that even in the most recently updated community (Minersville Town) that speeds still were not sufficient for base level learning to occur. Whole communities showed yellow & red dots (representative of insufficient speeds for certain types of educational activities to be completed) where fiber exists or has been recently upgraded.

Some examples of how connectivity issues have impacted Beaver County residents include the following:

“At the present time, Beaver City uses wireless internet to connect their facilities east of Beaver on SR-153. They use numerous spots in the mountains to repeat and or ricochet their wireless internet signals down into the canyon that SR-153 is in. Beaver City’s wireless internet system is interfering with the two-way radio system at the Beaver County Jail.” –Dispatch Supervisor and Technology team at the Sheriff’s office.

“In the race to meet high demand customer areas in rural areas, companies are bypassing current and potential customers. In the case of current customers, if there is a solution that is "good enough" to keep their business, new and/or upgraded connections are not provided or offered. In the case of potential customers, fiber might run right down the street next to their homes, but often is not connected due to the cost/benefit involved for the company... Services for rural areas will require wireless solutions to the best fiber access available. Satellite, LTE,



radio, fiber, microwave, etc. will all have a role to play when we get serious about connecting everyone, everywhere.” –Beaver County School District Superintendent

4 OBSTACLES OR BARRIERS

Certainly the topography of Beaver County plays a steep barrier in connectivity and access. 12,000 foot high mountain ranges and widespread communities make the geography and topography of the county make service expansion difficult. Because of this, most of rural Utah has been underserved by providers. In the race to meet high-demand customer areas, companies are bypassing current and potential customers. Rather than getting fiber where it is needed, there has been an overarching focus on the customer base which leads to inactive fiber in areas that don't fully develop out the ends of development. Such an example can be found in fiber being run to an established township, that on its way skips over 2 less established unincorporated communities with over 150 households in both communities.

With only a handful of companies who have established service in the area, a monopoly of service starts to exist which drives prices higher and higher, rather than having multiple businesses who can compete for the customer base, and drive costs down. So both availability and affordability don't exist for a population that makes less a year on average than their counterparts located in the more populous locations in the state.

5 IMPLEMENTATION PLAN

5.1 PRIORITIES

Table 13. Priorities for Broadband Deployment and Digital Access

Priority	Ranking	Description
Gap Analysis	High	Contract work for completion of Gap Analysis
Outreach to private providers	High	Once all plans are complete, the attraction of private companies who can utilize the towers Beaver County School District will secure, is the next step.
Continued Feedback/Outreach	High	Continual work with stakeholders in the area will further supplement the existing plans and implementation of them.



5.2 PLANNED ACTIVITIES

Once the Beaver County School District implements their plan for SchoolNET service on existing infrastructure, we at the county level can then work on outreach to multiple private businesses who will want to expand their offerings through lease of space on towers secured by Beaver County School District. In this way, we can add privatization for daily family/household use on the same infrastructure that will provide school children across Beaver County with educational service.

5.3 KEY EXECUTION STRATEGIES

Meetings with private internet service providers will be paramount and should occur within the first year of Beaver School District's implementation.

Supplying use of the existing plans, Five County Association of Governments, Beaver County School District, and this, Beaver County plan, to those aforementioned private businesses will act as a metric through which we can execute the plans.

Expanding the services offered for device use and availability will help advance this plan. Currently, the cities offer public use of wifi, devices, and funding programs. These programs are available through the libraries in each city, Milford, Beaver, and Minersville, and the devices will work at no cost when in range at said libraries and school buildings. Developing this awareness will help supplement the larger plan for connectivity in Beaver County.

5.4 ONGOING STAKEHOLDER ENGAGEMENT

Because the Beaver County Economic Development Board meets monthly, ongoing discussions with key shareholders will continue to move forward. This monthly meeting is a public meeting, so whether the representation is from the governmental entities or the public, shared knowledge will continue to be disseminated as well collected by the Strategic Development Director for future use and inclusion in the planning and implementation process.

5.5 ESTIMATED TIMELINE FOR UNIVERSAL SERVICE

Beaver County School district will have their plan completed in the next two months. Following that plan, they can implement through the expansion of the Utah Education Network. That work will take approximately a year to complete, and they hope to have every student reached in time for the 2024-2025 school year to commence. As the UEN builds out service, so can private business. As a county we hope to attract businesses over the next six months who can likewise take the following six months to provide service, culminating in county-wide broadband in 18 months, just a few months ahead of the school district's timeline.



5.6 ESTIMATED COST FOR UNIVERSAL SERVICE

Costs for the expansion of broadband service through the use of available channels on the contracted towers by Beaver County School District will be set in agreement with the private businesses. These could be monthly, quarterly or even annual contracted rates through which the county will negotiate price.

5.7 ALIGNMENT

This plan falls perfectly in line with both the Beaver County School District and the Five County Association of Government’s plan for connectivity. We believe firmly that it matches closely with what is occurring in other rural parts of the State of Utah, as well as the overarching Utah State Digital Connectivity Plan .

5.8 TECHNICAL ASSISTANCE

As we see the rise of satellite and other types of service in Beaver County, more work may need to be done to evaluate the implementation of such connectivity. The assistance from the State for those kinds of measures, along with assistance on solid gap analysis rather than anecdotal information will be key to move forward. Beaver County School District came forward with a plan to test speeds that singularly changed the way we have viewed some of this anecdotal information on speed. Such innovate ways of thinking about problems and data gathering apart from traditional self-report surveys will be necessary to paint complete and holistic pictures of what areas of lack and inclusivity exist.

6 CONCLUSION

In conclusion, Beaver County is a robust community with- a desperate need for expanded broadband service, including a wider variety of offerings from a wider variety of suppliers. Our grit and determination has led us to where we are now, which is on the verge of connectivity county-wide because of the budding growth in industry and population. The final touches on this project will be the Beaver County School District’s lease of existing infrastructure to provide to students county-wide followed closely by the county attracting new business to likewise lease said infrastructure. Continued work includes encouraging the existing service providers to widen their nets for expanded service in our harder to reach neighborhoods and communities, while also attracting new competition to drive costs down, and create wider reach across the county.

