Region VII Planning and Development Council

Regional Broadband Strategic Plan

Funded and supported by

Region VII Planning and Development Council
99 Edmiston Way, Suite 225
Buckhannon, West Virginia 26201

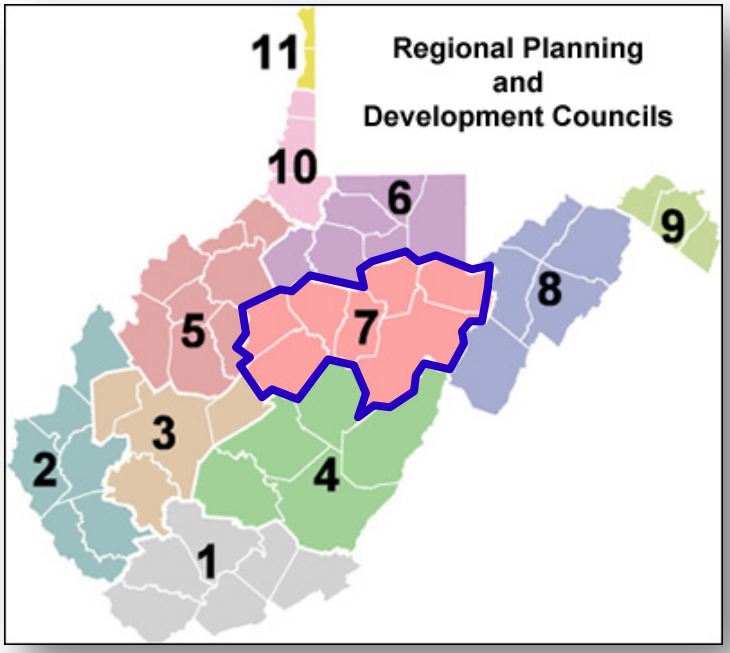
TABLE OF CONTENTS

FORWARD	**1**
CHAPTER 1: INTRODUCTION	**3**
BROADBAND TERMS TO KNOW	**3**
CHAPTER 2: PROJECT OVERVIEW	**6**
CHAPTER 3: OVERVIEW OF REGION VII PLANNING AND DEVELOPMENT COUNCIL PLANNING DISTRICT	**10**
BROADBAND PLANNING IN REGION VII	**11**
KEY FINDINGS	**12**
CHAPTER 4: PRIORITY GROWTH AREAS IN REGION VII	**13**
BARBOUR	**13**
BRAXTON	**14**
GILMER	**15**
LEWIS	**16**
RANDOLPH	**17**
TUCKER	**18**
UPSHUR	**19**
CHAPTER 5: CURRENT BROADBAND ENVIRONMENT	**20**
CASE STUDIES	**21**
EMERGING ISSUE	**24**
COMPARITIVE BROADBAND RATES	**25**
WEST VIRGINIA BTOP MIDDLE MILE PROJECT	**26**
CHAPTER 6: BROADBAND COVERAGE	**30**
WEST VIRGINIA UNSERVED BROADBAND ANALYSIS	**32**
BROADBAND NEEDS ASSESSMENT	**34**
CHAPTER 7: RESIDENTIAL AND BUSINESS BROADBAND SURVEYS	**35**
RESIDENTIAL BROADBAND SURVEY	**35**
BUSINESS SURVEY	**37**
REGIONAL SATISFACTION WITH BROADBAND	**38**
RESIDENTIAL	**38**
BUSINESS	**39**
REGION VII SECTOR SURVEYS	**40**
REGION VII RBPT SWOC ANALYSIS	**41**
CHAPTER 8: BROADBAND DEPLOYMENT GOALS AND OBJECTIVES	**43**
GOAL 1: LOCAL LEADERSHIP	**43**
GOAL 2: REGIONAL LEADERSHIP	**43**
GOAL 3: PROJECT DEVELOPMENT	**44**
GOAL 4: PROJECT IMPLEMENTATION	**46**
GOAL 5: PROMOTE WV BROADBAND DEPLOYMENT DISTRICTS	**46**
GOAL 6: PROGRAM FOR PUBLIC INFORMATION	**47**

GOAL 7: PUBLIC POLICY 47
GOAL 8: BROADBAND INFRASTRUCTURE PROJECTS 48
WORKS CITED 49
APPENDIX I: COUNTY DEMOGRAPHIC PROFILES 50
APPENDIX II: NEED ASSESSMENT COMMENTS 60
APPENDIX III: MIDDLE MILE FIBER BUILD OUT 77
APPENDIX IV: BROADBAND COVERAGE MAPS 99
APPENDIX V: SURVEY INSTRUMENTS AND RESULTS 110
APPENDIX VI: FUNDING SOURCES 151

FORWARD

Region VII Planning and Development Council is one of eleven agencies covering the State of West Virginia authorized by enabling legislation in 1972. The aim of the legislation, as set forth in its statement of purpose, is to provide for the formulation and execution of objectives and policies necessary for orderly growth and development of the Region as a whole; and coordination of objectives, plans, and policies of the separate units of government comprising the area.



Region VII is located in the central portion of West Virginia. It is one of the largest regions in geographic area and is also one of the most rural. Region VII serves a total of 31 jurisdictions which include the seven counties of Barbour, Braxton, Gilmer, Lewis, Randolph, Tucker, and Upshur and the 24 municipalities therein.

The Regional Planning and Development Councils (RPDCs) are statewide networks of cooperating organizations that provide a strategic array of services to support community and economic development, planning, and inter-governmental cooperation. The RPDCs perform as local, multi-jurisdictional agencies focused specifically on regional planning, community, and economic development. Each Council is directed by elected officials from the counties and communities within each jurisdiction, as well as by non-elected appointees from a cross section of the region's social and economic institutions.

The mission of the RPDCs involves the conversion of community and economic development needs into proactive strategies and solutions, often taking the form of regional projects or programs. Much of the RPDCs community and economic development efforts have been directed toward infrastructure projects including water, sewer, and highway/transportation projects. Their roles range from regional planning to identification and prioritization of project endorsements. The RPDCs are authorized to receive and administer state, federal and private/non-profit grants. Each Council employs a professional staff adept at public administration, regional/community planning and economic development. The RPDCs possess a significant skill base of grant writing talent, as well as valuable competencies in

facilitation, information, and referral. The RPDCs provide a valuable linkage between federal, state, and local units of government, having established over time a valuable network of contacts, information, rapport, and trust. Collectively, the West Virginia RPDCs provide service to more than 300 units of government.

Region VII received funding from the West Virginia Geological and Economic Survey, Office of GIS Coordination (WVOGC) to develop this broadband strategic plan. The Council wishes to acknowledge the contributions made by members of the community who participated in the Broadband needs assessment. Furthermore, the Council acknowledges the volunteer effort of the Regional Broadband Planning Team (RBPT) team members and the work completed by Region VII Staff.

RBPT MEMBERS

Education	
Doug Shelfelbein	Barbour County Schools
Glenn Sweet	Barbour County Schools
Jason Phares	Glenville State College
Healthcare	
Bill Dempsey	Davis Healthcare
Local Government	
Megan Pomeroy	Upshur County Commission
Economic Development	
Melodie Stemple	Upshur County Development Authority
Energy & Environment	
Tom Fox	Natural Gas Private Sector
Public Safety	
Carl Evans	WV State Police
Libraries	
Nancy Moore	Five Rivers Public Library (Tucker)
Agriculture	
Ronnie Helmondollar	WVU Extension
Tourism	
Jess Arbogast	Elkins-Randolph County Chamber of Commerce
Samantha Norris	Stonewall Jackson Resort
Providers	
Ed Larry	Council Member (Philippi)

REGION VII PLANNING & DEVELOPMENT STAFF

Shane Whitehair	Executive Director
Cary Smith	Project Manager
Bob Jacobus	Community Development Specialist
Cheri Jenkins	Administrative Assistant

CHAPTER 1: INTRODUCTION

Broadband is a term used to identify high speed data transfer and access on the Internet. Broadband is essential for such activities as online video, streaming media, voice over Internet phone service, interactive websites and secure business applications. Broadband differs from dial-up Internet access in speed, security and the ability to provide uninterrupted telephone service when in use. An important objective of this plan is to map broadband availability in Barbour, Braxton, Gilmer, Lewis, Randolph, Tucker and Upshur Counties (Region VII). Issues, concerns and opportunities relating to broadband deployment in the Region will be identified and defined by data collected from the general populace. Special sector needs such as those for agriculture, education and healthcare will be explored and discussed. In addition to the broadband needs assessment, a Broadband Strategic Plan will be developed from acquired data and the culmination of project activities.

Studies have proven economic growth is relative to broadband service in a community. More and more primary and secondary school systems are utilizing the Internet for classroom activities. Telemedicine has the potential to facilitate the highest quality of medical care for rural communities; however, telemedicine needs broadband to function. Broadband access is critical for the present well being and future sustainability of rural communities in Region VII.

BROADBAND TERMS TO KNOW

The following is a collection of broadband definitions and terms. Every specialized subject has its own language, and the broadband sector is no different. This glossary is intended to support the broadband strategic plan with operational explanations.

Backbone: The part of a communications network that acts like the central nervous system, a central hub from which all parts of the network extend.

Bandwidth: Amount of data that can flow in a given amount of time.

Kbps: Kilobits or thousands of bits per second.
Mbps: Millions of bits per second.
Gbps: Billions of bits per second.

Middle mile: The network infrastructure that provides for interoffice transport, backhaul, connectivity, or special access to service providers; it does not deliver services to customers.

Last mile: The actual portion of a network that provides broadband service to end users such as households, businesses, community anchor institutions, public safety entities, etc.

Dial-up connection: A data communications link that is established when the communication equipment dials a phone number and negotiates a connection with the equipment on the other end of the link. It provides the ability to dial-up the Internet, at speeds up to 56 Kilobits per second (Kbps), via a modem over standard telephone lines.

DSL (Digital Subscriber Line): Wireline transmission technology that transmits data faster than dial-up over traditional copper telephone lines already installed to homes and businesses. DSL-based broadband provides transmission speeds ranging from several hundred Kbps to Mbps.

Broadband: As defined by the National Telecommunications and Information Administration, broadband describes always-on, high-speed Internet access that moves data at a rate of at least 4Mbps downstream, and 1Mbps. upstream, which is many times faster than dial-up.

BPL (Broadband over PowerLine): Delivery of broadband over the existing low- and medium-voltage electric power distribution network at speeds that are comparable to DSL and cable modem speeds. BPL is an emerging technology with significant potential since power lines are installed virtually everywhere.

Cable Modem: Enables cable operators to provide broadband using the same coaxial cables that deliver pictures and sound to your TV set. Most are external devices with two connections: one to the cable wall outlet, the other to a computer. They provide transmission speeds of 1.5 Mbps or more (which is less than half the minimum speed defined for broadband).

Community Anchor Institutions: Schools, libraries, medical and healthcare providers, public safety institutions and other support agencies that can facilitate dynamic services to our communities and citizens using broadband enabled technologies.

Fiber Optic: A technology that converts electrical signals carrying data to light and sends the light through transparent glass fibers about the diameter of a human hair. Fiber optic transmits data at speeds far exceeding current DSL or cable modem speeds, typically by tens or even hundreds of Mbps.

MiFi: A MiFi is a small data router that uses wireless technology to provide broadband access to the Internet.

POP: (Point of Presence, also Post Office Protocol): Two commonly used meanings: Point of Presence and Post Office Protocol. A Point of Presence usually means a city or location where the network can be connected to, a site where there exists a collection of telecommunications equipment, usually modems, digital leased lines and multi-protocol routers. For example, if an Internet company says they will soon have a POP in Elkins, it means that they will soon have a local site in Elkins where leased lines can connect to their network. A second meaning, Post Office

Protocol refers to a way that e-mail client software such as Eudora gets mail from a mail server. A POP account is usually part of an Internet Service Provider (ISP) account package. It is this POP account that e-mail software uses to route e-mail. Another protocol called IMAP is replacing POP for email.

Satellite: Wireless broadband typically used in remote or sparsely populated areas, with variations in speed and availability based on satellite angle, terrain, and weather considerations. Speeds are typically slower than DSL and cable modem wireline access, but can be up to 10 times faster than dial-up Internet access.

Served Area: Service area where more than half of households have broadband access that meet defined speed requirements and the subscription rates exceed 40% of the potential customer base.

Underserved Area: This is a service area, consisting of one or more contiguous census blocks where half the households lack access to minimum Internet speeds of at least 3Mpbs. Areas where less than 40% of households subscribe to any service is also an underserved area.

Unserved Area: Service area, made up of one or more contiguous census blocks, where at least 90% of households lack access to facilities-based broadband service, either wireline or wireless.

Wireless: Connects a home or business to the Internet using an over-the-air radio link between the customer and the service provider's facility. Wireless broadband can be mobile or fixed.

Region VII is truly rural and broadband utilization and access is an important component for community, residential and economic growth. Less than 117,000 people, in 46,535 households, reside in Barbour, Braxton, Gilmer, Lewis, Randolph, Tucker and Upshur Counties, West Virginia. The land area of these seven counties is 3,398 square miles. The largest municipality has a population of 7,094. The Region VII Broadband Strategic Plan provides basic information and broadband education and suggests alternatives for infrastructure deployment so that the people living here have more opportunities to grow and flourish in the new global community.

CHAPTER 2: PROJECT OVERVIEW

Region VII Planning & Development Council (Region VII) is an intergovernmental planning organization created by West Virginia Statute (Code, 1971). It is comprised by elected and private sector representatives of Barbour, Braxton, Gilmer, Lewis, Randolph, Tucker and Upshur Counties and the municipalities therein. The West Virginia Geologic and Economic Survey engaged Region VII to conduct a broadband needs assessment and develop a broadband strategic plan for the aforementioned counties (Toolkit, 2009). A Regional Broadband Planning Team (RBPT) was organized with representatives from government, healthcare, education, tourism, agriculture, technology providers, public safety, libraries and economic development sectors.

Conducting a needs assessment was problematic because Region VII is a sprawling geographic area that is sparsely populated. A survey was considered the most effective way to achieve input from a land area that measures 250 miles from corner to corner. Sawyer & Schmidt stated the survey methodology has the potential to collect data from larger numbers of people than interactive participation events (2004). Delivery of the survey included, but was not limited to, e-mails, phone calls, press releases, letters to the editor, word of mouth and distribution of hard copies to libraries, public service districts and senior centers. E-surveys through SurveyMonkey and hard copies were employed (see Appendix V).

A recent study published by the U.S. Department of Commerce, *Exploring the Digital Nation: Computer and Internet Use at Home* (Blank & Strickling, 2011) states household in rural areas of the United States with lower incomes and less education are less likely to have computers and utilize broadband services than those in urban communities. Residential surveys of Region VII indicate that households in this region are more than willing to adopt broadband if only access were available. Cost and available service were cited as major access barriers to broadband subscriptions.

According to the National Telecommunications and Information Administration (NTIA) U.S. Broadband Availability study (Beede, Neville, 2013), 98% of the population were reported to have access to 3Mbps download and 768 Kbps upload in the U.S. This study concludes that faster speeds are among the most important requirements of today's users. About thirty-four percent of people who have Internet access in Region VII have speeds that qualify as broadband. The Region VII geographic region is grossly underserved with adequate broadband speed.

At the beginning of the Region VII study, 768 Kbps upload speeds were considered broadband. In 2013, the FCC operationally defined broadband as having minimum speeds of 4Mbps download and 1Mbps upload. Broadband is typically delivered by fiber, cable, satellite, copper (DSL & T1) and wireless. In Region VII, very little fiber is being used due to lack of middle mile redundancy and last mile build-out. Verizon has filed an application with the FCC to discontinue landlines in parts of New York

and New Jersey after the wake of Hurricane Sandy (Jacobsen, 2013). This can only mean communication providers are moving away from hard cable and providing only wireless service for telephones in remote areas. This trend will most likely hold true for broadband deployment also. Wireless signals may be boosted by signal repeaters/amplifiers, which have application for last mile broadband connections (Daniel, 2009). Small personal wireless routers can create an Internet hotspot using data transfer from cellular towers and cell phones can be used to connect other devices to the Internet (Costello, 2013). The communications technology landscape is changing rapidly.

Staff from Region VII conducted interviews with service providers and local economic development authorities in the summer/fall of 2012. One very important issue surfaced from these meetings was the lack of broadband service is detrimental to the education of the children in the region. Common Core Standards for Education are uniform standards for Math and English adopted by forty-five states, including West Virginia, and four territories (Hanson, 2013). Educators from these participating states depend on broadband to communicate these standards to teachers at the local level. Digital learning platforms are now entering into schools (Howe, 2013). These applications allow students to access classroom lectures, outside assignments, tests and grades. Teachers will be able to record class lectures (Waggoner, 2013), a huge benefit for students that have to miss class for some reason. Parents also have access so that they can follow their children's performance in school.

Broadband access at decent speeds is crucial for students in Region VII to take advantage of this educational tool. Region VII also has four colleges/universities that are attended by a large number of local commuters. Again, broadband access at decent speeds is crucial for these students.

The speed of broadband depends on where you live (uSwitch, 2012). Fiber generally has the highest speeds followed by cable, DSL, satellite and wireless. Middle mile fiber is minimal in Region VII and last mile fiber is essentially non-existent. Cable is more likely to be available in municipalities or along major residential thoroughfares between towns and cities. DSL is only available where there are enough customers to warrant a broadband retailer to install necessary booster equipment. In West Virginia, mountain topography is problematic for residents who live in the "line of sight" shadow from cell towers and satellites. For the most part, Region VII broadband bandwidth is shared; therefore speeds become slower in relation to the amount of data being transported over that common bandwidth. In Region VII there is no point of presence (POP) to the main Internet core physically present and only one fiber trunk (sometimes referred as backhaul) serves the whole region. Redundant backhaul assets speed broadband due to the principle of load sharing (Backhaul, 2013). When one link to the Internet core is experiencing high traffic, information packets seek out the path of least resistance, thus switching over to the redundant backhaul keeps data transfer speeds at higher rates.

Broadband speeds can also be affected by issues at the consumer's terminal. The higher number of programs the computer is running while trying to interface broadband service will slow data transfer. Some virus protection programs will slow service. Running all information through a company network/server will slow service. An old computer or old router will affect the speed of broadband. If one is using wireless connections in a building, walls and furnishings can reduce speed. It is reported that shiny surfaces, such as makeup, will cause data to transfer at slower rates (Kukiewicz, 2013). Older broadband service packages may limit speeds if the consumer has changed broadband use habits and now exceeds the "fair use" threshold of their plan.

Due to small scale of the market, an identified problem in Region VII is the build-out of the final mile of broadband connection. This rural region has never competed very well for infrastructure funding by private enterprises. Now, the funding need for last mile infrastructure is competing with the demand for speed advancements in larger markets. Gigabit networks are becoming a trend in both big and small cities (Wood, 2013). Chattanooga, Tennessee commissioned a gigabit system in 2009 to manage their power grid. Not only has this investment reduced power outages by 55% it is estimated that the local economy saves $100 million per year just from reduction of power losses. An ancillary benefit has been the incentive for broadband hungry companies to locate in Chattanooga, now known as "Gig City."

On Gigabit Cities,

"We really believe that this is an investment in the future of the Web,"

Jenna Wandres, Google Communications

The Internet is a 21st Century Utility and We Deserve Better (Cooper, 2013) postulates that reliable, low cost, high speed broadband is a public right. Infrastructure is critical to provide broadband services. It should be noted that other infrastructure dependent utilities such as water, sewer, telephones and hi-grade television operate on user fees. Water and sewer is subsidized with construction grants; however, these grants are based on the service areas annual income data. Loans are most often required which force existing customers to help pay for construction and operation through rate increases. No such system is in place for broadband infrastructure.

Today the Internet, via broadband service, is how we communicate, look for employment, reach markets, engage in commerce, deliver and receive education, and engage with local, state and Federal governments. Responders in the Region VII residential broadband survey rated Internet/broadband as being important at the 95% level. In rural areas the Internet is becoming increasingly important for public safety and healthcare. In the case where there are no doctors or emergency facilities the Internet is the only link to emergency care. Broadband is crucial for

streaming live video so that a doctor can provide distance care. In Germany, the court system has declared the Internet as an "essential" part of life and has awarded claim compensation from service providers when the broadband access has been disrupted (Franklin, 2013).

Documents generated by Region VII and maps by L.R. Kimball during the course of this project may be found in the Appendices. New middle mile fiber build out maps were compiled from information from the West Virginia Economic Recovery Portal (http://www.recovery.wv.gov/programs/broadband/Pages/default.aspx). Maps illustrating data from the regional residential and business surveys may be found in Appendix V. Comments from residential and business stakeholders on the broadband needs assessment instrument are especially gripping. They are archived in Appendix II.

CHAPTER 3: OVERVIEW OF REGION VII PLANNING & DEVELOPMENT COUNCIL PLANNING DISTRICT

Region VII is located in the central portion of West Virginia. It is one of the largest planning and development council regions in geographic area and is also one of the most rural. The average population density for this area is 34 persons per square mile, which compares with the state population density of 77.2 and the national average of 88.9. The high percentage of public land and the lack of four-lane highways are the two main issues contributing to low populations. In Tucker County, over 60% of the land base is in state parks, national forest or national wildlife refuge. Randolph County is also a high public domain county. Barbour, Tucker and Gilmer Counties have essentially no four-lane highways and Randolph has only a small section that has been opened less than 15 years.

	Square Miles	Population	Population Density
Barbour	341.1	16,493.0	48.4
Braxton	510.8	14,468.0	28.3
Gilmer	338.5	8,732.0	25.8
Lewis	384.9	16,371.0	42.5
Randolph	1,039.7	29,384.0	28.3
Tucker	418.9	6,995.0	16.7
Upshur	354.6	24,477.0	69.0
Region VII	3,388.5	116,920.0	34.0
West Virginia	24,038.2	1,855,413.0	77.2
United States	3,531,905.0	313,914,040.0	88.9

Per capita income is lower than state and national levels. Poverty is higher than both state and national poverty rates. Regional education attainment is not at the levels as state and national rates; however, they are not drastically lower considering the rural nature of the planning area.

Natural resource extraction in sectors such as natural gas, coal, lime/limestone and timber has been the basis for the Region's economy for decades. There are more service related jobs than production type positions in Region VII.

	Per Capita Income	Median Household Income	Poverty Rate	High School Attainment	B.S. or More Attainment
Barbour	$ 26,109.00	$ 33,004.00	22.8	79.2	12.7
Braxton	$ 26,224.00	$ 32,369.00	22.2	74.0	10.1
Gilmer	$ 22,482.00	$ 33,196.00	28.2	74.7	12.5
Lewis	$ 35,075.00	$ 37,270.00	19.8	81.5	13.1
Randolph	$ 30,623.00	$ 33,529.00	20.1	82.1	18.1
Tucker	$ 28,837.00	$ 35,019.00	17.2	83.7	15.8
Upshur	$ 29,288.00	$ 36,719.00	20.0	81.5	14.7
Region VII	$ 28,376.00	$ 34,443.00	21.0	79.0	13.0
West Virginia	$ 33,403.00	$ 38,587.00	18.7	82.6	17.6
United States	$ 41,560.00	$ 50,502.00	15.9	85.4	28.2

COUNTY PROFILES: More in-depth demographics for individual counties in Region VII may be found in Appendix I. State and National data is also presented for comparison purposes.

BROADBAND PLANNING IN REGION VII

Region VII has experienced a small rise in population growth in the past decade; however, populations have never fully recovered from the declines of the 80's. The completion of Corridor H, a major element of the Appalachian Development Highway System, will result in major economic/residential growth in Region VII counties. The road will connect the western and southern portion of the planning district with the extreme eastern counties. In turn this new road will be a direct

connection to the eastern markets represented by Baltimore, Richmond, Washington, D.C. and the western markets of Pittsburgh, Louisville, and St. Louis. Southern markets such as Charlotte and Atlanta will also be more easily accessible from the region as a whole. A strategic study of Corridor H suggests there will be 81,000 new, benefited, higher wage jobs in Region VII as a result of development after completion. Region VII has identified this highway system a part of the Region's growth corridor for over 10 years.

Access to reliable, affordable and dependable broadband is a necessity to service such economic growth and associated residential growth. Interviews with local economic development authorities pointed to six things that demand robust broadband services;

- to meet the needs of emerging technology industries
- the retention of existing commerce
- education of the Region's next generation
- to compliment the outstanding higher education opportunities in the region
- support the broadband appetite of guests who visit the Region's many public lands and recreational venues
- maintain a high quality of life

KEY FINDINGS

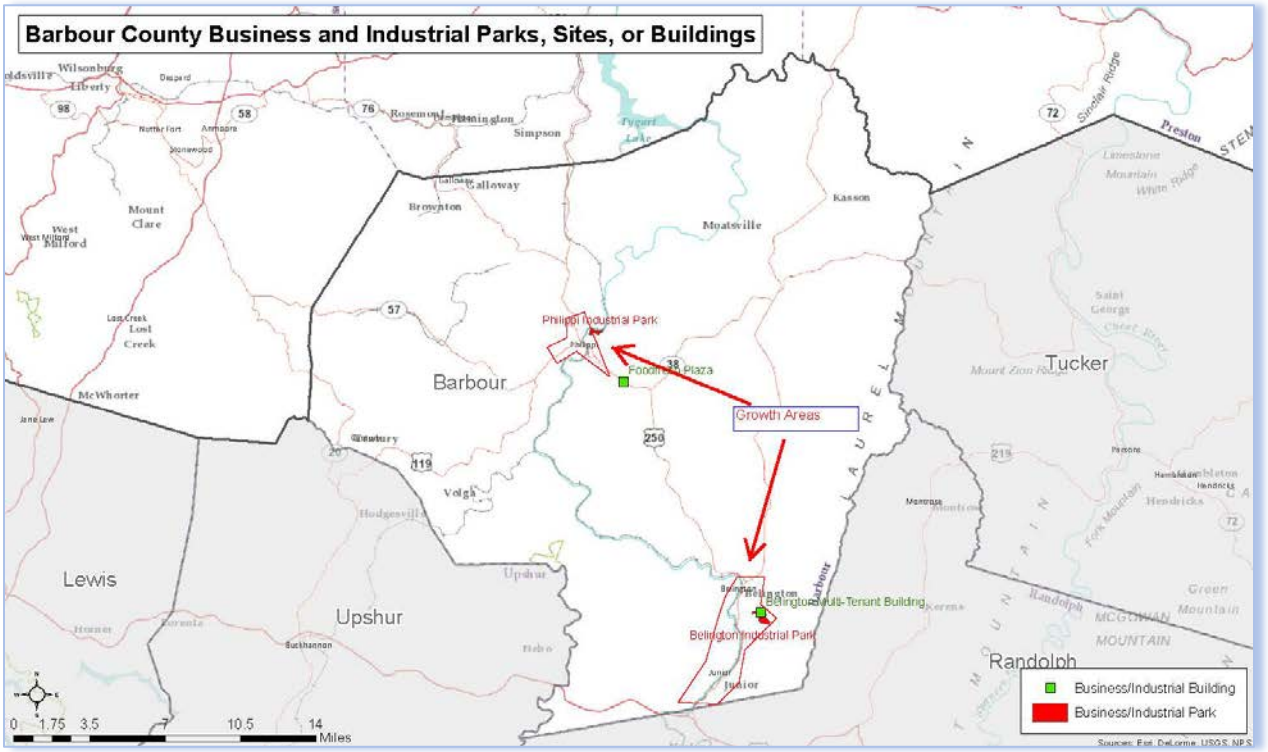
By means of literature review, in-person interviews and regional research in the form of needs assessment surveys, these key findings have emerged:

- Consumers in Region VII, both business and residential, are dissatisfied with available broadband service.
- A very low percentage of Internet users have broadband speeds as defined by the FCC (4Mbps download/1Mbps upload).
- Consumers are very frustrated by the inconsistent access information provided by the broadband carrier's sales force.
- Consumers, business and residential, overwhelmingly agree broadband is very important.
- Adoption rates would be high if broadband service was accessible.
- Consumers are generally unaware of factors that affect speed that can be addressed at the personal computer level.
- The economic development sector identifies robust broadband as a major economic growth factor.

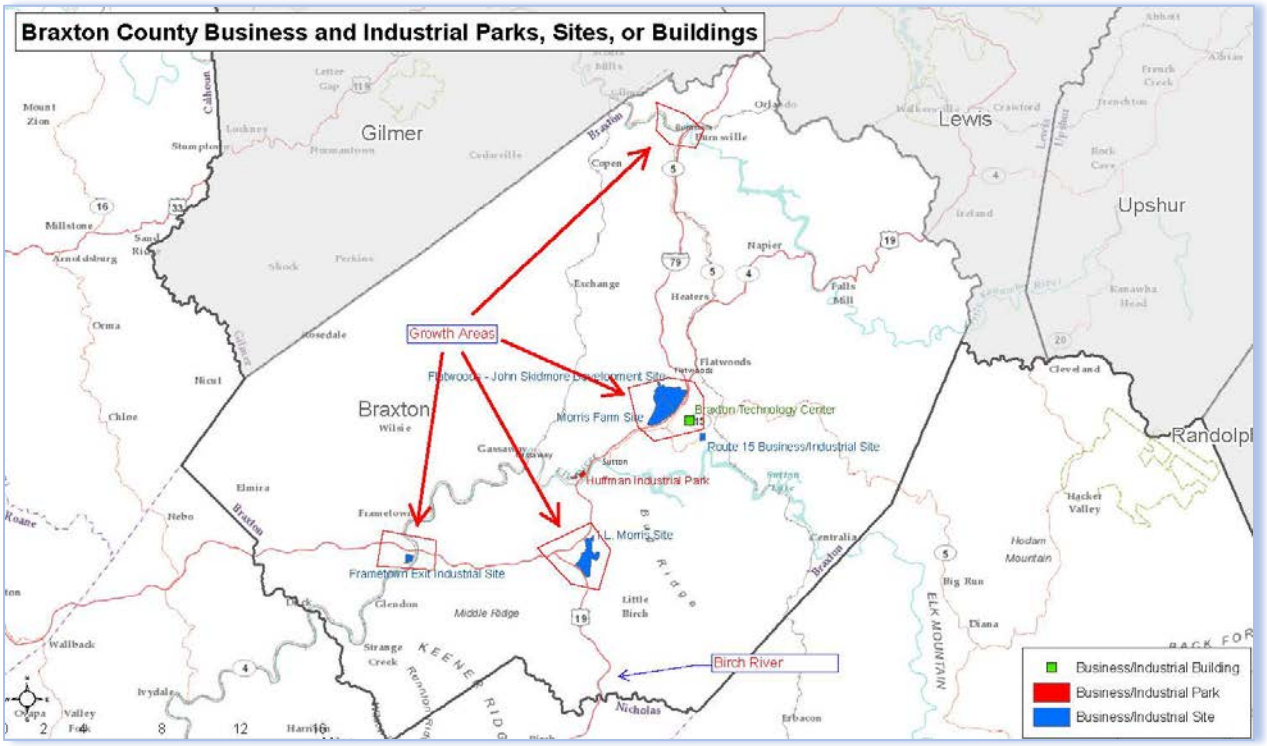
CHAPTER 4: PRIORITY GROWTH AREAS IN REGION VII

Region VII completes a Comprehensive Economic Development Strategy on an annual basis. For the last 10 years growth corridors have been identified along I-79 and Corridor H as the primary areas for economic growth. Ancillary stems off this regional growth corridor include Rt. 250 south of Elkins and Rt 250 north of Corridor H. Islands of significant growth include Philippi in Barbour County, Glenville in Gilmer County and Rock Cave in Upshur County. These growth areas can be clearly correlated with service provider maps found in Chapter 5 of this planning document.

BARBOUR COUNTY does not have ample four-lane highways so economic growth has been stifled for decades. The following map shows industrial parks and growth areas associated with two-lane spurs from Corridor H. Alderson Broaddus University in Philippi is experiencing extraordinary growth and will have a profound effect on the economic and residential growth in Philippi. Philippi owns and operates a broadband network within the city and outlying areas. Speed is limited because Philippi as a retailer cannot generate enough market to purchase bandwidth at competitive prices.

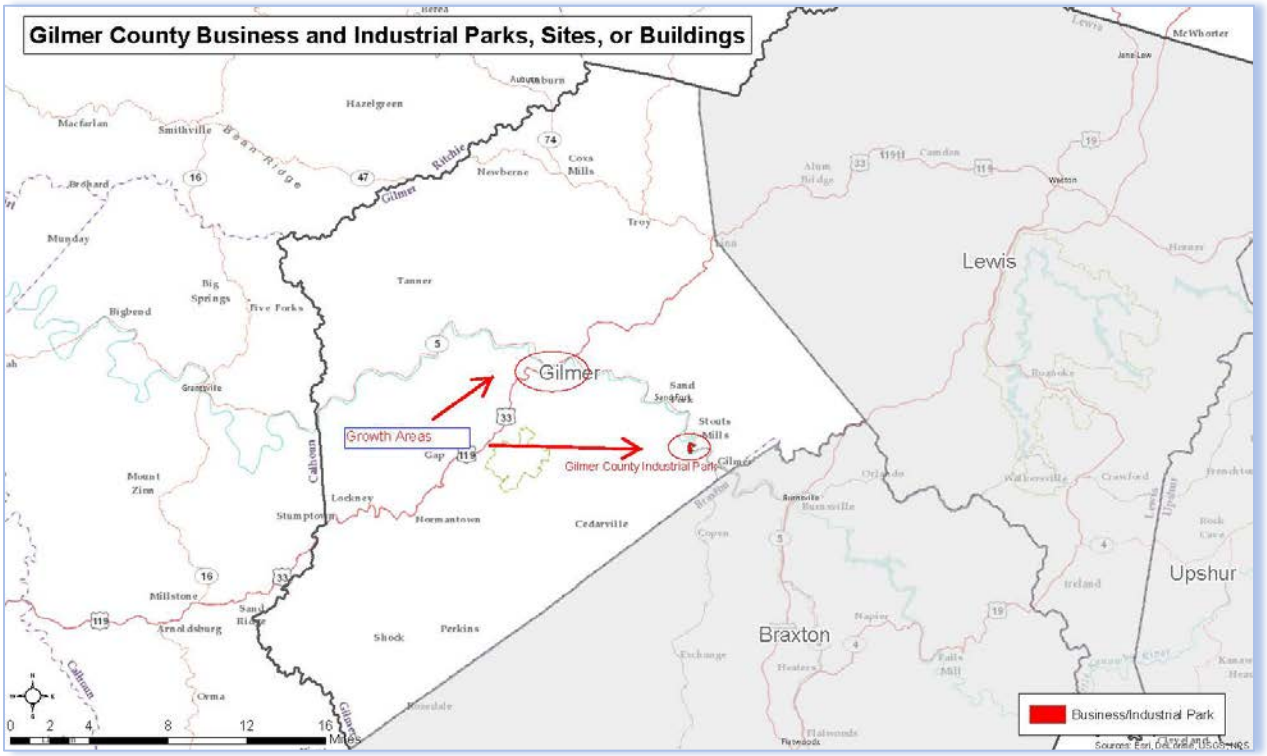


BRAXTON COUNTY has demonstrated exceptional growth along Interstate 79. Burnsville, Sutton and Flatwoods are communities located in the growth corridor. Since the upgrade of U.S. 19 to a four-lane highway it is reasonable to expect growth south to Birch River. Braxton County has a Hi-Tech Center in Flatwoods which houses heavy data users. Again, the provider map indicates multiple broadband services to the identified growth areas.

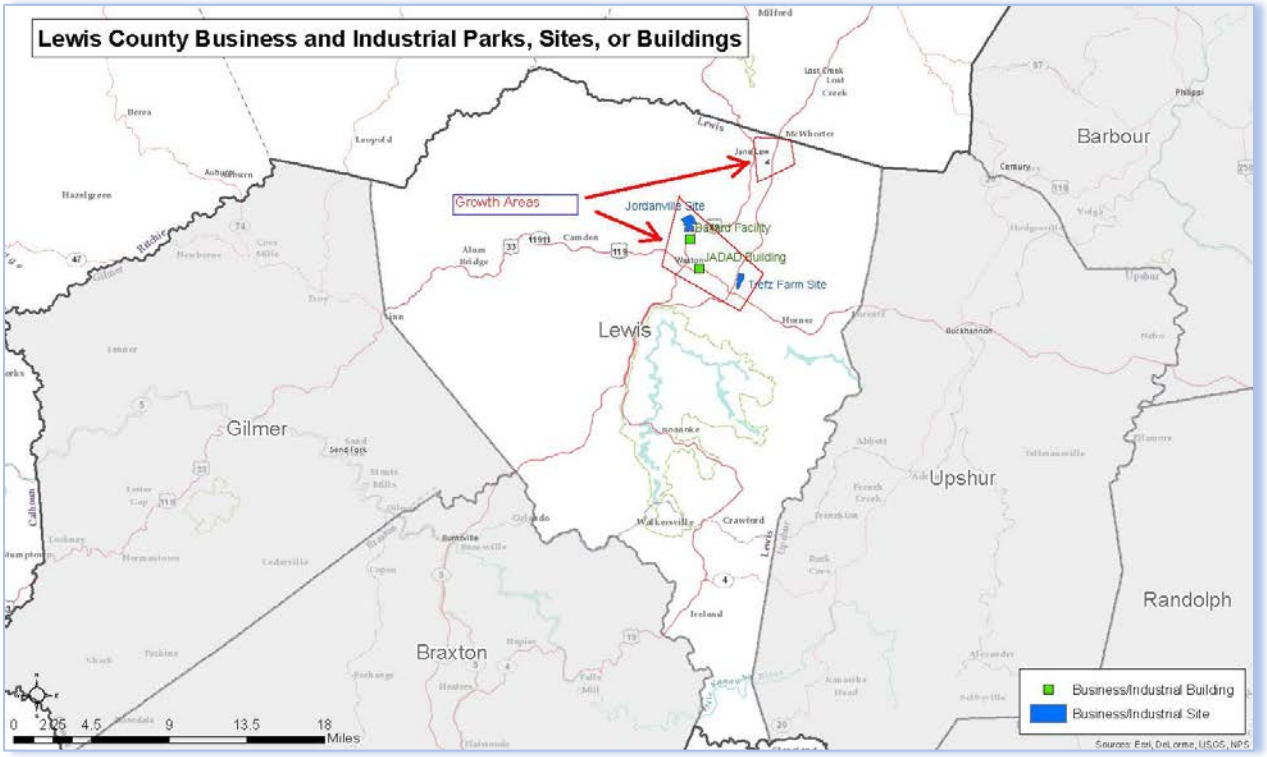


GILMER COUNTY has no four-lane highways and growth has been centered on natural gas extraction and the Glenville State College. Service is intermittent across the county.

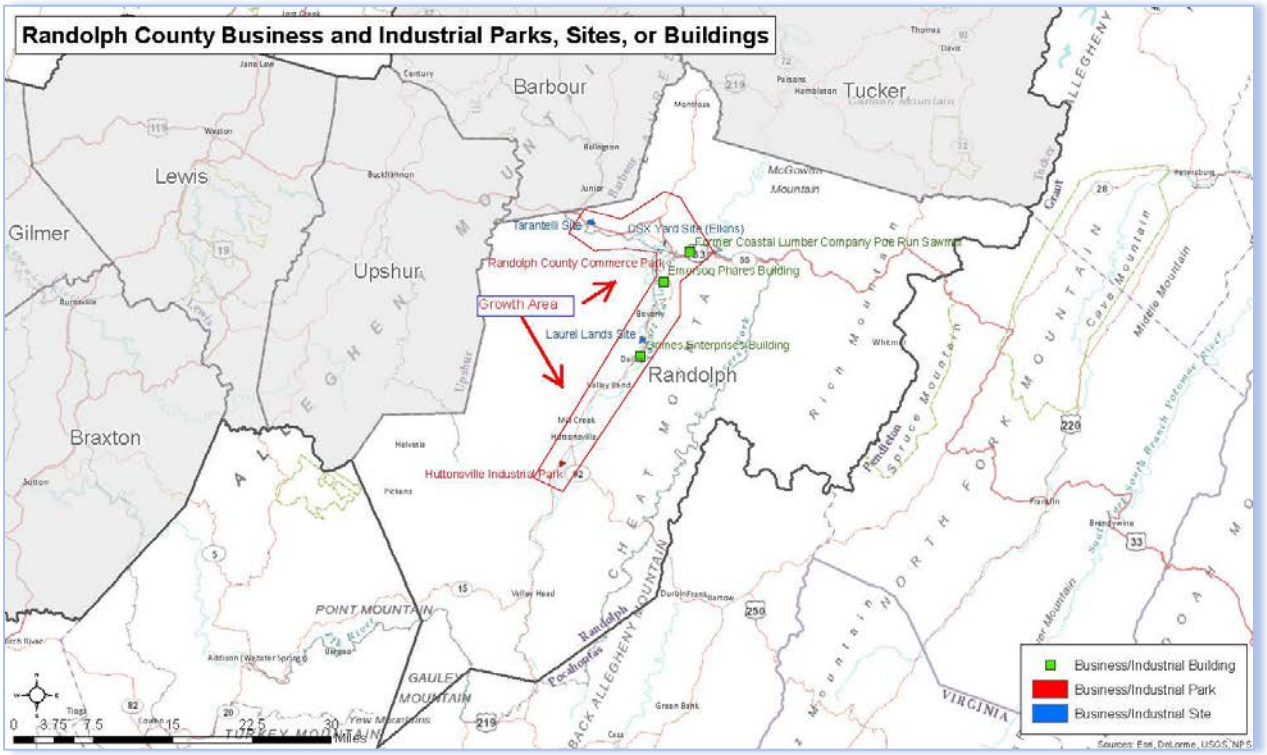
Gilmer County has an industrial park at Stouts Mill which serves value-added wood industries. The site has been expanded with natural gas well service companies showing interest in the location for establishing facilities.



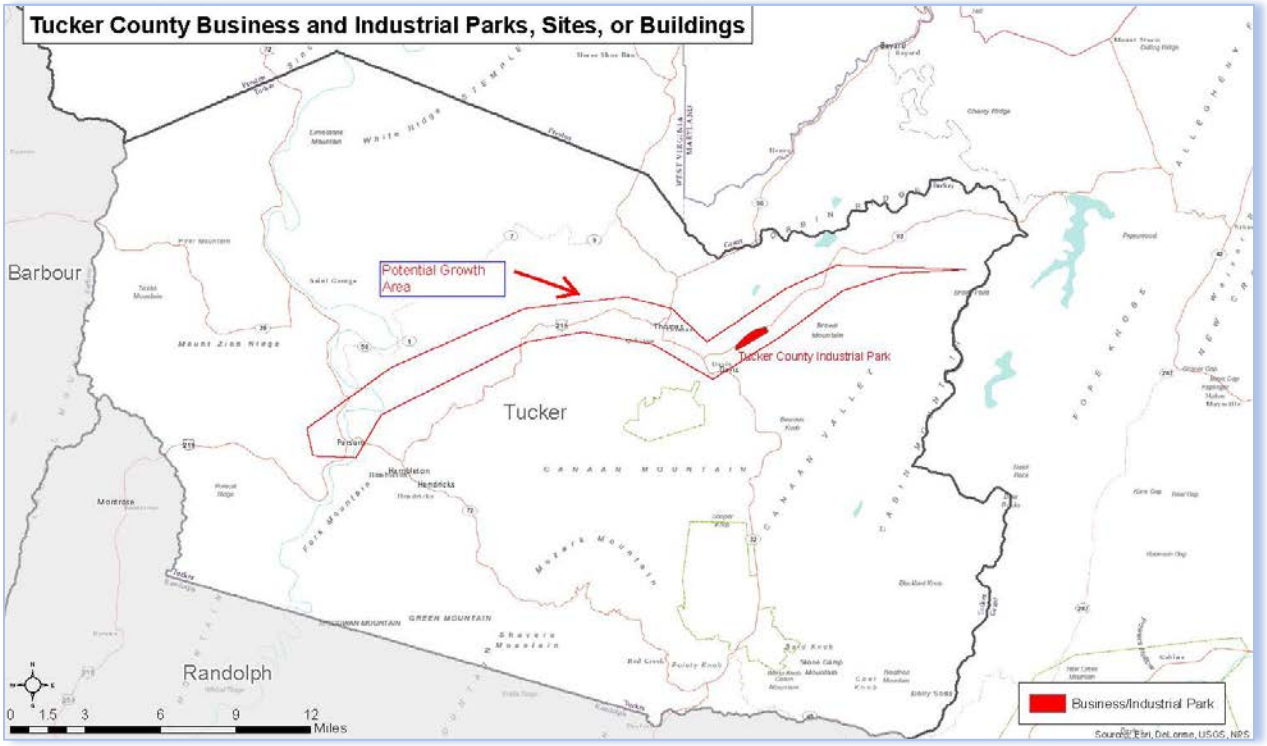
LEWIS COUNTY is growing all along I-79. The industrial park at Jane Lew is at capacity and a privately funded industrial park is developing on the east side of the interstate. Weston continues to grow at the economic crossroads of I-79 and Corridor H. Weston is served by cable broadband which should be an asset to revitalization of the central business district.



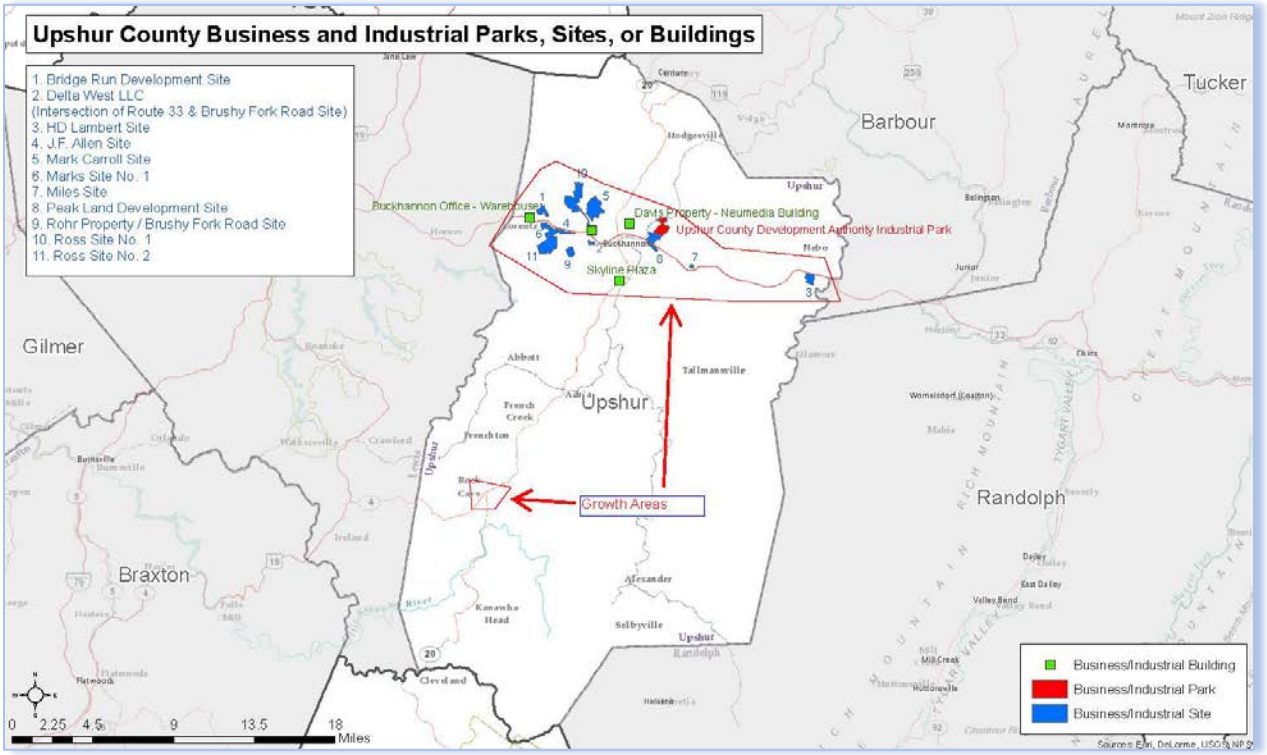
RANDOLPH COUNTY is the largest Region VII county and most populated. Elkins, the county seat, has been a historical cultural center and trading center. The traditional economic engine is strong and steady with the Corridor H presence enhancing growth opportunities. An economic cluster reaches south of the city on the four-lane spur that connects with Corridor H. An economic impact study has stated that 80,000 new jobs will be the result of a completed Corridor H into Virginia. Elkins is located at midpoint of this new important transportation asset and should grow accordingly.



TUCKER COUNTY does not have four-lane highway in its boundary; however, Corridor H is being completed in the county. The potential for growth is huge for Davis, Thomas and Parsons. Adequate Internet service is lacking across the county. The director of the Tucker County Development Authority has reported a special Internet access problem occurs during the winter holiday season, with two ski resorts and retreat destinations, the county's large guest population on holidays creates a demand for bandwidth that outstrips capacity. Restaurants, lodges and gas stations cannot process credit cards due to the extreme heavy traffic. The broadband situation is onerous in Tucker County.

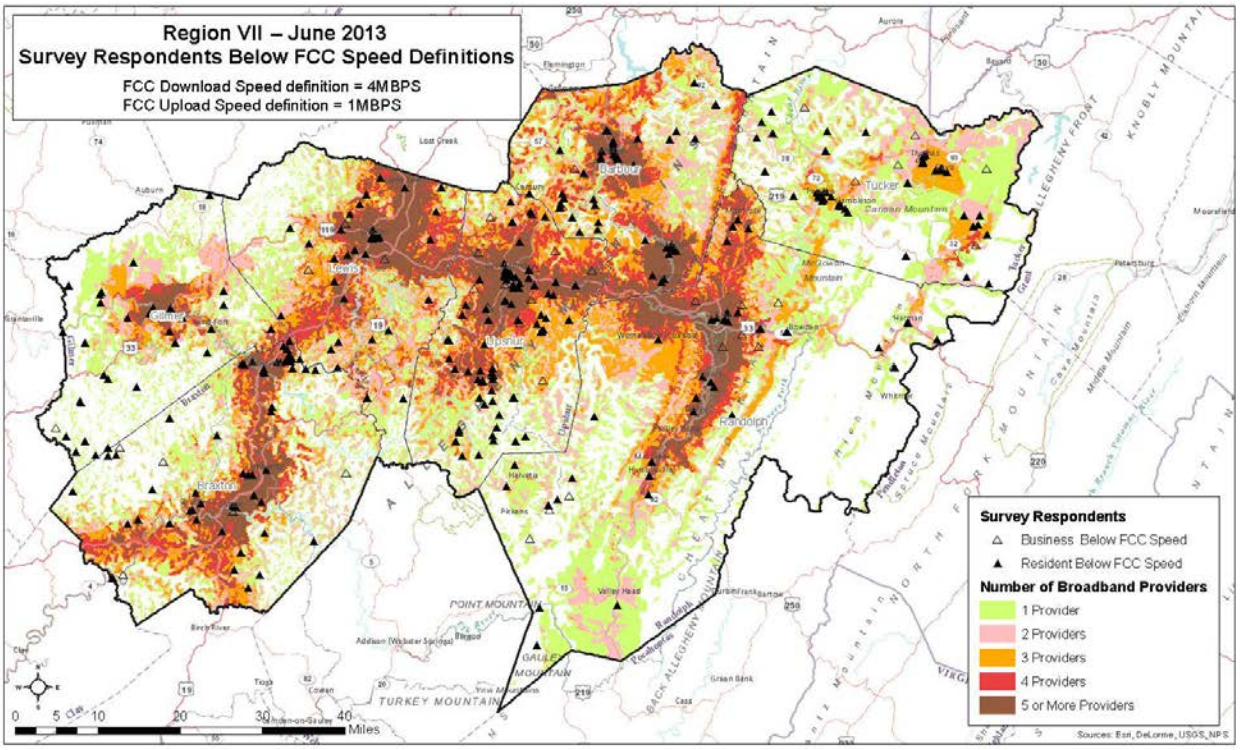


UPSHUR COUNTY has experienced solid economic and residential growth mainly due to the four-lane highway, natural gas extraction, value added lumber and presence of West Virginia Wesleyan College. Buckhannon is also home to A.F. Wendling, Inc., one of the largest food distributors in West Virginia.



CHAPTER 5: CURRENT BROADBAND ENVIRONMENT

The broadband environment in Region VII tends to be robust along major routes of travel and then fragmented in the outlying areas. One wholesale fiber line serves the last mile cable and copper in Region VII. Cellular signal is varied across the region; however, there are places that have adequate signal to use cellular "hotspots" to connect with the Internet. MicroLogic, Inc. is a private micro-wave broadband service provider located in Region VII and covers much of the region with their service. Satellite technology is used extensively for broadband service in rural areas.



Technology and cost are the two things that have been identified that limit access to broadband in Region VII. The topography is very rugged and mountainous. There are signal shadows that block cellular and satellite signals. Both cellular and satellite signals rely on line of sight which mountains and forests often block the clear path. It is these shadow areas that have no access to broadband from a technology perspective. In regards to costs, subscribing to limited broadband services is in the $50-$60 per month range for most residences. For low income households this is a barrier that denies access to adequate Internet service.

Having no major Point of Presence (POP) and only one wholesale "backhaul" fiber line reduces redundancy to the prime Internet core and negates the web effect of the Internet system. Data packages will travel the path of least resistance and when there is only one main line all data is funneled through that element of the

system causing a bottleneck. Broadband capacity per second remains the same; however, if more use is taking place at any second the speed for the individual user drops. When there are more backhauls the demand for data transport is spread out and a more uniform speed of data transfer is accomplished. The Region VII broadband fiber system looks and functions more like a tentacle than a web, one way in and one way out.

CASE STUDIES

Finding a good source for broadband in Region VII is a challenge. Real stories of how residents and businesses in this region attempt to adopt and deploy broadband services paint a very clear picture of the obstacles to broadband utilization.

CASE STUDY #1

A new home was constructed. Cable was available to the customer by installing coax from the existing line to the house. Download speeds were tested at 11.2 Mbps. The customer has had reliable broadband service and is very happy. Cost is about $45 per month.

CASE STUDY #2

A new home was under construction. Cable is not available and cellular signals are minimal. Six months before occupancy the customer was told by broadband provider DSL was available. DSL was not available to the owner when they moved in. After ordering and installing special equipment (six month wait) very slow (.25 Mbps) Internet service was recorded. Part of the issue is the home is located at the extreme range of the DSL distribution node. The DSL service was not reliable. The provider answered the complaint by telling the customer they needed to switch to the satellite service which their company could provide. The home owner complied but the sales department told the customer that they could not order satellite because mapping showed that they were in a high speed DSL area.

The DSL failed again and the broadband customer waited two weeks for the service to be repaired. The field engineer explained that the house was at the limit of the DSL distribution node and several new customers were now subscribing to DSL on that service line. He recommended the customer switch to the satellite service which his company offered. Again, the sales representative would not take the satellite order because their data showed that the customer had DSL available. After more calls and additional weeks without service the customer opted to purchase satellite service from their TV carrier and is now quite happy. Broadband service to this rural home is critical because the homeowner's employer required broadband use after normal work hours. Driving six miles to a wireless hotspot was not reasonable.

CASE STUDY #3

A businessman works from his home in an outlying rural area. He needs broadband due to data requirements in his profession, where there is no cable, DSL or fiber. The facility is located on top of a ridge so line of sight is excellent for both satellite and cellular. This broadband consumer elected to create a hotspot using a personal cellular router (MiFi). He functions with the service but concedes if DSL were available he would adopt that broadband technology. One time cost for the MiFi was around $70 and the unlimited data plan runs about $110 per month.

CASE STUDY #4

A rural homeowner does not have access to cable, DSL or cellular signals. Satellite is an option; however, the broadband customer chooses to install a small tower and purchase the wireless telephone/broadband from a local micro-wave provider. The tower, modem and other installation costs were about $30. Due to high hills on the landowners property a short utility pole and 300 feet of coax was installed at a cost of $200. The consumer retired his traditional land telephone service and cell service. Broadband along with wireless phone now cost about $75 per month. Previously, cell service and land phone together cost $100 per month. Internet speeds are about 7 Mbps download. Phone/Internet bundles with 3 Mbps Internet speeds can be purchased at a monthly rate of $49.99.

CASE STUDY #5

A residence is located in a mountain cove that faces the south. Cell signals are partially blocked by a ridge; however, there is clear access to satellite. DSL is available on either side of the valley but the home is too great a distance from the DSL distribution nodes required to access broadband over telephone land lines. Cable access is four miles away and fiber is two miles away, but no off ramp for consumer service is available. The micro-wave service is shielded by a mountain. The owners are engaged in business from that location. Internet is crucial to maintain a web presence. Internet has been accessed for several years by satellite at $70 per month. At one time the service speed was considered broadband; however, at today's modern data transfer demands and definitions the speed is less than 25% of the FCC minimum speed for broadband (4 Mbps/1 Mbps).

The owner needs to upgrade to broadband speeds.

Cable, DSL and fiber are not options. An enhanced cell signal could power a MiFi device that would provide data transfer for up to four computers at the property. A cell signal can be made stronger by a cellular booster system costing about $400. If the owner can get an adequate signal, both broadband and telephone could utilize wireless technology allowing the residential cost of communications, which would include upgrade to broadband, to drop from $220 per month to about $110 per month.

A booster was purchased with a 60 day risk free guarantee. The wireless access improved but calls would be dropped because the signal was intermittent. The booster was returned. To add to the consumer's broadband frustration, the guarantee was subject to a damage clause and flakes of paint invoked a 25% restocking charge.

The distraught consumer contracted a tech firm to optimize computers on the property. The consumer was instructed that virus packages and spyware programs could slow down Internet speed. Another point of instruction, unnecessary programs running automatically would slow Internet speeds. The tech firm would service the computers from a remote location, by Internet. In this case the satellite service was to slow to allow the computer technicians to optimize the computers. High usage of the satellite portal to the Internet was part of the issue. High use occurred around 4 pm EST when children returned home from school to surf the net, play games and download movies. The owner was able to get the machines worked on by starting the process at 2 am when usage was low from other subscribers.

In the process the owner upgraded access to a new satellite. Upload speeds went from .5 Mbps to 5 Mbps when optimization and new service access was completed. Increase in broadband cost was $200 installation fee and an extra $10 per month. Another side issue in this scenario, the owner dropped the cell provider being used and picked up mobile service from a pay-as-you go-company. The new cell service is functional on the property so the owner now has the MiFi option available, especially with a booster.

CASE STUDY #6

Tucker County is a rural area blessed with many ski slopes. Vacationers spend holidays in this county filling all lodging and the many second homes located to the winter amenities. Tourist business is good the last half of December; however, the Tucker County economy has a big problem. Many of the visitors are accustomed to using lots of data on broadband. This increases demand for broadband which is not supported by the available infrastructure. It is reported that businesses cannot run credit cards because the system is so overloaded. There is much confusion, dissatisfaction and turmoil as a result of low broadband capacity.

The DSL provider for the area has tried to alleviate the issue by creating a broadband loop in the county to mitigate for lack of redundancy and other trunk line types. The Development Authority still reports capacity problems after the loop project was completed.

CASE STUDY #7

Stonewall Resort State Park is a popular destination for vacationers in central West Virginia. The Resort features an Arnold Palmer designed golf course, four to five star rated lodge and amenities.

In response to visitor comments, the Resort recently installed a fiber optic Internet connection. It is capable of 100 Mbps (mega-bits per second) speed, but it is currently capped at 30 Mbps, which is what could be afforded based on operating budget. Three T1 circuits that provided 1.5 Mbps each, for a total of 4.5 Mbps of Internet connectivity were eliminated.

New access points and a centralized controller to manage data traffic were also purchased. The new access points provide coverage in all areas except for the marina and campground. Specialized hardware was used for upgrading outdoor Internet access.

Finally the guest Internet firewall was replaced. The new firewall gives the Resort management and monitoring tools to judge the guest Internet experience and diagnose any problems.

The Stonewall Resort Lodge has new Wi-Fi access points, serviced by state of the art equipment that are monitored 24x7 and report problems automatically. The new fiber optic Internet connection is nearly 10X the previous speed. It is anticipated these upgrades will improve guest experience for those who use and demand mobile Internet access.

EMERGING ISSUE: From survey comments, personal conversations and interviews it appears there is a disconnect between broadband provider sales departments and actual capacity to service a location. Company policies forbid a sales representative from receiving orders for certain services when their records show another service available. They will also place an order when their records show service available even though there is no capacity at that location. Consumers who have had this bad experience have become very frustrated and distrustful of Internet/broadband providers.

SURVEY COMMENTS: Additional regional stakeholder comments from residential and business surveys may be found in Appendix II.

> "We need high speed Internet to keep up with the rest of the world – we are being left behind."
>
> "It is imperative that WV be brought into equal footing with other parts of the US if we and our children are to remain competitive in today's difficult economy."

COMPARATIVE BROADBAND RATES

The following information was collected from provider web sites or by telephone conversations with sales representatives. These are basic rates and special sales/introductory incentives were not recorded.

Provider	Broadband Service Up to 5Mbps download	Broadband Service Up to 10Mbps download	Broadband Service Up to 15Mbps download	Broadband and Telephone Service	Broadband, Telephone, and TV Service	Equipment and Installation
AT&T	$46.00	$51.00	$56.00	$150.00	$89.00	May apply
CityNet	Information not available by phone or on web page					
Comcast	$49.95		$49.95		$136.99	
Frontier	$49.99	$59.99		$47.98	$105.99	
HughesNet	$49.95	$79.99	$99.99			$399.00
Lumos/Fibernet		$54.95		$89.98		
Micrologic		$49.95		$75.00		$30.00
Ntelos		$50.00		$99.99		
Philippi	$60.00					$50.00
SHENTEL	$39.95	$49.95	$69.95		$146.45	
Sprint		$49.99	$79.99			
Suddenlink	$45.00				$105.00	
U.S. Cellular				$90.00		
Verizon				$140.00		
Exede						
WildBlue		$59.98				

Data from August 2013

In late summer 2013 new broadband provider packages began to appear for residential and small business. Frontier, the major DSL provider, announced special rates for home and office. They are offering broadband for $19.99 per month (September 2013), a considerable lower cost than in August 2013. Frontier is also promoting satellite connection at the low rate. A caveat associated with the low Internet rates is the reduced cost is only available with qualified phone plans from Frontier. This suggests that competition for market share for both broadband and voice services are co-dependent. The consumer should reap better broadband, telephone and cellular access and value from this emerging market atmosphere.

WV BTOP MIDDLE MILE PROJECT

Other important components to the broadband environment in Region VII are West Virginia initiatives at the state level. In 2009, the State of West Virginia submitted an ambitious federal grant application to install middle mile fiber in West Virginia. The project was subsequently funded and has been implemented. The following is a project summary reprinted from that *Broadband Technology Opportunities Program* (BTOP) application.

INFRASTRUCTURE PROJECTS EXECUTIVE SUMMARY

“Recognizing that broadband is imperative in serving its citizens and bringing economic development, West Virginia Governor Joe Manchin, III signed legislation creating the Broadband Deployment Council (BDC), an entity designed to facilitate innovative, quality, affordable broadband to all West Virginians. West Virginia is positioned to systematically and completely deploy broadband throughout the state, which will create a replicable model for other states to follow. West Virginia, located in the heart of Appalachia, is entirely mountainous, is the only state entirely located in the Appalachian Regional Commission, and has challenging demographics. Compared to the national averages, West Virginia's population is older; is less educated; lives in more rural areas; has a higher poverty rate; is in poorer health, including smoking, obesity, diabetes, and asthma; and lacks health insurance. Combined, these present West Virginia with unique broadband challenges. West Virginia's terrain is a major challenge for broadband deployment, as is reflected in the build out rate. This leaves a major part of the state's households with limited or no access to broadband. Coverage cannot be extended due to the cost of deployment and population scarcity. The most challenging parts of the state both demographically and topographically remain un-served.

In order to facilitate broadband deployment; the delivery of critical public services in healthcare, education, and public safety; and private investment in infrastructure and technology applications for broadband, it is critical that West Virginia have a complete and robust middle mile. West Virginia's broadband deployment strategy begins with the expedient, systematic, and sustainable build out of an "open" network middle mile solution that will provide fiber to critical community anchor tenants. Distribution of the bandwidth to support private, public, and individual connectivity will then occur through switching, routing, and leadership. This high quality middle mile is essential to last mile completion of broadband deployment, and will provide a full range of interconnect possibilities to meet provider, carrier, and end user requirements. West Virginia's strategy is designed to foster competition generated by built-in multiple accesses, with the foreseeable reduction in costs for service for actual end users.

Due to West Virginia's topographical and demographic challenges, this middle mile build out will not be completed by the private sector, partially due to the low take rate throughout the state. This is another hurdle that West Virginia must overcome. Statewide the take rate is 40.1%, a number so low that it illuminates the reality

that the vast majority of the state has a much lower take rate. For a private provider, the costs are too high to reach too few customers who have not proven historically likely to purchase broadband services when provided. Left to pure market forces, West Virginia, and other rural areas, will have inferior technology or none at all.

To address demand and sustainability issues, the State, through the selection of the anchor tenants for the build out, designed the broadband deployment strategy to enhance critical services to citizens, which is paramount to building demand for robust broadband service.

West Virginia's project is anchored by critical community facilities. West Virginia systematically assessed its schools, libraries, healthcare facilities, public safety institutions, and emergency response entities to determine those with adequate broadband infrastructure. The facilities identified in this grant application are unserved by fiber. The State's plan will deliver fiber and connectivity to that fiber to the facility/institution. This deployment of robust middle mile infrastructure would begin immediately upon receipt of funds. The requested service creates opportunity for redundancy, increased investment by private providers in response to the demand for enhanced services, and the deployment of current technology. This middle mile solution will push fiber into parts of the state where there is none, thus creating the opportunity for the build-out of broadband to homes, businesses, and other public institutions currently without access. The last mile solutions can now be technology neutral as backbone will exist where it previously did not.

West Virginia's approach serves other important goals and initiatives. The jobs created by this request are easily quantified. Extrapolating from U.S. Department of Commerce data, CWA estimates an employment multiplier effect of 19.5 jobs in telecommunications and information technology (IT) for every $1 million invested. Secondly, the economic development benefits are well documented and the impact on this rural state will be profound and immediate. According to a Brookings study, as detailed in a February 2008 report by Connected Nation, for every 1% increase in broadband penetration, employment is projected to increase by 0.2 to 0.3%. The U.S. Department of Commerce also determined that communities with broadband not only increased the employment rate by 1%, but added 0.5% to the growth of business establishments and 0.5% to the share of IT establishments. Thirdly, the services critically needed by West Virginia's vulnerable population (aged, more likely to suffer from chronic disease, more likely to be disabled, more likely to be undereducated) are enhanced and accelerated because the build out serves critical community facilities first, by design.

- Healthcare - The West Virginia Department of Health and Human Resources (DHHR) provided input into the overall strategy and is primed to be an anchor of the system. DHHR envisions the efficient delivery of healthcare through the use of electronic health records. DHHR's portion of the middle mile has been specifically designed to complement the federal initiative for Electronic Health Records (EHR) and the state Health Information Network (HIM). The middle mile will provide access to over 25,000 providers serving

doctor's offices, healthcare facilities, hospitals, and individuals. The bandwidth specifications and system deployment are designed to deliver healthcare to the West Virginians in greatest need of healthcare. These individuals are also the least likely to have access to a hospital.

- Education - As primary stakeholders, the West Virginia schools are in dire need of this middle mile solution in order to provide suitable bandwidth to an additional 471 schools. The West Virginia Department of Education has the history, and the vision, of investing in technology, but the most remote schools, which face the greatest challenges in student demographics, are the ones that have been left behind in bandwidth. West Virginia's strategy systematically addresses this problem and brings all West Virginia schools to the desired bandwidth.
- Libraries — Public libraries (176) complement West Virginia's education initiatives. The majority of the libraries are without sufficient broadband capability to serve the needs of a community public computing facility; this middle mile will serve to reach the general community during normal business hours and after hours. As the last mile solutions are developed and funded, the library system is essential to the Governor's goal of broadband accessibility for all citizens and businesses of West Virginia,
- Public Safety - The 53 (+2 redundancy) West Virginia public safety answering points (PSAPs) cannot function without the middle mile solutions. The PSAPs are ready and have sustainment funding earmarked for the last mile solution. Ultimately the PSAP solution will enable over 344 law enforcement (state police ((77)), county deputies/sheriff departments/police departments) and 447 volunteer and paid fire departments full broadband services. Geographic information system and mapping applications require the middle mile in order to reach out as required by policy and plans. Additionally this grant will serve 55 county courthouses.

This middle mile solution can be built rapidly and is guaranteed to provide both broadband access and service to the anchor tenants and the low income, aged, and unemployed as the deployment uses the competitively bid existing contract for broadband services. Currently, Verizon holds this state contract and provides statewide solutions, working with the state, local providers and its own network. This proposal is to build the primary middle mile solution; thus allowing for multiple last mile solutions that may be accessed by most, if not all, providers. The last mile is not dependent on the type of fiber, who built it, or what it looks like. The importance is placed on good quality and accessibility for a nominal access fee. This solution provides a gamut of interconnect possibilities that will meet provider, carrier, and end user requirements. Anticipation is for actual end user costs for service to be greatly reduced due to the natural competition generated by the multiple accesses provided with the solution. This enables rural West Virginia better access at a greatly reduced rate.

The secretary of the West Virginia Department of Commerce, Secretary Goes, oversees the broadband processes by designation of the governor and as chairperson of the BDC. The critical anchor stakeholders for this grant are designed to provide stability and structure to the broadband build out and utilization.

Uniquely in this endeavor, each stakeholder from the critical community facilities participated at the highest level of his or her department, building a cohesive team to ensure the project's success. The Governor's Office of Technology is poised to take an aggressive role in the daily operation, maintenance, and sustainment of the results of this proposal."

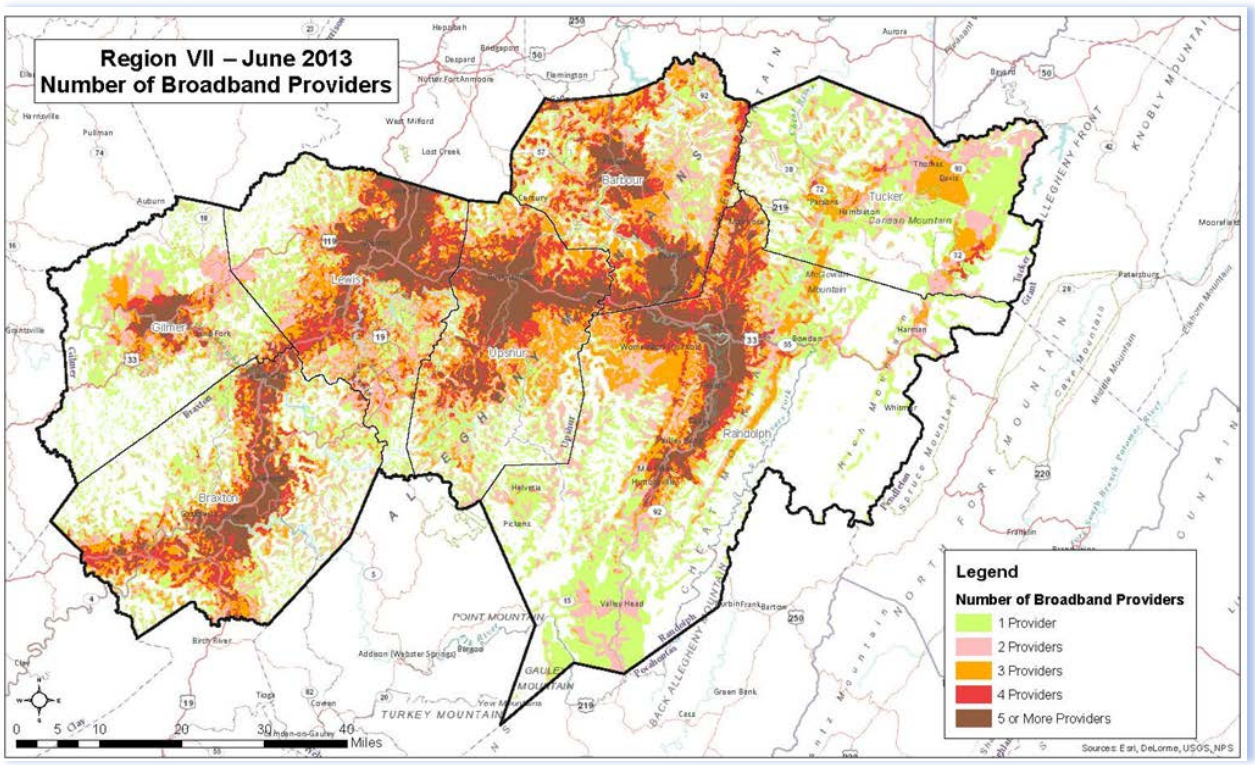
BUILD OUT: Maps found in Appendix III show the middle mile access points to fiber that resulted from the WV BTOP project in Region VII. These maps are organized by county. A list of anchor institutions follows each set of county maps.

ACCESS: Frontier Communications was the sub-recipient of this middle mile project. A company based question & answer document plus broadband access form are attached after the map set and anchor institutions information.

BTOP SUMMARY: The West Virginia Statewide Broadband Infrastructure Project plans to bring high-speed Internet access to this vastly underserved region by expanding the state's current microwave public safety network and adding about 2,400 miles of fiber. The expanded statewide network expects to directly connect more than 1,000 anchor institutions, including public safety agencies, public libraries, schools, government offices, and other critical community facilities at speeds of up to 45 Mbps. As a result of this project, every K–12 school in the state will have a high-speed Internet connection. In addition, access to healthcare, distance learning opportunities, and broadband and video applications for emergency first responders will be greatly expanded. The project intends to spur affordable broadband service impacting more than 700,000 households, 110,000 businesses, and 1,500 anchor institutions, by allowing local Internet service providers to connect to the project's open network.

CHAPTER 6: BROADBAND COVERAGE

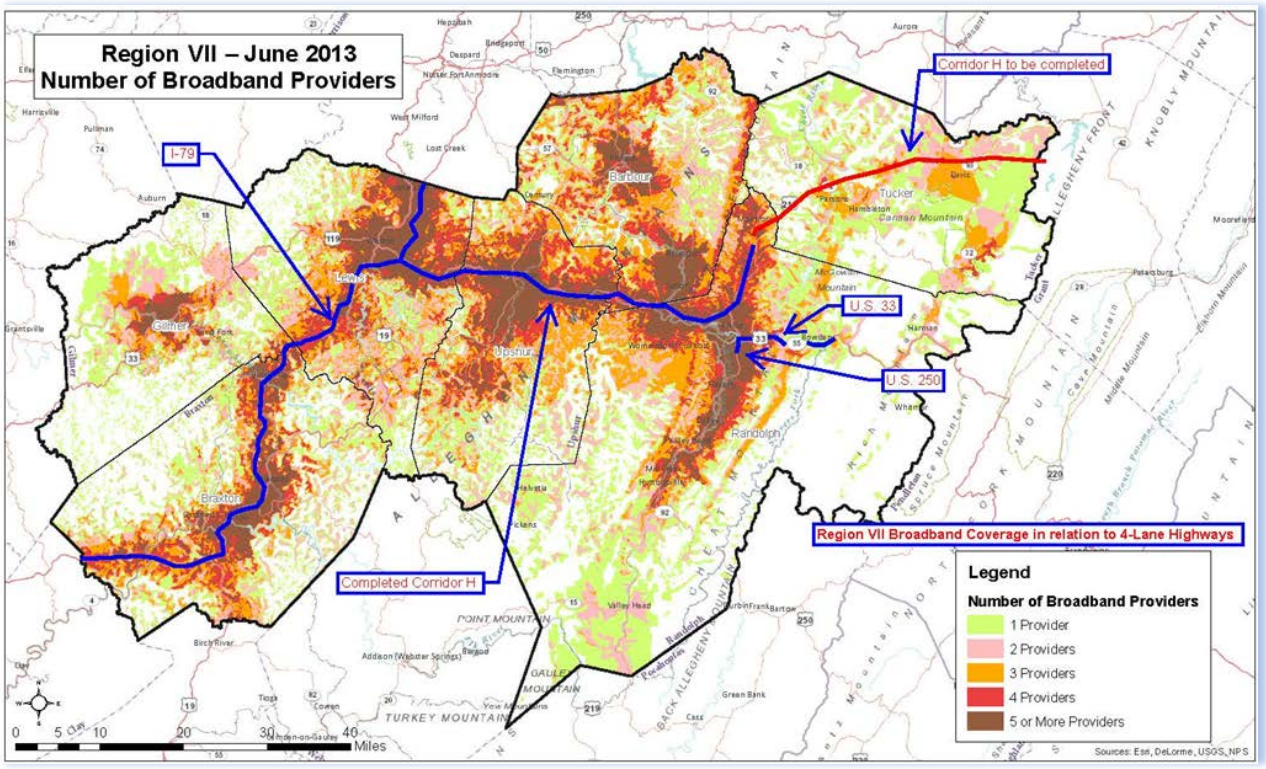
The West Virginia Broadband Mapping Project canvassed broadband providers for their service areas. Fiber, cable, DSL, wireless and satellite were included. The following map is a visual representation of the number of carriers available across Region VII.



Satellite service is available in virtually any place that has a power supply and a clear view of the southern sky. Mountains, trees and manmade structures are common barriers to this kind of service. New wireless facilities, such as towers, technology, improved transmitters and receivers are examples that improve coverage areas at a very rapid pace.

*Full page maps may be found in Appendix IV

Growth areas in Region VII have been identified along major 4-lane highway arteries for the past 10 years in its Comprehensive Economic Development Strategy (CEDS). The areas encompassing four or more providers on the map shadow the completed 4-lane highways of the region. It should be noted much of the non-service areas in Randolph County and Tucker County are National Forest reserves or other public land with very few property inholders. The economic feasibility of hardwire broadband is absent in these areas.



WEST VIRGINIA UNSERVED BROADBAND ANALYSIS

As the State of West Virginia continues to grow broadband initiatives and leverage existing infrastructure and future broadband expansion, it is important for the continued development of programs that will improve broadband use and adoption. With funding from the State Broadband Data Development Grant the State of West Virginia has developed, and continues to improve, a statewide broadband coverage mapping program that provides a comprehensive picture of current infrastructure deployment and availability of broadband service in the State. This program was started with a $1.4 million grant from the National Telecommunications and Information Administration in support of the National Map. This project was originally funded for broadband planning activities and two years of data collection and mapping, and the development of an interactive map. In September of 2010, this project was amended to extend data collection activities for an additional three years and to identify and implement best practices. The State received an additional $3.3 million to ensure updates are made and any changes in the source data, while adding information from any new providers.

The State of West Virginia used various criteria to classify areas as unserved by existing broadband providers into three main categories: Type 1, Type 2, Type 2 Priority, and Type 3. The Types are operationally defined in the following manner:

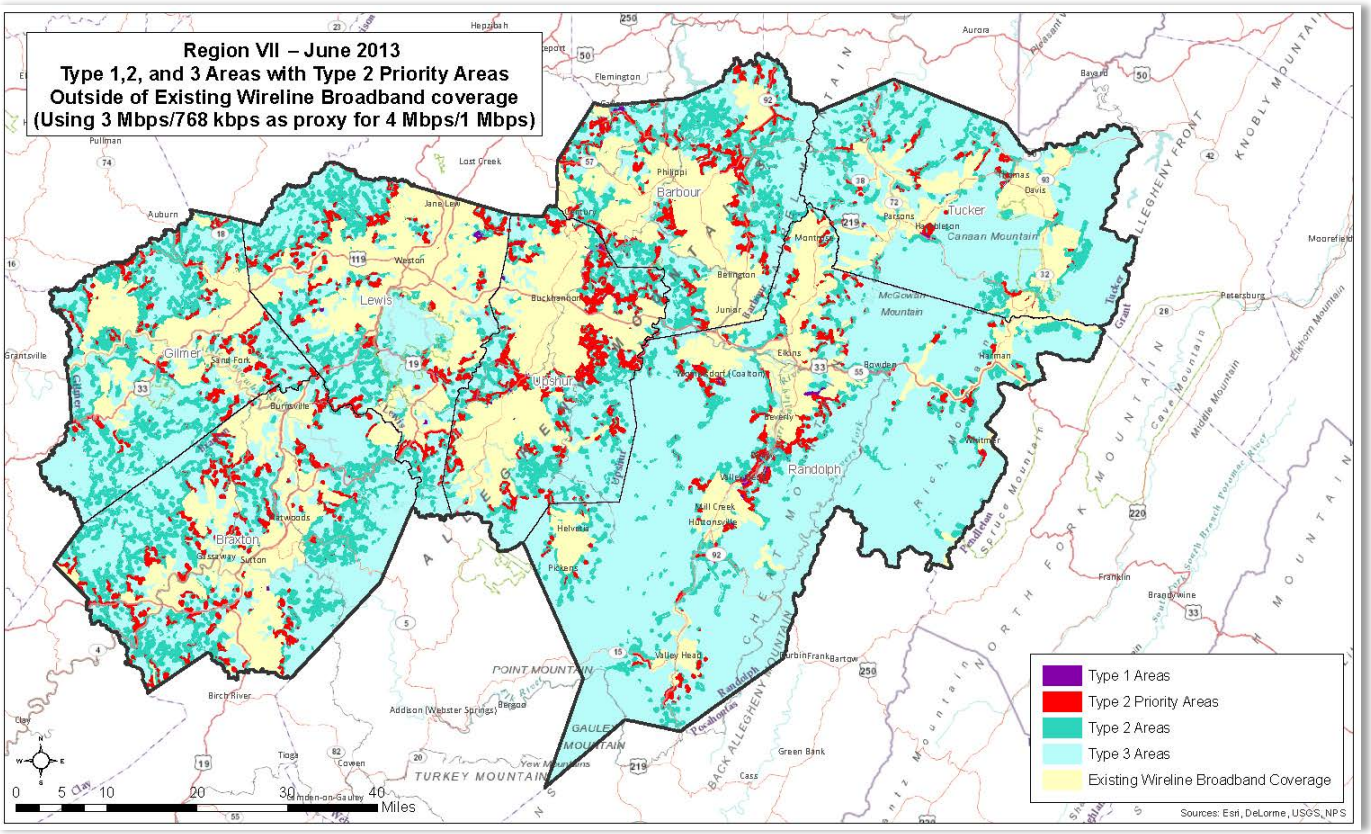
Type 1: A Type 1 unserved area is an area in which broadband may be deployed by service providers in an economically feasible manner.

Type 2: A Type 2 unserved area is an area in which broadband may be deployed by broadband service providers and other entities in an economically feasible manner, provided some form of public money is made available.

Type 2 Priority: A Type 2 Priority area is an unserved area with population centers that should be targeted for grant funding. These areas have a higher likelihood of utilizing broadband service.

Type 3: A Type 3 unserved area is an area in which, at present, cable or wire-line broadband cannot be deployed in an economically feasible manner, and an intermodal approach employing other technologies, such as satellite and wireless, is required to provide that area with high-speed Internet access.

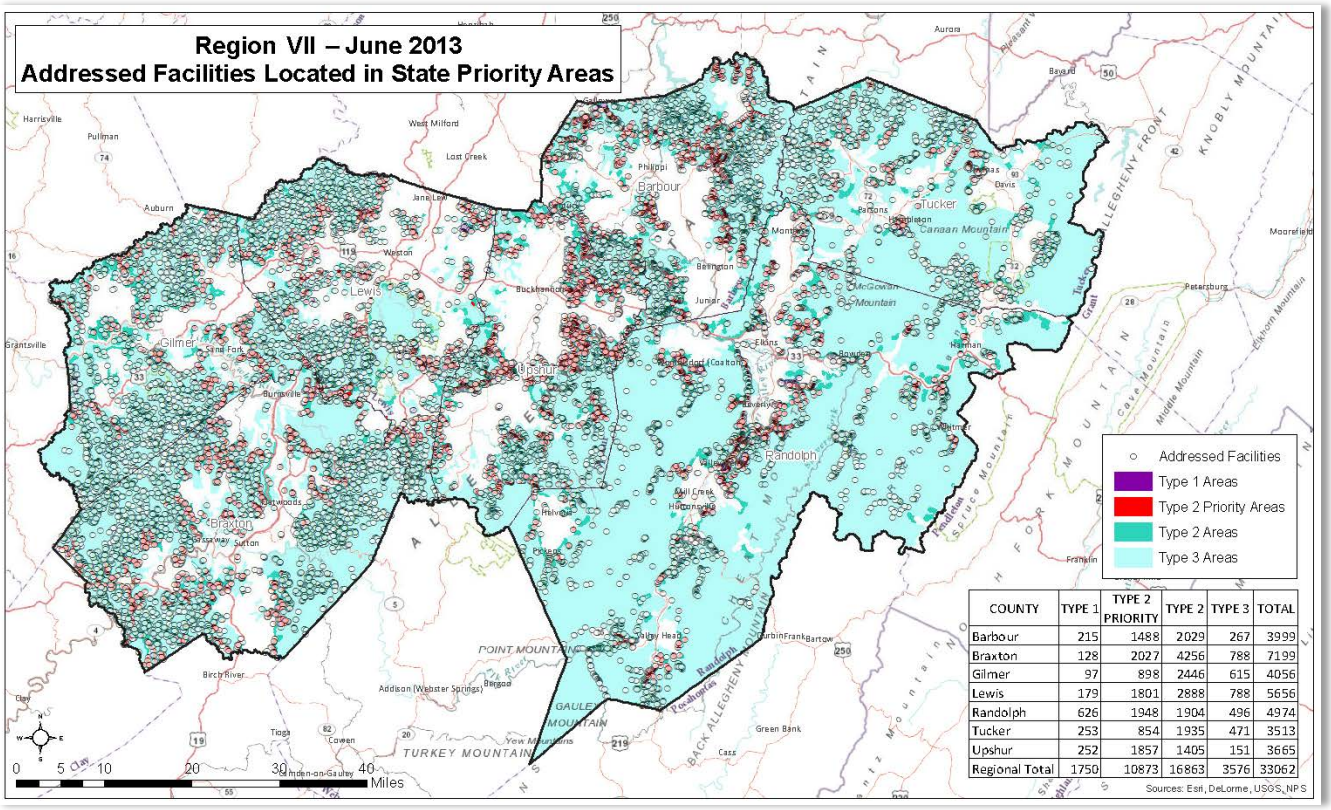
These areas were determined using a methodology developed by the State, which included analyzing various factors such as population density, population age, income, and proximity to existing networks. Each category was weighted on a scale indicating the likelihood to receive broadband service.



It should be noted that this analysis does not show the true picture of Type 1, 2 and 3 Priority Areas. The Region VII residential and business surveys indicated many broadband deserts exist within "wireline" coverage areas identified by the state canvas.

BROADBAND NEEDS ASSESSMENT

Type layers provided by the state and cross-referenced with West Virginia 911 addressing data point layers provides a visual and quantitative analysis of the facility density in each type of broadband service area.



COUNTY	TYPE 1	TYPE 2 PRIORITY	TYPE 2	TYPE 3	TOTAL
Barbour	215	1488	2029	267	3999
Braxton	128	2027	4256	788	7199
Gilmer	97	898	2446	615	4056
Lewis	179	1801	2888	788	5656
Randolph	626	1948	1904	496	4974
Tucker	253	854	1935	471	3513
Upshur	252	1857	1405	151	3665
Regional Total	1750	10873	16863	3576	33062

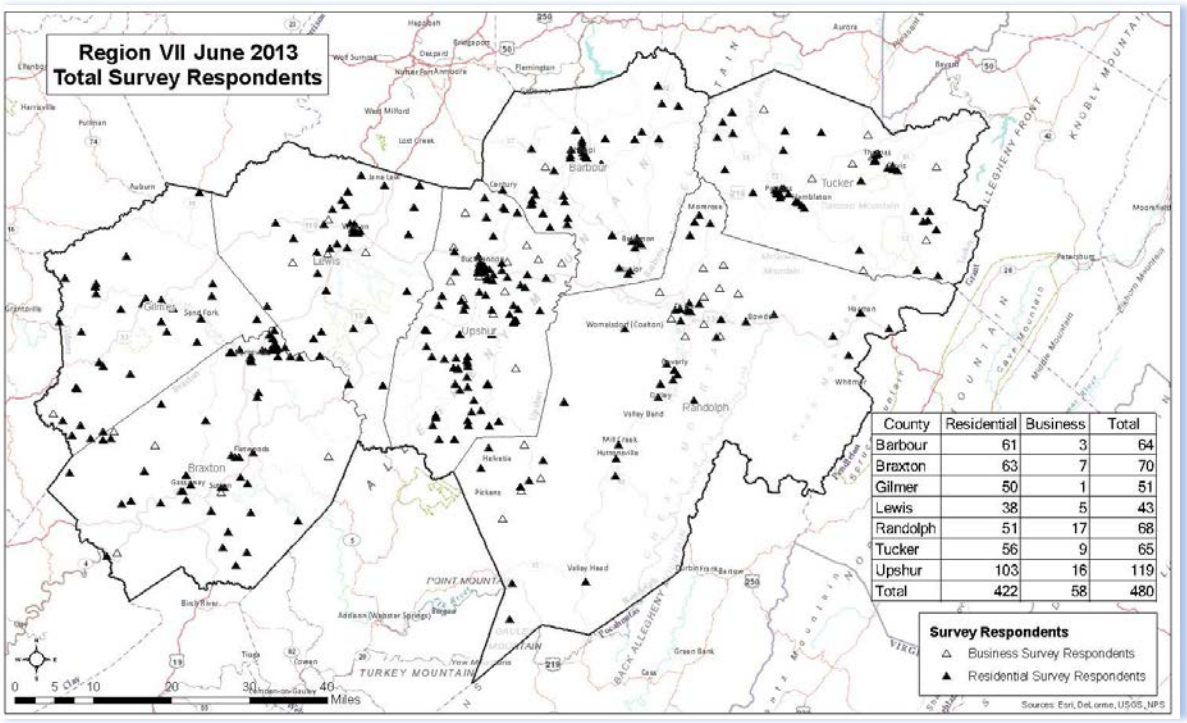
This map clearly illustrates there are some areas that would benefit public assistance to install broadband infrastructure. For the most part, the underserved addressed facilities are in Type 3 Areas. In Type 2 Priority areas outside the identified growth corridors, it may be more cost effective to focus on projects that feature wireless options. Wireless options could serve additional stakeholders in the Type 2 and Type 3 areas as well.

The major broadband provider in the Region has aggressively pursued a build out program in the past few months. This provider has made the bold statement that 100% of the region now has broadband service (April, 2013). They are including collaborations/partnerships they have made with satellite and wireless providers.

The service area maps contained in this report are based on the most recent data; however, the broadband landscape is changing faster than data can be collected and analyzed. With this in mind, project design needs to take in account rapid technology development and deployment and plan for infrastructure or system life cycles that may only last 5 to 10 years.

CHAPTER 7: RESIDENTIAL & BUSINESS BROADBAND SURVEYS

A broadband needs assessment was conducted between October 2012 and June 2013. Separate research instruments were designed for residential and commercial/business users in the Region. Copies of the surveys and compiled results may be found in Appendix V. Electronic surveys were made available by e-mail broadcasts, newsletter submissions, press releases and letters to the editor. Distribution of hard copy surveys included mailings and hand deliveries to local libraries, public service districts/utilities, senior centers and city/town halls.



County	Residential	Business	Total
Barbour	61	3	64
Braxton	63	7	70
Gilmer	50	1	51
Lewis	38	5	43
Randolph	51	17	68
Tucker	56	9	65
Upshur	103	16	119
Total	422	58	480

RESIDENTIAL BROADBAND SURVEY

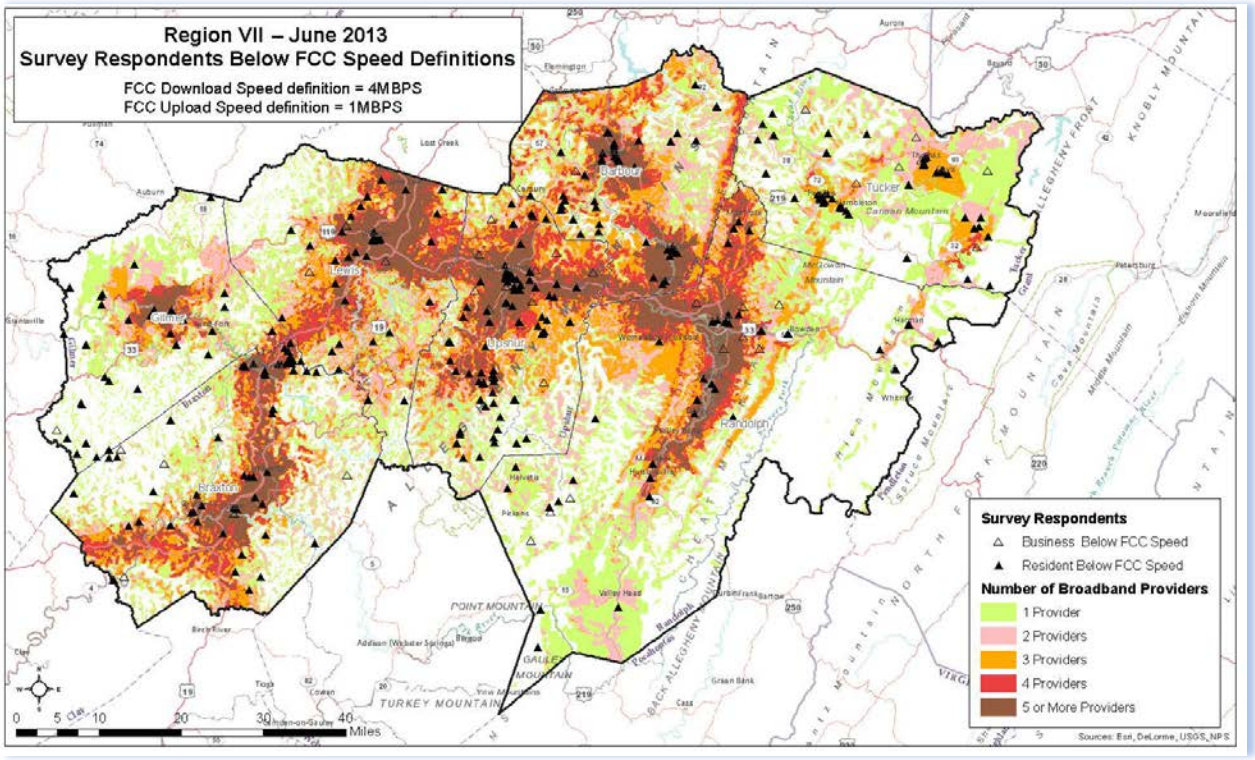
Region VII achieved a statistical sample in the residential survey that provides a 95% confidence level with a 5% interval. There was an even distribution of responders in the 30's, 40's, 50's and 60's age brackets with younger and older groups showing less than half of that response rate. 56.1% responses reported to be female.

The residential survey collected a rich trove of data which can be found in Appendix II. Topics include data on telecommute practices, household use, outside the home use and satisfaction levels.

*Full page maps may be found in Appendix IV

KEY DATA FROM THE RESIDENTIAL SURVEY:

- 73% have Internet access in the home.
- 42% use DSL as their Internet connection.
- 7% of DSL customers report download speeds over 4 Mbps
- 10.6% still use dial-up.
- 69.2% use Internet at work.
- 75.4% would adopt broadband if available.
- 80.5% feel Internet access is very important and 14% feel it is important.

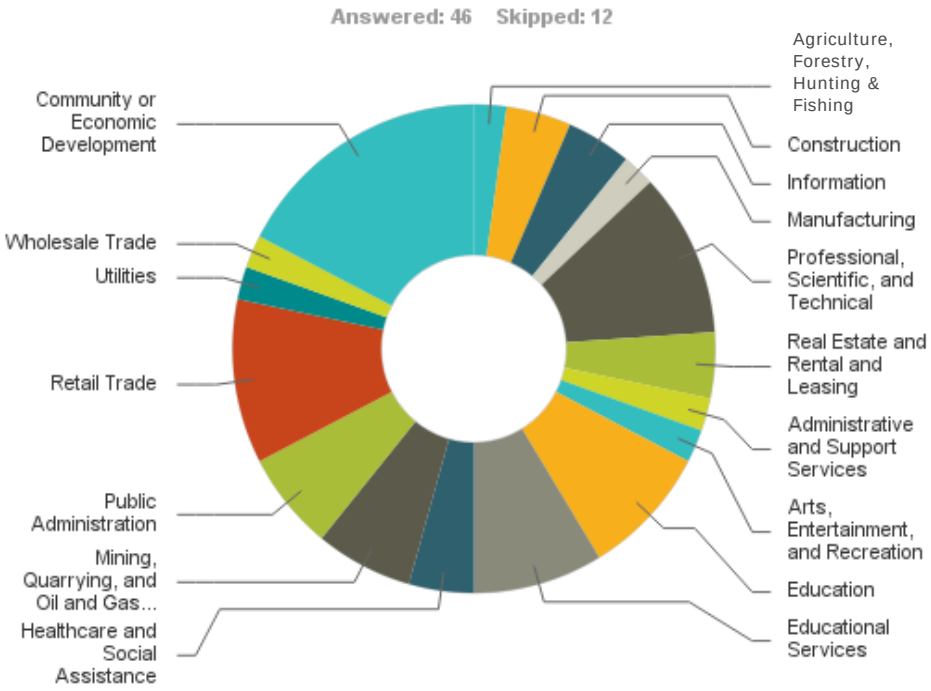


Reported Speed: A spatial interpretation of the sub FCC broadband speed levels to number of providers in Region VII strongly indicates two issues: 1) the customer is not connected through the best broadband provider that would provide optimum broadband performance for their particular situation. 2) there are other issues outside the scope of Internet connection; such as: running other programs concurrently with Internet activity, virus protection that demands huge amounts of memory, virus – spyware - malware, old modems or operating systems, unused data in the temporary memory, over use of data plan invoking "fair use" limitations by the broadband provider and the simple fact many users may be on line at the same time. Videos, games, pictures and audio files use great volumes of bandwidth, which will reduce speeds.

BUSINESS SURVEY

Of the businesses responding to the survey, 48.2% employ four people or less. Only 2.6% reporting had more than 250 employees. Community and economic development professionals were the largest sector to respond at 17.4%. 93% of Region VII businesses have Internet access.

Business Survey Responses by Business Sector



KEY DATA FROM BUSINESS BROADBAND SURVEY

- 53.2% businesses use DSL.
- 80% of DSL users report download speeds over 4 Mbps
- 50.9% allow employees to telecommute on a regular basis.
- Typical Internet service costs between $50 and $200 a month.
- 98.2% indicate robust broadband speed as being important for business.
- 98.3% of businesses agree that enhanced broadband would be beneficial to customers.

REGIONAL SATISFACTION WITH BROADBAND

Satisfaction with broadband services was rated by respondents on a 5 point scale as being very satisfied, satisfied, dissatisfied and very dissatisfied. Generally both residential and commercial customers were not satisfied with any aspect of their broadband services in Region VII.

RESIDENTIAL SATISFACTION

	Don't Know/NA	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	Total	Average Rating
Speed of connection	**1.65%** 5	**24.75%** 75	**33.66%** 102	**33.33%** 101	**6.60%** 20	303	3.18
Cost of Internet	**1.68%** 5	**24.92%** 74	**37.37%** 111	**29.97%** 89	**6.06%** 18	297	3.14
Technical support	**8.42%** 25	**11.45%** 34	**26.26%** 78	**43.77%** 130	**10.10%** 30	297	3.36
Reliability of access	**1.71%** 5	**17.81%** 52	**29.79%** 87	**44.86%** 131	**5.82%** 17	292	3.35
Customer service	**7.14%** 21	**9.86%** 29	**23.81%** 70	**48.64%** 143	**10.54%** 31	294	3.46
Number of available providers	**8.80%** 25	**52.11%** 148	**24.65%** 70	**11.97%** 34	**2.46%** 7	284	2.47

Residents in Region VII are generally very dissatisfied with broadband speeds. They are also very dissatisfied with the cost of Internet services. The survey indicates people are dissatisfied with the number of providers available to them. Data also indicates about half of consumers are satisfied with reliability of access and customer service.

BUSINESS SATISFACTION

Like residential service, businesses are not fully satisfied with broadband service. This collaboration of users most likely points to a serious infrastructure problem in the Region.

	Don't Know/NA	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	Total	Average Rating
Speed of connection	**1.82%** 1	**21.82%** 12	**18.18%** 10	**50.91%** 28	**7.27%** 4	55	3.40
Cost of Internet	**16.36%** 9	**18.18%** 10	**30.91%** 17	**29.09%** 16	**5.45%** 3	55	2.89
Technical support	**14.55%** 8	**9.09%** 5	**25.45%** 14	**41.82%** 23	**9.09%** 5	55	3.22
Reliability of access	**1.82%** 1	**27.27%** 15	**20%** 11	**45.45%** 25	**5.45%** 3	55	3.25
Customer service	**14.55%** 8	**3.64%** 2	**27.27%** 15	**45.45%** 25	**9.09%** 5	55	3.31
Number of available providers	**18.87%** 10	**41.51%** 22	**26.42%** 14	**13.21%** 7	**0%** 0	53	2.34
Billing practices	**20.37%** 11	**7.41%** 4	**12.96%** 7	**50%** 27	**9.26%** 5	54	3.20

Businesses rated satisfaction on a five point scale with 5 being very satisfied.

In general 60% of businesses in Region VII are generally satisfied with broadband speeds. They are very dissatisfied with the cost of Internet service and with the number of providers available to them. Data also indicates about half of business respondents are satisfied with reliability of access and customer service.

SECTOR SURVEYS

A separate set of surveys were administered to various business/government sectors to determine specialized needs and issues. Generally there is a high level (88% combined average) of need for broadband capacity, technology and training across all sectors. Those groups aligned with education (schools & libraries) and public safety have higher proficiency rates than the other sectors.

REGION VII SECTOR NEEDS ASSESSMENT SURVEY

	Right tools in place?	Greatest technology need	Do Sector business practices require use of broadband?	Everyone trained to use broadband effectively	Does broadband access & availability meet minimum standards?	Is broadband cost prohibitive?
	yes		**yes**	**yes**	**yes**	**yes**
Agriculture	15%	66% Base Stations	77%	25%	17%	73%
Economic Development	13%	80% Micro Towers	94%	31%	12%	80%
Education	50%	67% Computers	100%	63%	50%	57%
Energy/ Environment	38%	100% Computer Programs	88%	50%	50%	75%
Healthcare	43%	67% Laptops 67% Tablets	86%	43%	71%	71%
Libraries	54%	100% Tablets	82%	82%	60%	82%
Public Safety	43%	67% each Servers, Micro Towers, Programs, GPS, & Tablets	86%	71%	43%	50%
Technology Providers	50%	71% Micro Towers 71% GPS	100%	17%	25%	68%
Tourism	36%	60% GPS & Tablets	70%	29%	71%	50%
Local Government	31%	50% Laptops 50% Micro Towers	92%	33%	46%	62%
Average	37%		88%	44%	45%	67%

Agriculture and economic development show a lack of tools in place and low proficiency. It should be noted that technology providers consider the proficiency of broadband users to be low; however, this group is most likely responding to their perception of technical expertise outside their sector.

Both residential and business surveys asked questions regarding broadband importance, satisfaction with service and whether the service is cost prohibitive. Sector surveys modified the question of importance to whether broadband access was required for the business to function. The following chart provides a quick comparison between residential and business perspectives on broadband service.

Broadband	Important to Have Available?	Service Satisfactory?	Cost Prohibitive?
	yes	yes	yes
Residential Surveys	95%	47%	62%
Business Surveys	98%	58%	49%
Sector Surveys	88%*	45%	67%

*Sector surveys asked if broadband was required for their industry to function instead of is it important to have available. Respondents overwhelmingly indicated it was essential.

REGION VII RBPT SWOC ANALYSIS

The Regional Broadband Planning Team conducted a SWOC Analysis using information gathered by surveys, interviews and literary research. A SWOC Analysis is a tool that identifies the **s**trengths, **w**eaknesses, **o**pportunities and **c**hallenges of an organization, project or asset. In this case, the SWOC analysis is a basic, straightforward model that assesses what this region can and cannot do as well as its potential opportunities and challenges. The method of the SWOC analysis is to take the information from an environmental analysis and separate it into internal (strengths and weaknesses) and external issues (opportunities and challenges). Once this is completed, the SWOC analysis determines what may assist the planning organization in accomplishing its objectives, and what obstacles must be overcome or minimized to achieve desired results.

According to the SWOC analysis, the greatest strength was “a majority of residents use the Internet at work.” The lack of broadband access for education and only one fiber backbone emerged as the greatest weaknesses. There are opportunities for broadband development because of available funding programs and the mountainous terrain is the region’s greatest challenge to broadband deployment.

STRENGTHS

	SWOC Response
A majority of residents use Internet at work.	80%
Residents acknowledge the importance of broadband/Internet.	66.7%
Broadband is identified as being crucial for business operations.	53.3%
Broadband is available by satellite, cellular, Wi-Fi and other microwave technology.	53.3%
75% of users who do not have broadband would adopt it if accessible.	53.3%
Broadband has been identified as being necessary to conduct governmental operations.	50 %

WEAKNESSES

	SWOC Response
In today's world children need broadband for education, Region VII has limited broadband coverage.	60%
Only one major fiber backbone in the region.	60%
Most Internet subscribers report below minimum broadband speeds (4Mbps).	53.3%
A general belief that there are low numbers of broadband providers in the region.	53.3%
There are no main core Internet hubs located in Region VII.	46.7%
The fiber backbone in Region VII is owned and controlled by one firm.	40%

OPPORTUNITIES

	SWOC Response
There are some public funding available for broadband deployment projects.	78.6%
75% of users who do not have broadband would adopt it if accessible.	60%
Broadband has been identified as being necessary to conduct governmental operations.	42.9%
Broadband is available by satellite, cellular, Wi-Fi and other microwave technology.	40%
A general belief that there are low numbers of broadband providers in the region.	40%

CHALLENGES

	SWOC Response
Region VII's rugged topography, mountain, hills and valleys	90%
Average broadband/Internet service cost is $50-$70 per month.	78.6%
Low Customer density, 34 persons per square mile	73.3%
There are no main core Internet hubs located in Region VII	46.7%
The fiber backbone in Region VII is owned and controlled by one firm	40%
Most Internet subscribers report below minimum broadband speeds (4Mbps)	40%

The SWOC research instrument may be found in Appendix V.

CHAPTER 8: BROADBAND DEPLOYMENT GOALS AND OBJECTIVES

ORGANIZATION

The Region VII Broadband Planning Area is very diverse and communities of this region have different broadband needs. In order for this Regional Broadband Planning Team Plan (RBPTP) to be useful for all its constituents, the regional plan has to be general in nature and adaptable for each community. **The overriding goal is to promote the understanding and use of broadband.**

GOAL 1: LOCAL LEADERSHIP

Local leadership is very important to implement broadband deployment plans. A primary goal of this RBPTP is to support the autonomy of local leaders, recognizing their institutional knowledge of their communities and preeminent right to initiate local project development. The regional plan will be available for local leadership, to support them with information and assistance. **In no way is the regional plan meant to supplant the hard efforts invested at the local level in community and economic development.** Local elected officials, economic development authorities and other stakeholder groups of each community may act as facilitators of broadband deployment plans at the local level.

Goal 1:	Objectives	Measurements:
	1. To support leadership at the local level by providing technical assistance for broadband development projects	Number of projects sponsored by local government or organizations

GOAL 2: REGIONAL LEADERSHIP

In the rural communities of Region VII, most of the local leaders wear many hats. They serve to provide for the needs of their community in several different arenas. From a regional perspective, another goal of this plan is to develop a regional leadership model for Regional Planning and Development Councils in broadband deployment. Regional leadership can maintain the RBPTP, provide technical capacity in broadband project development, maintain a regional list of projects, act as a clearinghouse to curb duplication, disseminate information, track opportunities to fund broadband projects and administer funded projects. Implementing a Regional Broadband Planning Team Plan will be a multi-use tool in that it helps communities cut red tape; therefore, expediting needed projects. It centralizes institutional knowledge on available funding, process and procedures regarding deployment of enhanced broadband. Projects could be monitored at the regional level eliminating any unneeded duplication. The Region would also play an important role in collaboration efforts between communities. An added benefit to

state and federal funders would be utilizing the proven track record of project administration of Regional Councils as they fill regional leadership roles. A Regional Planning and Development Staff would not need to be retrained on reports, requisitions, procurement and labor monitoring requirements every time a new project emerges.

Goal 2:	**Objectives**	**Measurements:**
	1. Support local leaders by providing information on funding opportunities	Number of programs identified
	2. Support local leaders by maintaining project lists	Number of broadband projects added to list
	3. Support local leaders by provide technical assistance	Number of funding applications developed
	4. Support local leaders by mediating project collaborations	Number of projects that cross jurisdiction boundaries

GOAL 3: PROJECT DEVELOPMENT

A major project requires a certain amount of skilled effort to develop. The project has to be identified, there may need to be some procurement of professional services, funding agencies identified and applications developed. If a project entity does not feel they have capacity to manage the total project, they can choose to contract with Region VII for technical services.

Region VII Planning and Development Council has functioned in the project development management role for forty years. The Small Cities Block Grant Program, US EDA Economic Development Programs, USDA and ARC Programs all rely on Regional Council staff to keep projects moving.

INDIVIDUAL PROJECT DEVELOPMENT: It is important that Broadband Deployment Strategies compliment other initiatives in the Region. In order to do this a simple method of project development needs to be in place.

Region VII Planning and Development Council will work closely with State and Federal officials in implementing projects that are funded. The Council keeps a list of about 130 projects in various stages of development for a region that includes seven counties. Region VII Planning and Development Council staff has been active in project development since 1972. Often there are prerequisites for projects to qualify for funding. They include 1) the project had to be identified, 2) developed, complete with costs and 3) reside on an official project list. The Regional Council has the capacity to make recommendations to the project owner for funding, provide procedural guidance in Architect/Engineering (A&E) procurement, act as liaison between funding agency and project sponsor and provide administrative services if the project supports that function.

THE METHOD: When a potential project has been identified, the local elected officials need to be contacted first. If it is in a municipality, town or city council members should be contacted. If the project is in the county outside of municipalities, then the county commissioners are appropriate contacts. Each local government is a member of Region VII Planning and Development Council and they may contact the Agency's Executive Director or request that the person with the project idea contact the Executive Director.

The staff at Region VII Planning and Development Council can make an expeditious assessment of the project and recommend the next step in project development. It may be gathering some more information, garnering more local participation or simply a project meeting with the Regional Council's staff. If the project has ample support and exhibits viable benefits, then in most cases, professional services procurement would be the next step. The staff has capacity to facilitate that process for the project team. The project would also be placed on the regional project list at this time.

When there is a written project description and costs estimated, the project is ready to be developed into a funding application. Normally, a funding program that fits the project has to be identified. Region VII Planning and Development Council staff has the capacity to complete intricate applications and has a working knowledge of funding opportunities. Some funders require public hearings or other public and regulatory input. Region VII Planning and Development Council staff is familiar with the process and can help move the project forward.

The method is very simple; contact the responsible local officials and then Region VII Planning and Development Council. The Council also acts as the regional clearinghouse of State and Federally-funded projects. This additional role of the Regional Planning and Development Council ensures integration of strategies, reduction of duplicated services and the development of strong collaborations of funders and partners in the implementation of projects. Eligible and proper administrative fees for projects underwrite staff involvement.

Goal 3:	**Objective**	**Measurements:**
	1. Develop at least one major Broadband Project in Region VII on an annual basis	Number funding applications submitted

GOAL 4: PROJECT IMPLEMENTATION

Project implementation can be defined as that gray area between a funding award letter and the golden shovel at ground breaking. Often a project has many preliminary milestones to clear before it can be implemented. This is especially true for construction projects. Project design, permits, Americans with Disability Act surveys, environmental reviews and evidentiary materials of all types have to be collected and submitted to the funding agency. Many major government agencies will use an existing program to manage the cash flow. For example; Region VII had three Disaster Recovery Initiatives funded in 2008. These funds passed through the West Virginia's Small Cities Block Grant Program. Region VII Staff has institutional knowledge of that program and was able to efficiently expedite the implementation of the projects.

Goal 4:	**Objective**	**Measurements:**
	1. Implement developed broadband deployment projects as funding becomes available	Number of broadband deployment projects implemented

GOAL 5: PROMOTE WV BROADBAND DEPLOYMENT DISTRICTS

US Economic Development Administration (EDA) and the Appalachian Regional Commission (ARC) formed special districts to help facilitate services and projects for the public good. Region VII is an Economic Development District for EDA and a Local Development District for ARC. Each federal agency supports Region VII with annual planning grants to function as their special districts. The West Virginia Legislature also provides a yearly stipend which helps match these annual planning grants and promote community and economic development initiatives within the region.

This established model could be used to develop a sustainable Broadband Deployment District concept. The WV Broadband Mapping Program has already implemented a bare bones Broadband Planning District system by organizing regional plans to coincide with Regional Planning and Development Districts. The next step is to sustain the Regional Broadband Deployment Planning efforts with funds in form of an annual planning grant.

Goal 5:	**Objective**	**Measurements:**
	1. Establish Broadband Deployment District with an annual allocation to provide technical assistance	Number of planning grants/requests submitted

GOAL 6: PROGRAM FOR PUBLIC INFORMATION

Broadband education and information emerged as important issues in the RBPT process. A program for public information addresses the need to create and disseminate important information and knowledge concerning broadband use, deployment and availability.

Goal 6:	Objectives:	Measurements:
1.	Publish the Region VII RBPT Strategic Plan	Evidence of publication
2.	Provide public with broadband providers list and cost comparisons	Evidence of publication
3.	Publish information regarding issues that reduce broadband speeds	Evidence of publication
4.	Publish information regarding different broadband delivery systems such as cable, fiber, DSL, satellite and wireless	Evidence of publication
5.	Publish information regarding subsidized broadband service to low income households	Evidence of publication
6.	Publish information on how to utilize existing fiber backbone	Evidence of publication

GOAL 7: PUBLIC POLICY

Public policy is the action taken by government to address a particular public issue. Providing funding and economic incentives are critical functions of public policy in relationship to developing a robust broadband infrastructure in rural regions. Not only are planning and project development dependent on public policy, the deployment and fair use of critical infrastructure needs the leadership and direction of a good public policy.

Goal 7:	Objectives:	Measurements:
1.	Broadband Deployment District Funding	Broadband planning allocations
2.	Promote project funding	Number of new broadband qualified programs
3.	Promote infrastructure incentives	Number of financial incentives for carriers to develop infrastructure (i.e. tax credits)
4.	Right of Way (ROW) issues – streamline access to needed broadband ROWs	Legislation regulating broadband specific ROW access restrictions by public and private entities

GOAL 8: BROADBAND INFRASTRUCTURE PROJECTS

Infrastructure to transport data must be in place to deploy broadband. Backbones, middle mile and last mile hard wire and wireless systems are all important parts of a good broadband infrastructure system. In rural West Virginia the population densities are low; therefore, it is not economically feasible for private carriers to invest in an infrastructure that does not offer sufficient returns. Broadband infrastructure projects funded by public monies ensure the general public in rural areas has a more equal footing with metropolitan and suburban communities.

Goal 8:	**Objectives:**	**Measurements:**
1.	Develop more middle mile fiber	Number of linear feet middle mile installed
2.	Develop redundancy at the middle mile level	Number of linear feet redundancy installed
3.	Construct wireless towers in Type 3 unserved areas	Number towers constructed
4.	Create a RLF for broadband deployment	Number broadband projects financed

WORKS CITED

Backhaul. (2013, August 13). Retrieved from SearchCIO-Midmarket: http://searchcio-midmarket.techtarget.com/definition/backhaul

Beede, Neville. (2013). *Broadband Availability Beyond the Rural/Urban Divide.* Washington, D.C.: National Telecommunications and Information Administration.

Blank, Strickling. (2011). *Exploring the Digital Nation; Computer and Internet Use at Home.* Washington, D.C.: U.S.Departmetn of Commerce.

Broadband Speeds. (2013, October 16). Retrieved from uSwitch.com: http://www.uswitch.com/broadband/guides/broadband_speeds/

Code, W. V. (1971). *West Virginia Regional Planning & Development Act.* Charleston, West Virginia: State of West Virginia.

Cooper. (2013, January 29). *The Internet Is A 21st Century Utility and We Deserve Better*. Retrieved from Forbes: http://forbes.com/sites/stevecooper/2013/01/29/the-internet-is-a-21st-century-utility-and-we-deserve-better/

Costello. (2013, July 12). *What is Personal Hotspot*. Retrieved from About.com: http://ipod.about.com/od/iphonessoftwareterms/g/What-Is-Personal-Hotspot.htm

Daniel. (2009). *Using Signal Boosters for Outdoor Coverage Solutions for Public Safety.* Victorville, CA: The Jack Daniel Company.

Franklin. (2013, January 25). *Germany court: Internet is an 'essential' part of life*. Retrieved from Jurist: http://jurist.org/paperchase/2013/01/germany-court-internet-is-an-essential-part-of-life.php

Hanson. (2013, February 1). *Education Standards Spur States to Create and Share Web-Based Curriculum and Portals*. Retrieved from Government Technology: http://www.govtech.com/education/

Howe. (2013, April 15). *Digital learning platform coming to PCHS*. Retrieved from Princeton Daily Clarion: News: http://www.tristate-media.com/pdclarion/news/article

Jacobsen, K. (2013, July 9). *No more landlines on Fire Island? Verizon seeks to go wireless.* Retrieved from The Christian Science Monitor: http://www.csmonitor.com/Innovation/2013/0709/No-more-landlines-on Fire-Island-Verizon-seeks-to-go-wireless

Kukiewicz. (2013, July 12). *How to improve your broadband speeds*. Retrieved from Choose: http://www.choose.net/media/guide/faqs/improve-broadband-speeds.htm

Sawyer, Schmidt. (2004). *Community Planning Surveys.* Burlington, VT: University of Vermont Extension.

Toolkit. (2009). *Regional Broadband Planning Teams Tool Kit.* Charleston, West Virginia: State of West Virginia.

Waggoner. (2013, April 16). *SGSC transitions to online learning system*. Retrieved from Princeton Dailey Clarion: http://www.tristate-media.com/pdclarion/news/article

Wagner, Whitehair, Jacobus, Smith. (2010). *010 Region VII CEDS.* Buckhannon, WV: Region VII Planning & Development Council.

Wood. (2013, June 12). *Google or Not, Cities Pin Hopes on Gigabit Networks*. Retrieved from Government Technology: http://www.govtech.com/wireless/Cities-Gigabit-Networks.htm

Wood. (2013, May 28). *The Google Perspective: Gigabit Internet in Local Governments*. Retrieved from Government Technology: http://www.govtech.com/templates/gov-print-article?id=208855701

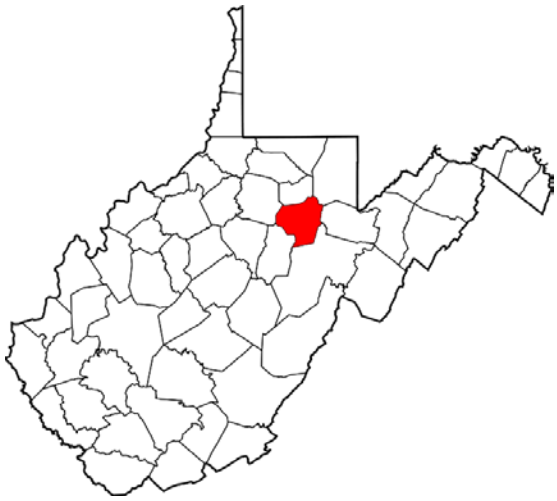
APPENDIX I

COUNTY DEMOGRAPHIC PROFILES

BARBOUR COUNTY, WV

Barbour County has 341.1 sq. miles in land area and a population density of 48.4 per square mile. In CENSUS 2010, 98.5% of the population reported only one race, with 0.7% of these reporting African-American. The population of this county is 0.6% Hispanic (of any race). The average household size is 2.50 persons compared to an average family size of 2.90 persons.

In 2012 educational services was the largest of 20 major sectors. It had an average wage per job of $41,349. Per capita income grew by 11.4% between 2001 and 2011 (adjusted for inflation).



Barbour County Demographics

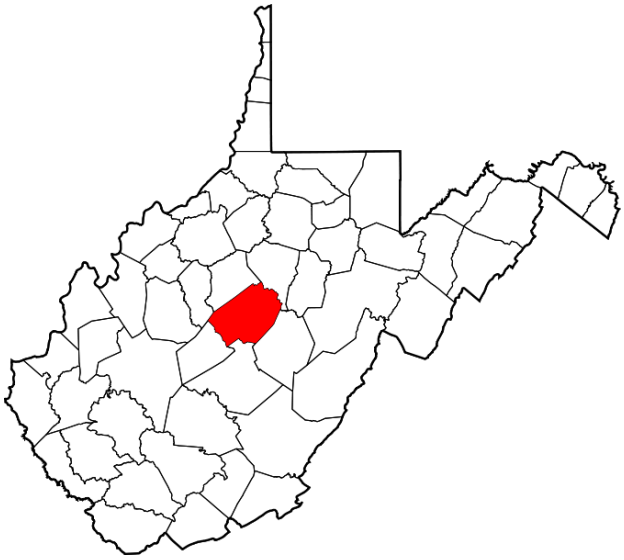
People & Income Overview (By Place of Residence)	Value	WV Rank		Industry Overview (2012) (By Place of Work)	Value	WV Rank
Population (2012)	16,493	35		Covered Employment	3,455	37
Growth (%) since 2010 Census	-0.6%	32		Avg. wage per job	$33,343	41
Households (2011)	6,210	37		Manufacturing - % all jobs in County	D	N/A
Labor Force (persons) (2012)	6,763	36		Avg. wage per job	D	N/A
Unemployment Rate (2012)	7.8	29		Transportation & Warehousing - % all jobs in County	-0.8%	48
Per Capita Personal Income (2011)	$26,109	45		Avg. wage per job	$43,202	26
Median Household Income (2011)	$33,004	44		Health Care, Social Assist. - % all jobs in County	D	N/A
Poverty Rate (2011)	22.8	11		Avg. wage per job	D	N/A
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	79.2	36		Finance and Insurance - % all jobs in County	2.5	16
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	12.7	27		Avg. wage per job	$33,582	29

STATS America

BRAXTON COUNTY, WV

Braxton County has 510.8 sq. miles in land area and a population density of 28.3 per square mile. In CENSUS 2010, 99.1% of the population reported only one race, with 0.4% of these reporting African-American. The population of this county is 0.5% Hispanic (of any race). The average household size is 2.40 persons compared to an average family size of 2.90 persons.

In 2012 retail trade was the largest of 20 major sectors. It had an average wage per job of $28,067. Per capita income grew by 24.0% between 2001 and 2011 (adjusted for inflation).



Braxton County Demographics

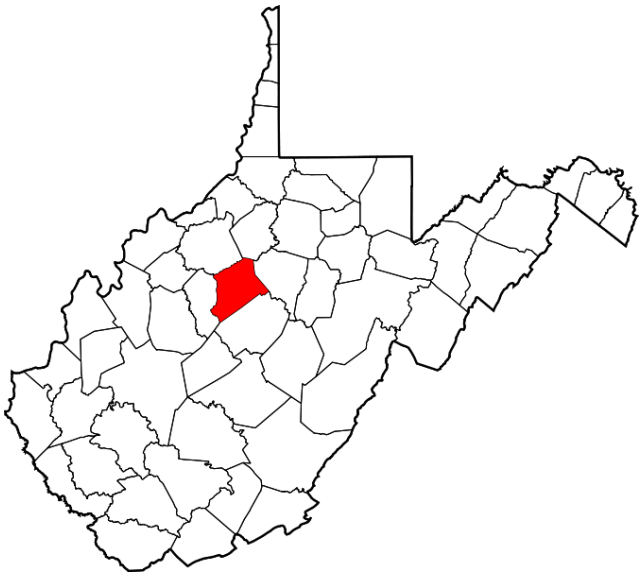
People & Income Overview (By Place of Residence)	Value	WV Rank		Industry Overview (2012) (By Place of Work)	Value	WV Rank
Population (2012)	14,468	39		Covered Employment	3,909	35
Growth (%) since 2010 Census	-0.4%	26		Avg. wage per job	$30,421	45
Households (2011)	6,087	38		Manufacturing - % all jobs in County	7.0%	21
Labor Force (persons) (2012)	5,698	39		Avg. wage per job	$45,438	21
Unemployment Rate (2012)	9.5	15		Transportation & Warehousing - % all jobs in County	1.8%	35
Per Capita Personal Income (2011)	$26,224	43		Avg. wage per job	$40,934	32
Median Household Income (2011)	$32,369	47		Health Care, Social Assist. - % all jobs in County	16.8%	14
Poverty Rate (2011)	22.2	13		Avg. wage per job	25987	21
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	74.0	47		Finance and Insurance - % all jobs in County	2.5%	16
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	10.1	41		Avg. wage per job	$32,854	32

STATS America

GILMER COUNTY, WV

Gilmer County has 338.5 sq. miles in land area and a population density of 25.8 per square mile. In CENSUS 2010, 98.4% of the population reported only one race, with 12.4% of these reporting African-American. The population of this county is 5.7% Hispanic (of any race). The average household size is 2.30 persons compared to an average family size of 2.80 persons.

In 2012 public administration was the largest of 20 major sectors. It had an average wage per job of $55,612. Per capita income declined by 3.6% between 2001 and 2011 (adjusted for inflation).



Gilmer County Demographics

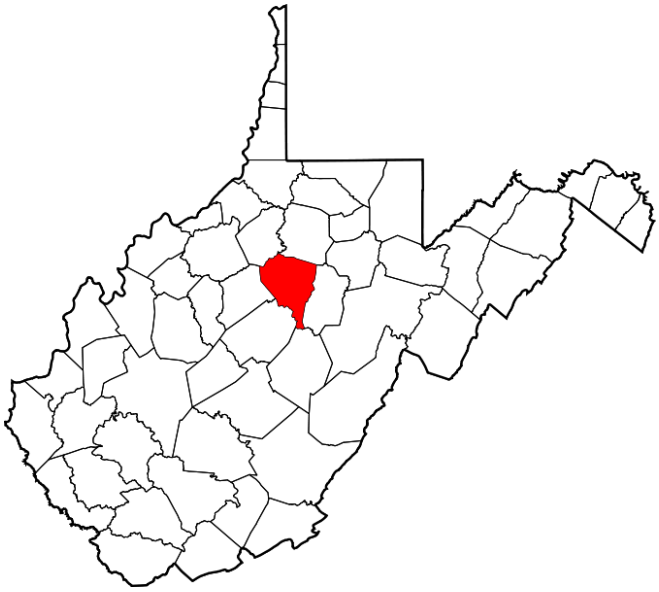
People & Income Overview (By Place of Residence)	Value	WV Rank		Industry Overview (2012) (By Place of Work)	Value	WV Rank
Population (2012)	8,732	48		Covered Employment	2,189	47
Growth (%) since 2010 Census	0.5%	11		Avg. wage per job	$36,311	26
Households (2011)	2,420	54		Manufacturing - % all jobs in County	10.1%	13
Labor Force (persons) (2012)	3,293	48		Avg. wage per job	$32,347	39
Unemployment Rate (2012)	7.0	40		Transportation & Warehousing - % all jobs in County	2.6%	27
Per Capita Personal Income (2011)	$22,482	54		Avg. wage per job	$51,168	10
Median Household Income (2011)	$33,196	43		Health Care, Social Assist. - % all jobs in County	D	N/A
Poverty Rate (2011)	28.2	3		Avg. wage per job	D	N/A
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	74.7	46		Finance and Insurance - % all jobs in County	D	N/A
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	12.5	29		Avg. wage per job	D	N/A

STATS America

LEWIS COUNTY, WV

Lewis County has 384.9 sq. miles in land area and a population density of 42.5 per square mile. In CENSUS 2010, 99.0% of the population reported only one race, with 0.5% of these reporting African-American. The population of this county is 0.6% Hispanic (of any race). The average household size is 2.30 persons compared to an average family size of 2.80 persons.

In 2012 mining was the largest of 20 major sectors. It had an average wage per job of $79,966. Per capita income grew by 33.4% between 2001 and 2011 (adjusted for inflation).



Lewis County Demographics

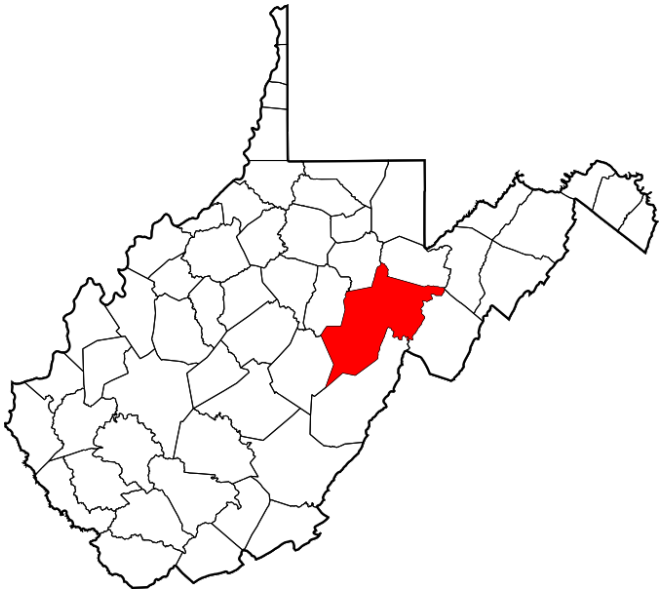
People & Income Overview (By Place of Residence)	Value	WV Rank		Industry Overview (2012) (By Place of Work)	Value	WV Rank
Population (2012)	16,371	37		Covered Employment	7,288	27
Growth (%) since 2010 Census	0.0%	17		Avg. wage per job	$43,327	8
Households (2011)	6,587	36		Manufacturing - % all jobs in County	2.5%	42
Labor Force (persons) (2012)	8,353	30		Avg. wage per job	$31,221	41
Unemployment Rate (2012)	6.0	52		Transportation & Warehousing - % all jobs in County	4.5%	8
Per Capita Personal Income (2011)	$35,075	10		Avg. wage per job	$60,010	3
Median Household Income (2011)	$37,270	23		Health Care, Social Assist. - % all jobs in County	D	N/A
Poverty Rate (2011)	19.8	24		Avg. wage per job	D	N/A
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	81.5	26		Finance and Insurance - % all jobs in County	1.4%	44
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	13.1	25		Avg. wage per job	$35,178	24

STATS America

RANDOLPH COUNTY, WV

Randolph County has 1,039.7 sq. miles in land area and a population density of 28.3 per square mile. In CENSUS 2010, 99.2% of the population reported only one race, with 1.2% of these reporting African-American. The population of this county is 0.7% Hispanic (of any race). The average household size is 2.30 persons compared to an average family size of 2.80 persons.

In 2012 retail trade was the largest of 20 major sectors. It had an average wage per job of $24,252. Per capita income grew by 7.3% between 2001 and 2011 (adjusted for inflation).



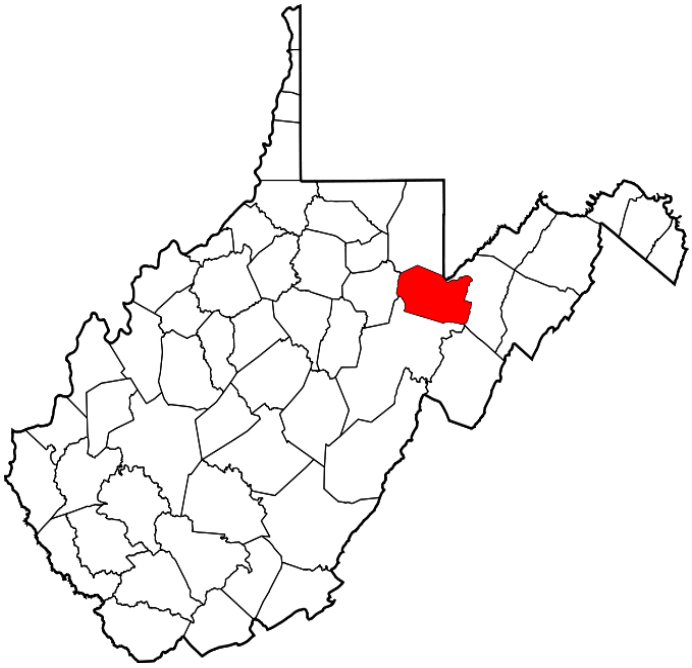
Randolph County Demographics

People & Income Overview (By Place of Residence)	Value	WV Rank		Industry Overview (2012) (By Place of Work)	Value	WV Rank
Population (2012)	29,384	20		Covered Employment	11,576	16
Growth (%) since 2010 Census	-0.1%	19		Avg. wage per job	$30,862	14
Households (2011)	11,276	21		Manufacturing - % all jobs in County	9.1%	15
Labor Force (persons) (2012)	12,310	21		Avg. wage per job	$33,520	37
Unemployment Rate (2012)	8.6	24		Transportation & Warehousing - % all jobs in County	3.2%	20
Per Capita Personal Income (2011)	$30,623	26		Avg. wage per job	$45,803	18
Median Household Income (2011)	$33,529	41		Health Care, Social Assist. - % all jobs in County	D	N/A
Poverty Rate (2011)	20.1	21		Avg. wage per job	D	N/A
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	82.1	25		Finance and Insurance - % all jobs in County	2.4%	18
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	18.1	10		Avg. wage per job	$39,193	15

STATS America

TUCKER COUNTY, WV

Tucker County has 418.9 sq. miles in land area and a population density of 16.7 per square mile. On the most recent census form, 99.4% of the population reported only one race, with 0.2% of these reporting African-American. The population of this county is 0.6% Hispanic (of any race). The average household size is 2.30 persons compared to an average family size of 2.80 persons.



In 2012 accommodation and food services was the largest of 20 major sectors. It had an average wage per job of $13,796. Per capita income grew by 10.3% between 2001 and 2011 (adjusted for inflation).

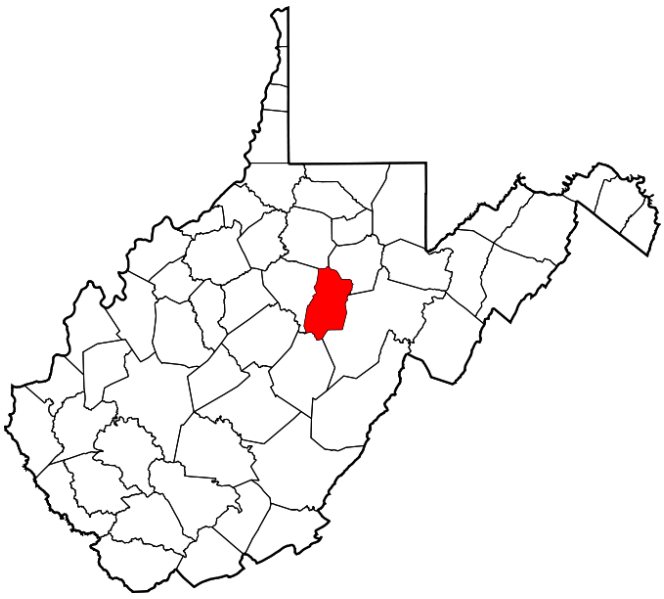
Tucker County Demographics

People & Income Overview (By Place of Residence)	Value	WV Rank		Industry Overview (2012) (By Place of Work)	Value	WV Rank
Population (2012)	6,995	54		Covered Employment	2,410	45
Growth (%) since 2010 Census	-2.0%	50		Avg. wage per job	$25,832	54
Households (2011)	3,215	50		Manufacturing - % all jobs in County	10.3%	11
Labor Force (persons) (2012)	2,726	54		Avg. wage per job	$43,041	27
Unemployment Rate (2012)	9.4	16		Transportation & Warehousing - % all jobs in County	1.6%	39
Per Capita Personal Income (2011)	$28,837	35		Avg. wage per job	$32,444	52
Median Household Income (2011)	$35,019	38		Health Care, Social Assist. - % all jobs in County	13.1%	22
Poverty Rate (2011)	17.2	40		Avg. wage per job	24518	23
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	83.7	20		Finance and Insurance - % all jobs in County	2.4%	18
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	15.8	16		Avg. wage per job	$26,970	45

STATS America

UPSHUR COUNTY, WV

Upshur County has 354.6 sq. miles in land area and a population density of 69.0 per square mile. In CENSUS 2010, 99.0% of the population reported only one race, with 0.7% of these reporting African-American. The population of this county is 1.0% Hispanic (of any race). The average household size is 2.40 persons compared to an average family size of 2.90 persons.



In 2012 retail trade was the largest of 20 major sectors. It had an average wage per job of $25,611. Per capita income grew by 20.6% between 2001 and 2011 (adjusted for inflation).

Upshur County Demographics

People & Income Overview (By Place of Residence)	Value	WV Rank		Industry Overview (2012) (By Place of Work)	Value	WV Rank
Population (2012)	24,477	27		Covered Employment	8,071	22
Growth (%) since 2010 Census	0.9%	7		Avg. wage per job	$36,297	27
Households (2011)	9,139	29		Manufacturing - % all jobs in County	7.8%	20
Labor Force (persons) (2012)	10,611	23		Avg. wage per job	$46,573	20
Unemployment Rate (2012)	7.1	37		Transportation & Warehousing - % all jobs in County	4.3%	10
Per Capita Personal Income (2011)	$29,288	30		Avg. wage per job	$46,437	17
Median Household Income (2011)	$36,719	29		Health Care, Social Assist. - % all jobs in County	D	N/A
Poverty Rate (2011)	20	22		Avg. wage per job	D	N/A
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	81.5	26		Finance and Insurance - % all jobs in County	1.5%	41
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	14.7	21		Avg. wage per job	$38,389	17

STATS America

WEST VIRGINIA

West Virginia has 24,038.2 sq. miles in land area and a population density of 77.2 per square mile. In the last three decades of the 1900s its population grew by 3.7%. In CENSUS 2010, 98.5% of the population reported only one race, with 3.4% of these reporting African-American. The population of this state is 1.2% Hispanic (of any race). The average household size is 2.40 persons compared to an average family size of 2.90 persons.

In 2012 health care and social assistance was the largest of 20 major sectors. It had an average wage per job of $39,178. Per capita income grew by 11.6% between 2001 and 2011 (adjusted for inflation).

West Virginia Demographics

People & Income Overview (By Place of Residence)	**Value**	**US Rank**		**Industry Overview (2012)** (By Place of Work)	**Value**	**WV Rank**
Population (2012)	1,855,413	38		Covered Employment	710,618	40
Growth (%) since 2010 Census	0.1%	46		Avg. wage per job	$39,725	44
Households (2011)	740,080	38		Manufacturing - % all jobs in County	6.9%	36
Labor Force (persons) (2012)	804,917	38		Avg. wage per job	$52,789	32
Unemployment Rate (2012)	7.3	23		Transportation & Warehousing - % all jobs in County	2.9%	45
Per Capita Personal Income (2011)	$33,403	48		Avg. wage per job	$46,757	26
Median Household Income (2011)	$38,587	50		Health Care, Social Assist. - % all jobs in County	18.5%	1
Poverty Rate (2011)	18.7	11		Avg. wage per job	39178	50
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	82.6	45		Finance and Insurance - % all jobs in County	2.7%	46
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	17.6	52		Avg. wage per job	$45,932	52

STATS America

THE UNITED STATES

The United States has 3,531,905 sq. miles in land area and a population density of 88.9 people per square mile. In the last three decades of the 1900s its population grew by 36.3%.

In 2012 health care and social assistance was the largest of 20 major sectors. It had an average wage per job of $46,154. Per capita personal income grew by 5.0% between 2001 and 2011 (adjusted for inflation).

United States Demographics

People & Income Overview (By Place of Residence)	Value		Industry Overview (2012) (By Place of Work)	Value
Population (2012)	313,914,040		Covered Employment	131,684,961
Growth (%) since 2010 Census	1.7%		Avg. wage per job	$49,289
Households (2011)	114,761,359		Manufacturing - % all jobs in County	9.1%
Labor Force (persons) (2012)	154,975,000		Avg. wage per job	$60,548
Unemployment Rate (2012)	8.1		Transportation & Warehousing - % all jobs in County	3.9%
Per Capita Personal Income (2011)	$41,560		Avg. wage per job	$48,611
Median Household Income (2011)	$50,502		Health Care, Social Assist. - % all jobs in County	14.2%
Poverty Rate (2011)	15.9		Avg. wage per job	46154
H.S. Diploma or More - % of Adults 25+ (2011 ACS 5yr)	85.4		Finance and Insurance - % all jobs in County	4.2%
Bachelor's Deg. Or More - % of Adults 25+ (2011 ACS 5yr)	28.2		Avg. wage per job	$91,155

STATS America

APPENDIX II

BROADBAND SURVEY COMMENTS

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:

1	I would like high speed service, at least 5-10MBPS. It would greatly increase my productivity as I spend a lot of time on the internet for business.	Jun 5, 2013 6:27 PM
2	I would love to have Broadband because our children need the internet for alot of school projects and dial up won't work we have to come to the library to use the internet. Broadband should be available to everyone in West Virginia no matter where you live.	Jun 5, 2013 2:04 PM
3	West Virginia's youth would greatly benefit from having this service available to them.	Jun 5, 2013 2:01 PM
4	I am attending WV Junior College, and have lots of out of class Homework and Internet service helps me alot.	Jun 5, 2013 1:59 PM
5	Needed in our area	Jun 5, 2013 1:57 PM
6	We SEVERELY NEED durable reliable internet via wireless or DSL	Jun 5, 2013 1:41 PM
7	25 mile drive to use internet, gas wasted that I can't afford. We have tried to get connected many Xs. The cable co. wants $3,000 to run fiber to. Our "new" neighborhood from FL. got his in 2 weeks, he has great credit, his was free, For 1/2 year we had AT&T with 1 bare on edje and I was "shock" charged over $1,200 for calls to a local number my friend had. turns out it was a Puerto Rico exchange. Took no extra effort to dial. I had like $800 phone and $400 on text charge, for about 10 text and calls each. Its sad that b.s. business Runs WV, and America. My kids can't get on the internet b/c I don't have good credit or an extra $3,000 to put out to start it. 20 yrs behind. WV is keeping its heritage going strong on this one.	Jun 3, 2013 9:22 AM
8	Our children are falling behind in school	Jun 3, 2013 9:03 AM
9	I guess I could get along without internet but my kids want it when they visit.	May 28, 2013 11:33 AM
10	I think internet can be used as a learning tool and would be very important in the school age children to have access in their homes at a low costto help them adapt to the future.	May 28, 2013 11:30 AM
11	Without access to high speed internet we are at a disadvantage business wise and for so many of our household tasks. Bill pay - filing taxes - shopping - latest news - communication with family.	May 28, 2013 11:28 AM
12	We need high speed internet to keep up with rest of the world - We are being left behind.	May 28, 2013 11:25 AM
13	Would like to have internet to keep up with my family also pay bills.	May 28, 2013 11:23 AM
14	I'm ready to retire to my new home in WV. I really need highspeed internet to continue current standard of living	May 28, 2013 11:21 AM
15	Lack of broadband services in rural areas is very frustrating. Satellite services are too expensive for most rural families.	May 19, 2013 7:03 PM
16	I would like to be part of the Region VII program to get Internet service to all of	May 17, 2013 9:53 AM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:

	West Virginia	
17	I have cable internet @ next door neighbors 200' away but not my house. Frontier started their service 1/4 mile down the road and went away from my house leaving me in the darkhole, up the road has cable internet while down the road has Frontier. It seems it is not cost effective to serve me. Although my tax money paid for much of this service. It probably is also a waste of my time to fill out this survey since everything is about the $$$$$$	May 17, 2013 8:31 AM
18	Yes this is very poor area and a lot of people depend on the use of the public library. Very important to school kids!,	May 14, 2013 11:55 AM
19	We need options in Tucker County...desperately. Frontier is horrible. The Techs come to my house, they are nice, but they scratch their head and say "I'm not sure why your service is so bad, even though you are less than a mile from the portal". Then they mess around with the DSL Box, leave, nothing gets fixed and I continue to pay my $45 per month for the only substandard service available to me. If I could find anything faster I would switch in a heartbeat (maybe even if it was more expensive!). If Tucker County's technology ever evolves beyond what it is now..and ads another option...Frontier would be doomed! Keeping my fingers crossed.	May 13, 2013 6:18 PM
20	Please expand the infrastructure of WV's lagging broadband connectivity. It is very important for our success as a state. Thank You.	May 13, 2013 6:02 PM
21	We Want hi speed internet	May 13, 2013 1:21 PM
22	Please will ya all bring high speed to our area we live at a dead end of Bull Runn Holler. They might have it at the start of the holler, but not 3 1/2 miles back to us.	May 13, 2013 1:18 PM
23	Please Help Us!	May 13, 2013 1:15 PM
24	Cell service & internet should be a priority to all homes in Upshur County.	May 10, 2013 11:18 AM
25	It is imperative that WV be brought into equal footing with other parts of US if we and our children are to remain competitive in today's difficult economy.	May 10, 2013 11:10 AM
26	I think it should be upgraded so it will run faster.	May 10, 2013 11:00 AM
27	Reduce Cost, Increase availability	May 10, 2013 8:48 AM
28	I love my librarians.	May 10, 2013 8:43 AM
29	When!?!	May 10, 2013 8:42 AM
30	I live very close to the town of Elkins and Cable is only 2 miles from my house. My only options are satellite and the phone company and both are very unreliable in this area.	May 9, 2013 3:08 PM
31	State Speed Test much slower than system speed test	May 9, 2013 5:13 AM
32	You can't do anything without using the Internet anymore. Paper files are almost non-existant.	May 8, 2013 1:40 PM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
33	Need better internet all throughout state!	May 8, 2013 1:39 PM
34	Frontier will not tell me when I can expect broadband. Frontier's response to my question about broadband is disturbing.	May 8, 2013 1:36 PM
35	Frontier won't bring it here Shame on Frontier! The City of Philippi would have brought broadband to our area, but was told that was Frontier territory. Frontier told my husband to look around to see hom many neighbors we had. They don't want to bring it to the remote and country areas because fewer people live there. They'd rather sell us satellite.	May 8, 2013 1:36 PM
36	West Virginia nees more reliable broadband providers and more choices in rural areas.	May 8, 2013 1:26 PM
37	Dial up is extremely slow! We need other options.	May 8, 2013 1:07 PM
38	High Speed internetneeds to be available in areas. Customers need access without having to purchase a data plan. Best solution would be DSL in all areas.	May 8, 2013 1:03 PM
39	I would be enthusiastic about helping to improve local broadband access. It's only because that we are able to secure a decent connection that we can live here! Please let me know if/how I can help!	May 8, 2013 12:55 PM
40	The other residents who have Broadband have complained that there service isn't good-they are slow/locking computers up/throwing them off.	May 8, 2013 12:50 PM
41	Our internet is down often, and the speed varies greatly. Speed is very slow quite often.	May 8, 2013 12:47 PM
42	Hughes Net-is terrible, Customer Service is allful. I wait on the phone for a total of 4 hours. Its way to expensive & doesn't work 1/2 the time but it is the only thing offered. Please get something better out here	May 8, 2013 12:45 PM
43	In September of 2009 Verizon finally provided us with internet service. We were very glad to get this service as dial-up was terrible. Nine months later Frontier took over the phone and internet services and we were promised internet speeds of 3-6mbps. The fastest we have ever seen at our home is 1.7mbps. While this is a great improvement over dial-up, it is not what we are charged for. It operates at an acceptable rate for most things we do, but videos are slow to load. We can stream most movies but only in standard definition. While this is working now, in the near future it will be unacceptable. We have contacted Fronier numerous times and many technicians have been sent to our home to work on the speed problem, nothing has changed. We are still charged for 3-6mbps and have basically been told "you get what you get". Paying for something we don't receive is frustrating but this seem to be the only service available for our home. We have also been told numerous times that higher speeds are coming, but so far they don't seem to be available. Everyone needs to have access to real high speed internet and this will only become important in the future. WE keep hearing and reading about the importance of high speed broadband for everyone in West Virginia but it seems Barbour County is not included. Please help!	May 8, 2013 12:38 PM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
44	It is so sad that everyone in Wva is still without high-speed internet in this time and age.	May 8, 2013 12:31 PM
45	Most of my income is earned from the computer via internet. I am a teacher and grading tests for a textbook publisher next month. I have also worked as an online instructor. With unemployment high in WV, this is a definite need.	May 8, 2013 12:06 PM
46	I would love to have broadband (high speed) internet service in my home. I use high speed internet service everyday at my work place. How can I stay informed without this? The rural areas nee to have this opportunity too. The Washington Distric School is the stopping area for my cell phone too.	May 8, 2013 12:04 PM
47	We only recently switched to Hughes Net. It is way too pricey and it has limited on-line time for the price. We had AOL which was extremely unsatisfactory. We also found that snow and ice on the satellite dish keeps out on-line communication.	May 8, 2013 11:53 AM
48	School-age grandchildren really need internet.	May 8, 2013 11:30 AM
49	I just received my internet 1 year ago. Just dial-up before that. It was not in our area until last year. Glad I got it.	May 8, 2013 11:19 AM
50	I think that internet service would be a huge economic advantage for the people of West Virginia. We are a geographically, rather isolated state. This would provide access to a number of jobs for people who are isolated and allow for more stable communities.	May 8, 2013 8:25 AM
51	I fail to see what this survey has to do with receiving city water in our area.	May 8, 2013 8:12 AM
52	I would like to have it but no(ne) here in our area	May 8, 2013 8:03 AM
53	Retired here from NJ, miss the access. Land lines not even dependable for elderly (medical alert button). Many, Many kids being left behind again. Children of area need this. Elderly can't depend on personal alert buttons. Land lines go down with each new storm when creeks and bridges flood in this area. The only way to reach anyone is to walk to nearest neighbor over the hill. Retired here from New Jersey. Miss the access. No access to cell phones. No access to internet except electricity lines installed in 1960's. Many children of school age along this road living on family land for generations.	May 8, 2013 7:48 AM
54	The people in my neighborhood has tried for years to get high speed internet. Our phone company sends letters about specials and how they offer internet but, when you call to be connected the answer is, "Ok, it's not offered in your area." When you ask when it will be offered they reply, "At this time we have no time/schedule for that to happen." Why? because our house is 6 miles from their office. Yet phone employees tell us it would be very easy to do. Unfair!	May 8, 2013 7:22 AM
55	Should be available to every household in WV. Cost should be so all could afford.	May 8, 2013 7:18 AM
56	Most companies assume EVERYONE has reliable internet service, but few in WV do! It is a severe hindrance when doing business for my family.	May 8, 2013 7:13 AM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
57	Would utilize if it is really highspeed and better!	May 8, 2013 7:08 AM
58	Need to be cheaper - to high of price	May 7, 2013 1:39 PM
59	Rural areas are just as important as any place else!	May 7, 2013 1:28 PM
60	They talk about jobs and business. High speed internet is necessary for both in the 21st century. West Virginia is being left behind.	May 7, 2013 1:11 PM
61	Would like to finish my degree online, also to keep in touch with research doctors for my rare fever disorder, TRAPS.	May 7, 2013 1:07 PM
62	Business, Send pictures	May 7, 2013 1:02 PM
63	Business	May 7, 2013 12:59 PM
64	Public library doesn't have reasonable hours. Children need research for school work.	May 7, 2013 12:53 PM
65	I can file my business taxes on line.	May 7, 2013 12:51 PM
66	Please make it available!	May 7, 2013 12:48 PM
67	Lets get real. How many of these surveys over the years have we seen, say since 2006. Verizon has our phone line - now Frontier dialup did not fly & both promised better internet services, never happened. The last excuse from frontier was (2012) cost too much due to line & data system upgrades. So 30-35 residents who wanted hook-ups went other directions. The $$ are there but the return in our area is --- is keep WV in the dark. What is the answer? Same old, same old, until WV upgrades its Public Services in Elec, Tele, Broadband ect. We were promised service for the last 3 years &now--?	May 7, 2013 12:30 PM
68	I livee about 1,000' too far away from the nearest Frontier connection. They say it is way too expensive to extend it. I am also the end of my line. Satellite is not possible because there is a mountain behind me to the west. Everyday I am going backward as technology goes foreward - How can I possibly compete or even catchup? The nearest library is 9 miles from me. Websites don't think about people on dialup anymore - even your speed test site has a picture on it that slows me down! Oh yes, my top connectionis 24kb - on the phone, often only 18kb - USELESS!!	May 7, 2013 12:19 PM
69	Frontier DSL has been within 1/4 mile of me for several years. Yet they have refused to extend it. Can't understand why.	May 7, 2013 12:09 PM
70	I take on line college classes thru DeVry University. In today's society a lot of schools are going online.It would be a great thing for todays youth to have great internet access so they can pursue their education this way.	May 7, 2013 12:08 PM
71	it is VERY frustrating to not have access to broadband in our area.	May 6, 2013 7:18 PM
72	Frontier Communications is taking the residents of WV for a ride.	May 1, 2013 4:43 AM
73	West Virginia needs to be brought into the 21st Century with Broadband Internet	Apr 29, 2013 7:11 PM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
	service for everyone, not just those within or close to cities. A person living in a rural area should be able to purchase Broadband Internet no matter where they live.	
74	We really need Broadband internet services in rural areas because currently all that is available is the Satellite access, which is very unreliable and VERY expensive.	Apr 29, 2013 6:37 PM
75	The number of providers is satisfactory only if one is interested in bundling services, and that is always a trade-off. Further, there was only one provider that allowed me to keep my previous E-mail address (that I had prior to my present ISP provider) – that's why I chose the one I did.	Apr 29, 2013 10:39 AM
76	About two or three years ago, a special line was run to our local post office for 26638, so that it would have higher-speed Internet access. This created a lot of bad feelings in the community, because if they ran the infrastructure for the post office, there's no reason they couldn't enable the infrastructure for the actual taxpayers.	Apr 29, 2013 5:40 AM
77	DO IT!	Apr 28, 2013 5:58 PM
78	I don't think high speed (or any internet access) is a NEED; however, I do think it would be nice to have the option.	Apr 27, 2013 10:41 AM
79	it should be available everywhere in wv	Apr 26, 2013 8:54 AM
80	Suddenlink is basically the only choice for good high speed internet in the area. I would like to see more companies come to our area to bring in some competition. Suddenlink also has a very very poor customer support when i comes to letting customers know when the service will be down for maintanence.	Apr 26, 2013 6:03 AM
81	Frontier's connection drops all of the time, and we do not receive the speeds we pay for. Also I just found out that they charge different rates to different towns. I pay $59.99 a month for "12 Mbps" in Davis which I don't even get, and I found out for the same service and speed in Kingwood area it is only $49.99.	Apr 25, 2013 8:10 AM
82	Technology v. Speed. Even with DSL speed is too slow to keep up with the current state of technology. The new DSL $24.95 = the old phone modem service.	Apr 24, 2013 4:55 PM
83	at my address I do not even have cellular service for a cell phone.	Apr 24, 2013 2:52 PM
84	Frontier first provided DSL in Harman. They came up almost to Job. Then they skipped us and went up to Whitmer. Our broadband speed is very slow at best and they charge us full price. They need to put another booster in. But they WONT do it.	Apr 24, 2013 2:25 AM
85	My daughter lived in Hickory, NC last year and her broadband intenet service was much faster and only cost her about $20 per month.	Apr 24, 2013 2:07 AM
86	We something reliable!	Apr 23, 2013 5:45 PM
87	The service provided to many rural areas is pitiful. It is nearly impossible to take	Apr 23, 2013 11:07 AM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
	an on line course, view a video or often call up websites during peak hours. Unless I want to work at 2:00 am, it is hard to get anything done. Calls to support result in nothing. Simple fact is, Frontier has over sold capacity and can not deliver anywhere near what they advertise or promise in many areas.	
88	the faster the better	Apr 23, 2013 9:43 AM
89	THis is one thing that the Government could have a positive impact on the competitiveness of West Virginians. They could require companies to serve RURAL WV not just the more populace areas. Then we can be more globally competitive.	Mar 26, 2013 2:32 PM
90	broadband would be very helpful in sending and receiving pictures at higher resolutions. This is extremely important to me.	Mar 25, 2013 3:15 PM
91	Service sucks and there is no recourse after customer DIS-service	Mar 20, 2013 9:18 AM
92	My husband recently returned from Kenya where he spent time in remote areas that had more reliable and faster internet access than we have here in Tucker County. It was ironic that he could go to a developing country and have better access to vital technology than we do here. Telecommuting, online schools and other internet resources are the future. If we want our kids and citizens to keep up we need more options for internet providers as well as more reliable and faster internet connections. We have only 1 internet service provider in our area. My husband and I telecommute and need the internet to work from home. We are forced to pay unfair rates for slow and unreliable internet.	Mar 19, 2013 3:20 PM
93	Needs work	Mar 14, 2013 8:47 AM
94	Too many organizations/businesses/agencies, not only assume "everyone" has internet access, they assume "everyone" should do the organizations'/businesses'/agencies' work and forms by computer and internet.	Mar 14, 2013 7:22 AM
95	The cost & data limits on internet access for home use is rediculus. Human greed is a major part of the problem.	Mar 13, 2013 7:21 AM
96	Broadband internet is the future of our state. It seems that West Virginia is always last when it comes to reaping the benefits of new technologies. Broadband is a prime example of being last. If broadband access was readily available, people would use it. You just have to make it available to them. I know people who still rely on dial-up service. They cannot afford the costs associated with broadband because the PSC allows those providers to charge outrageous fees for it.	Mar 12, 2013 1:50 AM
97	I yhink it should be available to everyone cause it will help the kids of the furture.	Mar 11, 2013 11:14 AM
98	Many rural residents in West Virginia had to wait many decades longer than urban folk for electricity and telephone service to reach them as well. Maybe that's one reason West Virginia is always last on the list of good things and first on the list of bad. If broadband availability comes down to just a short-sighted focus on immediate financial gain, these sad rankings are unlikely to ever change.	Mar 10, 2013 12:58 PM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
99	I have waited on broadband to come into my area for years and Frontier still does not have DSL here. I intend to get satellite internet within the next few months.	Mar 8, 2013 11:35 AM
100	I answered "satisfied" in question #14., but mostly because we're not dependent on faster speed for work, etc. ... and have basically adapted to the slower speed for volunteer activities i'm involved with. Visitors (eg. family) who have and use internet at their homes are quite UNDER impressed with our lack of speed - but are not normally dependent on internet for work when visiting.	Mar 7, 2013 9:43 AM
101	cannot perform basic function such as buying airline tickets on dialup	Mar 7, 2013 8:52 AM
102	I live on rt. 4 between gassaway and frametown and we do not have high-speed internet.	Mar 7, 2013 7:29 AM
103	I would love to have another choice of Internet besides Hughesnet.	Mar 6, 2013 3:55 PM
104	Internet service is pricey. It should available to all of those who want it. It took WAY TOO LONG just to get DSL. We had dial-up for a long time and it was pointless in even having as everything (websites, etc.) was designed for faster connections.	Mar 6, 2013 3:10 PM
105	The cost of having a reliable internet service for me is currently too high. Dial-up which I had for a while was not reliable and the speed was ridiculousy slow. I would like an affordable alternative.	Mar 6, 2013 2:20 PM
106	Hughes Net is a horrible service. The only reason we keep it is because of the kids and school. We are toying with the idea of getting rid of it. I have called Frontier many times begging them to get internet through our phone. We live a mile from Union Elementary and maybe 2 miles from town and still can't get decent internet. It's so bad that I'm filling this survey out at work.	Mar 6, 2013 1:15 PM
107	1) I have DSL but no city water, cable, or public sewer, gas, etc. I would like to see the basic infrastructure evaluated and funded as a priority. I live 2 miles from public utilities. 2) There are many, many WV residents who still live in very rural, rugged areas--some without electricity other than generator powered. Are public officials aware of these folks and the geographical obstacles? I'm guessing yes, but do they realize the extent? Good sources are home health employees--they take 4 wheel drives and go to these homes to provide medical care and see some outrageous situations, so to think they need internet as a priority makes little sense.	Mar 6, 2013 7:47 AM
108	We need more providers to keep costs competitive.	Mar 6, 2013 7:33 AM
109	In my area of the county we have no broadbanb but we have a population of about two hundred. We are rural but that shouldn't make a difference all the community's surrounding us have some sort of service.	Mar 5, 2013 6:28 PM
110	Frontier was given permission to buy verizon in WV with a promise to extent Broadband access to rural areas, theey have failed in this!	Mar 5, 2013 5:58 PM
111	Downlaod and Up load sppeds have to be increaased and avaiable if West	Mar 5, 2013 4:33 PM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
	Virginians are to work and compete in the cyber world.	
112	DSL through Froniter is only 2 miles from Pickens. The SCHOOL, FIRE DEPT, STORE, POST OFFICE struggle with this, the Post office has satellite, the store and school has T-11 line and the fire dept has dial-up. I have 2 children in the school and they have homework which at time they need internet access. We have to go and sit in a driveway of a home (3 miles aways) to do their homework. There are several business in our area that need internet, by most of all is the School and the children of the community.	Mar 4, 2013 10:27 AM
113	For the price, our internet services are subpar. I recently moved to Helvetia, WV from Chicago, IL. The internet options and speeds here are abysmal. I'm very grateful that the high speed DSL is at least available here; but I think we must invest in higher speeds as a State. This is especially important as more jobs become available online. I work from home and conference over the internet with my clients. It's critical that the my internet is fast and quality.	Mar 1, 2013 7:45 PM
114	We have had Wildblue Satellite broadband since 2005. The service has deteriorated in the last few years to be not much better than dial-up. Pages often timeout before they finish loading. It is extremely frustrating trying to pay bills or filling taxes online. I feel like I am in a third world country. But now, many of them have better service than we do. We are located along US19 and two separate companies have run fiber on our poles within the last two years. But they will not provide us with high speed internet. Lumos quoted $300 to $1200 PER Month for service. Frontier provides DSL within a mile of us in either direction, but moved their NEW fiber mux a mile further away from us, which puts DSL just out of reach. PLEASE HELP !!! Thank you, Jay Hayes 100 Christmas Place Weston, WV 26452 (304) 269-6113	Mar 1, 2013 7:16 PM
115	We are a small area with DSL access in the middle of a large area without. Fiber optics is being connected to Pickens School but rumor has it that Frontier will not expand this to local residents. There are a number of students, not to mention adults and businesses, that would benefit from DSL. Frontier is apparently trying to sell satellite access in that area.	Mar 1, 2013 12:48 PM
116	My major need is my Vacation/Weekend/Retirement home in Arden. There is limited 3G Cell access and Satellite access only. Philippi needs money to remote to Arden/Volga/Century/Mt. Liberty/Tacy/.....	Feb 28, 2013 7:45 PM
117	just upgrade to hughesnet Gen 4, so don't have much experience about it yet	Feb 28, 2013 6:45 PM
118	WV children in this area do not have access to high speed internet as children in other areas have. At this time our only options are dial-up at 21-26 kbps or satellite. The cost of satellite is prohibitive for a lot of families and dial up is so slow that it prevents utilizing the internet to it's full potential. With dial up there are educational opportunities that are missed via distance learning programs. There are home based employment opportunities which require a high speed connection that people in this area do not qualify for because of internet speeds. Satellite internet also has some very restrictive limitations. Services such as Netflix are not viable options for affordable entertainment due to download allowances and speeds. DSL is needed in the area to provide education and employment opportunities not available with the other options available.	Feb 27, 2013 9:53 PM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
119	I am supposed to be getting 10MBPS downloads and for some reason it runs at less than 3mbps. I have contacted the company and I live close to a "station" and they said there is nothing they can do. I always have frequent outages or slower than normal internet.I am tired of it and cable internet they want twice as much for it than what I pay now and only for a few more Mbps,internet in WV is a joke	Feb 27, 2013 12:14 PM
120	My name is Kenny Dobbins. I live at the above address in this survey. I am a self taught Computer Repair Tech. I have waited for 6 years for Fiber to the Rosedale Area. They finally ran Fiber from Frametown West Virginia to Rosedale West Virginia in the year 2012. The DSLAM for the service has been partially installed on Christmas Eve 2012. We are still waiting for them to flip the switch. Currently I am on Hughesnet and a Beta Tester. I am one of only a handful of people that Test for Hughesnet in the state of West Virginia. I have a 7000s/9200 and the new Gen4 HT1000 systems. None of them compare to a TRUE fiber 3.0 Mbps connection. NONE. I have tried to get the community organized with petitions for DSL Service when Verizon had the lines. Over 200 Signatures were on it. Frontier I know is trying its best but they bought a 1940's Rust bucket and they are trying to fix it up to show room quality. Satellite Internet is nothing but a stop gap measure till Fiber is ran. It is not equal to true DSL. AND its expensive. I would gladly pay the $74.19 I pay a month to Hughesnet to Frontier if I had a low ping connection. Minimum ping on Latency is 750 ms. While this is low for Satellite. I cannot do any Media intensive things like Netflix. If you all need help or need questions answered. I am available. 304-364-6096 is my number. I have hundreds of folks in this area WANTING real DSL.	Feb 27, 2013 8:24 AM
121	It is very difficult to operate a competitive business in West Virginia if we are hampered by unreliable and low speed internet.	Feb 22, 2013 6:38 AM
122	It would be nice for everyone to have internet without having to pay a large fee.	Feb 18, 2013 12:28 PM
123	I am a teacher at a local college and it is so frustrating trying to do something as simple as checking your work email. It takes so long even with HughesNet that I just want to give up and wait until I get back to work. We had dial up for a VERY long time and I just decided to try HughesNet because of the American Recovery Act discount. It's so much better than dial up but way worse than the high speed we have at work. The internet offered through Frontier stops two miles from my house. I've called and begged them to continue on up to my house and there are others in the area who would sign up as well. Help us! We're tired of waiting on what a lot of other Americans have.	Feb 16, 2013 12:35 PM
124	I am a freelance writer, editor and publicist. Family medical issues keep me close to home. I am unable to work many jobs offered or available due to uncertain timeliness. Thus I am not able to earn the wages possible for me if I lived in another area.	Feb 14, 2013 6:27 PM
125	My home is located in between available service's. Frontier 1/4th mile away & Cable internet house before mine. Have contacted both with no success.	Feb 14, 2013 11:01 AM
126	Service is very spotty. Sometimes our internet connection works fine, other times it does not.	Feb 13, 2013 6:33 PM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
127	My first comment is really a question, why was a grant given to certain providers to service rural customers not receiving broadband service not used for that purpose? And I don't mean to schools that were already connected and Fire Stations that are inaccessable to very rural citizans such as myself. My second comment, with Hughes Net having a monopoly on the rural community, they are over-charging and killing the poor people with fees and surcharges, making the only possible internet unavailable to the poor of the back woods areas. There needs to be another interiem choice as government grinds slowly through the process. As a homeschooling parent, having a reliable internet would be a big help.	Feb 11, 2013 2:55 PM
128	I feel because I am in a rural area that I am penalized by high prices and very few internet options to choose from. I feel high speed internet should not cost more just because of where you live.	Feb 11, 2013 11:01 AM
129	it's very frustrating that not but a mile down our road there is broadband available to residents, but we are told that, because we are located 3 miles from the nearest "main box" for our phone company, Frontier, that we will NEVER be able to access their service or any other dsl based broadband service for that fact. Our only option is satilite which is, let's all face it, horriable service, they limit you on your uploads and downloads,ect. and is to be frank very unaffordable for our family.	Feb 11, 2013 7:58 AM
130	I would love to have another choice of provider for internet. My wireless continually kicks me off the ipad and often my internet connection takes 4-5 minutes to load the internet.	Feb 10, 2013 11:56 AM
131	Good luck.. Frontier only wants to take our money, They do not want to spend any money to fix broken poles Main phone lines puled off the poles to the ground.	Feb 9, 2013 8:26 PM
132	Please get us High Speed internet, We are falling very far behind other families that have high speed internet. We and our Children are missing out on so much, from work to education.	Feb 9, 2013 7:05 AM
133	NOT available at all in the Freemans Creek area of Lewis County where my son lives. the only time they can access the internet is by phone and not at home because they have no cell service either There! The dsl service needs extended to that area!!! Only a few miles away they have it.	Feb 8, 2013 10:10 PM
134	Please make it faster and better	Feb 8, 2013 5:07 PM
135	The poor quality of our states internet service in most locations is a economic disaster as it prevents business's from moving here or local ones from starting up.	Feb 8, 2013 12:42 PM
136	I teach online classes at home and have a HUGE need for true broadband internet. I am unable to get Frontier to provide it to me as the phone lines are too antiquated in my area. Several other residents want broadband as well.	Feb 8, 2013 11:23 AM
137	I have a son in 1st grade and GOOD internet service would be a welcome.Our internet can only supply 1 item at a time like if my son is playing games on	Feb 8, 2013 9:59 AM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
	internet I can not check email hardly at all. Also you can only have 1 computer online at a time it is so slow. At our present rate we can barely get service when others are using the same line, the previous company who we had dial up with said the lines would not support anything other than dial up, so I wonder how could Frontier immediately hook us up and tell us it is DSL. I wish the service was faster and more reliable. When I have called Frontier about problems they set up a service call and I have never had anyone show up here yet it just seems to get a little better a few hours after the problem started. They do not call back or check to see if the problem is fixed.	
138	Need access to higher speed via dsl for security (not cable system)	Feb 7, 2013 8:41 PM
139	Frontier is horrible in this area. I am not sure how they consider it high speed.	Feb 7, 2013 6:46 PM
140	Satellite is supposed to be 10M down and 2M up.	Feb 7, 2013 4:39 PM
141	Thank you for this survey. I appreciate any help it provides getting an alternative broadband service other than satellite.	Feb 6, 2013 2:44 PM
142	My wife and I were only able to move to Tucker County (from DC) because my company allows me to telecommute AND because we were able to eke out a fast enough connection for me to do things like video conference calls, downloading large files, etc. In other words, we're only here, contributing to this community, because of decent Internet. If we were able to upgrade this area to truly competitive service levels, I've got to think we'd attract more technophile, digitally-minded workers to the area. It seems like a no-brainer way to inject more money into local economies. Woo workers here with the beauty and the outdoors sports, make living here doable with high-speed broadband (including wireless coverage, which is currently terrible). I'd love to chat more about this, if it would be helpful. Feel free to contact me at mwhauger@gmail.com.	Feb 6, 2013 11:39 AM
143	Our Internet is unreliable and flakey. It will go out without warning even though the modem says it's fine. THis has been happening since we got DSL last summer. The technical support has been minimal. We had one support guy drive up 30 minutes to turn our modem on and off. Not helpful!	Feb 6, 2013 9:14 AM
144	My wireless only works when I am in the same room the equipment is in!!!	Feb 5, 2013 7:23 PM
145	The download limits of HughesNet are VERY confining and constrain my ability to work and enjoy the benefits of fast internet. And, I pay for the higher-level download volume. My family cannot do any leisure activities online - gaming or video as it exceeds our 'fair use' agreement and then I have to pay an extra $10 per instance OR live with dial up speeds for 24 hours. Thank you for taking the time to investigate this!	Feb 5, 2013 4:53 PM
146	I have young children who are just starting school (pre-k) and 2nd grade the following school year. They already use the internet at school and with a slow connection at our home it puts us at a disavdantage for their learning. I also like to shop online for items not locally available and browsing online is difficult with a slow connection.	Feb 4, 2013 9:18 AM
147	When Frontier took over the telephone service in West Virginia, we were	Feb 4, 2013 6:44 AM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
	promised they would upgrade the phone lines on Simpson Run Road and then we would have internet availability. After two years of frequent telephone calling, they finally confirmed that they have no intention of providing internet service in our area, even though it is provided all around us. Shentel has stated that our home is too far from the road and therefore too costly to provide cable/internet service. Satellite internet is a very expensive alternative, and very slow and unreliable!	
148	We need better bandwidth options and Voice over IP options to be competitive	Jan 31, 2013 2:04 PM
149	I have contacted frontier about high speed and they cannot tell us if it is available, which it is not. Many if my neighbors have also contacted them about getting high speed	Jan 30, 2013 7:53 AM
150	I thought ARRA money was to provide access. Where is it?????????????	Jan 29, 2013 4:58 PM
151	All people of Lewis Co. should be able to correct to the Internet. We have too many dead spots in our county. People who live only 2 miles from me have no options for any connection to the Internet. The service is all around them but they can not get service.	Jan 29, 2013 7:14 AM
152	I would prefer to have DSL through my phone company but it is not available in this area. I am limited on internet usage. Sucks but it beats dial up.	Jan 29, 2013 6:38 AM
153	Not only do the residents in my area need broadband the telephone lines in general need up graded. Problems with phone service is a norm.	Jan 29, 2013 12:28 AM
154	my service comes and goes. sometimes I have fair service other times nonexistent.	Jan 28, 2013 8:57 PM
155	sometimes the only way I can work is to drive to a location with cell service and use my phone as a hotspot to get service. In addition to the $50.00 for DSL I pay $172.00 for my phone access.	Jan 28, 2013 12:46 PM
156	For years we have "begged" a local cable provider to expand in our area. We have checked into satelites..no service available.....Very frustrating for my high school and college student to attempt to complete homework on -line. My daughter had to go to town while taking an on-line course in order to complete her assignments	Jan 28, 2013 10:33 AM
157	My neighbor 3 houses down have the much cheaper, more reliable DSL with no data limits but we can't get it at my house. It's ridiculous.	Jan 24, 2013 1:30 PM
158	The speed of our internet downloads/uploads has declined significantly in the last few months. This is the second survey from our household because of the drastic changes between morning and late afternoon - Download declined from 1.10 to .23.	Jan 15, 2013 3:35 PM
159	My speeds a are bad during early evening hours and Saturday and Sunday morning hours. Heavy concentration of users with minimal infrastructure to handle the load may be the cause in my area.	Jan 15, 2013 6:16 AM
160	I am the only full time Oncologist/hematologist in Randolph and surrounding	Jan 15, 2013 5:16 AM

Q1. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:		
	counties and at night unable to stream the hospital's medical information system, nor am I able to do virtual medical conferencing, due to the excessively slow service. I have complained for 3.5 years with only empty promises! I may change my practice venue, due to it. That would be a major problem for cancer care in WV, that already lacks an adequate number of COC certified cancer facilities.	
161	I consider myself quite lucky to have dsl at a decent speed for a fairly reasonable price. My company has proven reliable and repair ,when necessary,is speedy.	Jan 12, 2013 2:35 PM
162	In today's world, this is basic infrastructure. I get very frustrated that it is constantly improved for people who already have fast, inexpensive, and reliable broadband---while many of us have NOTHING, with NO plans being made for taking care of us in the future.	Jan 12, 2013 8:48 AM
163	Frontier keeps saying we are going to get the Internet, but it still hasn't happened!	Jan 7, 2013 4:11 PM
164	Broad band service in upshur county is too expensive for our limited budget.	Jan 4, 2013 2:14 PM
165	I live only 4 miles from Buckhannon so it is frustrating that there are no good options for broadband in my area. DSL is very slow this far from town. Mobile Broadband is only slightly faster and data usage limits are a barrier to using services like streaming media. I work from home and the high latency of satellite broadband makes VPN connections unusable. I live approximately a half mile from the Union District Elementary School. I had hoped that the addition of fiber to the school would mean that broadband of a reasonable speed would become available in my area but so far that hasn't happened. I've been waiting for broadband service for over a decade and it is very disappointing that it is still unavailable this close to town.	Jan 4, 2013 12:27 PM
166	A fiber optic line is located within 3 miles of my residence.	Dec 30, 2012 11:18 AM
167	I am a writer. Broadband Internet Service is very important to me.	Dec 28, 2012 11:34 AM

Q1. Do you have any other comments about Broadband Internet service availability in your region?

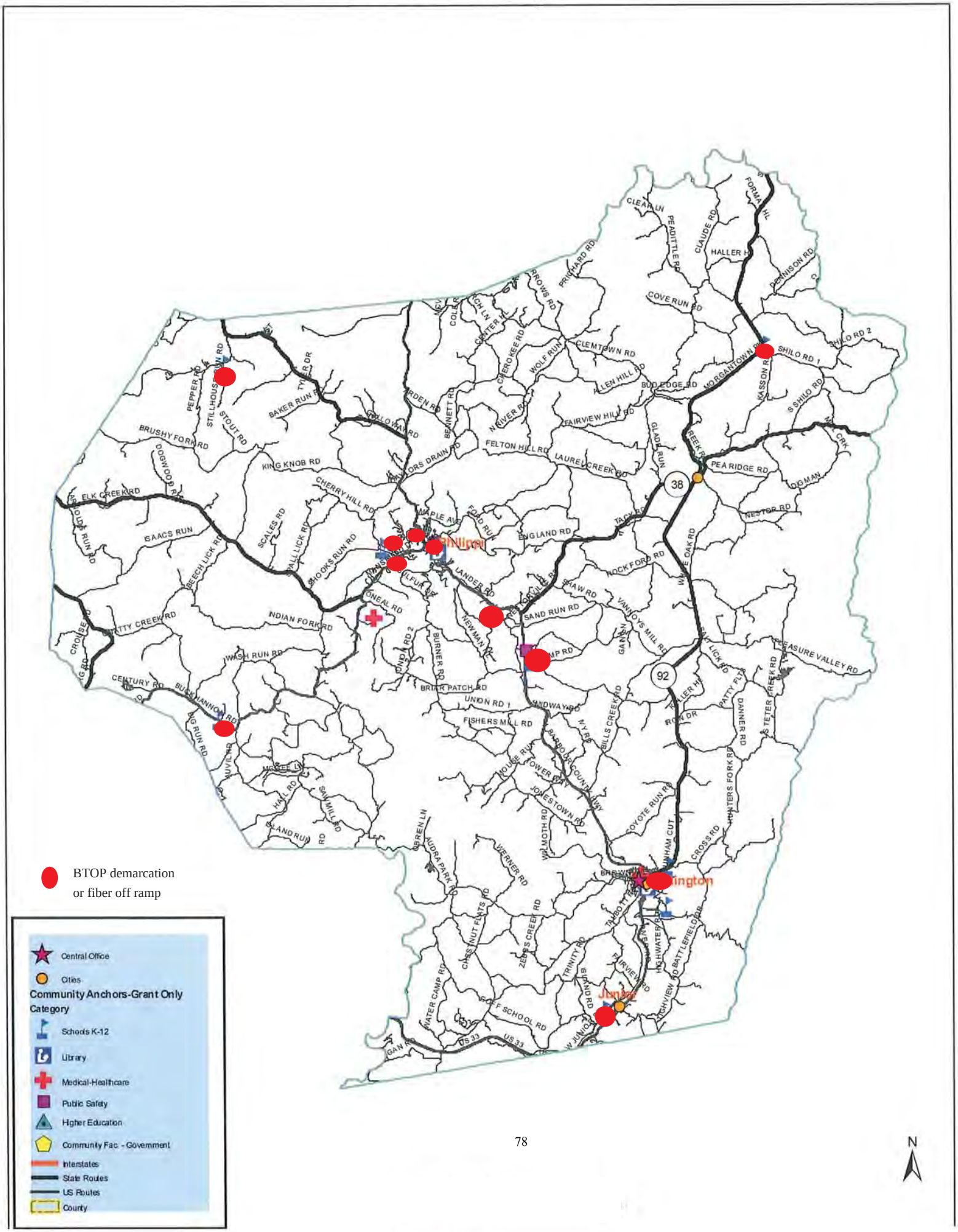
1	Needs to be expanded & more choices that are not so costly.	May 20, 2013 5:53 AM
2	Would like,to havnet!e 3WmicLodge.	May 17, 2013 11:04 AM
3	We are trying to operate a 1.5 million dollar a year business which depends on good communication and we don't have it.	May 6, 2013 7:13 PM
4	We are fortunate that CityNet provides their MetroEthernet Service along 11th Street in Elkins. 11th street is one of the only areas in the county this specific service was offered. We are technically paying for 5MB up and down, but we are getting between 7 and 8 on a regular basis. When we signed up for this we had the ability to go up to 10mb up and down. The price we pay is $686 per month and includes several static IP addresses and our phone service which has 7 or 8 phones lines included.	May 3, 2013 8:01 AM
5	SEVERE lack of middle mile fiber, lack of competition in many areas, SEVERE lack of bandwidth, drop in speeds during peak hours (due to lack of enough bandwidth at the CO and DSLAM) This is impacting many present and future business when compared to other areas of the country.	Apr 23, 2013 10:59 AM
6	No	Apr 23, 2013 7:28 AM
7	It is terrible. Business speed is awful and there was supposed to be an upgrade, but it hasn't been applied to my account, even though I am paying for it. Suddenblank has tried repeatedly with little resuts; the tech are very nice but nothing happens. Still drops signal. Still goes way slow.	Mar 19, 2013 9:58 AM
8	We have a whole generation of children here who have fallen behind the rest of the United States die to no high speed internet perpetuating the backwardness of the area. Obama promised high speed internet to rural areas in 2008. Lets deliver on that promise please.	Mar 13, 2013 4:22 AM
9	I have heard about it for a long time and was available, for a short time. Now is gone.	Mar 6, 2013 10:05 AM
10	Why hasn't someone held Frontier accountable? They promised the PSC that they would have broadband service in 18 months of acquiring Verizon's WV assets. Has not happened. Upshur Cty BOE has spent a FORTUNE on getting broadband to rural schools like Hodgesville, but the infrastructure (towers) cannot be used to serve the taxpayers via other internet providers. Ridiculous and absurd. Our government has wasted a lot of money and done a LOUSY job on this. As usual.	Mar 5, 2013 9:53 PM
11	As President of the community I feel that it is neccessary to have internet within the community.	Mar 4, 2013 11:11 AM
12	It would bring a lot of economic stability to the area if we could get broadband. Just in the case of my company, I would be able to get more work, do more work, and therefore hire more people.	Mar 4, 2013 9:48 AM
13	If the service providers cannot justify placing this service in our rural area we could use the help to develop a strategic plan to show them why we are worth the investment. Moving toward aggregating (consolidating) demand within the	Mar 4, 2013 6:48 AM

Q1. Do you have any other comments about Broadband Internet service availability in your region?		
	community to make service profitable for broadband providers. Participants may include, but are not limited to, individual consumers, businesses, educational institutions, health care facilities, tourist visitor centers, and any government agencies.	
14	The only internet available to us is HugheNet. It is extremely slow and often not working. At the USPS we use the internet for everything and most of the time I have to have things sent to me as a manuscript because I cannot watch the video on the web! Very frustrating!	Mar 4, 2013 6:25 AM
15	There is no broadband access on US 119 to WV 76 to Flemington. Frontier has phone service in area but state that no high speed internet is available.	Feb 28, 2013 5:17 PM
16	Needs to be extended to all fire departmen, dept of homeland security should help pay	Feb 6, 2013 3:24 PM
17	Please improve residential service in Canaan Valley area.... we could better telecommute if that were true.	Feb 6, 2013 11:29 AM
18	Needed for the Economic Development of Upshur	Feb 6, 2013 10:07 AM
19	We experience VERY poor and internet connections and speed especially on the weekends when we have more people visiting the area. We get multiple complaints from our guests about the internet connections and speed.	Feb 6, 2013 9:38 AM
20	Internet in Tucker County provided by Frontier is in very poor condition know matter where you may be. I work in Thomas live in Leadmine and have Family in Parsons and Canaan Area and the internet is horrible in all places.	Feb 6, 2013 9:38 AM
21	Also need to be concern in times of emergencys that we have something in place to maintain connectivity. It is more and more important ever day from ATMs, Credit Cards and such.	Feb 6, 2013 5:47 AM
22	Overall the service Philippi Provides is excellent, however it did take us over a year to get connected here- at the time the person in charge was too disorganized to provide us a drop. Once that person was replaced, we could get high speed internet.	Feb 5, 2013 5:37 PM
23	It appears that the infrastructure in general is in such a degraded state that expecting any increase in broadband is unlikely from the current line provider.	Feb 5, 2013 3:25 PM
24	As with many rural helathcare providers, use of Internet for providing telemedicine/healthcare to outlying areas, their clinics, requires good connectivity through robust a robust broadband capability / Internet connections. We need those areas outside of the exsisting BTOP to be provided opportunity for connectivity.	Jan 30, 2013 6:39 AM

APPENDIX III

MIDDLE MILE FIBER BUILD OUT

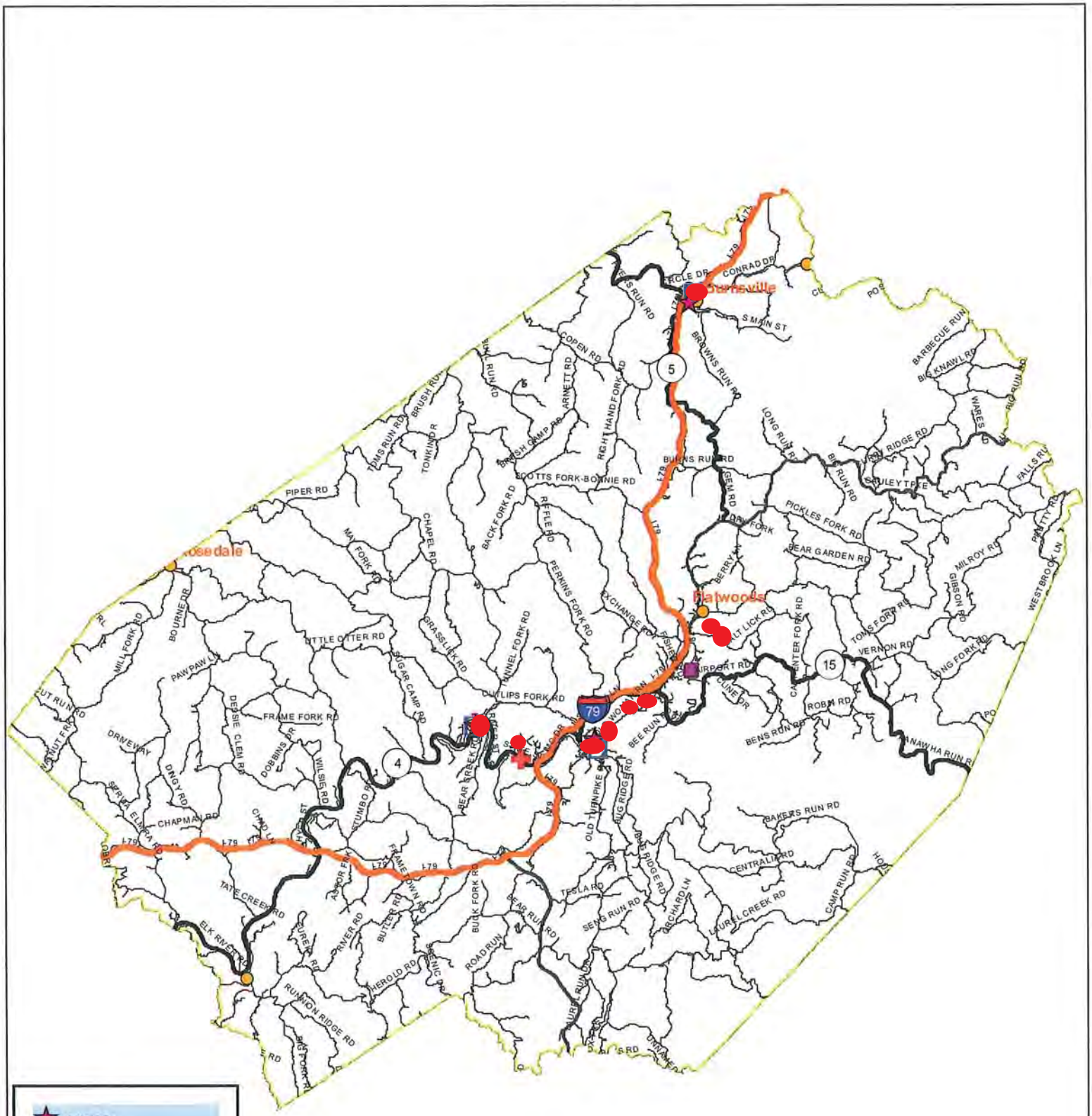
Barbour County, WV



BARBOUR County

LCR Number	Location Name	City	% Complete
BB01A01	BARBOUR COUNTY COURTHOUSE	Philippi	100%
BB01A02	BELINGTON ELEMENTARY & MIDDLE SCHOOLS	Belington	100%
BB01A03	PHILIPPI ELEMENTARY & MIDDLE SCHOOLS	Philippi	100%
BB01A04	JUNIOR ELEMENTARY SCHOOL	Junior	100%
BB01A05	KASSON ELEMENTARY/MIDDLE SCHOOL	Moatsville	100%
BB01A06	MOUNT VERNON ELEMENTARY SCHOOL	Flemington	100%
BB01A07	PHILIP BARBOUR HIGH SCHOOL	Philippi	100%
BB01A08	VOLGA CENTURY ELEMENTARY SCHOOL	Volga	100%
BB01A09	PHILIPPI PUBLIC LIBRARY	Philippi	100%
BB01A10	BARBOUR COUNTY 9-1-1	Philippi	100%
BB01A11	PHILIPPI BARBOUR - TROOP 3 STATE POLICE NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Philippi	100%
BB01A12	BELINGTON COMMUNITY MEDICAL SERVICES ASSOCIATION, INC. NOTE: BTOP fiber will not be pulled to this site. This site either has either 1) Existing fiber, 2) Has relocated from the original physical location provided under the grant, 3) No longer exists, or 4) Has received other stimulus funding. This site will also not receive a router as part of the BTOP Project.	Belington	N/A
BB01A13	BRANDON WELLNESS CENTER NOTE: BTOP fiber will not be pulled to this site. This site either has either 1) Existing fiber, 2) Has relocated from the original physical location provided under the grant, 3) No longer exists, or 4) Has received other stimulus funding. This site will also not receive a router as part of the BTOP Project.	Philippi	N/A

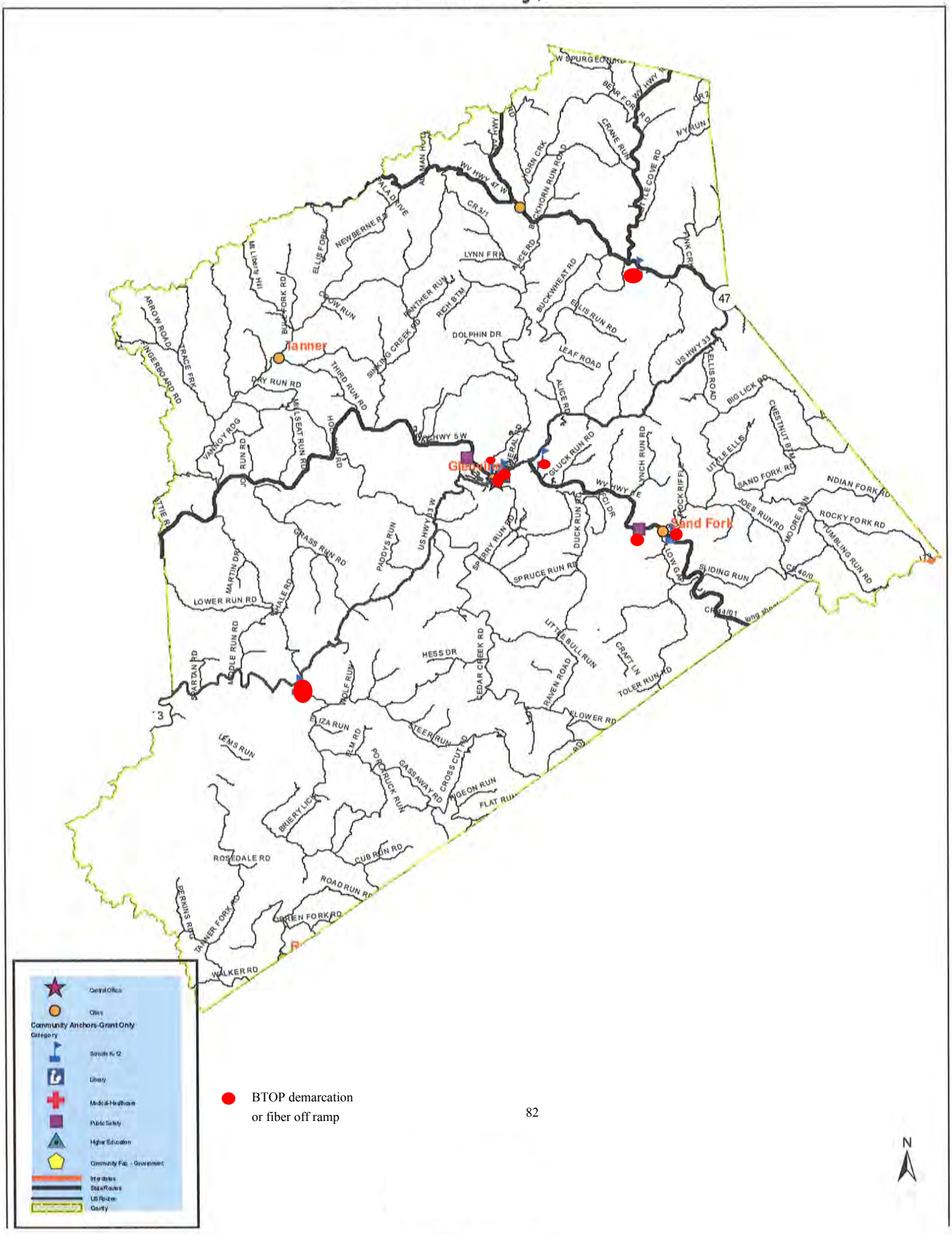
Braxton County, WV



BRAXTON County

LCR Number	Location Name	City	% Complete
BB04A01	BRAXTON COUNTY COURTHOUSE NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Sutton	100%
BB04A02	BURNSVILLE PUBLIC LIBRARY	Burnsville	100%
BB04A03	GASSAWAY PUBLIC LIBRARY	Gassaway	100%
BB04A04	SUTTON PUBLIC LIBRARY	Sutton	100%
BB04A05	WVOT NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Sutton	0%
BB04A06	BRAXTON COUNTY 9-1-1	Sutton	100%
BB04A07	CENTRAL REGIONAL JAIL	Sutton	100%
BB04A08	SUTTON BRAXTON - TROOP 3 STATE POLICE	Sutton	100%
BB04A09	BRAXTON COUNTY MEMORIAL HOSPITAL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Gassaway	100%
BB04A10	BRAXTON HEALTH ASSOCIATES NOTE: BTOP fiber will not be pulled to this site. This site either has either 1) Existing fiber, 2) Has relocated from the original physical location provided under the grant, 3) No longer exists, or 4) Has received other stimulus funding. This site will also not receive a router as part of the BTOP Project.	Gassaway	N/A
BB04A11	BRAXTON COUNTY HIGH SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Sutton	100%
BB04A12	BRAXTON COUNTY MIDDLE SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Sutton	100%
BB04A13	PIERPONT CTC (BRAXTON HS) NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Sutton	100%

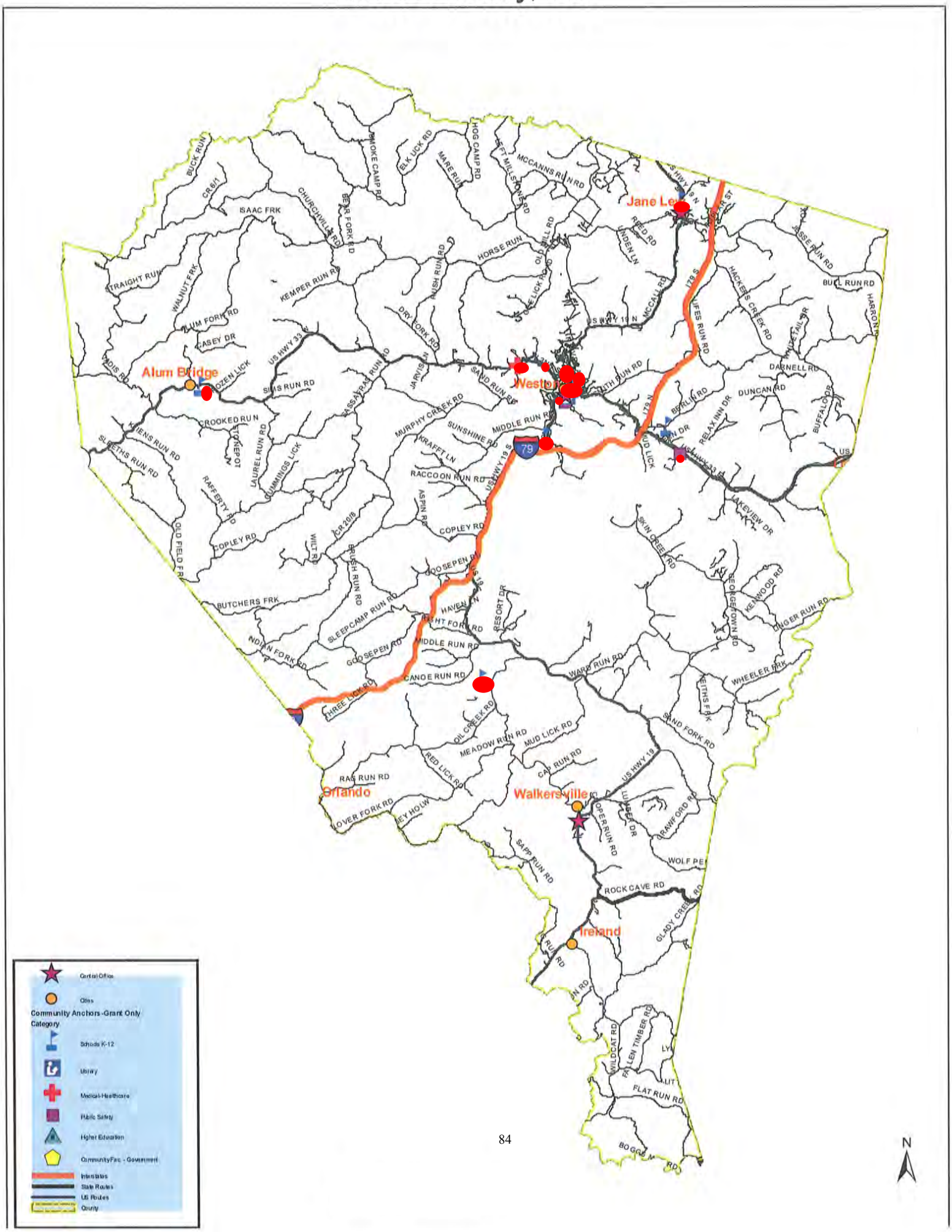
Gilmer County, WV



GILMER County

LCR Number	Location Name	City	% Complete
BB11A01	GILMER COUNTY COURTHOUSE	Glenville	100%
BB11A02	MORRIS CRIMINAL JUSTICE TRAINING CENTER NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Glenville	100%
BB11A03	GILMER COUNTY HIGH SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Glenville	100%
BB11A04	GLENVILLE ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Glenville	100%
BB11A05	NORMANTOWN ELEMENTARY SCHOOL	Normantown	100%
BB11A06	SAND FORK ELEMENTARY SCHOOL	Sand Fork	100%
BB11A07	TROY ELEMENTARY SCHOOL	Troy	100%
BB11A08	GILMER PUBLIC LIBRARY	Glenville	100%
BB11A09	GLENVILLE GILMER - TROOP 3 STATE POLICE	Glenville	100%
BB11A10	GLENVILLE STATE COLLEGE NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Glenville	100%

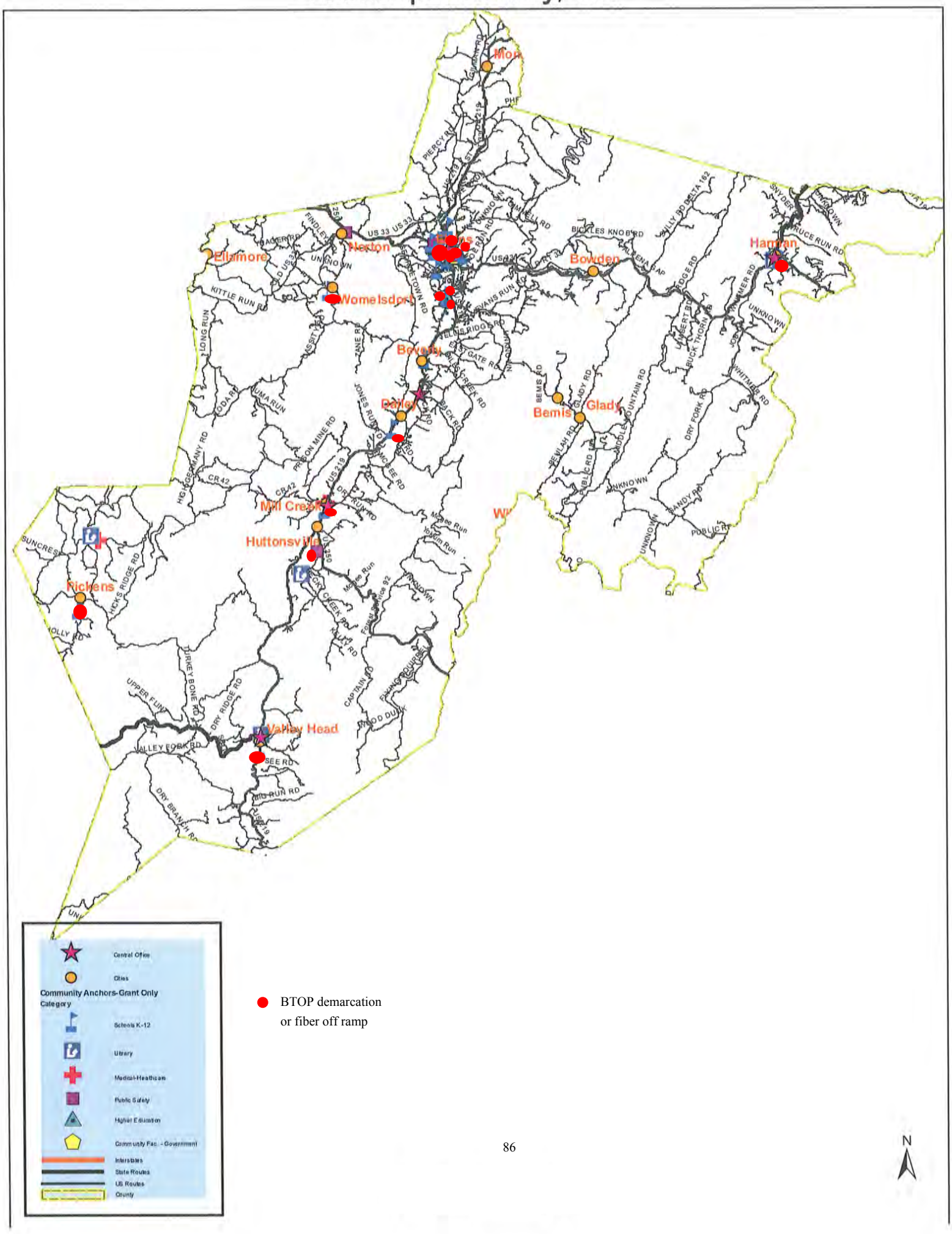
Lewis County, WV



Lewis County

LCR Number	Location Name	City	% Complete
BB21A01	LEWIS COUNTY COURTHOUSE NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Weston	100%
BB21A02	ALUM BRIDGE ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Alum Bridge	100%
BB21A03	JANE LEW SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Jane Lew	100%
BB21A04	LEWIS COUNTY HIGH SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Weston	100%
BB21A05	PETERSON-CENTRAL ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Weston	100%
BB21A06	ROANOKE ELEMENTARY SCHOOL	Roanoke	100%
BB21A07	ROBERT L. BLAND MIDDLE SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Weston	100%
BB21A08	LOUIS BENNETT PUBLIC LIBRARY	Weston	100%
BB21A09	LEWIS-GILMER E-911	Weston	100%
BB21A10	WESTON LEWIS - TROOP 3 STATE POLICE	Weston	100%
BB21A11	STONEWALL JACKSON MEMORIAL HOSPITAL NOTE: BTOP fiber will not be pulled to this site. This site either has either 1) Existing fiber, 2) Has relocated from the original physical location provided under the grant, 3) No longer exists, or 4) Has received other stimulus funding. This site will also not receive a router as part of the BTOP Project.	Weston	N/A
BB21A12	SHARPE HOSPITAL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	WESTON	100%
BB21A13	PIERPONT CTC (LEWIS HS) NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Weston	100%

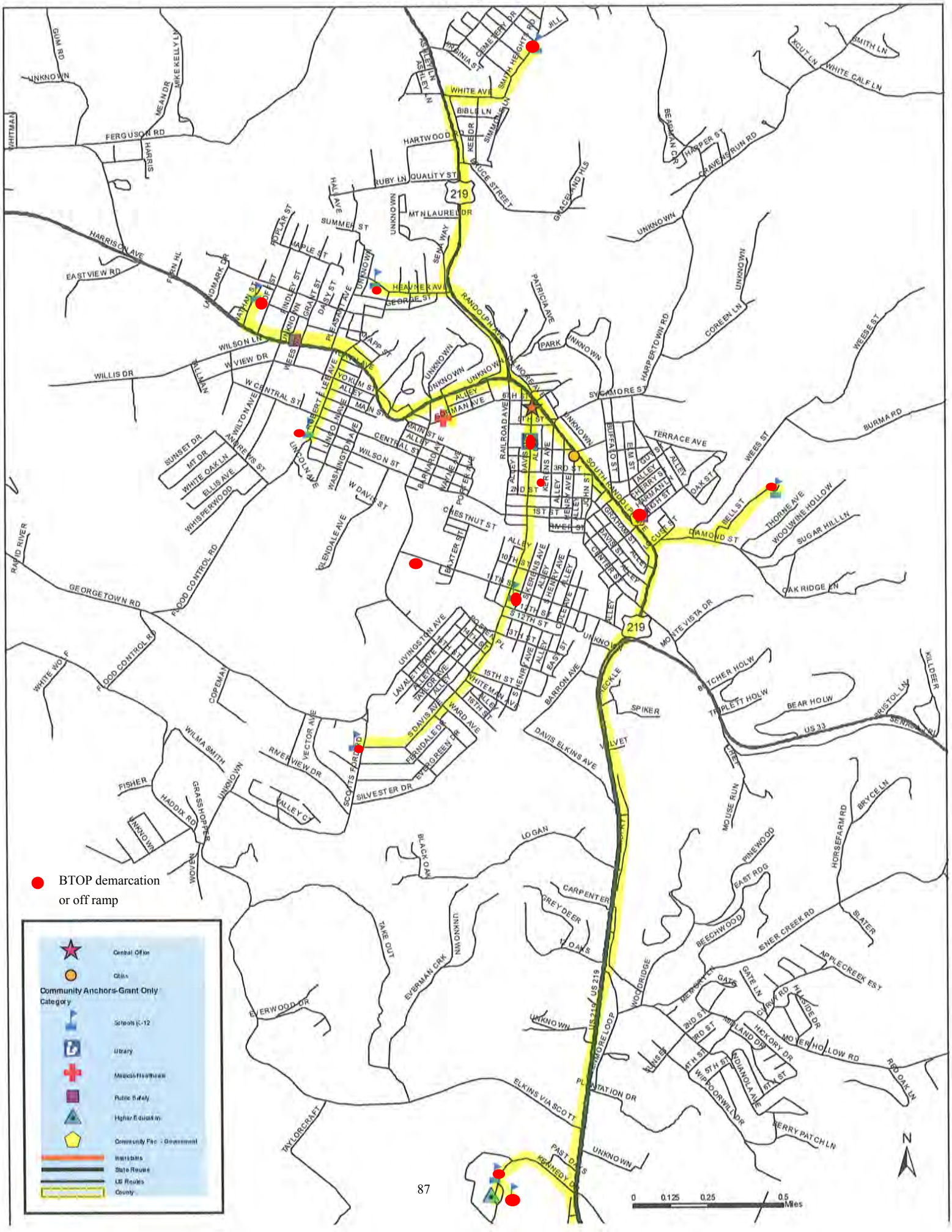
Randolph County, WV



● BTOP demarcation or fiber off ramp

N

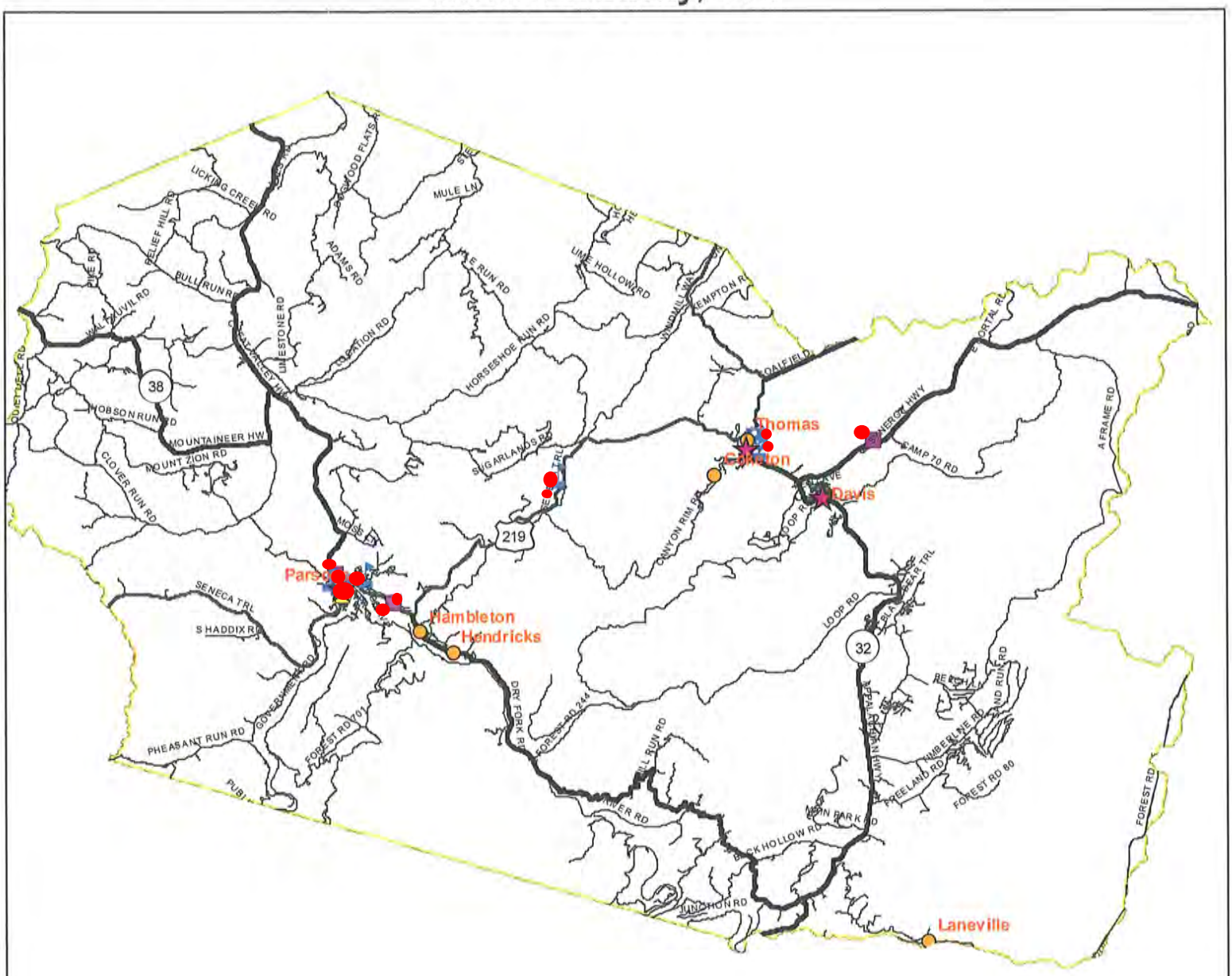
Elkins, WV


BTOP demarcation or off ramp
Central Office
Cities
Community Anchors-Grant Only
Category
Schools (K-12
Library
Medical-Healthcare
Public Safety
Higher Education
Community Rec - Government
Interstate
State Routes
US Routes
County
0 0.125 0.25 0.5 Miles
N

Randolph County

LCR Number	Location Name	City	% Complete
BB42A01	RANDOLPH COUNTY COURTHOUSE	Elkins	100%
BB42A02	HUTTONSVILLE CORRECTIONAL CENTER	Huttonsville	100%
BB42A03	ELKINS PAROLE OFFIE	Elkins	100%
BB42A04	BEVERLY ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Beverly	100%
BB42A05	COALTON ELEMENTARY SCHOOL	Coalton	100%
BB42A06	ELKINS HIGH SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Elkins	100%
BB42A07	ELKINS MIDDLE SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Elkins	100%
BB42A08	GEORGE WARD ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Mill Creek	100%
BB42A09	HARMAN SCHOOL	Harman	100%
BB42A10	HOMESTEAD ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Dailey	100%
BB42A11	JENNINGS RANDOLPH ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Elkins	100%
BB42A12	MIDLAND ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Elkins	100%
BB42A13	NORTH ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Elkins	100%
BB42A14	PICKENS ELEMENTARY/HIGH SCHOOL	Pickens	100%
BB42A15	RANDOLPH CO VOC-TECH CENTER NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Elkins	100%
BB42A16	RANDOLPH COUNTY ALTERNATIVE CENTER NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Elkins	100%
BB42A17	THIRD WARD ELEMENTARY SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Elkins	100%
BB42A18	TYGARTS VALLEY JR-SR HIGH SCHOOL NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Mill Creek	100%
BB42A19	VALLEY HEAD ELEMENTARY SCHOOL	Valley Head	100%
BB42A20	WVIEP - ELKINS MOUNTAIN SCHOOL	Elkins	100%

Tucker County, WV



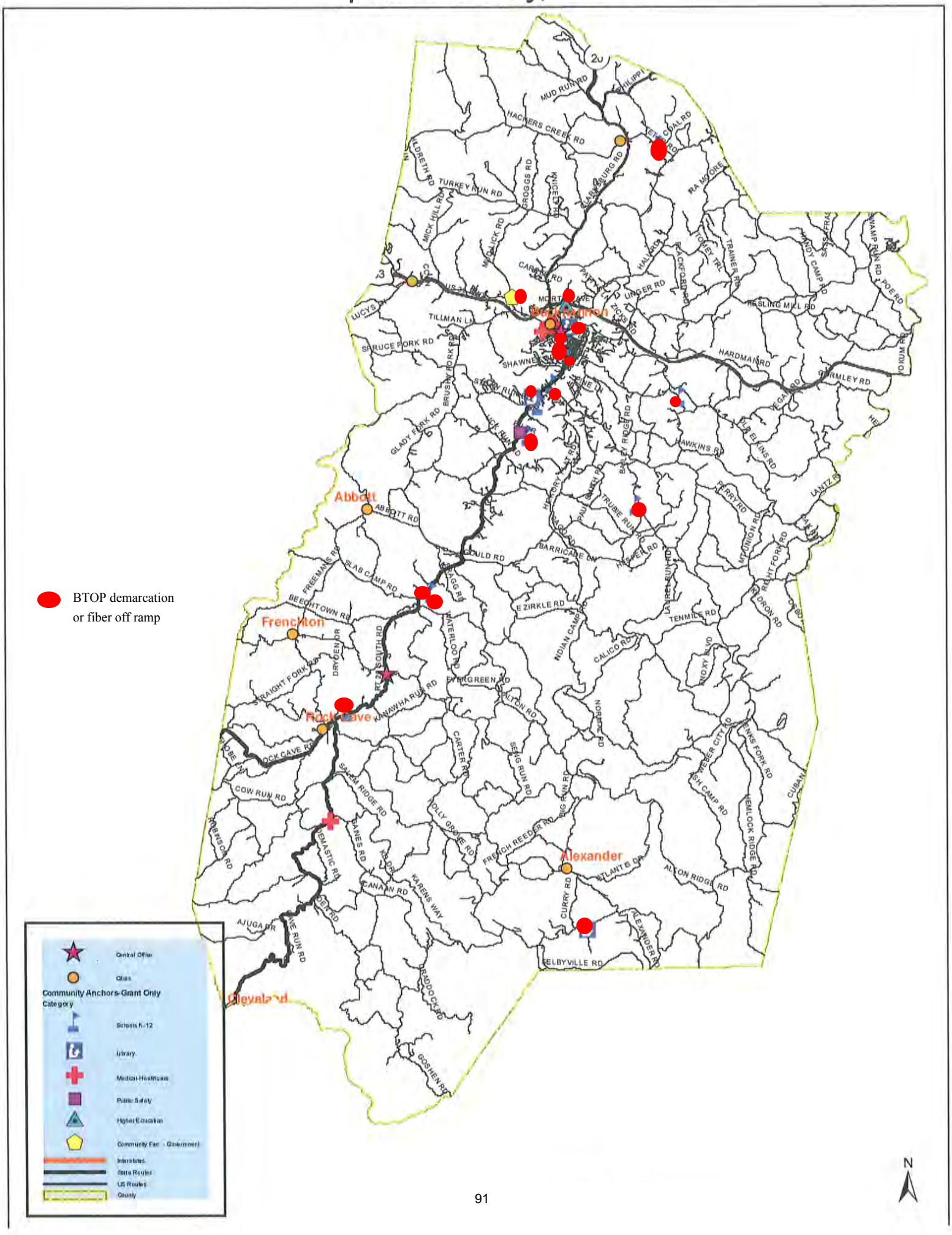
● BTOP demarcation or fiber off ramp

N

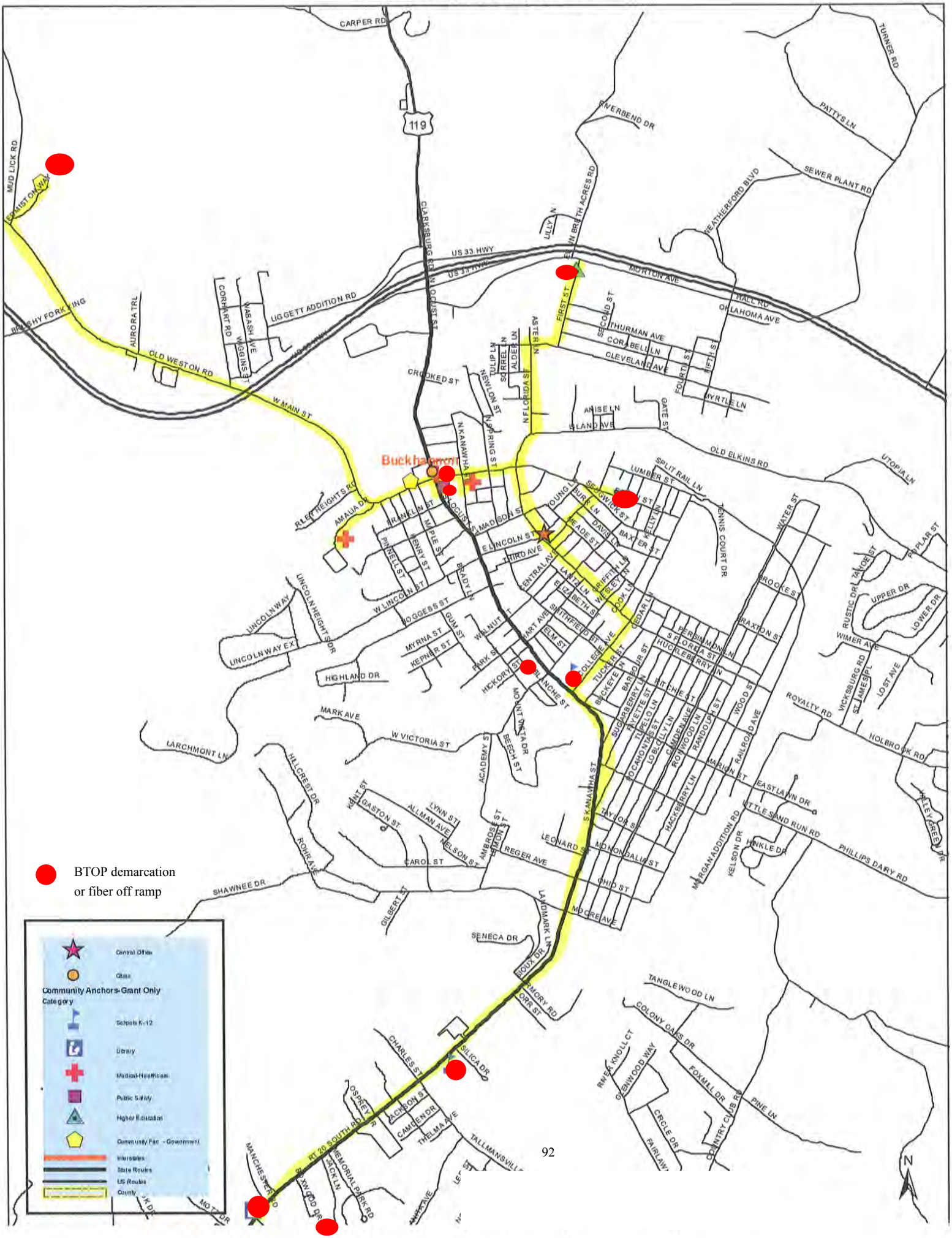
Tucker County

LCR Number	Location Name	City	% Complete
BB47A01	TUCKER COUTY COURTHOUSE	Parsons	100%
BB47A02	DAVIS-THOMAS ELEMENTARY/MIDDLE SCHOOL	Thomas	100%
BB47A03	TUCKER COUNTY HIGH SCHOOL	Hambleton	100%
BB47A04	TUCKER COUNTY SD BOARD OFFICE (PK)	Parsons	100%
BB47A05	TUCKER VALLEY ELEMENTARY MIDDLE SCHOOL	Hambleton	100%
BB47A06	WVIEP - DAVIS CENTER (KENNETH "HONEY" RUBENSTEIN CTR) DJS	Davis	100%
BB47A07	FIVE RIVERS PUBLIC LIBRARY	Parsons	100%
BB47A08	MOUNTAINTOP PUBLIC LIBRARY	Thomas	100%
BB47A09	TUCKER COUNTY 9-1-1	Parsons	100%
BB47A10	PARSONS TUCKER - TROOP 3 STATE POLICE	Parsons	100%
BB47A11	EASTERN WV CTC (TUCKER HS) NOTE: This site currently has fiber. BTOP fiber will not be pulled to this site. A router will be deployed as part of the BTOP Project.	Hambleton	100%

Upshur County, WV



Buckhannon, WV



Upshur County

LCR Number	Location Name	City	% Complete
BB49A01	UPSHUR COUNTY COURTHOUSE	Buckhannon	100%
BB49A02	BUCKHANNON UPSHUR HIGH SCHOOL	Buckhannon	100%
BB49A03	BUCKHANNON UPSHUR INTERMEDIATE SCHOOL	Buckhannon	100%
BB49A04	BUCKHANNON UPSHUR MIDDLE SCHOOL	Buckhannon	100%
BB49A05	FRED W EBERLE TECHNICAL CENTER	Buckhannon	100%
BB49A06	FRENCH CREEK ELEMENTARY SCHOOL	French Creek	100%
BB49A07	HODGESVILLE ELEMENTARY SCHOOL	Buckhannon	100%
BB49A08	ROCK CAVE ELEMENTARY SCHOOL	Rock Cave	100%
BB49A09	TENNERTON ELEMENTARY SCHOOL	Buckhannon	100%
BB49A10	UNION ELEMENTARY SCHOOL	Buckhannon	100%
BB49A11	WASHINGTON DISTRICT ELEMENTARY SCHOOL	Buckhannon	100%
BB49A12	CHARLES W. GIBSON PUBLIC LIBRARY	Buckhannon	100%
BB49A13	UPSHUR COUNTY PUBLIC LIBRARY	Buckhannon	100%
BB49A14	JAMES CURRY PUBLIC LIBRARY	French Creek	100%
BB49A15	REGION 7–PLANNING AND DEVELOPMENT COUNCIL (BARBOUR,BRAXTON GILMER LEWIS, RANDOLPH, TUCKER, UPSHUR)	Buckhannon	100%
BB49A16	UPSHUR COUNTY COMMUNICATIONS	Buckhannon	100%
BB49A17	BUCKHANNON UPSHUR - TROOP 3 STATE POLICE	Buckhannon	100%
BB49A18	BCI BUCKHANNON UPSHUR COUNTY STATE POLICE		100%
BB49A19	CLYDE MITCHELL, M.D., OFFICE	Buckhannon	100%
BB49A20	ST. JOSEPH'S HOSPITAL NOTE: BTOP fiber will not be pulled to this site. This site either has either 1) Existing fiber, 2) Has relocated from the original physical location provided under the grant, 3) No longer exists, or 4) Has received other stimulus funding. This site will also not receive a router as part of the BTOP Project.	Buckhannon	N/A
BB49A21	ST-JOSEPHS-HOSPITAL, HOSPITAL CAMPUS NOTE: BTOP fiber will not be pulled to this site. This site either has either 1) Existing fiber, 2) Has relocated from the original physical location provided under the grant, 3) No longer exists, or 4) Has received other stimulus funding. This site will also not receive a router as part of the BTOP Project.	Buckhannon	N/A
BB49A22	TRI-COUNTY CARE XPRESS	Buckhannon	N/A

Frequently Asked Questions

West Virginia
Broadband Opportunities Technologies Program ("BTOP") Interconnection

1) Who do I contact to find more information?

Frontier Interconnection Services:

Frontier has two main persons who can answer questions about interconnection. A contract will be required for BTOP interconnection with Frontier. Both or either of these individuals can assist you with providing a draft document and necessary forms.

Jenny Smith
916-686-3533
jenny.smith@ftr.com

Theresa Moffitt
570-631-6269
Theresa.moffitt@ftr.com

You may also visit the following website:

www.recovery.wv.gov

2) What are the requirements to have access to BTOP fiber?

In order to gain access to a portion of BTOP fiber you must be eligible for BTOP interconnection under federal regulations, which require, among other things, that you negotiate an appropriate contract in good faith. You also must complete the Initial Request Form along with the Technical Specifications Form.

3) How do I know if I'm eligible for interconnection?

Not only carriers but also other parties can be eligible, subject to technical parameters. The applicable federal regulations include those published in the Notices of Funds Available ("NOFAs") in the Federal Register, Vol. 74, No. 130 (July 9, 2009); Volume 75, No. 14 (January 22, 2010); Volume 75, No. 96 (May 19, 2010).

3) What are the costs?

Frontier is developing pricing, and will negotiate with you in good faith on reasonable rates, terms and conditions.

4) Where can I find information regarding locations?

www.recovery.wv.gov

5) What are the technical minimum requirements?

In addition to eligibility for interconnection, you must complete the BTOP Information Request Form, including the technical information section. We will work with you in good faith on technical requirements and other reasonable terms and conditions.

6) Are there limitations on BTOP interconnection?

Yes, there may be. For example, BTOP interconnection must be technically feasible and must not exceed current or anticipated capacity limitations.

7) If we have an Interconnection Agreement under Sections 251-252 of the Telecommunications Act do we still need another agreement to order BTOP interconnection?

Yes, another agreement will be required prior to providing connectivity.

8*) I do not represent a carrier or other sophisticated organization with prior interconnection, broadband or communications experience. Will you help me?*

Yes, of course. Please do not hesitate to contact us at the e-mail addresses or telephone numbers listed above, and we'll be glad to work with you. We prefer e-mail, but you can call us if you think a phone call would be more effective under the circumstances.

BTOP Interconnection Information Request Form

You must provide the following information. You must certify it as correct by a duly authorized officer or agent of the party that will be bound by the BTOP interconnection contract.

Please note that you also must supply the technical information on the last page following your signature to this form.

---

1. Today's Date:
2. The purpose(s) for the interconnection (e.g., provision of Internet access, interoffice transport, switched local services, point-to-point data, local interconnection):

---

3. Street address(es) of the BTOP facilities to which this requested BTOP interconnection pertains:

4. Date(s) of requested interconnection (specify locations if dates differ by location):

5. Non-BTOP Frontier services you wish to order in conjunction with this request (please state type(s), bandwidth(s) and to/from location(s) of requested non-BTOP services):

6. What **existing contracts** you or your affiliates have with Frontier?

7. **Exact Legal Entity Name**, including d/b/a if appropriate, of the party (corporation, partnership, etc.) that will be legally bound by the interconnection document.

8. Your affiliate company name(s), or enter "none" if no affiliates:
9. Your **Exact Legal Entity's** preferred acronym or abbreviation:
10. Your **Exact Legal Entity's** legal form (e.g., corporation, partnership, etc.)
11. State of Incorporation/LLC/LP:

12. Your **Exact Legal Entity's** principal place of business address:

13. Your designee to receive **Legal Notice** for the contracting party (at least one designee should be a Contracting Party Employee):
    Name: Title/Firm:

Street Address:
Telephone: Fax:
Email:

14. The contracting party's duly authorized Officer with **Legal Authority** to bind the Contracting Party:
    Name: Title:
    Street Address:
    Telephone: Fax:
    Email:

15. The contracting party's individual/department to receive legal notices regarding **Tax Matters**:
    Name: Title:
    Street Address:
    Telephone: Fax:
    Email:

16. The contracting party's authorized individual/department to receive **invoices**:
    Name: Title:
    Street Address:
    Telephone: Fax:
    Email:

17. The contracting party is a

    Carrier:

    Government Agency:

    End User:

    17a. Please state whether the contracting party is a certified Telecommunications Carrier: If so, please state certification number(s), and certification date(s). If not, enter "N/A".

    17b. Please state whether contracting party is certified as an Eligible Telecommunications Carrier (ETC). If so, please state date(s) ETC status was granted and Case No. If not, enter "N/A".

18. Please state the contracting party's representative who will be authorized to receive the **Signed Contract:**
    Name:
    Title/Firm:
    Full Physical Address:
    Telephone: Fax:
    Email:

I (Enter Name), as (Enter Authorized Party's Title) for (Enter Company Name), the Contracting Party, do hereby certify that the foregoing information is correct.

_____ _____

Signature **Date**

Technical Information:

1. Please supply complete route information for the start to end points for each route (Point A to Point Z information):
2. Please state the total mileage/footage of BTOP facilities to which you are requesting interconnection:

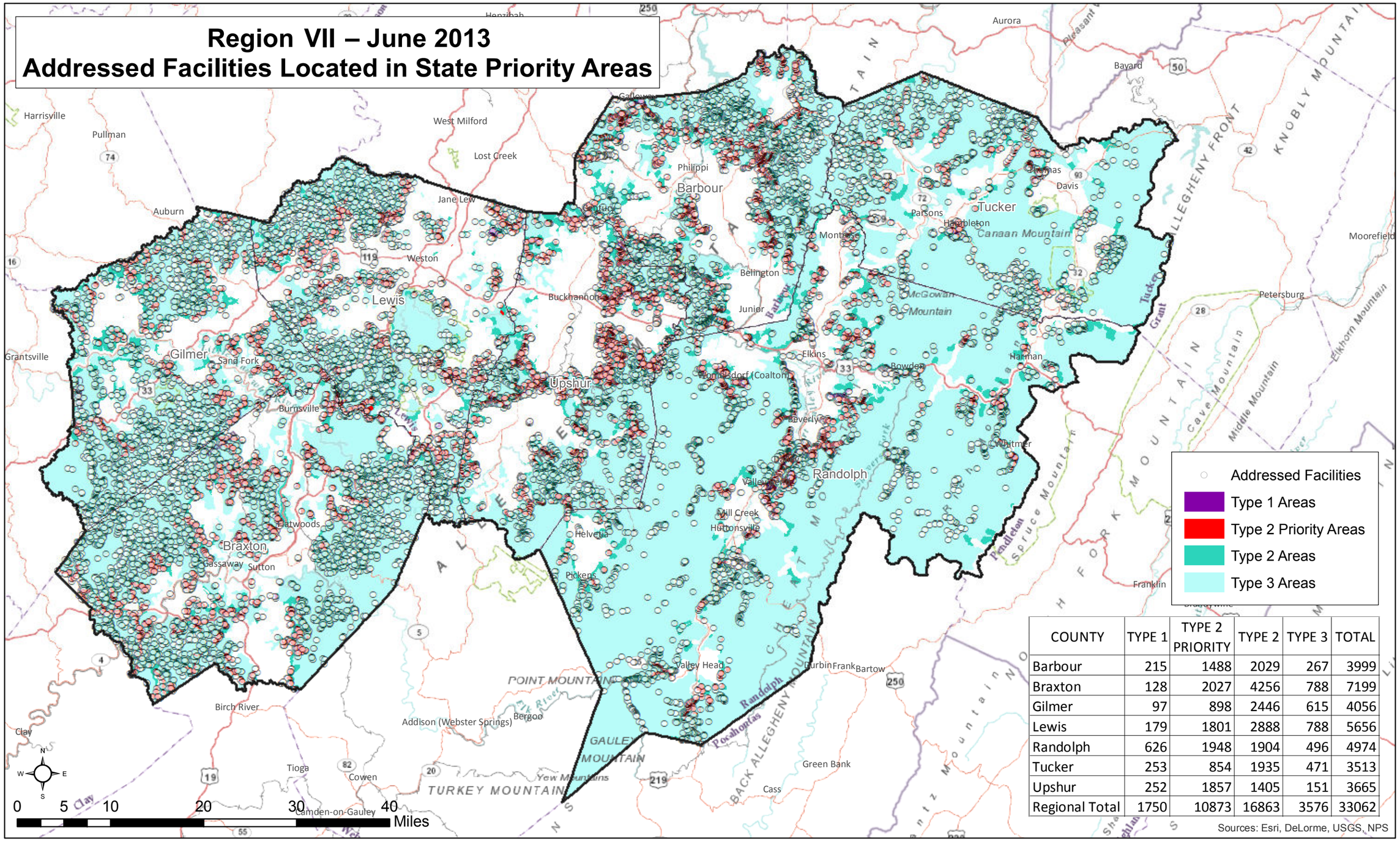
3. Please supply the GIS Map Reference Number(s) for each BTOP-funded route section to which you are requesting interconnection:
4. Please provide the name, address and location of the end user:
5. Please specify the type of interconnection that you are requesting:
6. Please specify the exact locations where you are requesting interconnection:
7. Are you requesting interconnection for access to the public Internet?
8. Are you requesting interconnection for the exchange of traffic?
9. If so, is the traffic local exchange tariff? Is any of the traffic non-local exchange traffic (e.g., interexchange tariff)?
10. Do you wish to make an inquiry regarding whether BTOP dark fiber is available in specified BTOP-funded facilities? (Please note that you may have to supply additional technical information if the answer is "yes.")

11. Please attach any drawings, specifications or other technical information that you believe is pertinent to your BTOP interconnection request.
12. Do you have any other information that you believe is relevant to your BTOP interconnection request?

APPENDIX IV

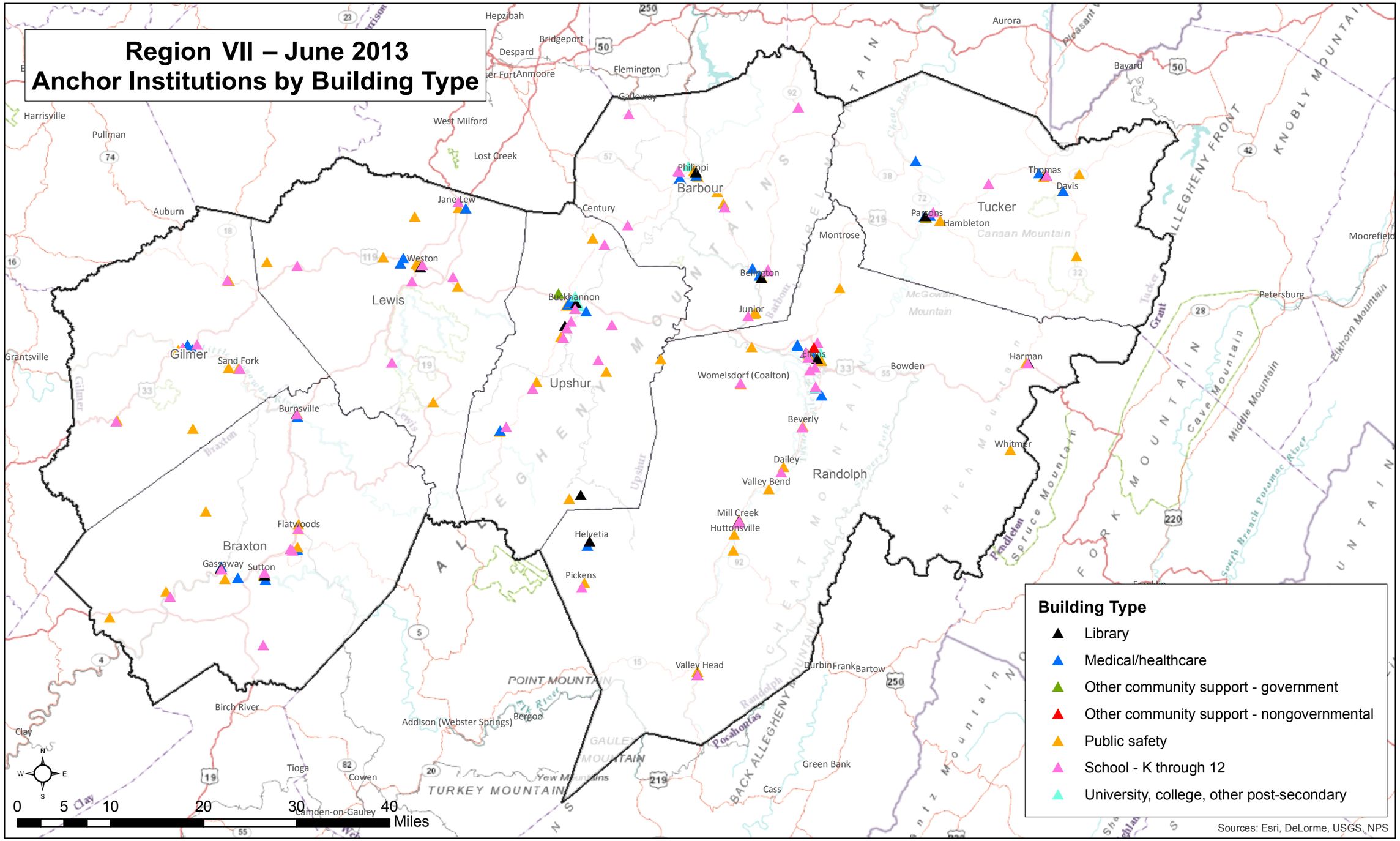
BROADBAND COVERAGE MAPS

Region VII – June 2013
Addressed Facilities Located in State Priority Areas



COUNTY	TYPE 1	TYPE 2 PRIORITY	TYPE 2	TYPE 3	TOTAL
Barbour	215	1488	2029	267	3999
Braxton	128	2027	4256	788	7199
Gilmer	97	898	2446	615	4056
Lewis	179	1801	2888	788	5656
Randolph	626	1948	1904	496	4974
Tucker	253	854	1935	471	3513
Upshur	252	1857	1405	151	3665
Regional Total	1750	10873	16863	3576	33062

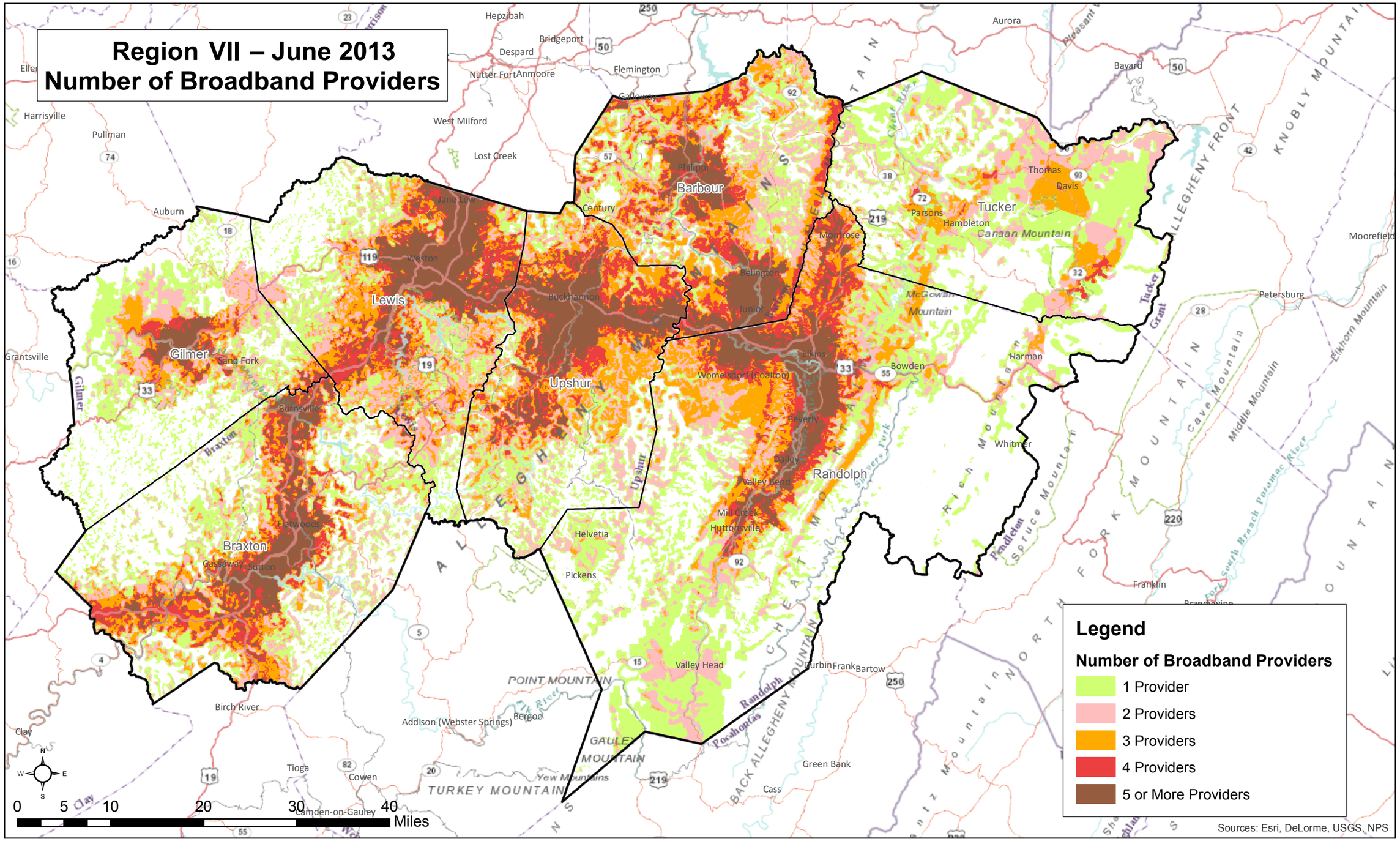
Region VII – June 2013
Anchor Institutions by Building Type



Building Type

- Library
- Medical/healthcare
- Other community support - government
- Other community support - nongovernmental
- Public safety
- School - K through 12
- University, college, other post-secondary

Region VII – June 2013
Number of Broadband Providers



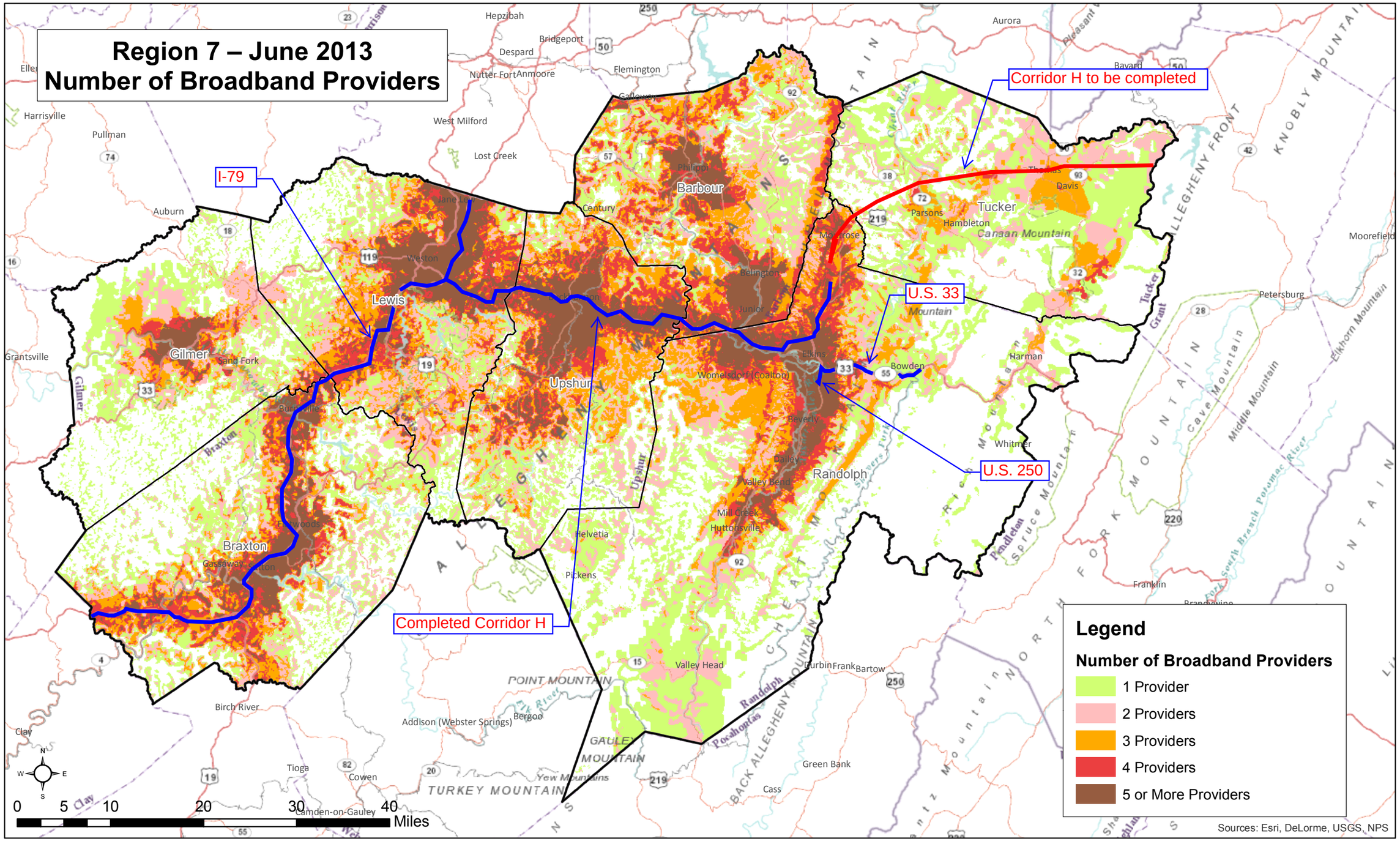
Legend

Number of Broadband Providers

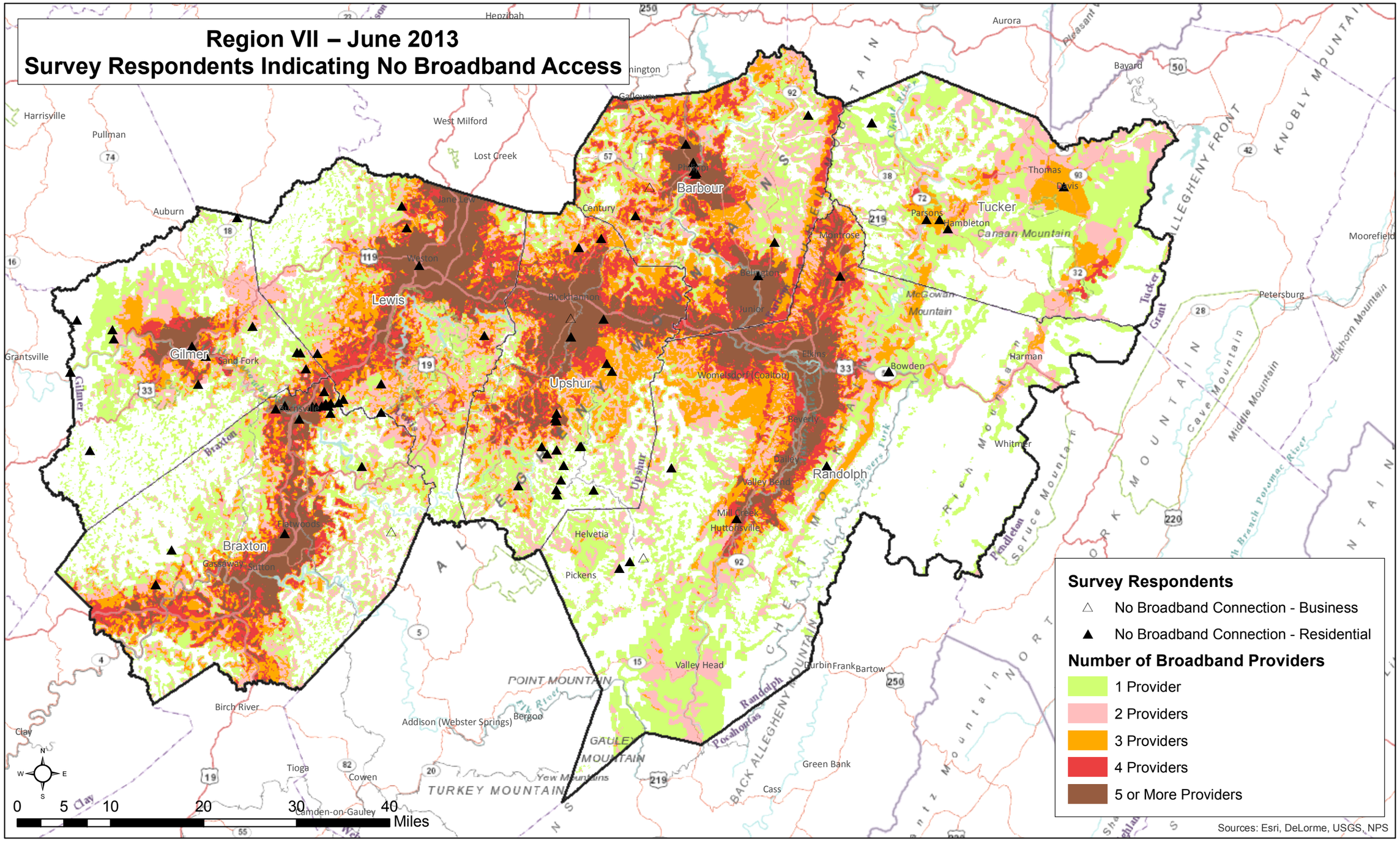
- 1 Provider
- 2 Providers
- 3 Providers
- 4 Providers
- 5 or More Providers

Sources: Esri, DeLorme, USGS, NPS

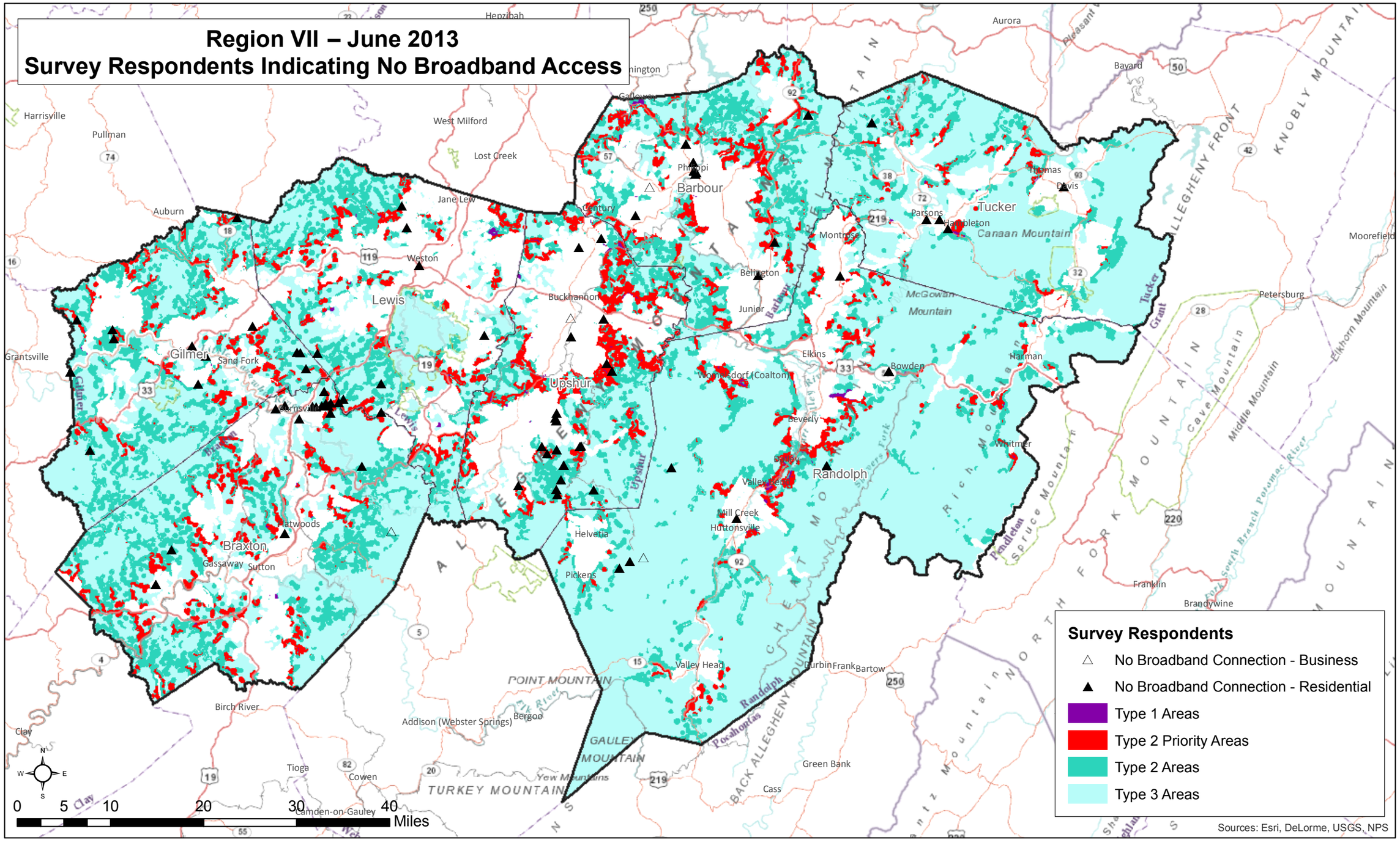
Region 7 – June 2013
Number of Broadband Providers



Region VII – June 2013
Survey Respondents Indicating No Broadband Access

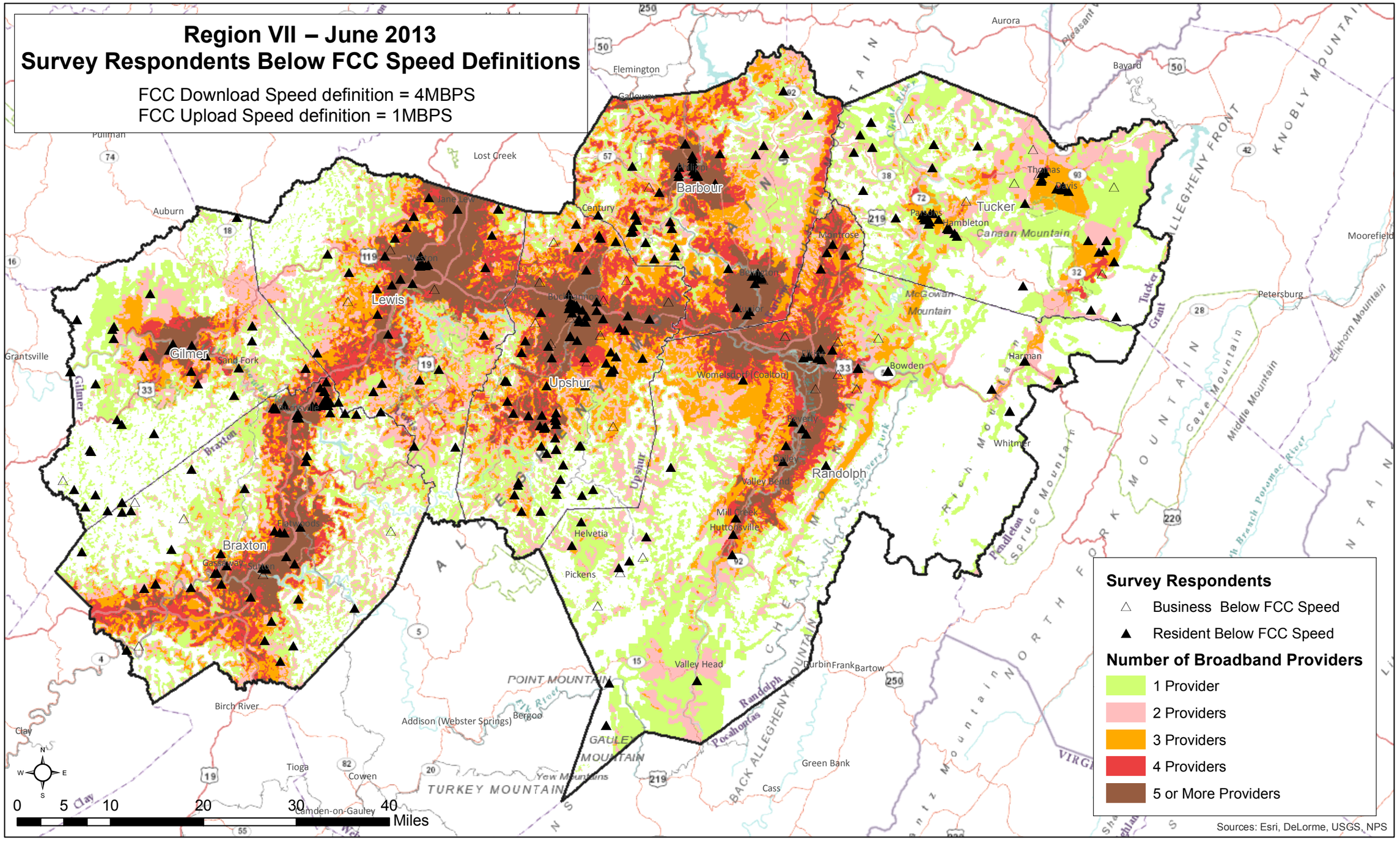


Region VII – June 2013
Survey Respondents Indicating No Broadband Access



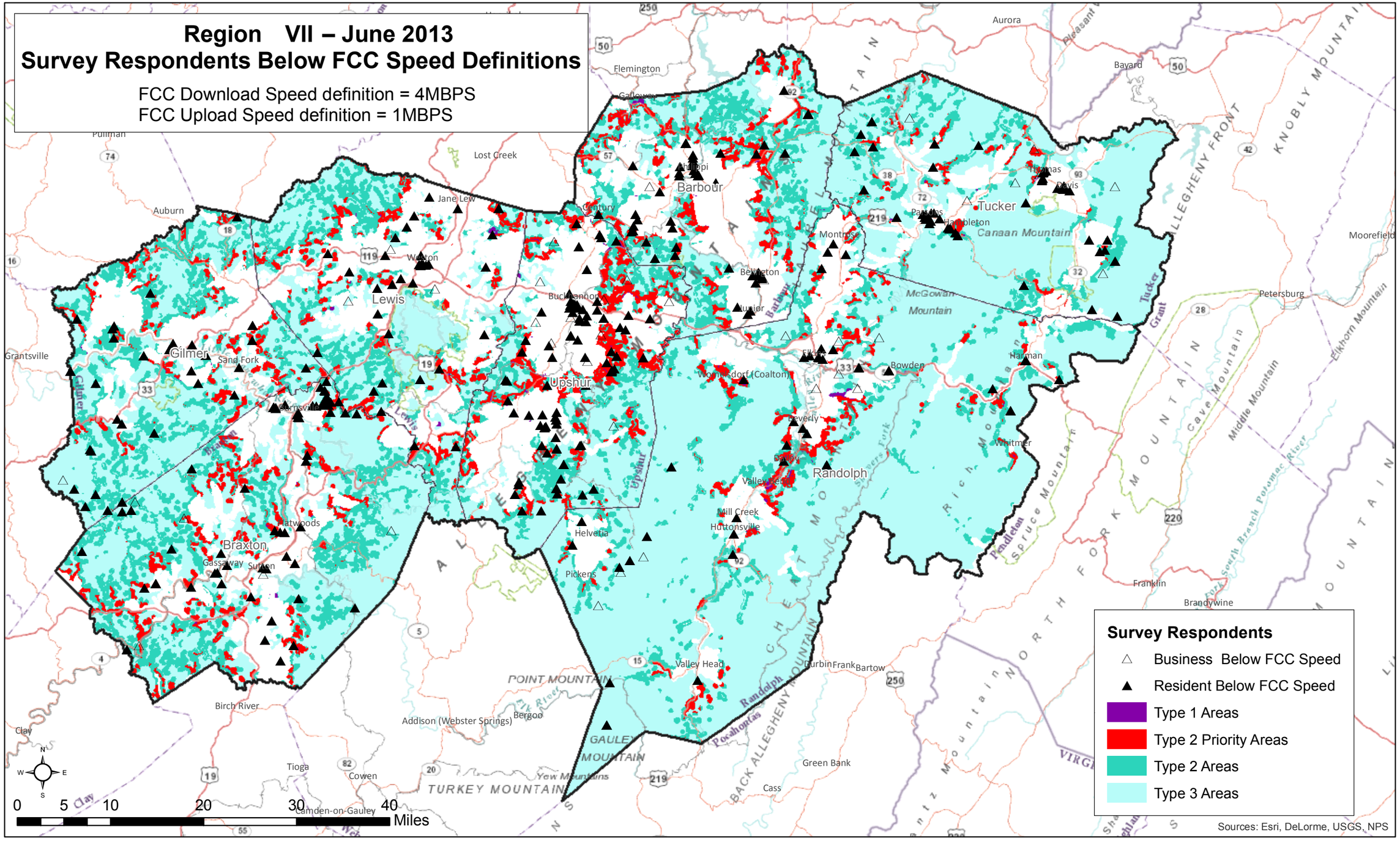
Region VII – June 2013
Survey Respondents Below FCC Speed Definitions

FCC Download Speed definition = 4MBPS
FCC Upload Speed definition = 1MBPS

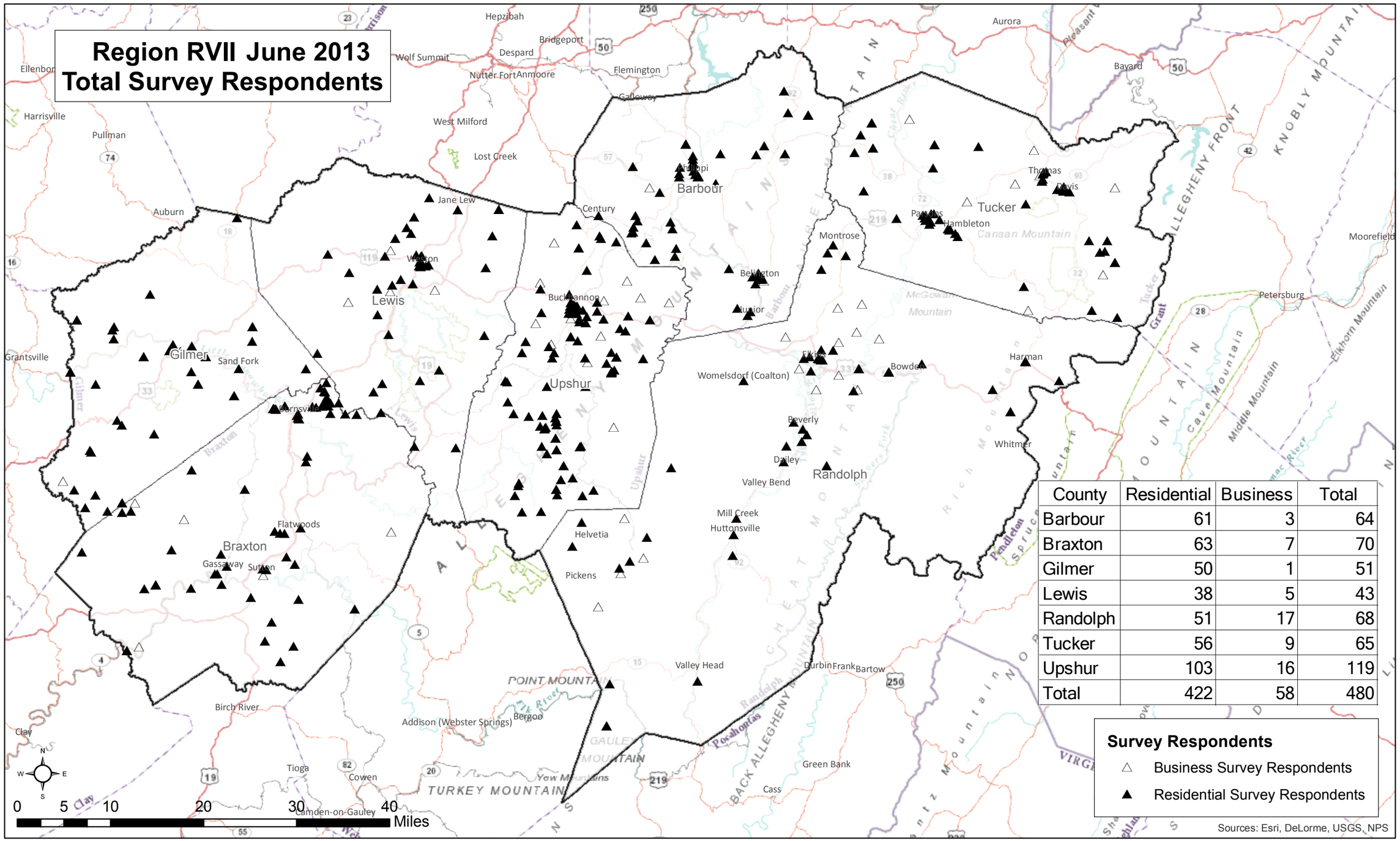


Region VII – June 2013
Survey Respondents Below FCC Speed Definitions

FCC Download Speed definition = 4MBPS
FCC Upload Speed definition = 1MBPS



Region RVII June 2013 Total Survey Respondents



County	Residential	Business	Total
Barbour	61	3	64
Braxton	63	7	70
Gilmer	50	1	51
Lewis	38	5	43
Randolph	51	17	68
Tucker	56	9	65
Upshur	103	16	119
Total	422	58	480

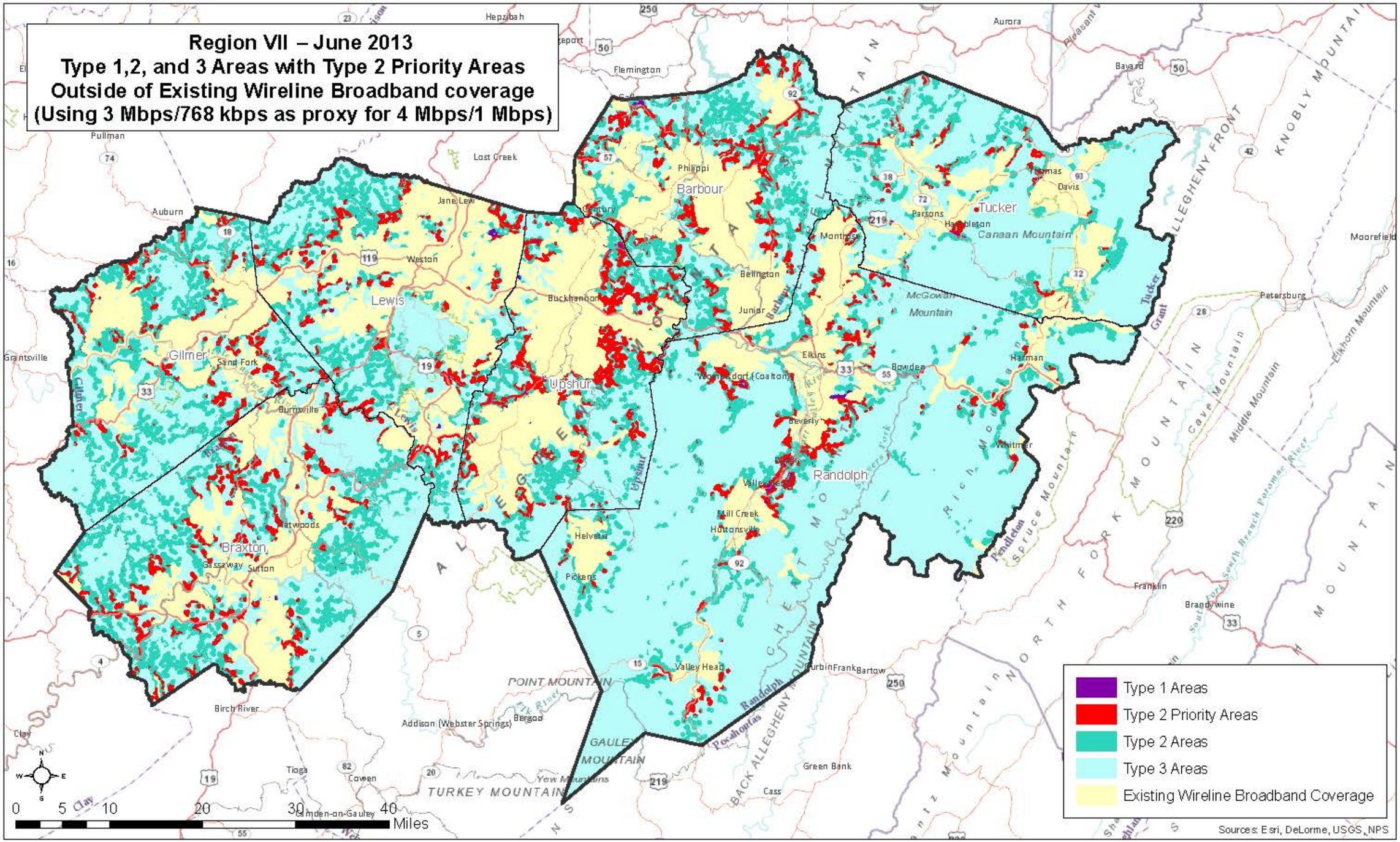
Survey Respondents

△ Business Survey Respondents

▲ Residential Survey Respondents

Sources: Esri, DeLorme, USGS, NPS

Region VII – June 2013
Type 1,2, and 3 Areas with Type 2 Priority Areas
Outside of Existing Wireline Broadband coverage
(Using 3 Mbps/768 kbps as proxy for 4 Mbps/1 Mbps)



APPENDIX V

SURVEY INSTRUMENTS AND RESULTS

Regional VII Broadband Needs Assessment
Residential Broadband/High-Speed Internet Survey

Dear Region VII Resident:

Our regional planning and development council is working to better understand your high-speed Internet needs and create a strategic plan to meet these needs. As part of this process, we are gathering vital information from residents about their Internet access that can help us improve service. Broadband is typically defined as a service that enables high-speed Internet access as opposed to low speed services such as dial-up. Please have a person in your household who is 18 years or older, and makes household decisions about computers or the Internet, complete this survey. Your responses will remain anonymous and will only be reported as part of a larger statistical analysis to determine where the state could use federal grant funding to enhance Internet speed and availability. This survey can be taken online from your home computer – go to www.regionvii.com .

If you have a computer, **PLEASE TAKE THE SPEED TEST** at:

http://gis2.kimballdata.com/WVSpeedTest/WVSpeedTest.html?ld=speedtest

Record your download and upload speeds as this data is crucial for internet service evaluation in your area**.**

If you have any questions, please feel free to contact Bob Jacobus or Cary Smith at 304-472-6564 or by e-mail at bjacobus@regionvii.com.

Thank you for your assistance!

Region VII

DEMOGRAPHICS

To assist in the Region's efforts to direct federal and state spending, it is necessary to provide the most accurate answers to the questions below. By providing us with such detailed information as your street address and zip code, the Region could be able to better identify the gaps in coverage. Your responses will remain anonymous.

1. Street Address: _____

2. Zip Code: _____

3. County: _____

4. How old were you on your last birthday? _____

5. Male ☐ Female ☐

6. Number of household occupants: _____

INTERNET ACCESS

7. Do you have Internet access in your home? ☐ Yes ☐ No
(If "No," please go to question 18 of this survey.)

8. Who uses the Internet at your home? (Check all that apply.)

☐ I do ☐ Spouse/Partner ☐ Children ☐ Friend ☐ Grandparent ☐ Parent

☐ Housemate or Roommate ☐ Other (specify) _____

9. Who is your Internet Service Provider?

☐ AT&T Mobility LLC
☐ CityNet
☐ Comcast
☐ Frontier Communications Corporation
☐ HughesNet
☐ NTELOS
☐ Sprint
☐ Suddenlink Communications
☐ T-Mobile
☐ Verizon Wireless
☐ WildBlue Communications, Inc.
☐ SHENTEL
☐ Micrologic
☐ LUMOS/Fibernet
☐ Philippi

☐ Other (specify):_____

10. What type of connection do you use at home to access the Internet? (Check all that apply.)

☐ Cable ☐ DSL ☐ Fiber ☐ Satellite ☐ Dial-Up ☐ Cellular/Air Card

☐ Other (specify): _____

11. Why did you choose this connection type? (Check all that apply.)

☐ Cost ☐ Speed ☐ Only available service ☐ Best reliability

12. How much do you pay per month for Internet service? (If you have indicated several services, indicate your total expense for these services.)

_____

13. For all the types of connections you have, indicate the speed of your connection(s). Please check your speed at this website http://gis2.kimballdata.com/WVSpeedTest/WVSpeedTest.html?ld=speedtest.

The Speed Test takes approximately 30 seconds.

Record your download and upload speeds here.

TYPE OF CONNECTION	**SPEED**	
	Download	***Upload***
Cable		
DSL		
Fiber		
Satellite		
Cellular/Air Card		
Other (indicate speed)		

14. The following is a list of characteristics about your Internet service. Please indicate whether you are "very satisfied," "satisfied," "dissatisfied," or "very dissatisfied" with that aspect of your Internet service.

SERVICE ISSUE	VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED	DON'T KNOW/NA
Speed of connection	☐	☐	☐	☐	☐
Cost of Internet	☐	☐	☐	☐	☐
Technical support	☐	☐	☐	☐	☐
Reliability of access	☐	☐	☐	☐	☐
Customer service	☐	☐	☐	☐	☐
Number of providers	☐	☐	☐	☐	☐

15. Does your employer allow employees to telecommute? ☐ Yes ☐ No

16. Do you use the Internet anywhere else other than your home? ☐ Yes ☐ No

17. If you do use the Internet anywhere else other than your home, please indicate other places where you use the Internet:

Work? ☐ Yes ☐ No

School? ☐ Yes ☐ No

Public Library? ☐ Yes ☐ No

A relative or friend's house? ☐ Yes ☐ No

A retail shop with wireless Internet service? ☐ Yes ☐ No

Cell phone? ☐ Yes ☐ No

Other (specify): _____

18. IF you indicated you **DO NOT** have Broadband (high-speed) Internet service (e.g., none or dial-up), please check all reasons for not having Internet service. (Check all that apply.)

☐ I don't own a computer ☐ Cost/Too expensive ☐ Broadband service not available

☐ Do not Need Broadband services ☐ Security reasons ☐ Do not know how to use Internet

☐ Other (specify): _____

19. IF concerns in question 18 were addressed, would you utilize Broadband (high-speed) Internet service?

☐ Yes ☐ No ☐ NA

20. How important is it for all RESIDENTS of the State of West Virginia to have access to computers and the Internet?

☐ Very important ☐ Important ☐ Somewhat important ☐ Not at all important

☐ Don't know

21. How did you learn about this survey?

☐ Newspaper ☐ Radio ☐ Buyer's Guide ☐ E-mail ☐ Word of Mouth ☐ Library

☐ Television ☐ Other (please specify): _____

22. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:

_____

_____

_____

_____

_____

Thank you for responding to this survey. We know your time is valuable. Your response will remain anonymous. If you have any questions, please contact the Region VII Planning and Development Council by e-mail at bjacobus@regionvii.com or by phone at 304-472-6564.

Region VII Planning & Development Council
99 Edmiston Way, Suite 225
Buckhannon, WV 26201

RVII Residential Broadband Survey

1. Street Address

	Response Count
	414
answered question	414
skipped question	8

2. Zip Code

	Response Count
	419
answered question	419
skipped question	3

3. What county do you live in?

	Response Percent	Response Count
Barbour	14.8%	62
Braxton	14.8%	62
Gilmer	11.9%	50
Lewis	8.6%	36
Randolph	11.9%	50
Tucker	13.4%	56
Upshur	**24.6%**	**103**
	answered question	**419**
	skipped question	**3**

4. How old were you on your last birthday?

	Response Count
	410
	answered question	**410**
	skipped question	**12**

5. What is your gender?

	Response Percent	Response Count
Male	43.9%	182
Female	**56.1%**	**233**
	answered question	**415**
	skipped question	**7**

6. Number of household occupants

	Response Percent	Response Count
1	8.6%	36
2	**47.0%**	**197**
3	19.6%	82
4	15.3%	64
5	5.0%	21
6	3.1%	13
7	1.2%	5
8	0.0%	0
9	0.2%	1
Other (please specify)		1
answered question		**419**
skipped question		**3**

7. Do you have Internet access in your home? (If “No,” please go to question 18 of this survey.)

	Response Percent	Response Count
Yes	**73.4%**	**306**
No	26.6%	111
answered question		**417**
skipped question		**5**

8. Who uses the Internet at your home? (Check all that apply.)

	Response Percent	Response Count
I do	**94.2%**	**294**
Spouse/Partner	74.0%	231
Children	47.4%	148
Friend	12.2%	38
Grandparent	1.3%	4
Parent	6.7%	21
Housemate or Roommate	1.6%	5
Other (please specify)		20
answered question		**312**
skipped question		**110**

9. Who is your Internet Service Provider?

	Response Percent	Response Count
AT&T Mobility LLC	1.1%	3
CityNet	2.1%	6
Comcast	0.0%	0
Frontier Communications Corporation	**46.5%**	**131**
HughesNet	20.2%	57
NTELOS	1.4%	4
Sprint	0.0%	0
Suddenlink Communications	10.3%	29
T-Mobile	0.0%	0
Verizon Wireless	1.4%	4
WildBlue Communications, Inc.	5.7%	16
SHENTEL	5.0%	14
Micrologic	6.4%	18
Lumos/Fibernet	0.7%	2
Philippi	0.7%	2
	Other (please specify)	34
	answered question	**282**
	skipped question	**140**

10. What type of connection do you use at home to access the Internet? (Check all that apply.)

	Response Percent	Response Count
Cable	15.3%	46
DSL	**42.5%**	**128**
Fiber	0.3%	1
Satellite	28.2%	85
Dial-Up	10.6%	32
Cellular/Air Card	5.0%	15
	Other (please specify)	18
	answered question	**301**
	skipped question	**121**

11. Why did you choose this connection type? (Check all that apply.)

	Response Percent	Response Count
Cost	22.7%	70
Speed	30.7%	95
Only available service	**60.2%**	**186**
Best reliability	10.4%	32
	answered question	**309**
	skipped question	**113**

12. How much do you pay per month for Internet service? (If you have indicated several services, indicate your total expense for these services.)

	Response Count
	292
answered question	292
skipped question	130

13. For all the types of connections you have, indicate the speed of your connection(s). Downlo If you haven't done so, please check your speed at this website (cut and paste following link to http://gis2.kimballdata.com/WVSpeedTest/WVSpeedTest.html?ld=speedtest. A hyperlink was the e-mail that delivered this survey. The Speed Test takes approximately 30 seconds. Record and upload speeds here. Example -- download 4.05 Mbps; upload .70 Mbps

	Re P
Cable	
DSL	
Fiber	
Satellite	
Cellular/Air Card	
Other	
answered q	
skipped q	

14. The following is a list of characteristics about your Internet service. Please indicate whether you are “very satisfied,” “satisfied,” “dissatisfied,” or “very dissatisfied” with that aspect of your Internet service.

	Don't Know/NA	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	Rating Average	Rating Count
Speed of connection	1.7% (5)	24.8% (75)	**33.7% (102)**	33.3% (101)	6.6% (20)	3.18	30
Cost of Internet	1.7% (5)	24.9% (74)	**37.4% (111)**	30.0% (89)	6.1% (18)	3.14	29
Technical support	8.4% (25)	11.4% (34)	26.3% (78)	**43.8% (130)**	10.1% (30)	3.36	29
Reliability of access	1.7% (5)	17.8% (52)	29.8% (87)	**44.9% (131)**	5.8% (17)	3.35	29
Customer service	7.1% (21)	9.9% (29)	23.8% (70)	**48.6% (143)**	10.5% (31)	3.46	29
Number of available providers	8.8% (25)	**52.1% (148)**	24.6% (70)	12.0% (34)	2.5% (7)	2.47	28
					answered question		**30**
					skipped question		**11**

15. Does your employer allow employees to telecommute on a regular basis?

	Response Percent	Response Count
Yes	34.7%	86
No	**65.3%**	**162**
	answered question	**248**
	skipped question	**174**

16. Do you use the Internet anywhere else other than your home?

		Response Percent	Response Count
Yes		**79.3%**	**249**
No		20.7%	65
		answered question	**314**
		skipped question	**108**

17. If you do use the Internet anywhere else other than your home, please indicate other places where you use the Internet:

	Yes	No	Rating Count
Work	**69.2% (180)**	30.8% (80)	260
School	26.5% (52)	**73.5% (144)**	196
Public Library	40.4% (80)	**59.6% (118)**	198
A relative or friend's house	**60.0% (135)**	40.0% (90)	225
A retail shop with wireless Internet service	44.1% (98)	**55.9% (124)**	222
Cell phone	**62.2% (150)**	37.8% (91)	241
		Other (please specify)	12
		answered question	**294**
		skipped question	**128**

18. If you indicated you DO NOT have Broadband (high-speed) Internet service (e.g., none or dial-up), please check all reasons for not having Internet service. (Check all that apply.)

	Response Percent	Response Count
I don’t own a computer	11.4%	19
Cost/Too expensive	32.5%	54
Broadband service not available	**72.3%**	**120**
Do not Need Broadband services	0.6%	1
Security reasons	0.6%	1
Do not know how to use Internet	2.4%	4
	Other (please specify)	15
	answered question	**166**
	skipped question	**256**

19. If concerns in question 18 were addressed, would you utilize Broadband (high-speed) Internet service?

	Response Percent	Response Count
Yes	**75.4%**	**178**
No	3.4%	8
N/A	21.2%	50
	answered question	**236**
	skipped question	**186**

20. How important is it for all RESIDENTS of the State of West Virginia to have access to computers and the Internet?

	Response Percent	Response Count
Very important	**80.5%**	**334**
Important	14.0%	58
Somewhat important	4.1%	17
Not at all important	0.7%	3
Don't know	0.7%	3
answered question		**415**
skipped question		**7**

21. How did you learn about this survey?

	Response Percent	Response Count
Newspaper	15.5%	48
Radio	0.0%	0
Buyer's Guide	0.0%	0
E-mail	**30.7%**	**95**
Word of Mouth	23.9%	74
Library	24.3%	75
Television	0.0%	0
Work	7.4%	23
Other (please specify)		107
answered question		**309**
skipped question		**113**

22. If you have any additional comments about Broadband (high-speed) Internet service in the State of West Virginia, please include them here:

	Response Count
	167
answered question	**167**
skipped question	**255**

Regional VII Broadband Needs Assessment
Business Broadband/High-Speed Internet Survey

Dear West Virginia Business:

Our regional planning and development council is working to better understand your high-speed Internet needs and create a strategic plan to meet these needs. As part of this process, we are gathering information and conducting this survey to determine the Broadband usage, needs, and interests of local businesses. Broadband is typically defined as a service that enables high-speed Internet access as opposed to low-speed services, such as dial-up. The results of this survey will be used to determine who is using Broadband and how federal grant funding can be applied to improve Broadband access and online marketing opportunities for your business community. The test can be taken online from your computer at www.regionvii.com .

PLEASE TAKE THE SPEED TEST at http://gis2.kimballdata.com/WVSpeedTest/WVSpeedTest.html?Id=speedtest and record your download and upload speeds as this data is crucial for internet service evaluation in your area**.**

If you have any questions, please feel free to contact Bob Jacobus or Cary Smith at 304-472-6564 or by e-mail at bjacobus@regionvii.com.

Thank you for your assistance!

Region VII

DEMOGRAPHICS

1. Street Address _____

2. City or Town _____

3. Zip Code: _____

4. County: _____

5. Title of person responding: _____

6. Which department do you work in? _____

7. How many employees work at your location?

☐ 1-4 ☐ 5-25 ☐ 26-100 ☐ 101-250 ☐ 251-500 ☐ 501 or more

8. Indicate what national business classification best describes your business:

- ☐ Accommodation and Food Services
- ☐ Agriculture, Forestry, Fishing/Hunting
- ☐ Construction
- ☐ Finance and Insurance
- ☐ Mining, Quarrying, and Oil and Gas Extraction
- ☐ Information
- ☐ Professional, Scientific, and Technical
- ☐ Real Estate and Rental and Leasing
- ☐ Transportation and Warehousing
- ☐ Waste Management and Remediation
- ☐ Administrative and Support Services
- ☐ Arts, Entertainment, and Recreation
- ☐ Education
- ☐ Educational Services
- ☐ Healthcare and Social Assistance
- ☐ Management of Companies and Enterprises
- ☐ Manufacturing
- ☐ Public Administration
- ☐ Retail Trade
- ☐ Utilities
- ☐ Wholesale Trade
- ☐ Community or Economic Development
- ☐ Other (please specify): _____

INTERNET ACCESS

9. Do you have Internet service at your business? ☐ Yes ☐ No (***If "No," go to question 20 of this survey.***)

10. Who currently provides your business's Broadband Internet service?

- ☐ AT&T Mobility LLC
- ☐ CityNet
- ☐ Comcast
- ☐ Frontier Communications Corporation
- ☐ HugesNet
- ☐ NTELOS
- ☐ Sprint
- ☐ Suddenlink Communications
- ☐ T-Mobile
- ☐ Verizon Wireless
- ☐ WildBlue Communications, Inc.
- ☐ SHENTEL
- ☐ Micrologic
- ☐ LUMOS/Fibernet

☐ Other (specify): _____

11. What type(s) of Internet connection do you have at your business?

☐ Cable ☐ DSL ☐ Fiber ☐ Satellite ☐ Dial-Up ☐ Cellular/Air Card

☐ Other (specify): _____

12. For all the types of connections you have, indicate the speed of your connection(s). Please check your speed at this website http://gis2.kimballdata.com/WVSpeedTest/WVSpeedTest.html?ld=speedtest.

The Speed Test takes approximately 30 seconds.

Record your download and upload speeds here.

TYPE OF CONNECTION	SPEED	
	Download	***Upload***
Cable		
DSL		
Fiber		
Satellite		
Cellular/Air Card		
Other (indicate speed)		

13. Please rate the following aspects of your service by checking the appropriate column.

	VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED	DON'T KNOW/NOT APPLICABLE
Cost of Internet	☐	☐	☐	☐	☐
Speed of connection	☐	☐	☐	☐	☐
Billing practices	☐	☐	☐	☐	☐
Technical support	☐	☐	☐	☐	☐
Customer service	☐	☐	☐	☐	☐
Reliability of access	☐	☐	☐	☐	☐

14. Does your business allow employees to telecommute? ☐ Yes ☐ No

15. If your business does not allow employees to telecommute, is it due to affordability and/or reliability deficiencies with the Broadband (high-speed) Internet service?

☐ Yes ☐ No

16. When you sought Broadband (high-speed) Internet service for your business location, how would you describe the availability of multiple, competing Broadband Internet options?

☐ Competitive, several options
☐ Not competitive, only one provider
☐ Somewhat competitive, two providers
☐ Suitable Broadband is not available

17. What do you currently pay each month for Internet service? (If you have indicated several services, indicate your total expense for these services.)

☐ Less than $50
☐ Between $200 and $300
☐ More than $50 and less than $100
☐ More than $300 per month
☐ Between $100 and $200
☐ Don't know how much we pay
☐ Other (please specify): _____

18. IF you indicated you **DO NOT** have Broadband Internet service (e.g., none or dial-up), please check all reasons for not having Broadband Internet service. (Check all that apply.)

☐ I don't own a computer ☐ Cost/Too expensive ☐ Broadband service not available
☐ Do not need Broadband service ☐ Security reasons ☐ Need Training
☐ Other (specify): _____

19. IF concerns in question 18 were addressed, would you utilize Broadband Internet service?

☐ Yes ☐ No

20. How important is a robust Broadband (high-speed Internet access) connection to the day-to-day operations of your business? (Check one.)

☐ Very important ☐ Important ☐ Somewhat important ☐ Not at all important

21. Would it be beneficial to your customers/clients if the Broadband environment in your area was enhanced?

☐ Yes ☐ No

22. Why?

_____

23. How did you learn about this survey?

☐ Newspaper ☐ Radio ☐ Buyer's Guide ☐ E-mail ☐ Word of Mouth ☐ Library ☐ Work

☐ Television ☐ Meeting

☐ Other (please specify): _____

24. Do you have any other comments about Broadband Internet service availability in your region?

_____

_____

_____

_____

_____

Thank you for responding to this survey. We know your time is valuable. Your response will remain anonymous. If you have any questions, please contact the Region VII Planning and Development Council by e-mail at bjacobus@regionvii.com or by phone at 304-472-6564.

Region VII Planning & Development Council
99 Edmiston Way, Suite 225
Buckhannon, WV 26201

RVII Business Broadband Survey

1. City or Town

	Response Count
	58
answered question	58
skipped question	0

2. Zip Code

	Response Count
	58
answered question	58
skipped question	0

3. What county is your business in?

	Response Percent	Response Count
Barbour	6.9%	4
Braxton	10.3%	6
Gilmer	1.7%	1
Lewis	8.6%	5
Randolph	**29.3%**	**17**
Tucker	15.5%	9
Upshur	27.6%	16
	Combination	1
	answered question	**58**
	skipped question	**0**

4. Title of person responding

	Response Count
	57
answered question	**57**
skipped question	**1**

5. Which department do you work in?

	Response Count
	47
answered question	**47**
skipped question	**11**

6. How many employees work at your location?

		Response Percent	Response Count
1-4		**48.2%**	**27**
5-25		37.5%	21
26-100		10.7%	6
101-250		0.0%	0
251-500		1.8%	1
501 or more		1.8%	1
		Other (please specify)	2
		answered question	**56**
		skipped question	**2**

7. Indicate what national business classification best describes your business:

	Response Percent	Response Count
Accommodation and Food Services	0.0%	0
Agriculture, Forestry, Fishing/Hunting	2.2%	1
Construction	4.3%	2
Finance and Insurance	0.0%	0
Information	4.3%	2
Manufacturing	2.2%	1
Professional, Scientific, and Technical	10.9%	5
Real Estate and Rental and Leasing	4.3%	2
Transportation and Warehousing	0.0%	0
Waste Management and Remediation	0.0%	0
Administrative and Support Services	2.2%	1
Arts, Entertainment, and Recreation	2.2%	1
Education	8.7%	4
Educational Services	8.7%	4
Healthcare and Social Assistance	4.3%	2
Management of Companies and Enterprises	0.0%	0
Mining, Quarrying, and Oil and Gas Extraction	6.5%	3
Public Administration	6.5%	3
Retail Trade	10.9%	5
Utilities	2.2%	1

Wholesale Trade	2.2%	1
Community or Economic Development	**17.4%**	**8**
	Other (please specify)	12
	answered question	**46**
	skipped question	**12**

8. Do you have Internet access at your business? (If “No,” please go to question 17 of this survey.)

	Response Percent	Response Count
Yes	**93.0%**	**53**
No	7.0%	4
	answered question	**57**
	skipped question	**1**

9. Who currently provides your business's Broadband Internet service?

	Response Percent	Response Count
AT&T Mobility LLC	0.0%	0
CityNet	6.1%	3
Comcast	0.0%	0
Frontier Communications Corporation	**42.9%**	**21**
HughesNet	8.2%	4
NTELOS	2.0%	1
Sprint	2.0%	1
Suddenlink Communications	20.4%	10
T-Mobile	0.0%	0
Verizon Wireless	10.2%	5
WildBlue Communications, Inc.	6.1%	3
SHENTEL	0.0%	0
Micrologic	6.1%	3
LUMOS/Fibernet	4.1%	2
	Other (please specify)	6
	answered question	**49**
	skipped question	**9**

10. What type of internet connection do you have for your business?

	Response Percent	Response Count
Cable	17.0%	8
DSL	**53.2%**	**25**
Fiber	8.5%	4
Satellite	17.0%	8
Dial-Up	2.1%	1
Cellular/Air Card	8.5%	4
	Other (please specify)	8
	answered question	**47**
	skipped question	**11**

11. For all the types of connections you have, indicate the speed of your connection(s). Downlo
Please check your speed at this website (cut and paste to your browser)
http://gis2.kimballdata.com/WVSpeedTest/WVSpeedTest.html?ld=speedtest A hyperlink can b
www.regionvii.com . The Speed Test takes approximately 30 seconds. Record your download
speeds here. example -- download 4.05 Mbps; upload .07 Mbps

	Re R
Cable	
DSL	
Fiber	
Satellite	
Cellular/Air Card	
Other	
	answered q
	skipped q

12. The following is a list of characteristics about your Internet service. Please indicate whether you are “very satisfied,” “satisfied,” “dissatisfied,” or “very dissatisfied” with that aspect of your Internet service.

	Don't Know/NA	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	Rating Average	Rating Count
Speed of connection	1.8% (1)	21.8% (12)	18.2% (10)	**50.9% (28)**	7.3% (4)	3.40	5
Cost of Internet	16.4% (9)	18.2% (10)	**30.9% (17)**	29.1% (16)	5.5% (3)	2.89	5
Technical support	14.5% (8)	9.1% (5)	25.5% (14)	**41.8% (23)**	9.1% (5)	3.22	5
Reliability of access	1.8% (1)	27.3% (15)	20.0% (11)	**45.5% (25)**	5.5% (3)	3.25	5
Customer service	14.5% (8)	3.6% (2)	27.3% (15)	**45.5% (25)**	9.1% (5)	3.31	5
Number of available providers	18.9% (10)	**41.5% (22)**	26.4% (14)	13.2% (7)	0.0% (0)	2.34	5
Billing practices	20.4% (11)	7.4% (4)	13.0% (7)	**50.0% (27)**	9.3% (5)	3.20	5
					answered question		**5**
					skipped question		

13. Does your business allow employees to telecommute on a regular basis?

		Response Percent	Response Count
Yes		**50.9%**	**28**
No		49.1%	27
		answered question	**55**
		skipped question	**3**

14. If your business does not allow employees to telecommute, is it due to affordability and/or reliability deficiencies with the Broadband (high-speed) Internet service?

	Response Percent	Response Count
Yes	17.4%	8
No	34.8%	16
N/A	**47.8%**	**22**
	answered question	**46**
	skipped question	**12**

15. When you sought Broadband (high-speed) Internet service for your business location, how would you describe the availability of multiple, competing Broadband Internet options?

	Response Percent	Response Count
Competitive, several options	4.0%	2
Somewhat competitive, two providers	**48.0%**	**24**
Not competitive, only one provider	34.0%	17
Suitable Broadband is not available	14.0%	7
	Other (please specify)	4
	answered question	**50**
	skipped question	**8**

16. What do you currently pay each month for Internet service? (If you have indicated several services, indicate your total expense for these services.)

		Response Percent	Response Count
Less than $50		7.7%	4
More than $50 and less than $100		28.8%	15
Between $100 and $200		**30.8%**	**16**
Between $200 and $300		1.9%	1
More than $300 per month		7.7%	4
Don’t know how much we pay		23.1%	12
		Other (please specify)	3
		answered question	**52**
		skipped question	**6**

17. If you indicated you DO NOT have broadband (high-speed) Internet service (e.g., none or dial-up), please check all reasons for not having broadband service. (Check all that apply.)

	Response Percent	Response Count
I don’t own a computer	0.0%	0
Cost/Too expensive	10.0%	1
Broadband service not available	**80.0%**	**8**
Do not need Broadband services	10.0%	1
Security reasons	0.0%	0
Need training	0.0%	0
Other (please specify)		1
answered question		**10**
skipped question		**48**

18. If concerns in question 17 were addressed, would you utilize Broadband (high-speed) Internet service?

	Response Percent	Response Count
Yes	**52.2%**	**12**
No	0.0%	0
N/A	47.8%	11
answered question		**23**
skipped question		**35**

19. How important is a robust Broadband (high-speed Internet access) connection to the day-to-day operations of your business? (Check one.)

	Response Percent	Response Count
Very important	**83.9%**	**47**
Important	14.3%	8
Somewhat important	1.8%	1
Not at all important	0.0%	0
answered question		**56**
skipped question		**2**

20. Would it be beneficial to your customers/clients if the Broadband environment in your area was enhanced?

	Response Percent	Response Count
Yes	**98.3%**	**57**
No	1.7%	1
If it would be beneficial to your customers/clients to enhance the Broadband environment in your area, why?		14
answered question		**58**
skipped question		**0**

21. How did you learn about this survey?

	Response Percent	Response Count
Newspaper	14.9%	7
Work	8.5%	4
Radio	0.0%	0
Buyer's Guide	0.0%	0
E-mail	**44.7%**	**21**
Word of Mouth	19.1%	9
Library	2.1%	1
Meeting	12.8%	6
	Other (please specify)	11
	answered question	**47**
	skipped question	**11**

22. Do you have any other comments about Broadband Internet service availability in your region?

	Response Count
	24
	answered question **24**
	skipped question **34**

SWOC Analysis

Strengths, Weaknesses, Opportunities and Challenges

Please rate the following statements as a strength, weakness, opportunity or challenge from the perspective of broadband/internet demand/deployment in Barbour, Braxton, Gilmer, Lewis, Randolph, Tucker and Upshur Counties in West Virginia

This information will be used to prioritize broadband deployment stratigies in Region VII.

1. 95% of residential population indicates that Broadband/internet is important

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

2. Broadband has been identified as being crucial for business operations.

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comment

3. About 34% of internet service subscribers have broadband speeds

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comment

4. Wireless data systems can be used for internet

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

5. 75% of unserved people surveyed would adopt broadband if available

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

SWOC Analysis

6. Lack of competition/options from internet providers

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

7. Broadband makes central West Virginia a more attractive place to live & work

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

8. Better utilize the fiber and routers that West Virginia acquired under the BTOP program

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

9. Low customer density

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

10. Broadband has been identified as being necessary for local government operations

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

11. Only one “backhaul” fiber backbone in the region

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

SWOC Analysis

12. Broadband service cost is prohibitive

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

13. Available project funding

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

14. Aggregation of customers on a single bill

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

15. The broadband middle mile in the Region VII is owned by one firm

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

16. The need for broadband to provide quality education to children & youth

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

17. No regional broadband deployment authority

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

SWOC Analysis

18. Topography, mountains, hills & valleys

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

19. 69% of responders use internet at work

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

20. General knowledge of how the system works

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

21. No major “Point of Presence” of the main internet core in the Region

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

22. Knowledge of what limits broadband at the users terminal

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenge

Comments

23. Anchor Institutions purchase bandwidth at wholesale and become retailers of broadband

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenges

Comments

SWOC Analysis

24. Knowledge of broadband access services available

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenges

Comments

25. Knowledge of alternate systems that deliver broadband

☐ Strength ☐ Weakness ☐ Opportunity ☐ Challenges

Comments

APPENDIX VI

FUNDING SOURCES

Funding Sources		
Program	**Uses**	**Funding Cycle**
Appalachian Regional Commission (ARC) Area Development Program	Project activities must be consistent with ARC/State of West Virginia Goals, Objectives, and Strategies. FY 2013 Goals include the following: - Increase job opportunities and per capita income in Appalachia to reach parity with the nation - Strengthen the capacity of the people of Appalachia to compete in the global economy - Develop and improve Appalachian infrastructure to make the region economically competitive The highest priorities for the ARC program is in water, sewer, and telecommunication projects that lead to job creation or address a critical community need (such as public health). ARC is a regional economic development agency, and therefore requests for ARC assistance should focus on economic development.	Submit applications through the state ARC office, West Virginia Development Office. Applications for FY 2013 ARC funding were due on January 31, 2013. Approval of applications is a two-step process: West Virginia Development Office staff reviews projects, and recommend -ations are made to the Governor for approval. Projects are then forwarded to ARC for final approval.
U.S. Department of Agriculture (USDA) Rural Broadband Loan Program	Broadband loans provide funding for the construction, improvement, and acquisition of all facilities required to provide service at the broadband lending speed to rural areas, including facilities required for providing other services over the same facilities; the cost of leasing facilities required to provide service at the broadband lending speed if such lease qualifies as a capital lease under Generally Accepted Accounting Principles (GMP); and an acquisition, under certain circumstances, and with restrictions.	Applications can be submitted throughout the year and will be reviewed and processed on a first-come, first-served basis according to the time the application is received.
Community Connect Grant Program CFDA # - 10.863	Funds may be used to build broadband infrastructure and establish a community center that offers free public access to broadband for two years.	In FY 2012, funding through the Community Connect program was announced in May 2012, and applications were due in June 2012.
Telecommunications Infrastructure Loan Program	Loan may be used to finance telecommunications services in rural areas for improvements, expansions, construction, acquisitions (cost of acquisition must be incidental to cost of improvements in loan) and refinancing (amount refinanced cannot exceed 40% of loan amount).	Applications are accepted year-round.

Program	Uses	Funding Cycle
Connect to Compete	Internet: $9.95 per month, high-speed Internet for free school lunch families (no deposit or contract required; no installation or equipment fees; price lock for two years) Computers: $150 laptop or desktop computer for free school lunch families. Free Training & Free digital literacy training online.	The program is currently being rolled out across the nation. Applications will be accepted on an ongoing basis.
Community Development Block Grant (CDBG) Program	Projects must either assist in eliminating blight or primarily (51% or greater of service area) serve low-income individuals. Uses related to potential broadband service: - Acquisition of real property - Public facilities and improvements and privately owned utilities - Clearance, rehabilitation, reconstruction, and construction of buildings - Public services (must provide a new service or a quantifiable increase in existing service) - Public services can include computer training and education programs	Applications to the state are typically due by mid-March. Each entitlement city has its own project selection and award process.
Business Improvement District (BID)	Beautification of the district (landscaping, benches, decorations, etc.) - Provision of public services (sanitation, security, construction of public facilities) - Payment of principal or interest on bonds issued by the municipality for public improvements in the district- Financial support for public transportation and public parking facilities - Constructing, operating, and maintaining parking facilities - Developing plans for architectural design of public areas and developing plans for t he future development of the district - Developing, supporting, and promoting community events - Providing administrative costs for a district management program - Providing any other services that the municipality or district board is authorized to perform.	N/A

Program	Uses	Funding Cycle
Sales Tax Increment Financing (STIF)	Counties and municipalities may create economic opportunity development districts with state legislature approval and use state sales tax increment for up to 30 years to finance certain development costs, including transportation infrastructure, property acquisition, utilities, etc.	N/A
Tax Increment Financing (TIP)	Infrastructure construction or repair (sewers, storm drainage, street construction/expansion, water supply access expansion, park improvements, bridge construction/repair, curb/sidewalk improvements, devices for traffic control, street lighting, etc.) - Land acquisition - Land improvements (building demolition , brownfield remediation, site improvements, etc.) - Community revitalization construction (landscaping, street lighting) - Development or redevelopment of an area for housing, housing developments, public facilities, or industrial or commercial development - New infrastructure for housing developments, housing, or industrial or commercial development - Other development that eliminates unsanitary or unsafe conditions: reduces overcrowding in the area, reduces traffic congestion, eliminates traffic hazards, or eliminates obsolete or detrimental uses to the are a - Other capital improvements to the area - Any other projects deemed appropriate by the county/ municipality.	Eligible activities: Projects generally eligible for program participation include, but are not limited to/ the following: - Health clinics - Homeless shelters - Educational programs - Housing programs - Preservation/revitalization activities - Domestic violence shelters - Children's shelters - Meal delivery programs - Senior citizens' centers - Community foundations - Scholarship programs - Hospice - Transportation programs - Day care centers - Counseling services - Services for the disabled.
Neighborhood Investment Program (NIP)	Eligible activities: Projects generally eligible for program participation include, but are not limited to/ the following: - Health clinics - Homeless shelters -Educational programs - Housing programs - Preservation/revitalization activities - Domestic violence shelters - Children's shelters - Meal delivery programs - Senior citizens' centers - Community foundations - Scholarship programs - Hospice - Transportation programs - Day care centers - Counseling services - Services for the disabled.	Annual application process Applications are due on June 15 each year.