

# Preston County, WV

Land Use Master Plan 2015



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## **Executive Summary**

This Land Use Master Plan (LUMP) conveys information on Preston County's current demographic and geographic status. This plan will be used to evaluate the potential of post-mine sites for development, and evaluate Preston County's investment position.

Senate Bill (SB) 603 mandates the development of a LUMP by counties with surface mining operations. The LUMP will be an effective tool towards achieving Preston County's development goals. The Nick J. Rahall Appalachian Transportation Institute (RTI) coordinates with the Office of Coalfield Community Development to provide this essential information. Three post-mine developments are currently in operation in Preston County—two business and industrial parks and one federal prison. This plan will help Preston take advantage of its other post-mine sites in just as varied a manner.

Preston County's population has been on the rise since 2000 after experiencing a period of decline in the 1980s and 1990s and is expected to increase through at least 2030. The County's median age and age distribution are average for the State, indicative of a population capable of productivity in the labor force. However, as with many other counties and the State as a whole, Preston is expected to experience an aging population in coming years.

Recent employment consists mainly of Government, Trade, Transportation, and Utilities, and Construction, and the same

three sectors comprise the largest by total annual wages. Preston County total wages have been on the rise since the early 2000s, with increases in the Government and Construction sectors largely driving this increase. Of particular note is the amount of income, as opposed to wages, derived from government transfers. In 2013, more than one-quarter of Preston County personal income was derived from government transfers. Preston County is not alone in this situation, as West Virginia finds many of its counties deriving almost a third of their incomes from government transfers.

Preston County's total enrollment experienced overall decline from the 2002-2003 to the 2012-2013 school years. The County's dropout rate also experienced overall decline from the 2005-2006 to 2012-2013 school years. Approximately 17 percent of Preston County residents aged 25 years and older do not have a high school diploma.

Utility prices are varied throughout the county, and this plan provides municipal and private rates for electricity, sewer, and water. Broadband, an increasingly important utility in the age of globalization, is highlighted to show the necessity for improvement and access, and showcase the developable properties of this utility.

Transportation is an important issue in any development strategy. Preston County has one interstate, two U.S. Routes, and five State Routes. The County does have some

rail presence, but does not have any airports within its borders.

Preston County also has 12 historic sites in the National Register and several pieces of historic architecture designated by the State. Historic preservation can be a basis for tourism, cultural identity, and community cohesion.

This plan also reviews energy and environmental issues in Preston County. The environment of the County should be considered in an overall development strategy. Preston County has some scattered forested areas and produces some wood by-products. The County also has a few scattered areas of state and national forests. Preston County is also not on the list of air pollution non-attainment areas, which is a positive attribute. Preston has a small number of completed Marcellus Shale wells, as well as several more that are permitted, and has a higher favorability for enhanced geothermal drilling. However, Preston appears to have very little potential among wind and solar renewable energy resources, although small portions of the County are receive “good” rankings for wind potential.

This information is as critical as the site information for several reasons. One is that development is not a process that can occur in a vacuum. Without understanding the resources available in the county, and the demand for more investment, money will end up wasted. Another is that investment requires active partners who will need information on each of the county’s essential demographic topics to determine their level of risk. Without this, investors will not be

persuaded to enter the county. Finally, this information can help policy makers target their land use strategies to any of these topics, as long as they understand the situation.

Site analysis is integral to this report. Researchers identified all the post mine sites given certain criteria for Preston County, including those sites that fit the County’s unique geographic, demographic, and economic position. The researchers combined a distance analysis using a scoring system based on distance to certain essential utilities and features, which were approved by the development director. These scores were summed and plotted. A workforce analysis was conducted to determine available labor within certain radii for each site, and a retail analysis was conducted to determine which areas had the most retail activity.

The top five mine sites were then identified, and are displayed individually. Map A contains the top five sites within a view of the County.

The tables below are comprehensive comparisons between the top five post-mine lands for potential development Tables A, B and C compare results between the top five potential development sites, as determined by suitability analysis of all post-mine lands in the county. In Table A, distances for each variable are compared between sites to give an idea of the more suitable site for specific criterion under consideration. For example, if we want to identify the site located closest to power lines, the distance measurements

from each site to the nearest power line is listed in Table A.

Table B shows the total weighted score. The mining sites considered as the best candidates for potential redevelopment are the five with the highest total weighted score.

Table C illustrates how each criterion contributes to the final total score and the importance of the weights. A scale of values, based on ideal distances for each criteria, is used to calculate the total

Absolute score. The Relative scale is calculated by comparing each site in relationship to others instead of set distances. Because of the assumption that one criterion may be more important than others (different weights), the rank order of the sites absolute and relative scores can change once the weights for each criteria are mathematically applied. A high or low value in a heavily weighted criteria can dramatically raise or lower a sites total weighted score.

**Table A: Distances Comparison Between Top Five Sites for Potential Development**

| <b>Suitability Ranking</b>       | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>Weight</b> |
|----------------------------------|----------|----------|----------|----------|----------|---------------|
| Broadband                        | 1.99     | 2.16     | 1.16     | 1.61     | 1.02     | <b>9</b>      |
| Gas Pipes                        | 5.60     | 5.70     | 7.63     | 6.19     | 0.27     | <b>6</b>      |
| National Waterway Network        | 18.21    | 17.36    | 12.54    | 16.67    | 30.23    | <b>4</b>      |
| Pipe Lines                       | 0.23     | 0.62     | 1.43     | 0.52     | 0.36     | <b>6</b>      |
| Power Lines                      | 0.41     | 0.01     | 0.48     | 0.77     | 0.09     | <b>10</b>     |
| Railroads                        | 0.88     | 0.47     | 6.37     | 1.43     | 0.56     | <b>5</b>      |
| Sewer Lines                      | 0.08     | 0.15     | 0.88     | 0.68     | 1.64     | <b>8</b>      |
| Water Lines                      | 0.01     | 0.02     | 0.24     | 0.23     | 0.05     | <b>10</b>     |
| Existing Highway                 | 0.67     | 0.16     | 0.59     | 0.31     | 0.53     | <b>8</b>      |
| Intermodal Terminal Facilities   | 21.56    | 20.70    | 15.87    | 20.02    | 33.59    | <b>6</b>      |
| Interstate                       | 14.74    | 14.43    | 9.80     | 13.94    | 18.90    | <b>8</b>      |
| Sewer Treatment Facilities       | 1.21     | 0.36     | 1.44     | 1.07     | 3.71     | <b>7</b>      |
| Solid Waste Treatment Facilities | 3.44     | 3.13     | 2.99     | 4.05     | 12.05    | <b>8</b>      |



**Table B: Total Score Comparison Between Top Five Sites for Potential Development**

| <b>Suitability Ranking</b>       | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>Weight</b> |
|----------------------------------|----------|----------|----------|----------|----------|---------------|
| Broadband                        | 31.5     | 22.5     | 63       | 47.25    | 63       | <b>9</b>      |
| Gas Pipes                        | 1.5      | 1.5      | 1.5      | 1.5      | 60       | <b>6</b>      |
| National Waterway Network        | 3        | 3        | 4        | 3        | 1        | <b>4</b>      |
| Pipe Lines                       | 60       | 30       | 4.5      | 30       | 42       | <b>6</b>      |
| Power Lines                      | 75       | 100      | 75       | 52.5     | 100      | <b>10</b>     |
| Railroads                        | 50       | 50       | 2.5      | 35       | 50       | <b>5</b>      |
| Sewer Lines                      | 80       | 80       | 80       | 80       | 56       | <b>8</b>      |
| Water Lines                      | 100      | 100      | 100      | 100      | 100      | <b>10</b>     |
| Existing Highway                 | 80       | 80       | 80       | 80       | 80       | <b>8</b>      |
| Intermodal Terminal Facilities   | 22.5     | 22.5     | 42       | 22.5     | 4.5      | <b>6</b>      |
| Interstate                       | 10       | 20       | 28       | 28       | 10       | <b>8</b>      |
| Sewer Treatment Facilities       | 70       | 70       | 70       | 70       | 24.5     | <b>7</b>      |
| Solid Waste Treatment Facilities | 80       | 80       | 80       | 80       | 14       | <b>8</b>      |
| <b>Total Weighted Score</b>      | 663.5    | 659.5    | 630.5    | 629.75   | 605      |               |

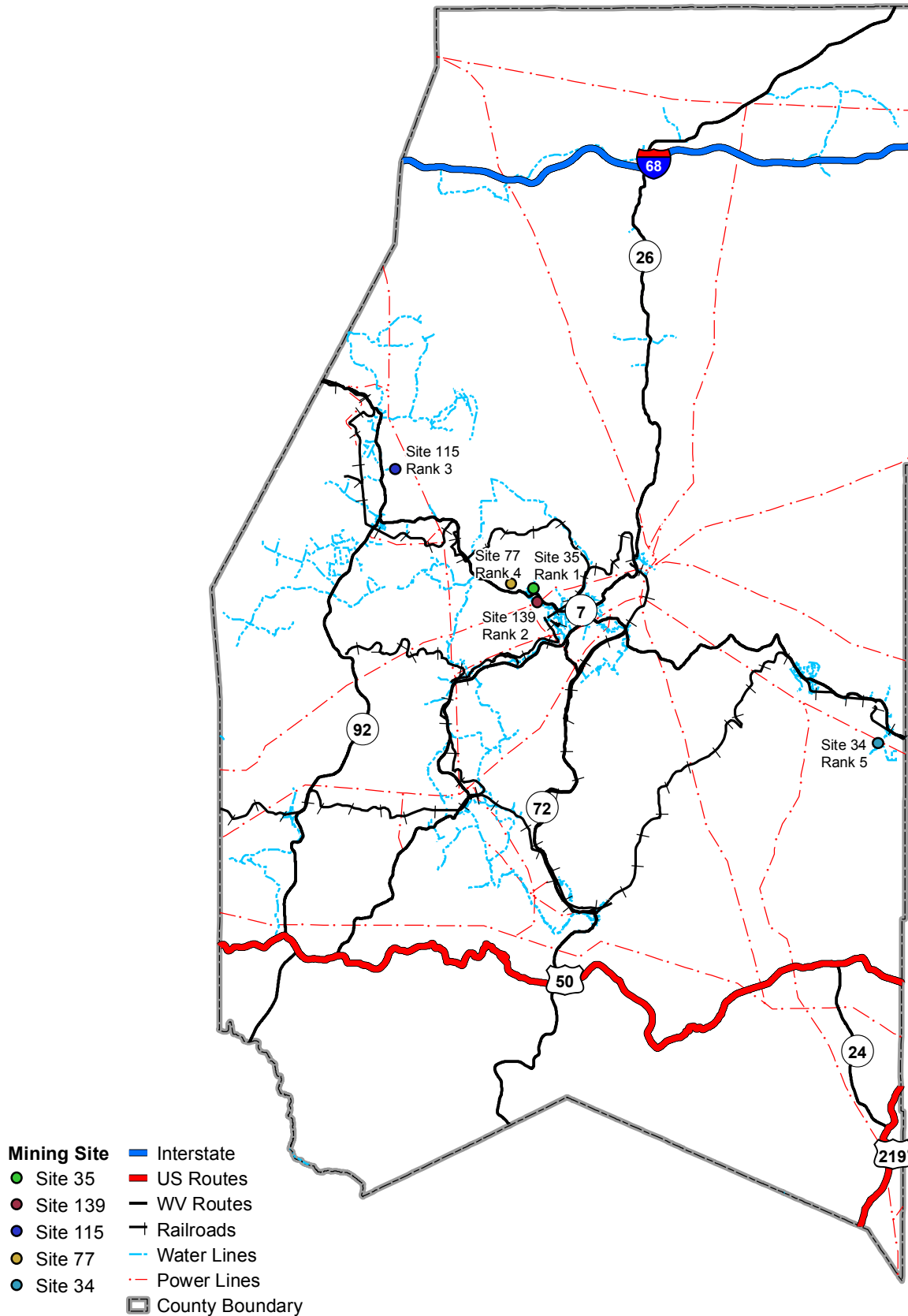
**Table C: Absolute/Relative Score Comparison Between Top Five Sites for Potential Development**

| <b>Suitability Ranking</b>       | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>Weight</b> |
|----------------------------------|----------|----------|----------|----------|----------|---------------|
| Broadband                        | 7        | 5        | 7        | 7        | 7        | <b>9</b>      |
| Gas Pipes                        | 1        | 1        | 1        | 1        | 10       | <b>6</b>      |
| National Waterway Network        | 1        | 1        | 1        | 1        | 1        | <b>4</b>      |
| Pipe Lines                       | 10       | 5        | 1        | 5        | 7        | <b>6</b>      |
| Power Lines                      | 10       | 10       | 10       | 7        | 10       | <b>10</b>     |
| Railroads                        | 10       | 10       | 1        | 7        | 10       | <b>5</b>      |
| Sewer Lines                      | 10       | 10       | 10       | 10       | 7        | <b>8</b>      |
| Water Lines                      | 10       | 10       | 10       | 10       | 10       | <b>10</b>     |
| Existing Highway                 | 10       | 10       | 10       | 10       | 10       | <b>8</b>      |
| Intermodal Terminal Facilities   | 5        | 5        | 7        | 5        | 3        | <b>6</b>      |
| Interstate                       | 5        | 5        | 7        | 7        | 5        | <b>8</b>      |
| Sewer Treatment Facilities       | 10       | 10       | 10       | 10       | 7        | <b>7</b>      |
| Solid Waste Treatment Facilities | 10       | 10       | 10       | 10       | 7        | <b>8</b>      |
| <b>Total Absolute Score</b>      | 99       | 92       | 85       | 90       | 94       |               |

| <b>Suitability Ranking</b>       | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>Weight</b> |
|----------------------------------|----------|----------|----------|----------|----------|---------------|
| Broadband                        | 5        | 5        | 10       | 7.5      | 10       | <b>9</b>      |
| Gas Pipes                        | 2.5      | 2.5      | 2.5      | 2.5      | 10       | <b>6</b>      |
| National Waterway Network        | 7.5      | 7.5      | 10       | 7.5      | 2.5      | <b>4</b>      |
| Pipe Lines                       | 10       | 10       | 7.5      | 10       | 10       | <b>6</b>      |
| Power Lines                      | 7.5      | 10       | 7.5      | 7.5      | 10       | <b>10</b>     |
| Railroads                        | 10       | 10       | 5        | 10       | 10       | <b>5</b>      |
| Sewer Lines                      | 10       | 10       | 10       | 10       | 10       | <b>8</b>      |
| Water Lines                      | 10       | 10       | 10       | 10       | 10       | <b>10</b>     |
| Existing Highway                 | 10       | 10       | 10       | 10       | 10       | <b>8</b>      |
| Intermodal Terminal Facilities   | 7.5      | 7.5      | 10       | 7.5      | 2.5      | <b>6</b>      |
| Interstate                       | 2.5      | 5        | 5        | 5        | 2.5      | <b>8</b>      |
| Sewer Treatment Facilities       | 10       | 10       | 10       | 10       | 5        | <b>7</b>      |
| Solid Waste Treatment Facilities | 10       | 10       | 10       | 10       | 2.5      | <b>8</b>      |
| <b>Total Relative Score</b>      | 102.5    | 107.5    | 107.5    | 107.5    | 95       |               |

# Top Five Sites for Potential Development

## Preston County



Source: Rahall Transportation Institute Analysis 2015

0 1.5 3 6 9 12 Miles

**Site's General Info.**

|                     |                 |
|---------------------|-----------------|
| Permittee           | K. C. Coal Co   |
| Facility Name       | N/A             |
| Permit ID           | C000985         |
| Issue Date          | 12/19/1985      |
| Expiration Date     | 12/19/1990      |
| Current Acres       | N/A             |
| Lat                 | 39° 28'53.0000" |
| Long                | 79° 42'23.0000" |
| Nearest Post Office | Unknown         |

|                     |              |
|---------------------|--------------|
| Site Number         | <b>35</b>    |
| Suitability Ranking | <b>1</b>     |
| Total Score         | <b>663.5</b> |

**Distance Analysis Results**

|                                  |       |
|----------------------------------|-------|
| Broadband                        | 1.99  |
| Gas Pipes                        | 5.60  |
| National Waterway Network        | 18.21 |
| Pipe Lines                       | 0.23  |
| Power Lines                      | 0.41  |
| Railroads                        | 0.88  |
| Sewer Lines                      | 0.08  |
| Water Lines                      | 0.01  |
| Existing Highway                 | 0.67  |
| Intermodal Terminal Facilities   | 21.56 |
| Interstate                       | 14.74 |
| Sewer Treatment Facilities       | 1.21  |
| Solid Waste Treatment Facilities | 3.44  |

Site number 35 should be the first choice for potential development. The distance from the site to gas pipes, sewer treatment facilities, and solid waste treatment facilities are about average. The site still has the highest total score since it is located quite close to several other major criteria such as water lines (0.01 miles) and sewer lines (0.08 miles).





### Site's General Info.

|                     |                 |
|---------------------|-----------------|
| Permittee           | J.E.B., Inc     |
| Facility Name       | N/A             |
| Permit ID           | S106386         |
| Issue Date          | 10/27/1986      |
| Expiration Date     | 10/27/1991      |
| Current Acres       | 42              |
| Lat                 | 39° 28'32.0000" |
| Long                | 79° 42'15.0000" |
| Nearest Post Office | Unknown         |

|                     |              |
|---------------------|--------------|
| Site Number         | <b>139</b>   |
| Suitability Ranking | <b>2</b>     |
| Total Score         | <b>659.5</b> |

### Distance Analysis Results

|                                  |       |
|----------------------------------|-------|
| Broadband                        | 2.16  |
| Gas Pipes                        | 5.70  |
| National Waterway Network        | 17.36 |
| Pipe Lines                       | 0.62  |
| Power Lines                      | 0.01  |
| Railroads                        | 0.47  |
| Sewer Lines                      | 0.15  |
| Water Lines                      | 0.02  |
| Existing Highway                 | 0.16  |
| Intermodal Terminal Facilities   | 20.70 |
| Interstate                       | 14.43 |
| Sewer Treatment Facilities       | 0.36  |
| Solid Waste Treatment Facilities | 3.13  |

Site number 139 is listed as the second suitable site for post-mine land development. The site is fairly close to several important criteria. It is 0.01 miles to a power line (10 pts. in the suitability model) and only 0.02 miles to water lines (10 pts.). Even though the site is farther than average to Interstates and broadband, short distances to other factors still make it a good choice for development.





### Site's General Info.

|                     |                 |
|---------------------|-----------------|
| Permittee           | Volkstone Co    |
| Facility Name       | N/A             |
| Permit ID           | S101388         |
| Issue Date          | 9/26/1988       |
| Expiration Date     | 9/26/1993       |
| Current Acres       | N/A             |
| Lat                 | 39° 31'50.0000" |
| Long                | 79° 47'21.0000" |
| Nearest Post Office | Unknown         |

|                     |              |
|---------------------|--------------|
| Site Number         | <b>115</b>   |
| Suitability Ranking | <b>3</b>     |
| Total Score         | <b>630.5</b> |

### Distance Analysis Results

|                                  |       |
|----------------------------------|-------|
| Broadband                        | 1.16  |
| Gas Pipes                        | 7.63  |
| National Waterway Network        | 12.54 |
| Pipe Lines                       | 1.43  |
| Power Lines                      | 0.48  |
| Railroads                        | 6.37  |
| Sewer Lines                      | 0.88  |
| Water Lines                      | 0.24  |
| Existing Highway                 | 0.59  |
| Intermodal Terminal Facilities   | 15.87 |
| Interstate                       | 9.80  |
| Sewer Treatment Facilities       | 1.44  |
| Solid Waste Treatment Facilities | 2.99  |

Site number 115 is ranked as the third most suitable site for post-mine land development in the County. There are a few advantages of the site including short distances to national waterway network (12.54 miles), intermodal terminal facilities (15.87 miles), and Interstate (9.8 miles). However, railroad access is slightly farther from the site's center (6.37 miles).



### Site's General Info.

|                     |                        |
|---------------------|------------------------|
| Permittee           | Lewis Coal And Coke Co |
| Facility Name       | N/A                    |
| Permit ID           | S003875                |
| Issue Date          | 2/7/1975               |
| Expiration Date     | 2/7/1980               |
| Current Acres       | N/A                    |
| Lat                 | 39° 29'0"              |
| Long                | 79° 43'11.0000"        |
| Nearest Post Office | Unknown                |

|                     |               |
|---------------------|---------------|
| Site Number         | <b>77</b>     |
| Suitability Ranking | <b>4</b>      |
| Total Score         | <b>629.75</b> |

### Distance Analysis Results

|                                  |       |
|----------------------------------|-------|
| Broadband                        | 1.61  |
| Gas Pipes                        | 6.19  |
| National Waterway Network        | 16.67 |
| Pipe Lines                       | 0.52  |
| Power Lines                      | 0.77  |
| Railroads                        | 1.43  |
| Sewer Lines                      | 0.68  |
| Water Lines                      | 0.23  |
| Existing Highway                 | 0.31  |
| Intermodal Terminal Facilities   | 20.02 |
| Interstate                       | 13.94 |
| Sewer Treatment Facilities       | 1.07  |
| Solid Waste Treatment Facilities | 4.05  |

Site number 77 has the fourth highest score in the suitability model for its relative close distances to several criteria including existing highways (0.31 miles), intermodal terminal facilities (20.02 miles), and sewer treatment facilities (1.07 miles). All of those criteria receive high absolute points. The distances from the site to other important criteria, such as broadband and solid waste treatment facilities, are above average (4.05 miles).





**Site's General Info.**

|                     |                      |
|---------------------|----------------------|
| Permittee           | Grafton Coal Company |
| Facility Name       | N/A                  |
| Permit ID           | S001575              |
| Issue Date          | 1/23/1975            |
| Expiration Date     | 1/23/1980            |
| Current Acres       | 11.75                |
| Lat                 | 39° 25'0"            |
| Long                | 79° 30'0"            |
| Nearest Post Office | Unknown              |

|                     |            |
|---------------------|------------|
| Site Number         | <b>34</b>  |
| Suitability Ranking | <b>5</b>   |
| Total Score         | <b>605</b> |

**Distance Analysis Results**

|                                  |       |
|----------------------------------|-------|
| Broadband                        | 1.02  |
| Gas Pipes                        | 0.27  |
| National Waterway Network        | 30.23 |
| Pipe Lines                       | 0.36  |
| Power Lines                      | 0.09  |
| Railroads                        | 0.56  |
| Sewer Lines                      | 1.64  |
| Water Lines                      | 0.05  |
| Existing Highway                 | 0.53  |
| Intermodal Terminal Facilities   | 33.59 |
| Interstate                       | 18.90 |
| Sewer Treatment Facilities       | 3.71  |
| Solid Waste Treatment Facilities | 12.05 |

Site number 34 has the fifth highest score in the suitability model. The site is located close to utility features such as broadband (1.02 miles), gas pipes (0.27 miles), pipe lines (0.36 miles), and power lines (0.09 miles), which makes the site suitable for consideration as a future residential area. The only disadvantage is the above average distance to existing highway (0.53 miles).



## **I. Introduction**

Senate Bill (SB) 603, passed in the 2001 Legislative Session, mandates the development of a Land Use Master Plan (LUMP) by counties with surface mining operations. The creation of a LUMP would facilitate the development of economic or community assets, secure developable land and infrastructure, and ensure that post-mining land use proposed in any reclamation plan is in compliance with the specified land use in the approved LUMP. In order to promote acceptable principles of smart growth within the desired community it has become evident that a sustainable land use plan is needed to determine development needs within a community. The detailed document addresses the physical development needs of properties within the coalfield counties and provides guidelines, strategies, and a framework for future decisions relating to land use and projected community needs.

The 1977 Surface Mining Control and Reclamation Act established a program for the regulation of surface mining activities and the reclamation of coal-mined lands. The Act requires that coal operators minimize the disturbance and adverse impact on the environment and community in addition to restoring the mined property to its approximate original contour. Special provisions are granted for operators who offer development plans for post-mining land use, in which the coal operators (private sector) make capital investments towards land development that would benefit the community (public sector) affected by the mining operations. This unique opportunity, also known as Public-Private Partnership (P3), has far-reaching consequences on those communities with coal mining operations. The operators utilize the LUMP, created by the county officials with post-mine land use in mind, to gain insight into the land and infrastructure needs of the local community and then materialize the development opportunities described in the LUMP. The LUMP leverages private investment to facilitate public development, which is critical to the sustainability of counties and communities. Community sustainability requires a transition from poorly managed land to land-use planning practices that create and maintain efficient infrastructure, ensure close-knit neighborhoods and sense of community, and preserve natural systems.

RTI, a nationally recognized center of excellence for rural transportation research, was established through the Transportation Equity Act for the 21st Century passed by Congress in 1998 and is funded through a grant from the Research and Innovative Technology Administration (RITA) of the US Department of Transportation. As a University Transportation Center, RTI has cultivated relationships with private industry and public agencies to leverage resources, technology and strategic thinking to improve mobility and to stimulate economic development. RTI has taken the lead in conducting site-specific research, supporting multimodal planning and analysis to improve mobility and global connectivity for rural regions. The Office of Coalfield Community Development (OCCD) was created by the 1999 Legislative Session to assist communities affected by surface mining activity throughout the State. With the passage of SB 603 in 2001, the responsibilities of the OCCD changed to include working with local economic development agencies to develop land use master plans and include the

recommendations of local economic redevelopment authorities in the reclamation plans of surface mine permits. The OCCD established criteria to consider development of these sites, provided for certain land uses as post-mining land uses and stipulated that master plans must comport to environmental reclamation requirements. The office allows existing and future surface mining permits to include master plan criteria and reclamation standards.

This plan provides information and analysis specifically for Preston County. Preston County's economy is comprised mainly of employment and activities in the Government, Construction, and Trade, Transportation, and Utilities sectors. The resulting combination has led to a constant increase in total wages. However, an aging population and limited employment diversification should still be considered. This plan will put focus on these issues, encouraging an analysis of the range of options available to policymakers, including land use planning.

This plan, including both the demographic and post-mine site analysis, requires data gathered from professional, secondary sources. Every attempt has been made to verify the accuracy of this data. However, the datasets are subject to differing methodologies, third-party error, and changes in time. Any and all information should be verified for accuracy.

## **II. Planning Area**

Established by the Virginia General Assembly in 1818, Preston County was formed 45 years before West Virginia became a state. It was named for the governor of Virginia, James Patton Preston. In its early years, the northern portion of the county was served by the National Road. In the 1850s, however, the introduction of the Baltimore and Ohio (B&O) Railroad supplied a method of transport for Preston's abundance of resources (particularly coal and timber products). A hundred years after the arrival of the railroad, the construction of Interstate 68 and an assortment of other roads and bridges began to ease travel across the County's challenging terrain. Although coal, timber, and agriculture remain important aspects of the Present County economy, technology, tourism, historic preservation, health care, and education have all emerged as contributors.<sup>1</sup>

## **III. Existing Conditions**

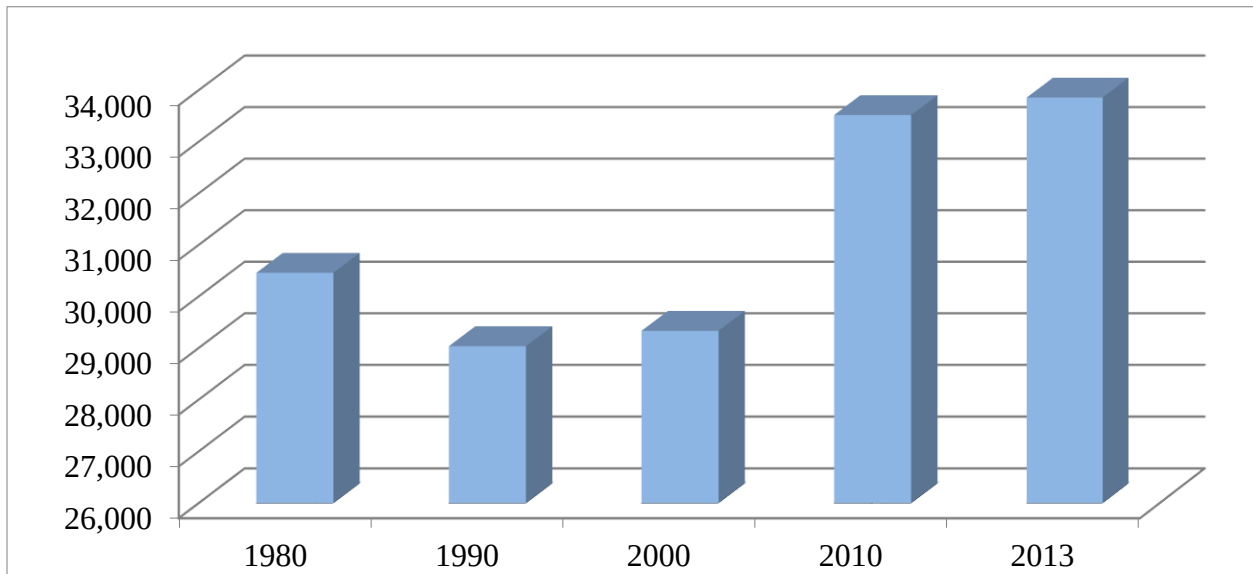
This information will provide a background understanding of the demographic trends in the county. This base information is meant to provide overall detail on Preston County's status as it stands. Part IV will deal with possible future site development information, to be considered with the demographic data to target strategies for investment.

<sup>1</sup> Sisler, Janice. 2013. "Preston County." e-WV: The West Virginia Encyclopedia. Accessed March 13, 2015.

## Population

The population of Preston County was nearly 34,000 in 2013 according to Stats Indiana, ranking it 17<sup>th</sup> in county population among the 55 counties in West Virginia.<sup>2</sup> The decennial censuses show that Preston County lost population from 1980 to 2000, but has resumed growth into the 2000s through 2013.

**Figure 1: Census Populations for Preston County**



Source: Stats Indiana, USA Counties in Profile

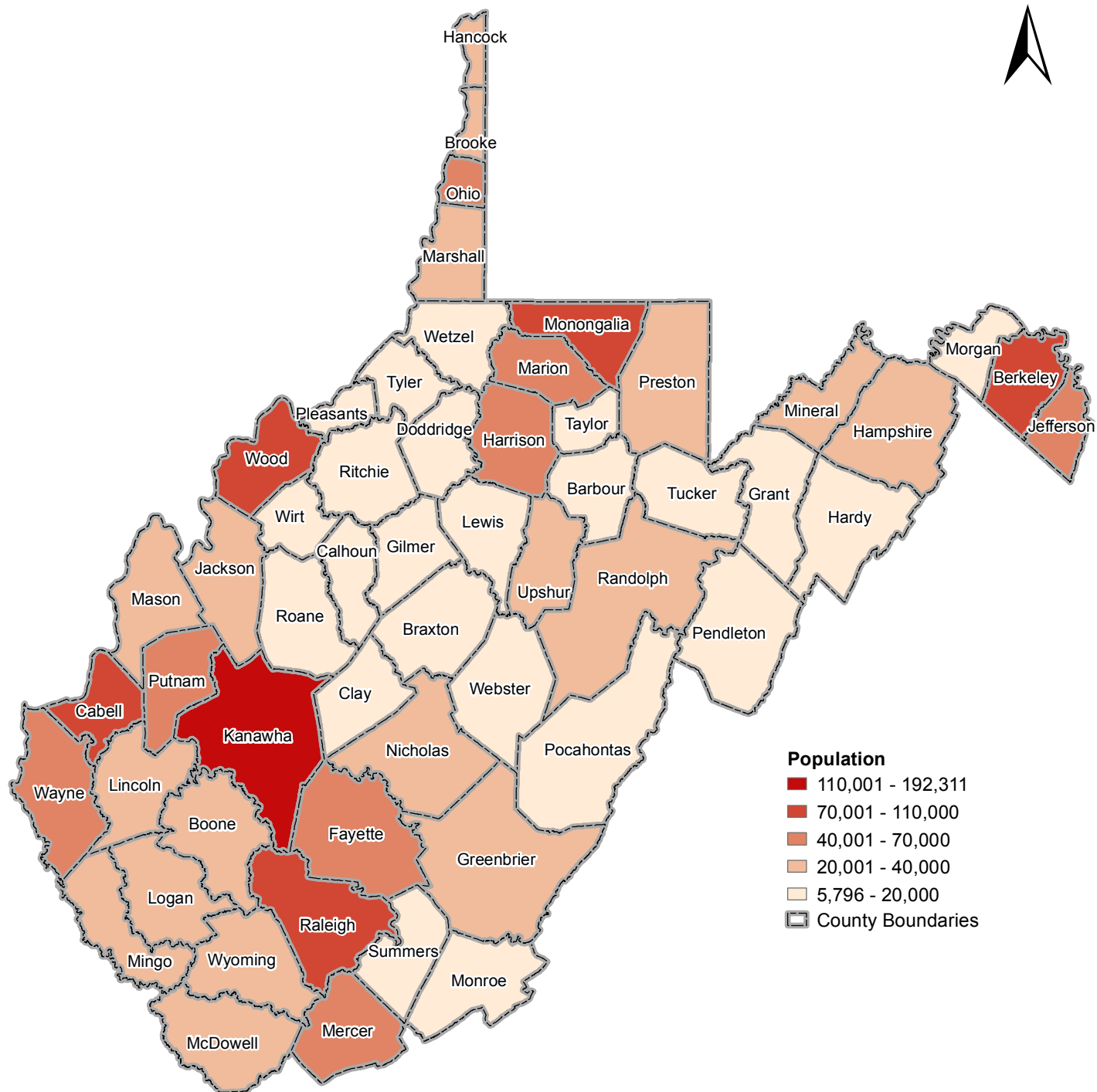
Map 1 illustrates the Preston County population compared to West Virginia overall. Preston's population is below average for the State, but not among the least populated counties.

<sup>2</sup> U.S. Census Bureau, "2013 American Community Survey 5-year Estimates," Accessed January 19, 2015, [www.factfinder2.census.gov](http://www.factfinder2.census.gov)



# Demographic

## Population



0 15 30 60 90 120 Miles

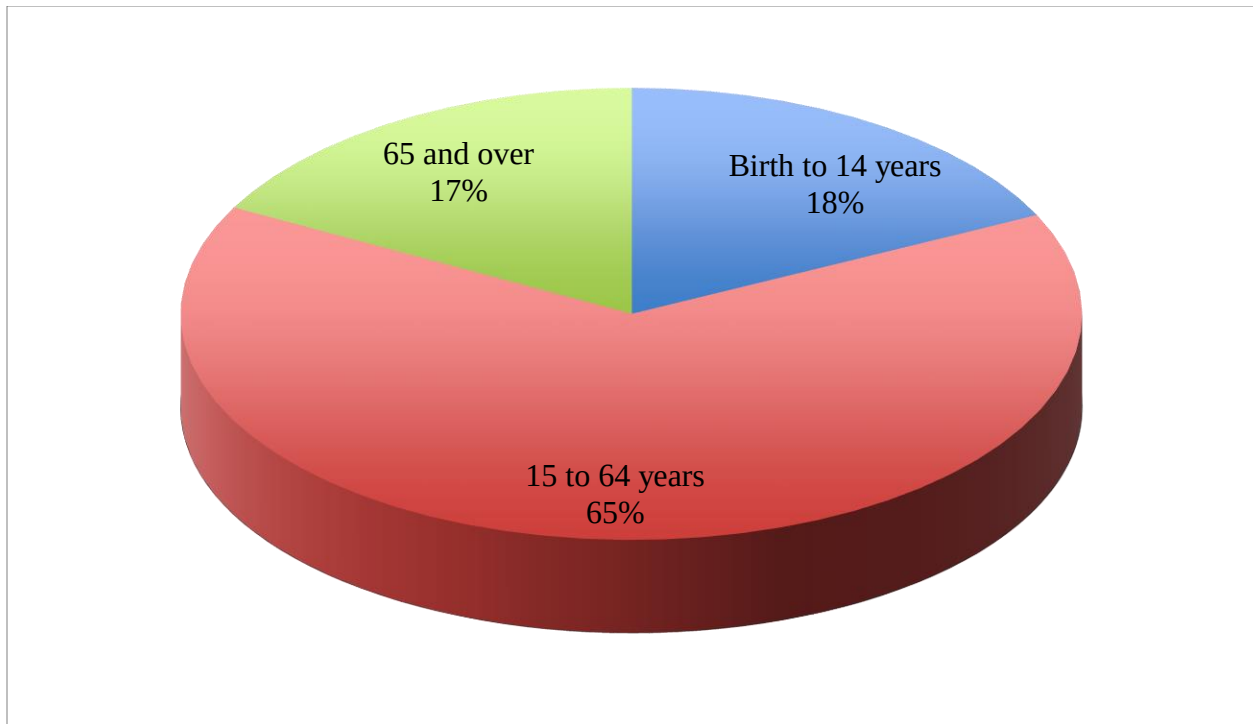
Source: U.S. Census Bureau, 2009-2013 American Community Survey

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According to the ACS, approximately 23 percent of Preston County residents are 60 years of age and over, while 14 percent are between 5 and 17 years of age and just over 5 percent are below the age of 5. Approximately 5,500 people (or 16 percent) are of retirement age. The median age in Preston is 42, which is very near the median age of the State (Map 2). The majority of the population is of prime working age, as denoted in Figure 2.

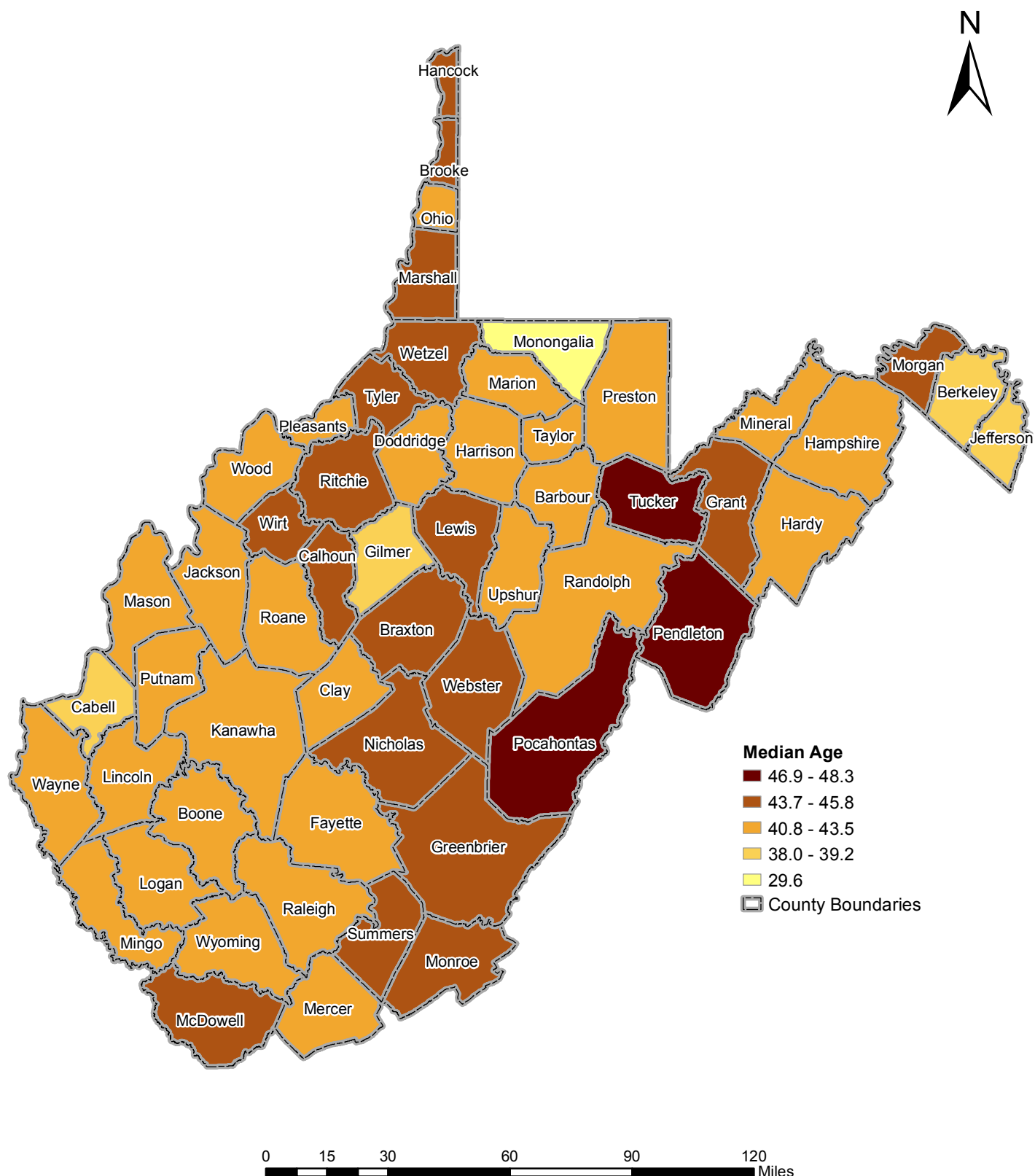
**Figure 2: Preston County Age Breakdown**



Source: 2013 American Community Survey 5-Year Estimate Calculation

# Demographic

## Median Age

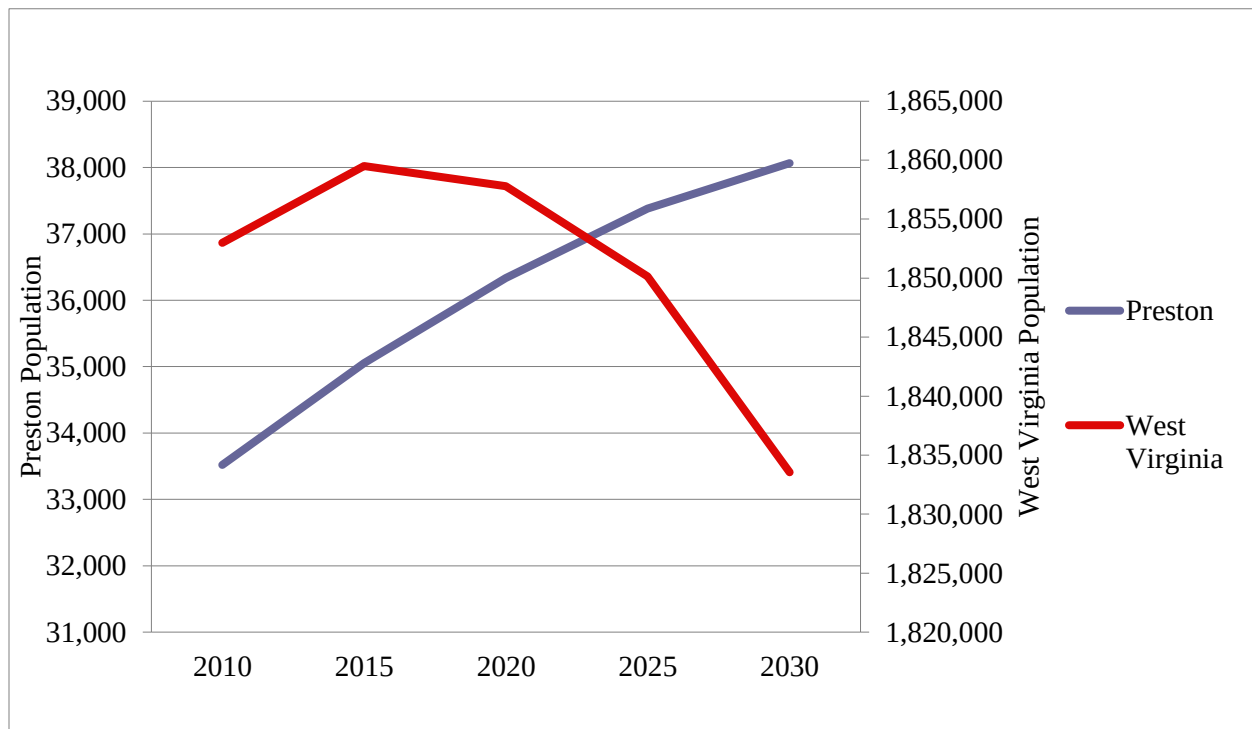


Source: U.S. Census Bureau, 2009-2013 American Community Survey

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The Bureau of Business and Economic Research at West Virginia University projects a 13.6 percent increase in the Preston County population between 2010 and 2030, which is significantly higher than the projected decline of 1.1 percent expected for West Virginia.<sup>3</sup> The model for the projection is based on past population patterns and statistics, and should not be taken as permanent. The projected increase is expected to occur smoothly over these decades.

**Figure 3: Population Projections**



Source: WVU Bureau of Business and Economic Research

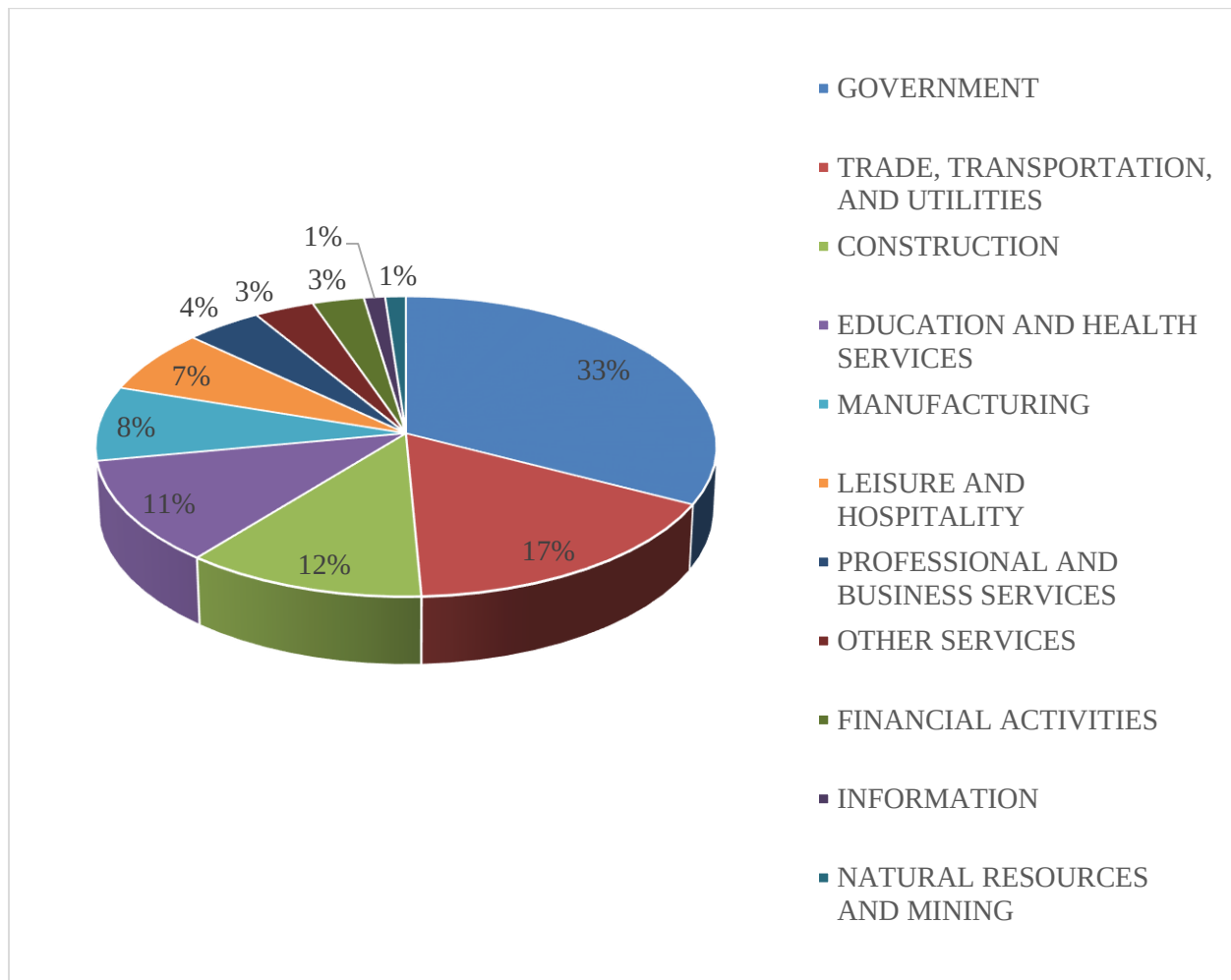
<sup>3</sup> Christiadi, Deskins, J. and Lego, B. "Population Trends in West Virginia through 2030." Bureau of Business and Economic Research, College of Business and Economics, West Virginia University, Morgantown, WV (March 2014).



## Employment

Workforce West Virginia has a complete dataset on employment numbers and wages. The total number of employed in Preston County in 2013 was 6,852. Approximately 33 percent of wage earners in Preston County worked in Government and approximately 17 percent worked in Trade, Transportation, and Utilities. Along with Construction and Education and Health Services, these four industries comprise nearly three-quarters of Preston County's total employment, suggesting a less-diversified mix of industry employment.

**Figure 4: 2013 Preston County Employment**

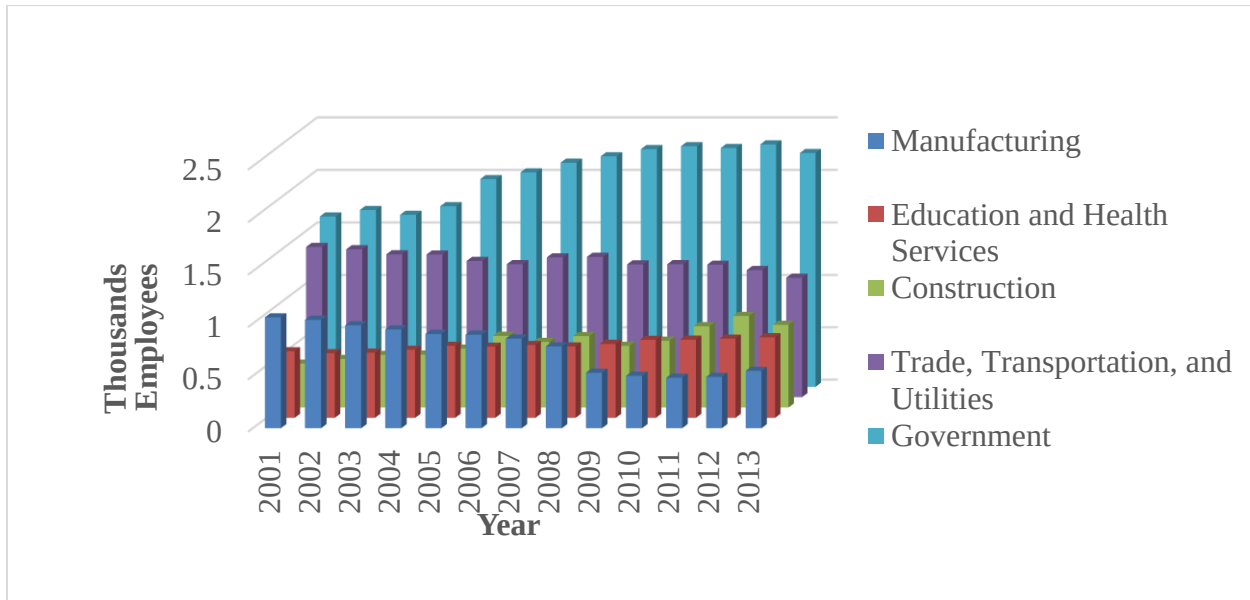


Source: Workforce West Virginia

The current top five sectors have generally been the top five employers over the past decade in Preston County. Construction has seen the largest growth (of nearly 90 percent since 2001). Employment in Trade, Transportation, and Utilities and Manufacturing experienced declines of approximately 20 percent and 48 percent, respectively, over this time period. Although already experiencing decline, the Manufacturing sector in particular was particularly affected by the economic downturn from 2008 to 2010. Despite declining nearly 14 percent from 2008 to 2009,

employment in the Construction sector rebounded by approximately 34 percent from 2009 to 2013.

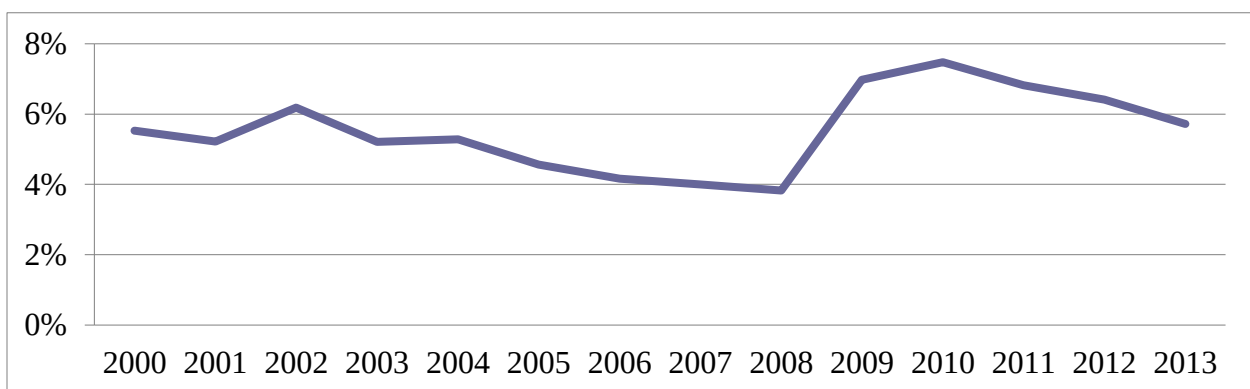
**Figure 5: Preston County Employment by 5 Sectors 2001-2012**



Source: Workforce West Virginia

The civilian labor force in the County is one of the most interesting statistics when determining potential investors. As Map 3 shows, Preston's participation rate is higher than most counties in the State. One component of the labor force, the unemployment rate, shows a fairly steady decline from the early 2000s to 2008. As with most areas, Preston experienced a sudden increase in the unemployment rate in 2008 (see Figure 6). Unemployment in this County increased through 2010 then began to fall through 2013. Note that Bureau of Labor Statistics data is used for this graph and Census data is used for Map 4. These data differ as the Census is reporting a five-year estimate that includes the increase noted during the recent economic recession.

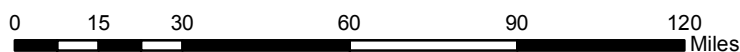
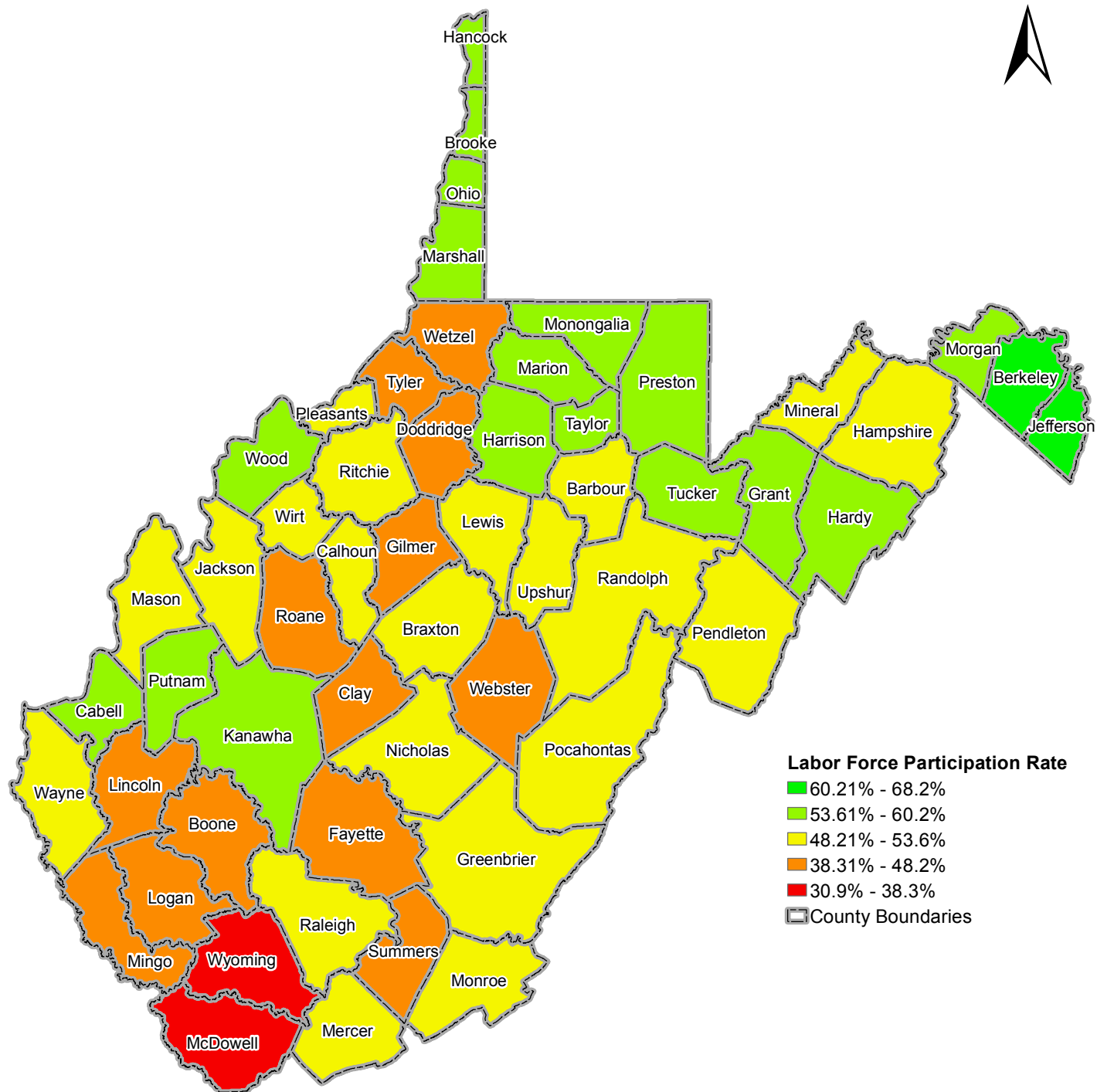
**Figure 6: Preston County Unemployment Rate**



Source: Bureau of Labor Statistics

# Demographic

## Labor Force Participation Rate



Source: U.S. Census Bureau, 2009-2013 American Community Survey

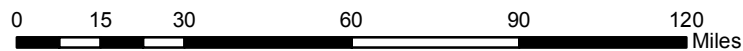
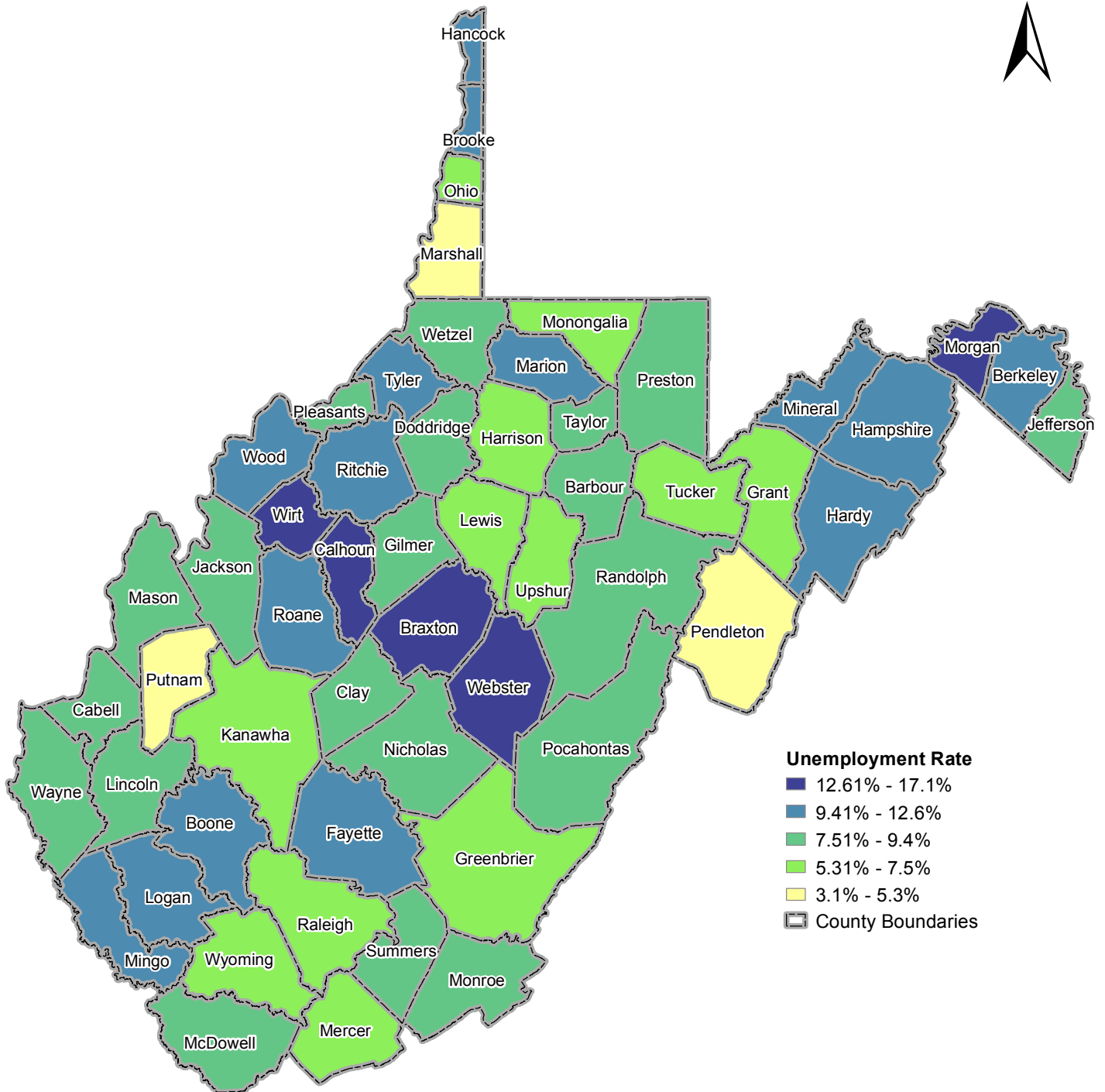
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www.njrati.org

# Demographic

## Unemployment Rate



Source: U.S. Census Bureau, 2009-2013 American Community Survey

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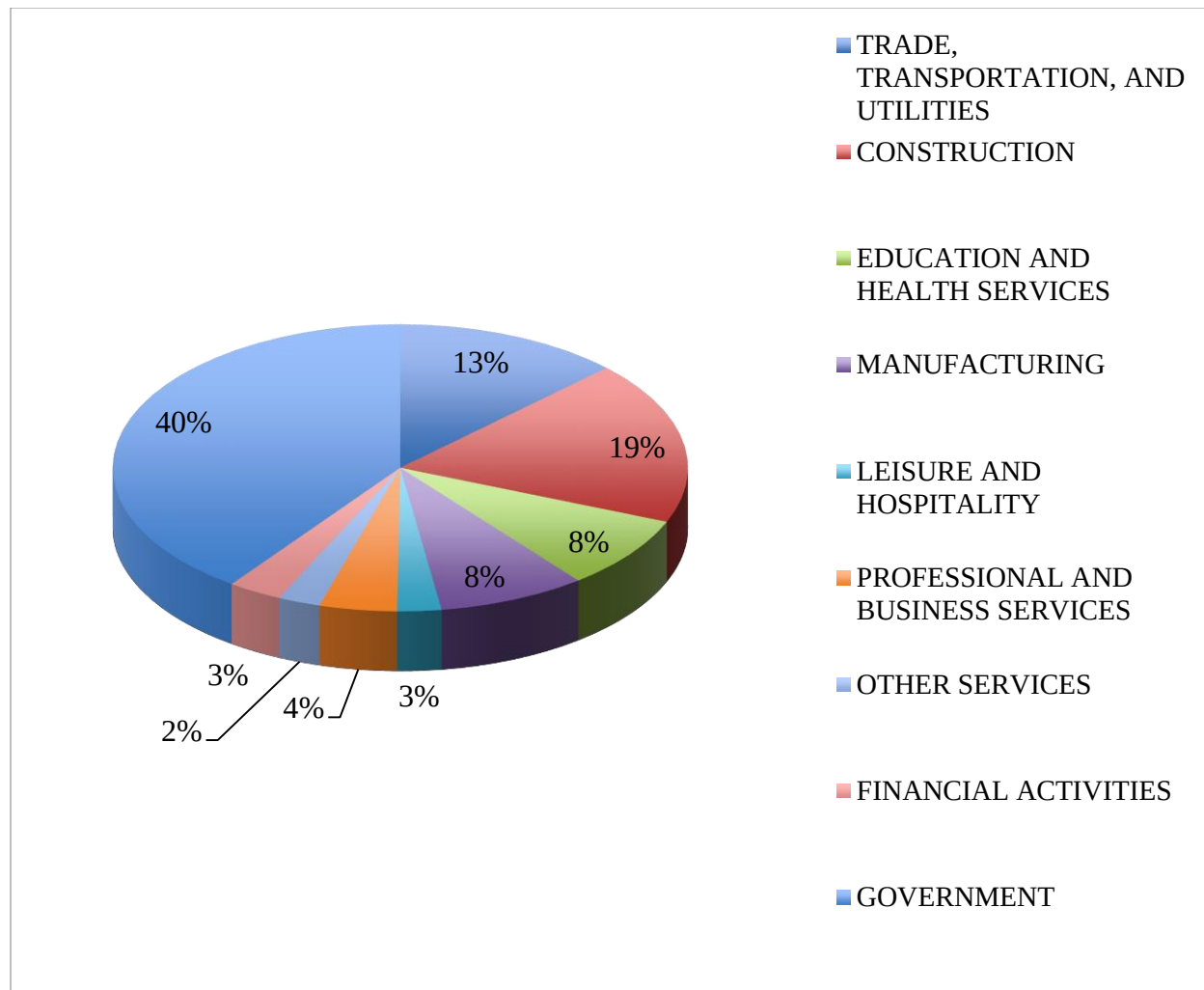


www.njrati.org

## Wages and Income

Preston County's wage contributors vary widely in the level of contribution. The highest, Government, is due to the sector being the highest employer and one of the highest earning sectors in the County (Figure 7). Construction makes up the second-highest in total wages (approximately 19 percent) followed by Trade, Transportation and Utilities. As with employment, wages in other sectors in Preston County make up much smaller portions.

**Figure 7: 2013 Preston County Total Wages**

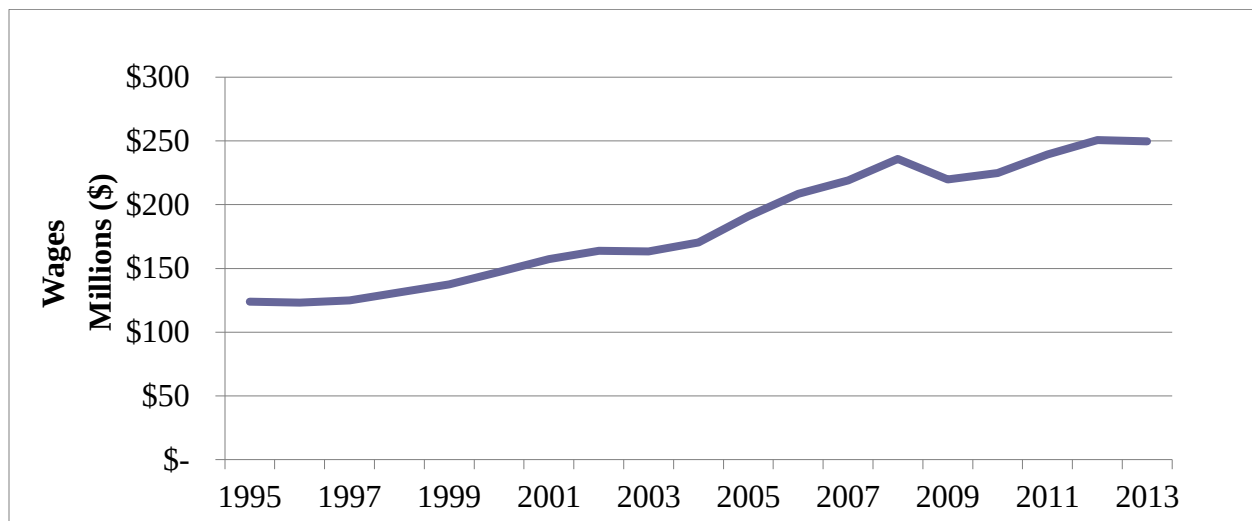


Source: Workforce WV

Historically, wages for Preston County have shown a tendency to rise, though there was some stagnation in the mid-1990s. Preston County experienced relatively steady employment growth, allowing for wages to rise despite recession and cost-cutting factors that led to an increase in unemployment in other sectors. Figure 8 shows total wages for Preston County, which have generally experienced increase in the 2000s with the exception of 2008 to 2009.



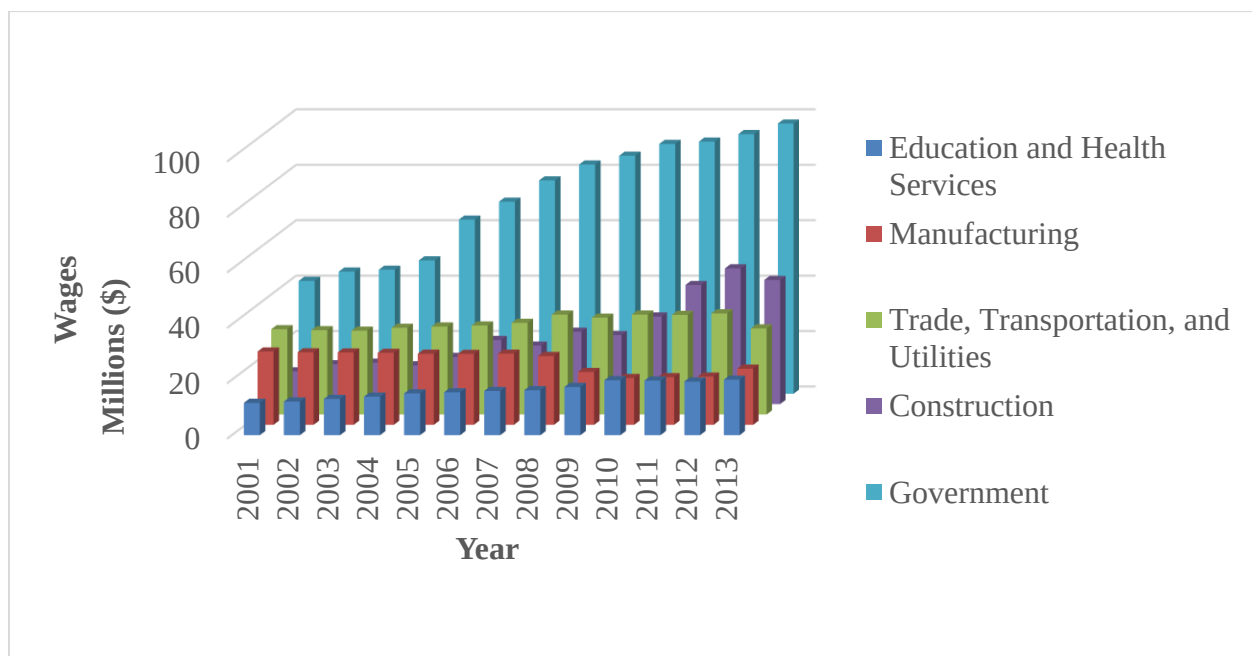
**Figure 8: Preston County Total Wages 1995-2013**



Source: Workforce WV

Figure 9 confirms the general trend in wages and that most of the top sectors grew throughout the decade. Wages in the Construction sector experienced the most growth since 2001 (increasing nearly 280 percent). Wages in the Education and Health Services sector experienced relatively steady growth during this time period, and wages in the Government sector increased substantially since 2001 with a heavy period of growth beginning in 2005.

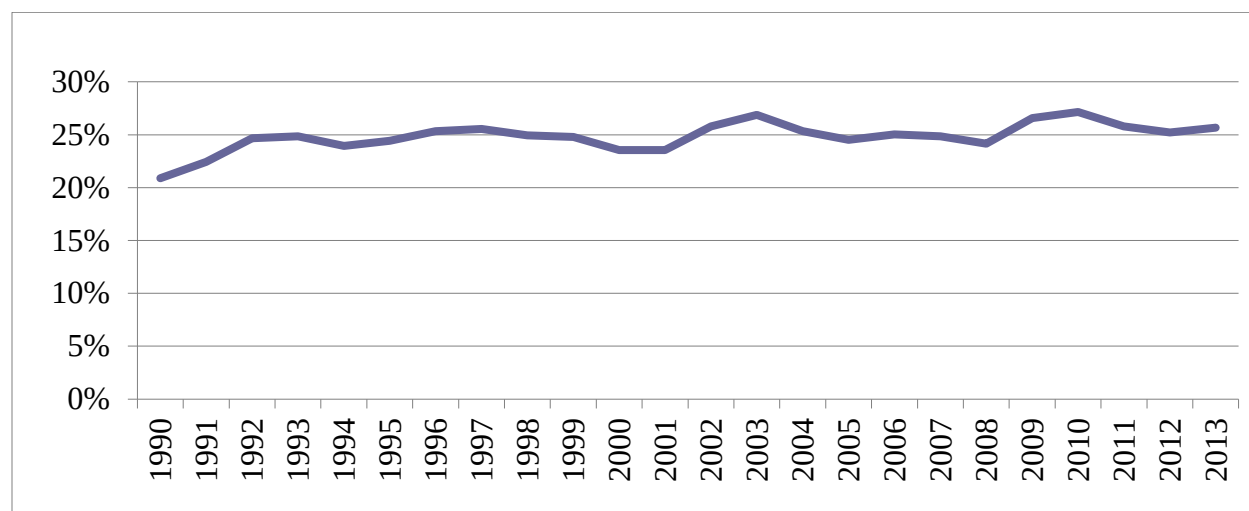
**Figure 9: Preston County Total Wages by 4 Sectors 2001-2012**



Source: Workforce WV

In most American counties, one would find that the majority of income for people stems from wages. In West Virginia, however, an important distinction must be made between income and wages. Income is the total receipt of earnings resulting from any economic activity, while wages are derived from actual work in an employed setting. Therefore, dividends from stockholdings are considered income, but not wages. In Preston County, wages for all employment exceeded \$249.7 million.<sup>4</sup> By comparison, income for the County was larger, exceeding \$1 billion in 2013.<sup>5</sup> Though there are many components to income other than work earnings, 26 percent of total Preston County income is derived from government transfers. Government transfers accounted for nearly 98 percent of total transfers in Preston County, dwarfing transfers from private institutions such as charities. Government transfers have contributed between 21 and 27 percent of income over the past 24 years. This does not count the wages for government workers. This number is similar to many other counties in West Virginia, and is not the worst nor the best ratio in the State.

**Figure 10: Government Transfers as a Percentage of Income for Preston County**



Source: U.S. Bureau of Economic Analysis

Total personal income of Preston County is therefore made up of 26 percent government transfers. Compared to the State, Preston County has a below average ratio of government transfers to personal income. According to the BEA, per capita income was \$30,463 for Preston County in 2013. Annual net earnings, or income from work, is displayed in Map 5, and Preston is ranked in the middle range in earned income in West Virginia.

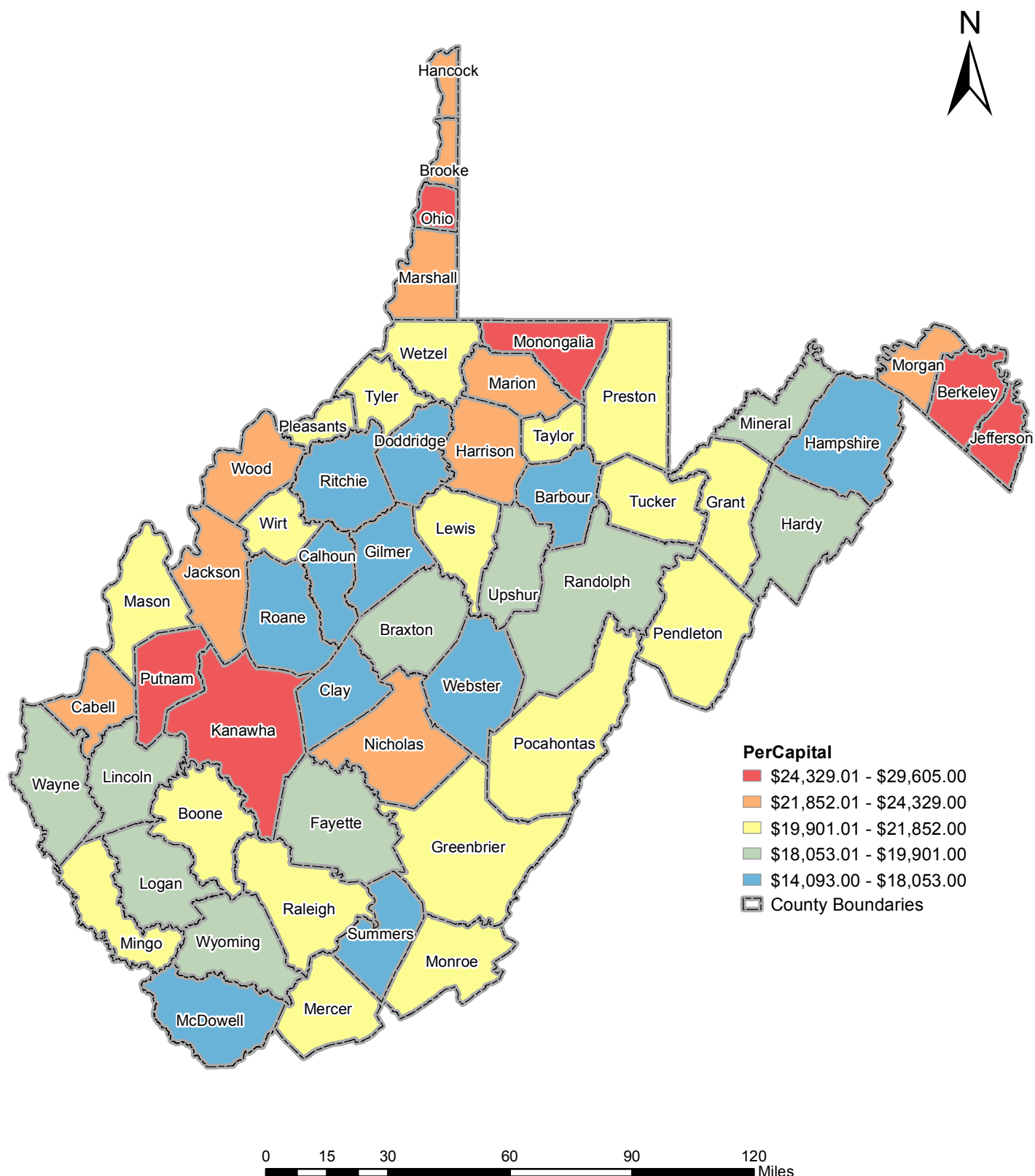
<sup>4</sup> "Employment and Wages – 2013, Preston County," Workforce West Virginia, Accessed January 18, 2015, <http://www.workforcewv.org/lmi/EW2011/ew11x059.htm>

<sup>5</sup> "Tables CA 04 and CA 35 analysis," Bureau of Economic Analysis, Regional Economic Accounts, Local Area Person Income and Employment, Accessed January 18, 2015, <http://www.bea.gov/regional/index.htm>.

Another measure of economic health is the number of establishments that do business in the area. Map 6 shows the number of establishments in each county in West Virginia. Preston County appears to be at the lowest end of the spectrum. The number of establishments may be misleading, as the Education and Health Services and Government sectors are typically characterized by a small number of firms.

# Demographic

## Per Capita Annual Net Earning



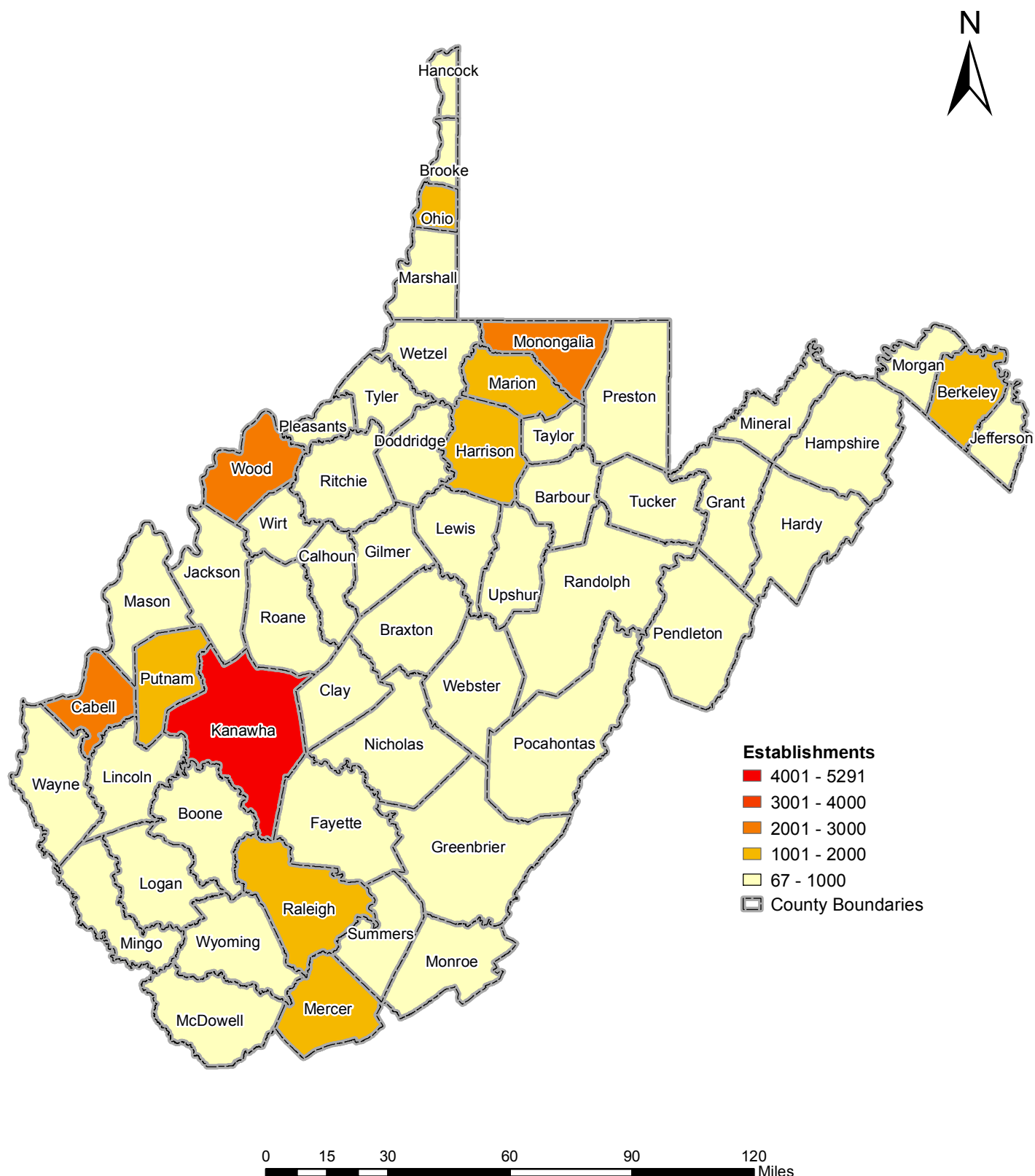
Source: U.S. Census Bureau, 2009-2013 American Community Survey

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# Demographic

## Number of Establishments



Source: U.S. Census Bureau, 2011

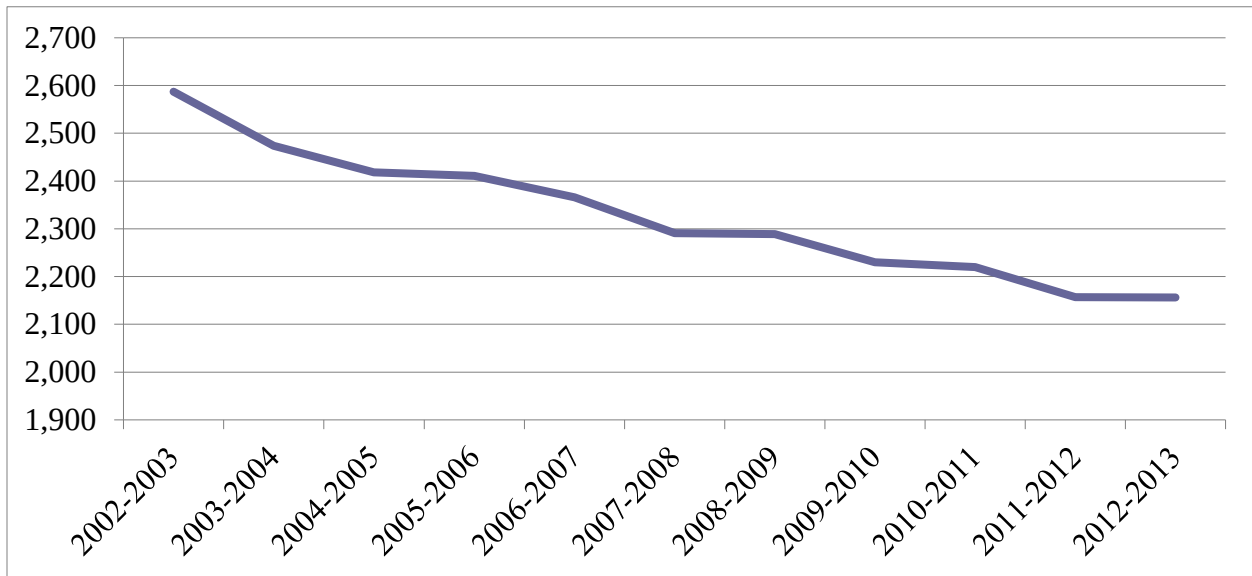
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## Education

Preston County has one high school, three middle schools, three elementary schools and three combined elementary and middle school as of the 2013-2014 school year.<sup>6</sup> Preston County 2<sup>nd</sup> month school enrollment exhibited an overall decline from the early 2000s, decreasing nearly 17 percent. Preston County's 2<sup>nd</sup> month enrollment is about average for the State (Map 7).

**Figure 11: Preston County School Enrollment**

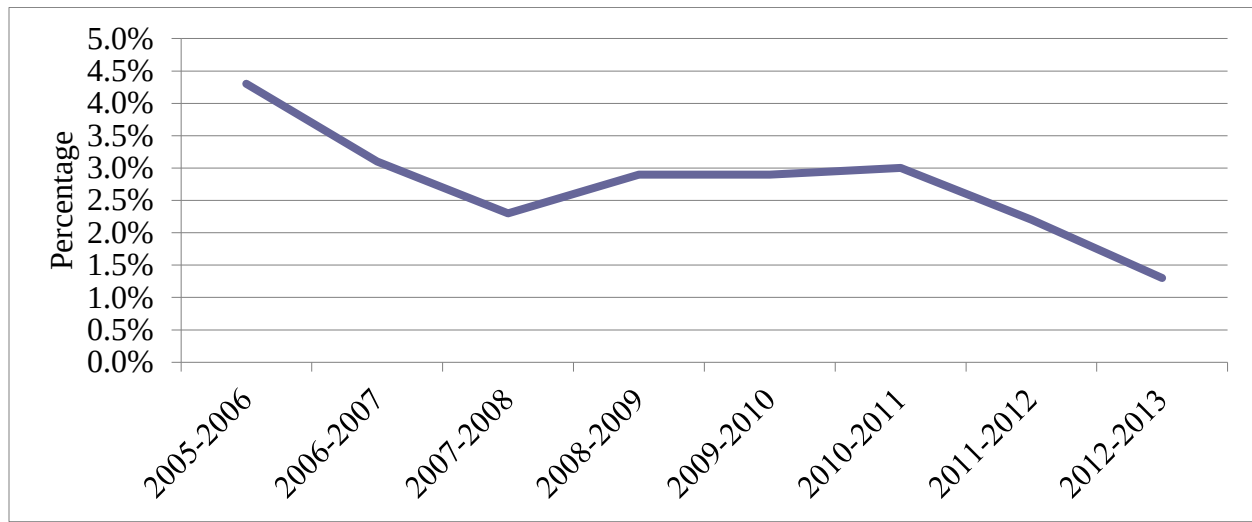


Source: WVEIS

<sup>6</sup> "District Profile—Preston," West Virginia Education Information System (WVEIS), West Virginia Department of Education, Accessed March 9, 2015, [http://wveis.k12.wv.us/nclb/profiles/c\\_profile.cfm?cn=070](http://wveis.k12.wv.us/nclb/profiles/c_profile.cfm?cn=070).

The West Virginia Education Information System (WVEIS) also has dropout rates for the school years from 2005-2006 to 2012-2013. Dropout rates for grades 7-12, which showcase the most likely time for school dropouts, do not follow the total enrollment statistic, as total enrollment is computed with the grades below 7<sup>th</sup> grade as well. Dropout rates experienced a period of slight increase between the 2007-2008 and 2010-2011 school years, despite declines in the preceding two school years (Figure 12). Declines resumed from 2010-2011 to 2012-2013.

**Figure 12: Preston County Dropout Rate**

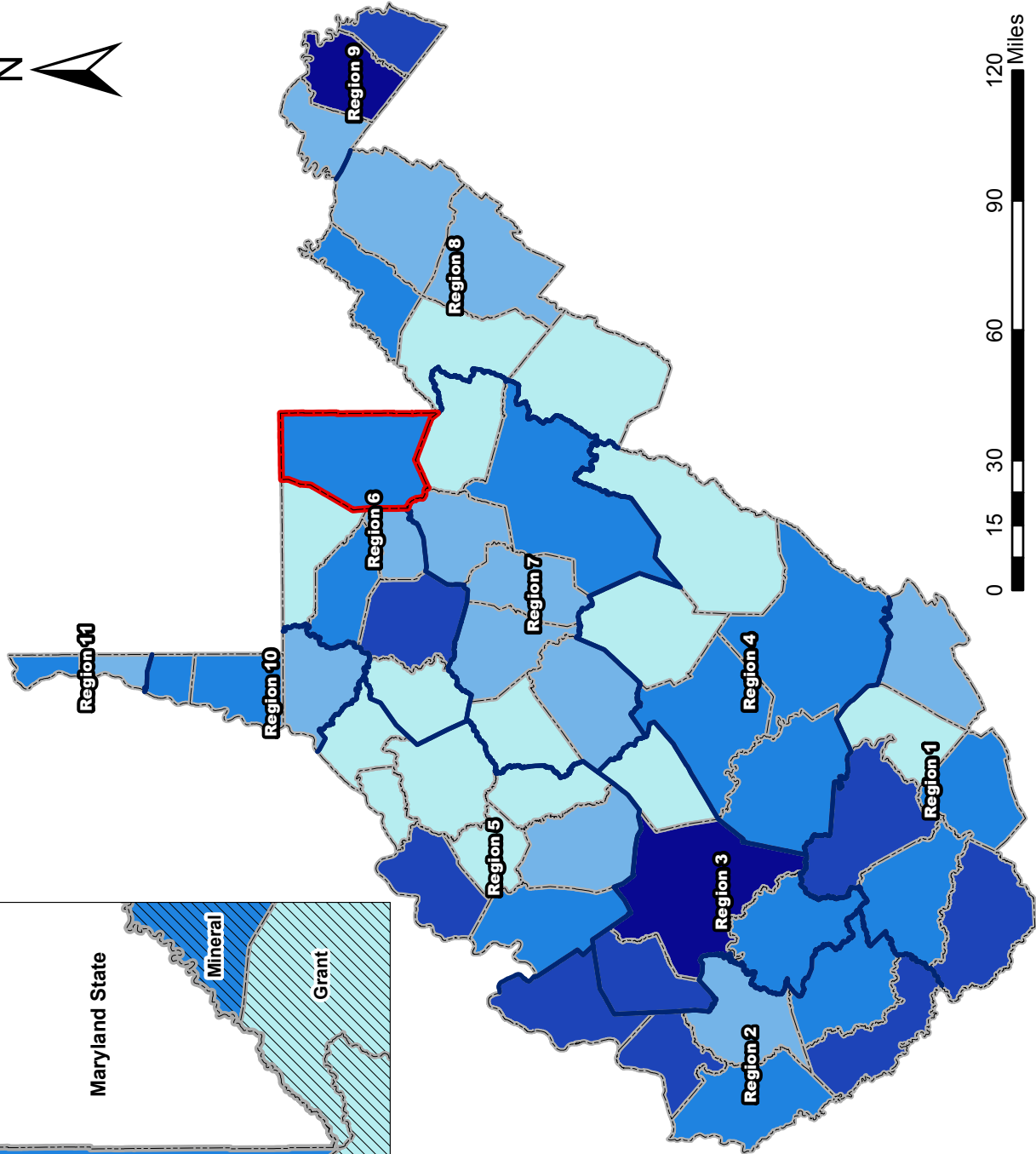


Source: WVEIS

Map 8 shows each county's dropout rate. Preston County has among the higher dropout rates in the State. Maps 9 and 10 show the total graduates and the graduation rate by county. In Preston, total graduates and graduation rates are below average for the State. Preston County's 10 schools' locations are noted in Map 11. Not coincidentally, the major schools are located on the main roads in the county. The largest school by attendance in the County is Preston High School. Most schools in Preston are located in the central portion of the County, typically along State Routes. Two small elementary schools are located along U.S. Route 50 in the County, and a larger elementary and middle combination school is located near I-68. Locating schools near major transportation routes can encourage school attendance and aid parents and students through steady access.

# NCLB - Second Month Enrollment

Preston County



Pennsylvania State

Maryland State

Monongalia

Marion

Taylor

Barbour

Harrison

Tucker

Grant

Mineral

Planning Regions Line

904 - 1978

1979 - 3832

3833 - 7412

7413 - 13259

13260 - 27936

County Boundaries

Source: West Virginia Department of Education 2015

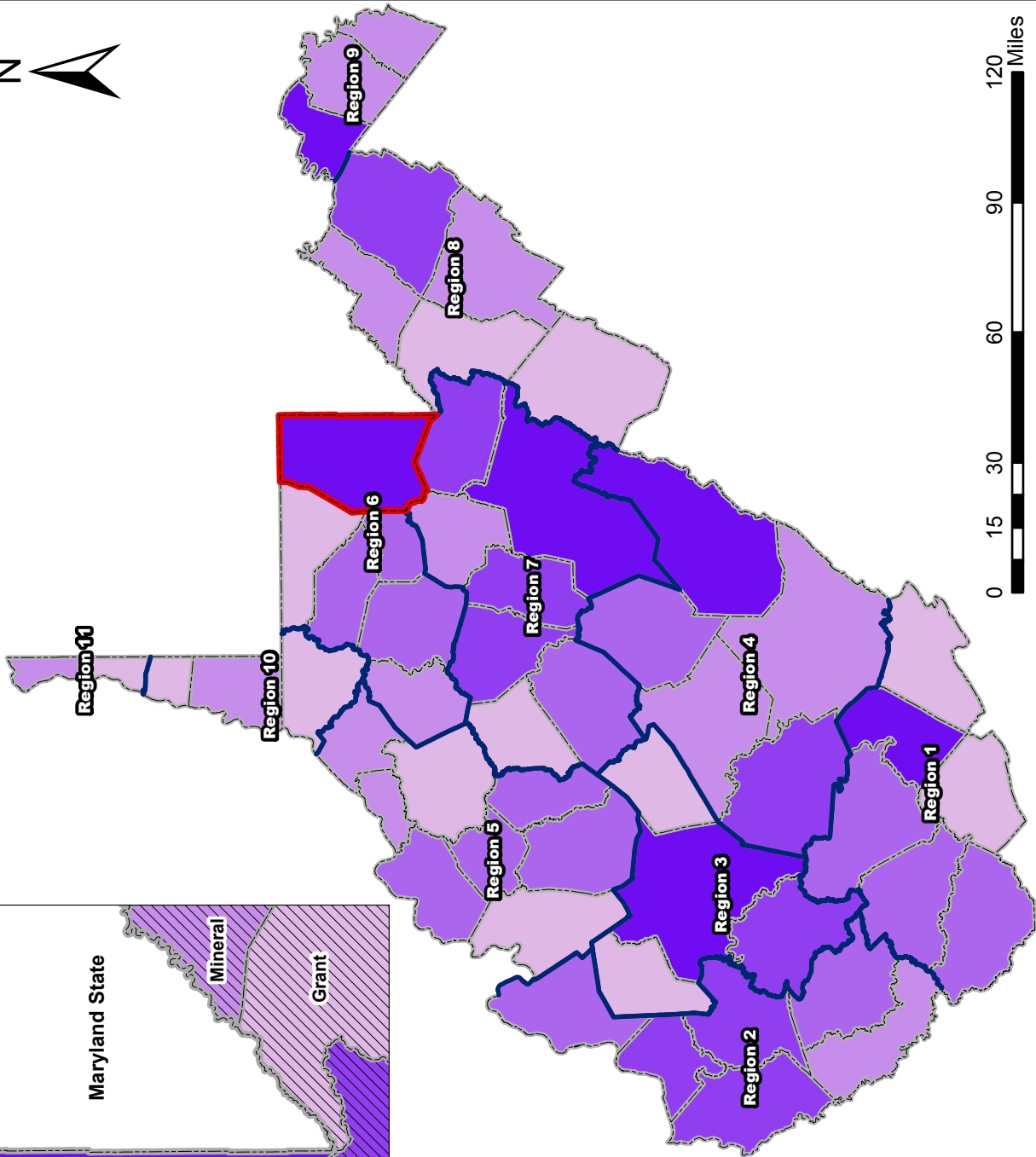
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# NCLB - Dropout Rate

Preston County



Planning Regions Line

0.05% - 0.60%

0.61% - 1.00%

1.10% - 1.50%

1.60% - 2.00%

2.10% - 3.00%

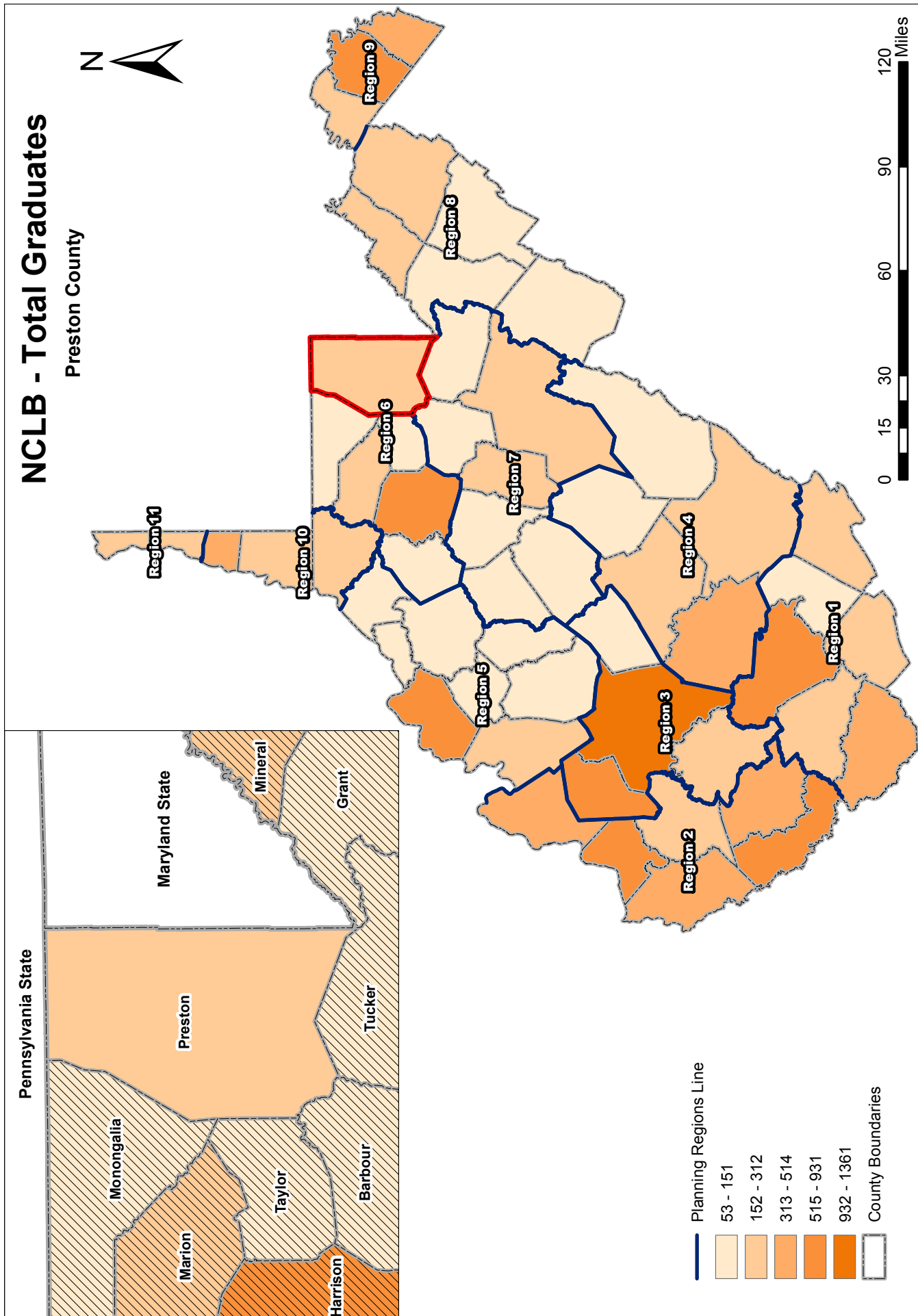
County Boundaries

Source: West Virginia Department of Education 2015

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Source: West Virginia Department of Education 2014

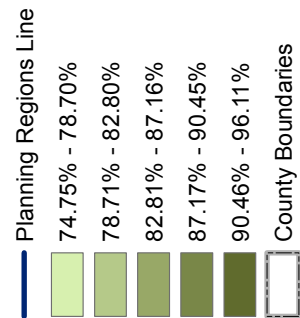
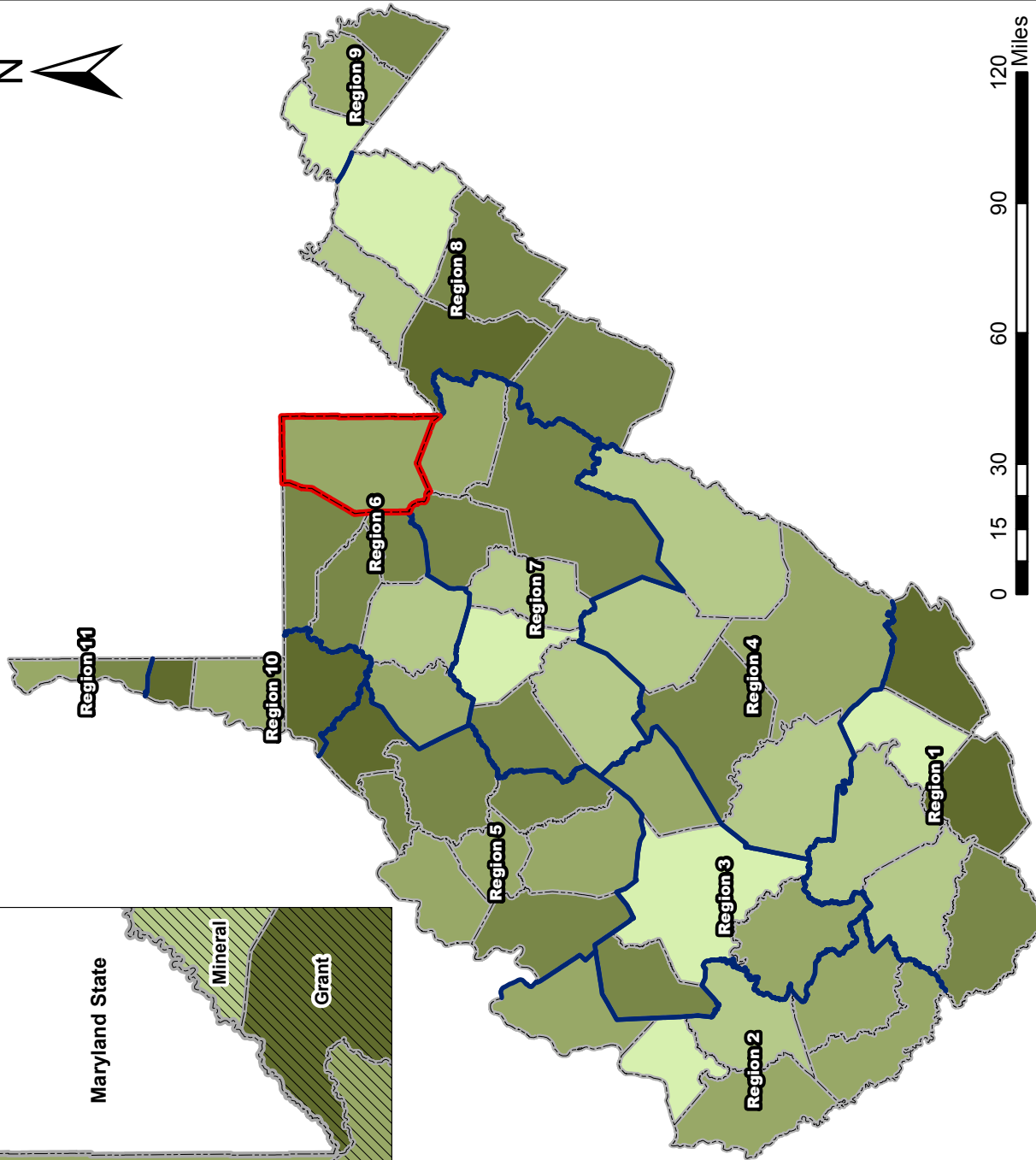
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www.rhahat.org

# NCLB - Graduates Rate

Preston County



Pennsylvania State

Maryland State

Monongalia

Marion

Taylor

Harrison

Barbour

Tucker

Preston

Mineral

Grant

Source: West Virginia Department of Education 2015

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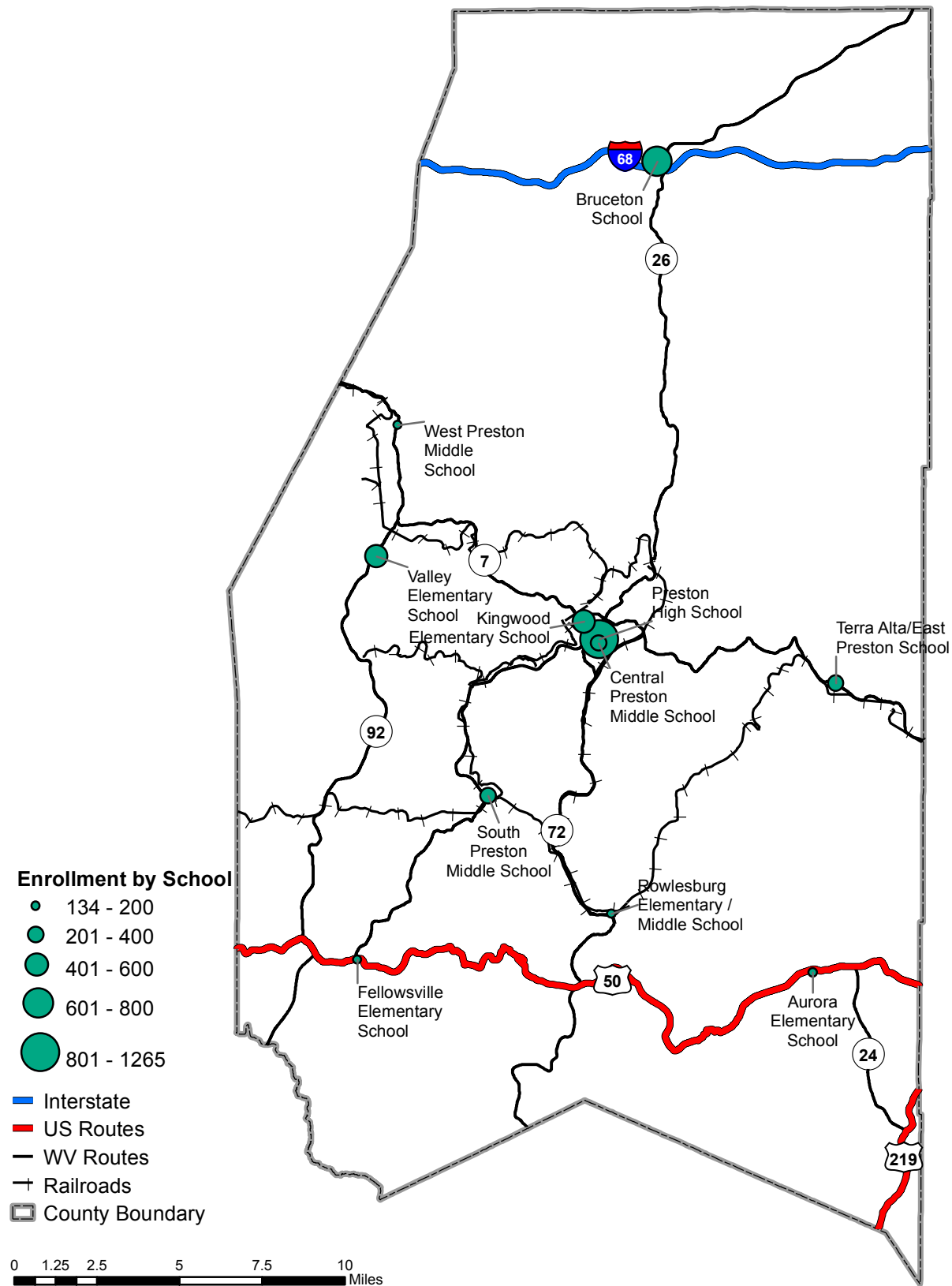


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# Total Attendance by School - 2015

## Preston County

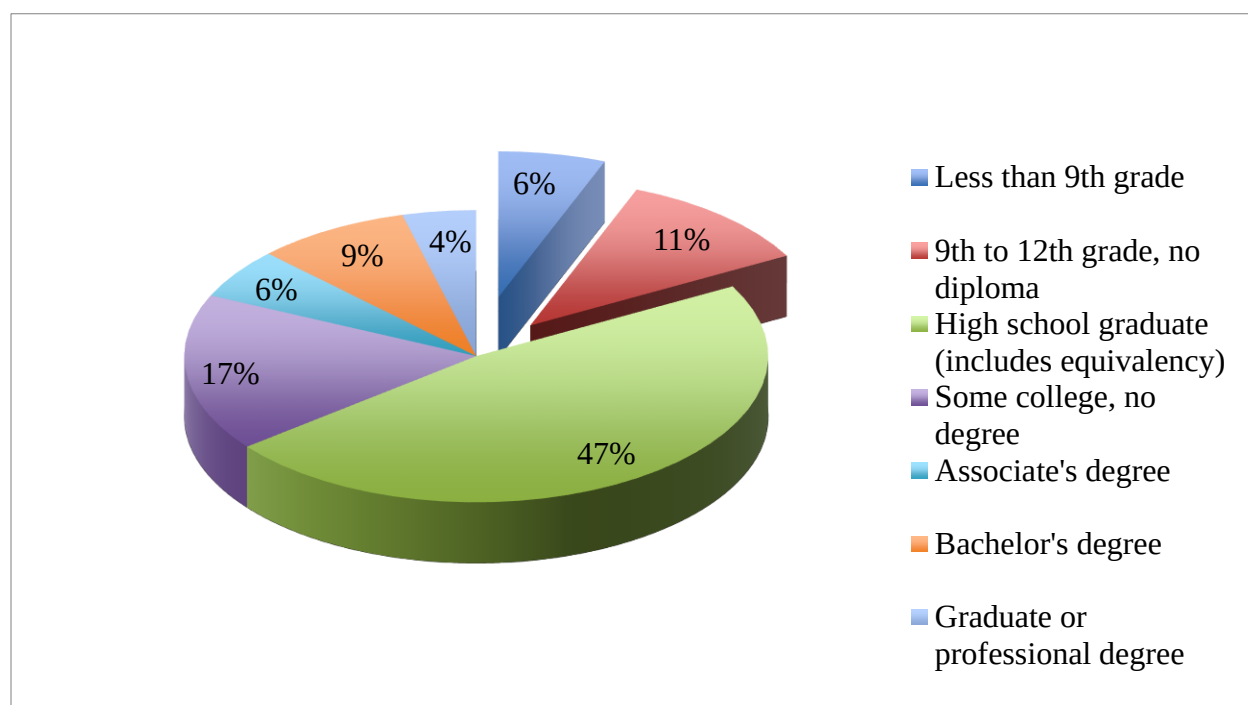


Source: West Virginia Department of Education 2015

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The ACS also maintains data on the educational attainment of the population that is 25 years and over. In Preston County, 47 percent of residents have a high school diploma or equivalent. Approximately 17 percent have less than a high school diploma, leaving only 36 percent of the remaining population with at least some college experience. This disproportion particularly concerning when the relationship between education and jobs is considered.

**Figure 13: Preston County Educational Attainment**



Source: 2013 American Community Survey 5-Year Estimates

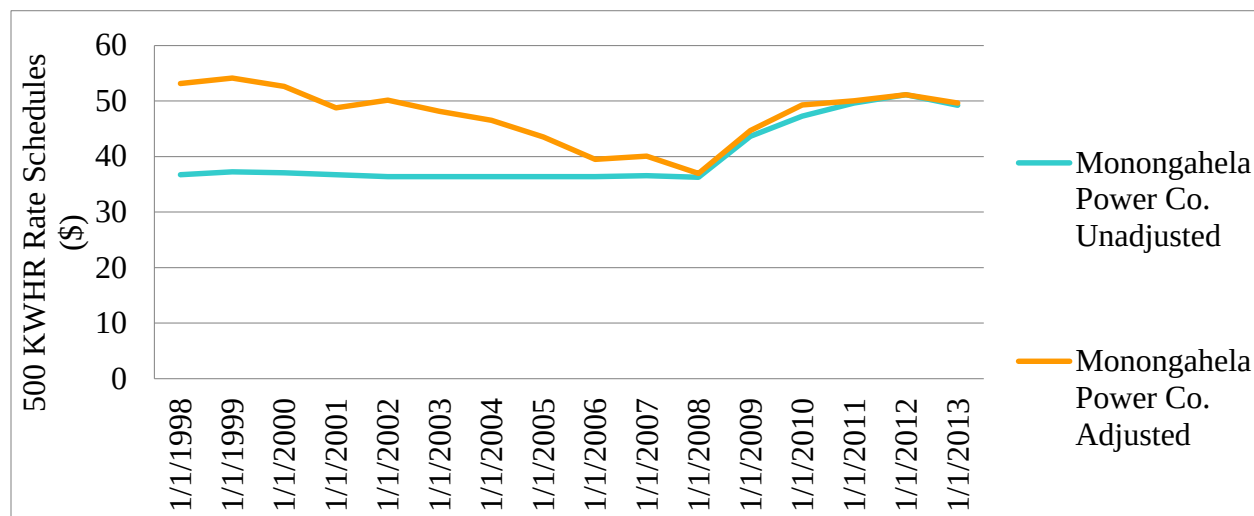
### Utilities and Infrastructure

Preston County has 36 utility companies according to the West Virginia Public Service Commission (PSC). Economic development depends on infrastructure, and Preston County has several providers of water and sewer, one major provider of electricity (Monongahela Power Company), one transmission company (Trans-Allegheny Interstate Line Company), and one electric wholesaler (MegaEnergy, Inc.).

The West Virginia Public Service Commission maintains tariff rates for all companies involved in providing utilities. Of particular importance are electricity tariffs; the monitoring of these tariffs is an ongoing project. To that end, the PSC observes the growth rate of tariffs and possesses a 20-year comparison based on the average residential utility rate of the State. This provides a significant overview of how electric prices behave in West Virginia as a whole. As Figure 14 shows, if the tariffs are not adjusted by the Consumer Price Index (CPI), it would appear that rates are constantly increasing. Viewing rates in such a manner would be a misunderstanding, and would be incorrect in reference to a State with the highs and lows of West

Virginia's past. The Bureau of Labor Statistics has a CPI for electricity prices dating from 1998 to 2013. The adjusted and unadjusted prices are provided in Figure 14.

**Figure 14: Power Company Prices**



Source: WV Public Service Commission and United States Bureau of Labor Statistics

The graph shows that electricity rates steadily decreased in real terms through 2008 and remained fairly constant with adjustment. Both adjusted and unadjusted prices have increased since 2008. Many possible factors contributed to this rise, including the increased costs of energy and the increased demand. Map 12 also shows the distribution of power lines, plants, and substations within West Virginia and Preston County.

The two other utilities of particular importance are water and sewer. Table 1 displays water and sewer metered rates for the providers of those services. They are all public services with varying rates and categories. Preston County has 25 public sewer and water providers. Maps 13 and 14 show the water and sewer facilities and the served areas for each of these utilities, as well as the solid waste management facilities in West Virginia, including one solid waste transfer station and one operational tire monofill and three non-operational facilities in the County.

**Table 1: Preston County Water and Sewer Rates**

| Town of Albright Water Works            |                            |
|-----------------------------------------|----------------------------|
| Water Rates                             |                            |
| First 2,000 gallons                     | \$ 15.23 per 1,000 gallons |
| Next 3,000 gallons                      | \$ 10.14 per 1,000 gallons |
| Next 5,000 gallons                      | \$ 7.72 per 1,000 gallons  |
| Next 10,000 gallons                     | \$ 6.10 per 1,000 gallons  |
| All over 20,000 gallons                 | \$ 5.57 per 1,000 gallons  |
| Town of Bruceton Mills Water Department |                            |

|                                              |                            |
|----------------------------------------------|----------------------------|
| <b>Water Rates</b>                           |                            |
| Minimum charge of \$21.00 per month          | \$7.00 per 1,000 gallons   |
| <b>City of Kingwood</b>                      |                            |
| <b>Water Rates</b>                           |                            |
| First 5,000 gallons                          | \$10.83 per 1,000 gallons  |
| Next 35,000 gallons                          | \$ 7.38 per 1,000 gallons  |
| All Over 40,000 gallons                      | \$ 6.96 per 1,000 gallons  |
| <b>Masontown Municipal Water Department</b>  |                            |
| <b>Water Rates</b>                           |                            |
| First 2,000 gallons                          | \$8.61 per 1,000 gallons   |
| Next 5,000 gallons                           | \$5.52 per 1 , 000 gallons |
| Next 8,000 gallons                           | \$4.67 per 1,000 gallons   |
| Next 10,000 gallons                          | \$4.11 per 1,000 gallons   |
| Next 25,000 gallons                          | \$3.37 per 1,000 gallons   |
| All Over 50,000 gallons                      | \$2.62 per 1,000 gallons   |
| <b>Town of Newburg</b>                       |                            |
| <b>Water Rates</b>                           |                            |
| First 2,000 gallons                          | \$7.20 per 1,000 gallons   |
| All over 2,000 gallons                       | \$7.20 per 1,000 gallons   |
| <b>Town of Rowlesburg Water Works</b>        |                            |
| <b>Water Rates</b>                           |                            |
| First 2,000 gallons                          | \$14.98 per 1,000 gallons  |
| Next 3,000 gallons                           | \$ 5.88 per 1,000 gallons  |
| Next 5,000 gallons                           | \$ 4.37 per 1,000 gallons  |
| Next 10,000 gallons                          | \$ 3.68 per 1,000 gallons  |
| Next 20,000 gallons                          | \$ 2.81 per 1,000 gallons  |
| All over 40,000 gallons                      | \$ 2.35 per 1,000 gallons  |
| <b>Terra Alta Municipal Water Department</b> |                            |
| <b>Water Rates</b>                           |                            |
| First 2,000 gallons                          | \$1 1.47 per 1,000 gallons |
| Next 6,000 gallons                           | \$10.10 per 1,000 gallons  |
| Next 7,000 gallons                           | \$ 7.99 per 1,000 gallons  |
| Next 10,000 gallons                          | \$ 6.46 per 1,000 gallons  |
| Next 225,000 gallons                         | \$ 5.88 per 1,000 gallons  |
| Over 250,000 gallons                         | \$ 5.51 per 1,000 gallons  |
| <b>Town of Tunnelton</b>                     |                            |
| <b>Water Rates</b>                           |                            |
| First 2,000 gallons used per month           | \$12.72 per 1,000 gallons  |
| Next 3,000 gallons used per month            | \$11.56 per 1,000 gallons  |

|                                                     |                           |
|-----------------------------------------------------|---------------------------|
| Next 5,000 gallons used per month                   | \$10.23 per 1,000 gallons |
| Next 10,000 gallons used per month                  | \$ 8.25 per 1,000 gallons |
| All Over 20,000 gallons used per month              | \$ 7.15 per 1,000 gallons |
| <b>Preston County Public Service District No. 1</b> |                           |
| <b>Water Rates</b>                                  |                           |
| First 3,000 gallons used per month                  | \$ 8.98 per 1,000 gallons |
| Next 3,000 gallons used per month                   | \$ 7.18 per 1,000 gallons |
| Next 4,000 gallons used per month                   | \$ 6.14 per 1,000 gallons |
| Next 10,000 gallons used per month                  | \$ 5.14 per 1,000 gallons |
| AU over 20,000 gallons used per month               | \$ 3.57 per 1,000 gallons |
| <b>Preston County Public Service District No. 4</b> |                           |
| <b>Water Rates</b>                                  |                           |
| First 3,000 gallons                                 | \$7.57 per 1,000 gallons  |
| All over 3,000 gallons                              | \$7.57 per 1,000 gallons  |
| <b>Preston County Public Service District No. 2</b> |                           |
| <b>Water Rates</b>                                  |                           |
| First 3,000 gallons used per month                  | \$11.13 per 1,000 gallons |
| Next 3,000 gallons used per month                   | \$10.75 per 1,000 gallons |
| Next 4,000 gallons used per month                   | \$10.36 per 1,000 gallons |
| Next 10,000 gallons used per month                  | \$ 9.86 per 1,000 gallons |
| All Over 20,000 gallons used per month              | \$ 9.36 per 1,000 gallons |
| <b>Alpine Lake Public Utilities Company</b>         |                           |
| <b>Water Rates</b>                                  |                           |
| First 3,000 gallons used per month                  | \$23.30 per 1,000 gallons |
| Next 17,000 gallons used per month                  | \$15.11 per 1,000 gallons |
| All over 20,000 gallons used per month              | \$2.33 per 1,000 gallons  |
| <b>Town of Rowlesburg Sanitary Board</b>            |                           |
| <b>Water Rates</b>                                  |                           |
| First 2,000 gallons used per month                  | \$9.06 per 1,000 gallons  |
| Next 3,000 gallons used per month                   | \$3.57 per 1,000 gallons  |
| Next 5,000 gallons used per month                   | \$2.65 per 1,000 gallons  |
| Next 10,000 gallons used per month                  | \$2.22 per 1,000 gallons  |
| Next 20,000 gallons used per month                  | \$1.70 per 1,000 gallons  |
| All over 40,000 gallons used per month              | \$1.50 per 1,000 gallons  |
| <b>Town of Terra Alta</b>                           |                           |
| <b>Sewer Rates</b>                                  |                           |
| First 2,000 gallons                                 | \$10.19 per 1,000 gallons |
| Next 12,000 gallons                                 | \$ 8.85 per 1,000 gallons |
| Next 36,000 gallons                                 | \$ 8.09 per 1,000 gallons |

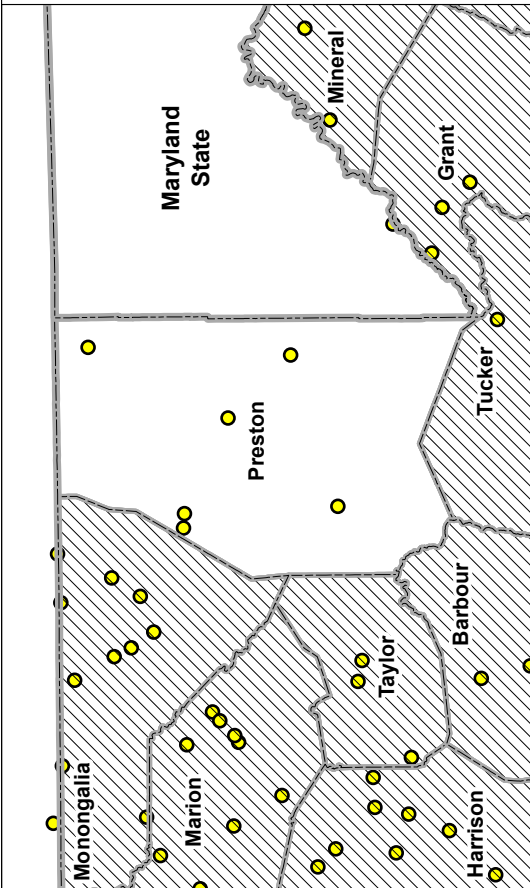
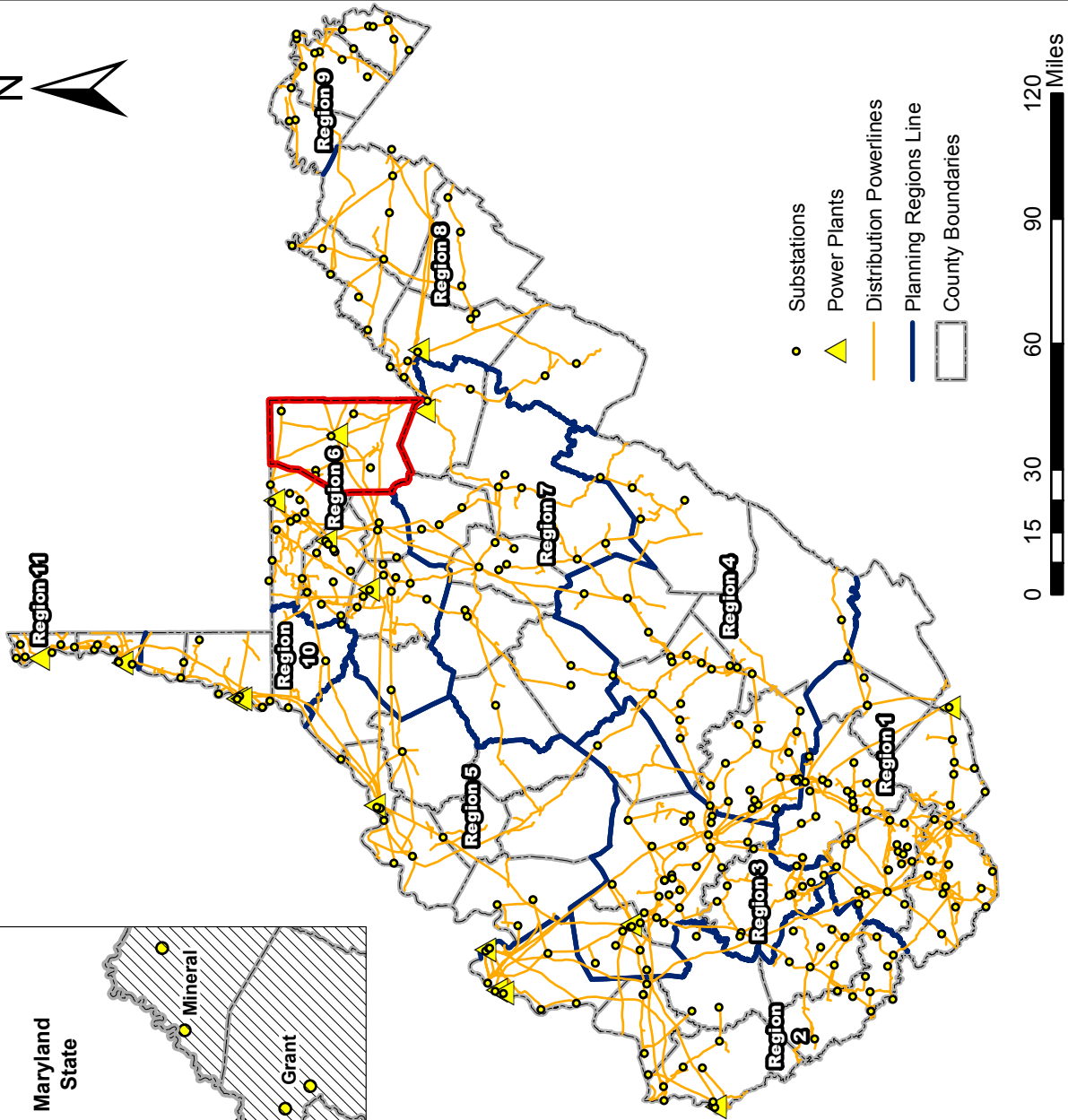
|                                                |                           |
|------------------------------------------------|---------------------------|
| All over 50,000 gallons                        | \$ 7.81 per 1,000 gallons |
| <b>Kingwood Sanitary Sewer Works</b>           |                           |
| <b>Sewer Rates</b>                             |                           |
| First 10,000 gallons                           | \$10.18 per 1,000 gallons |
| Next 490,000 gallons                           | \$ 3.26 per 1,000 gallons |
| All Over 500,000 gallons                       | \$ 2.44 per 1,000 gallons |
| <b>Masontown Municipal Sewer Department</b>    |                           |
| <b>Sewer Rates</b>                             |                           |
| First 3,000 gallons                            | \$9.10 per 1,000 gallons  |
| Next 4,000 gallons                             | \$7.28 per 1,000 gallons  |
| Next 8,000 gallons                             | \$6.12 per 1,000 gallons  |
| Next 10,000 gallons                            | \$5.37 per 1,000 gallons  |
| Next 25,000 gallons                            | \$4.39 per 1,000 gallons  |
| All Over 50,000 gallons                        | \$3.48 per 1,000 gallons  |
| <b>Town of Tunnelton</b>                       |                           |
| <b>Sewer Rates</b>                             |                           |
| First 3,000 gallons used per month             | \$13.18 per 1,000 gallons |
| Over 3,000 gallons used per month              | \$13.18 per 1,000 gallons |
| <b>Town of Newburg</b>                         |                           |
| <b>Sewer Rates</b>                             |                           |
| First 3,000 gallons                            | \$9.65 per 1,000 gallons  |
| Over 3,000 gallons                             | \$9.65 per 1,000 gallons  |
| <b>Town of Albright (Sewer)</b>                |                           |
| <b>Sewer Rates</b>                             |                           |
| First 3,000 gallons                            | \$9.55                    |
| Over 3,000 gallons                             | \$9.55                    |
| <b>Town of Reedsville</b>                      |                           |
| <b>Sewer Rates</b>                             |                           |
| First 3,000 gallons used per month             | \$12.78 per 1,000 gallons |
| Next 3,000 gallons used per month              | \$11.78 per 1,000 gallons |
| Next 4,000 gallons used per month              | \$ 9.94 per 1,000 gallons |
| Next 10,000 gallons used per month             | \$ 8.72 per 1,000 gallons |
| Over 20,000 gallons used per month             | \$ 7.90 per 1,000 gallons |
| <b>Preston County Public Service District</b>  |                           |
| <b>Sewer Rates</b>                             |                           |
| First 3,600 gallons of water used per month    | \$7.28 per 1,000 gallons  |
| All Over 3,600 gallons of water used per month | \$7.28 per 1,000 gallons  |
| <b>Alpine Lake Public Utilities Company</b>    |                           |
| <b>Sewer Rates</b>                             |                           |



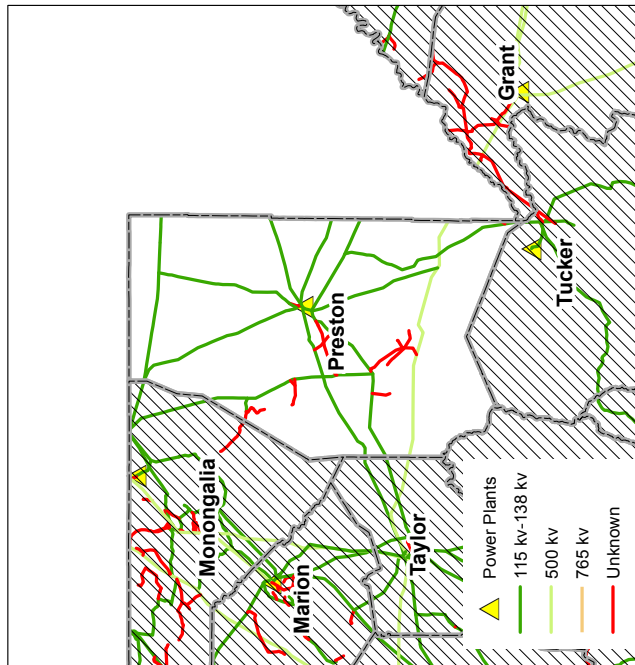
|                                                |                    |
|------------------------------------------------|--------------------|
| <i>Customers with non-metered water supply</i> |                    |
| Residential, including Chalets \$ 83.84        |                    |
| Commercial -- Lodge and Motel \$3,592.71       |                    |
| Commercial -- Herron Apartments \$ 335.35      |                    |
| <b>Arthurdale Sewage Company</b>               |                    |
| <b>Sewer Rates</b>                             |                    |
| Flat Rate                                      | \$8.00 per month   |
| <b>Arthurdale Water Association</b>            |                    |
| <b>Water Rates</b>                             |                    |
| Property Owner Members                         | \$ 15.00 per month |
| Renters                                        | \$ 15.00 per month |
| Preston County Board of Education              | \$360.00 per month |
| <b>Denver Water Association</b>                |                    |
| <b>Water Rates</b>                             |                    |
| Data is not available                          |                    |

# Utilities - Electricity

Preston County



Electricity Substations



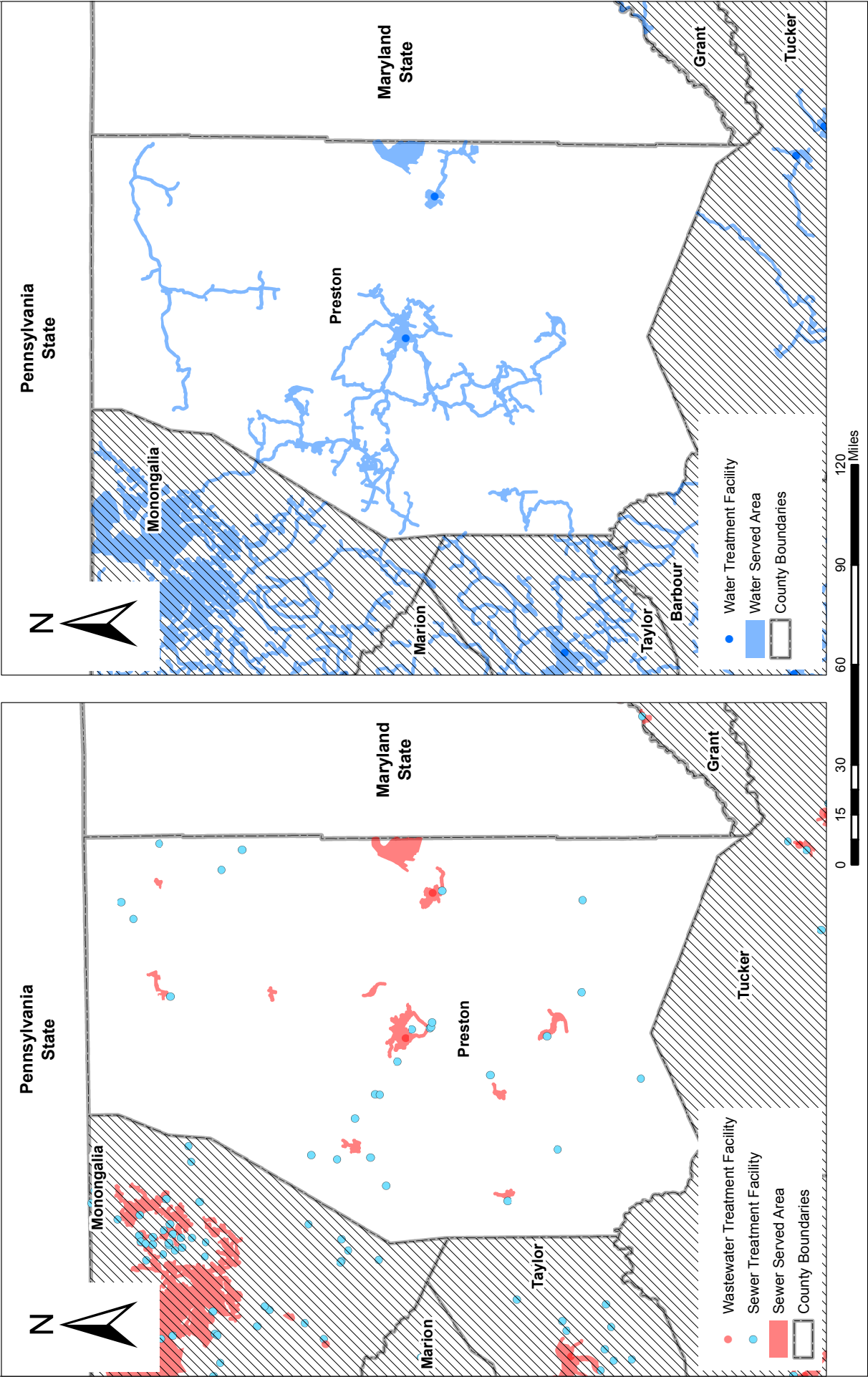
Source: West Virginia Division of Natural Resources, Statewide Addressing and Mapping 2008

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# Utilities - Water and Sewer

Preston County



Source: West Virginia Infrastructure and Jobs Development Council N.A.

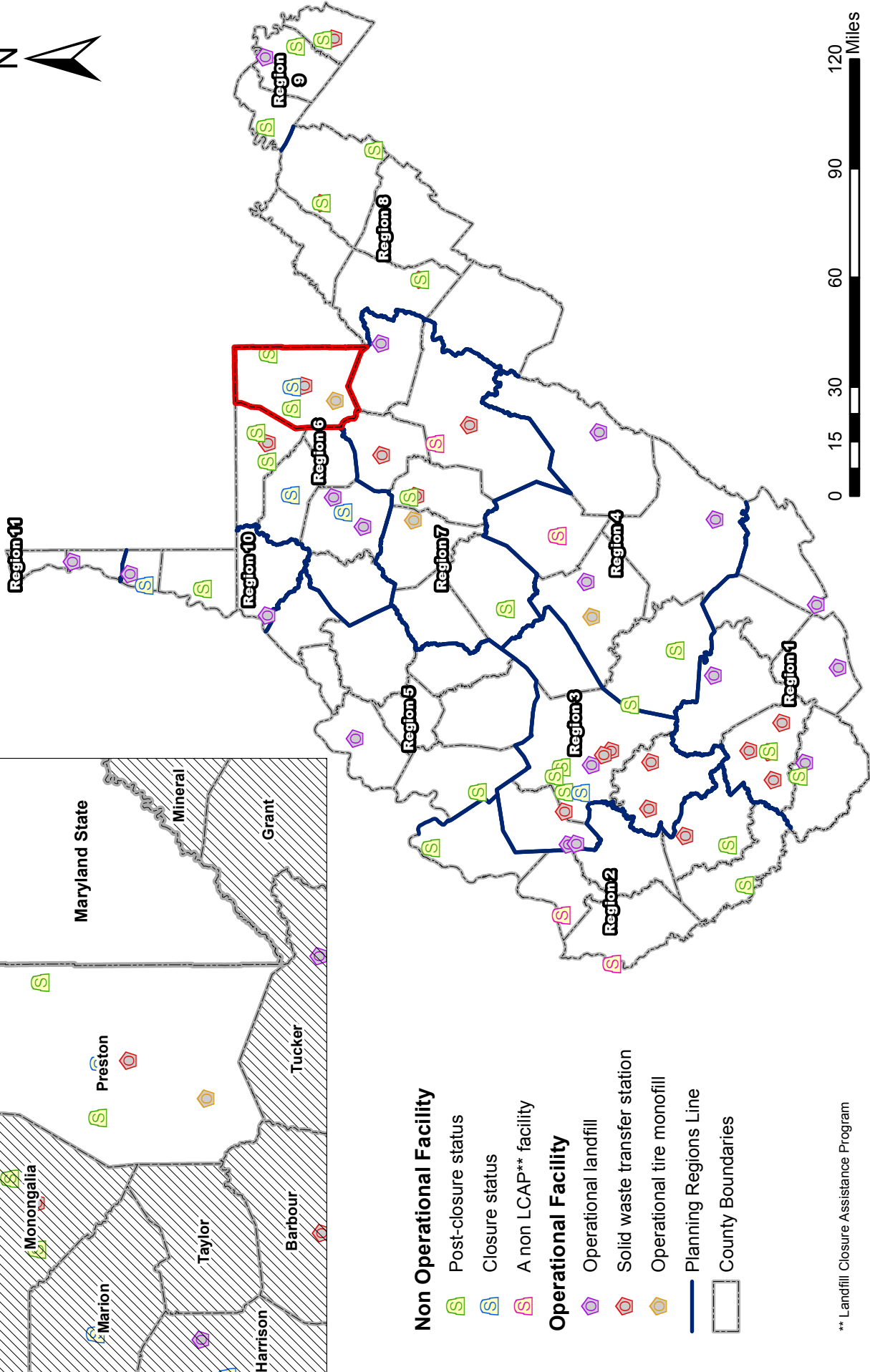
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# Utility - Solid Waste Facility

Preston County



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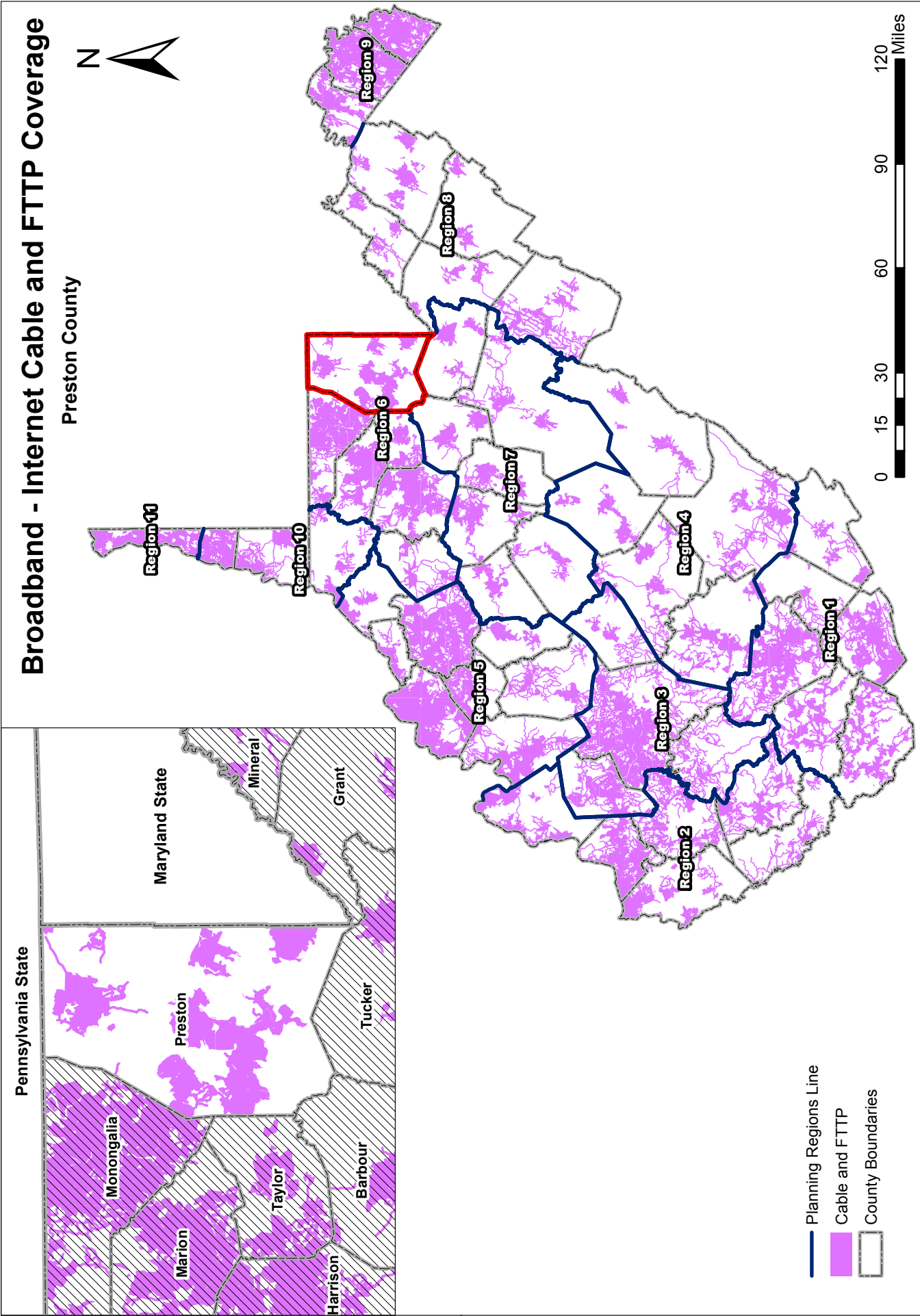
Source: West Virginia Solid Waste Management Board 2012

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One essential modern convenience, now widely understood as an essential utility in a globalized world, is broadband access. The following 11 maps demonstrate Preston County's broadband infrastructure in relation to the State's. The largest number of providers in Preston County is five, which are most densely concentrated in the center and north-central portions of the County. Preston County broadband infrastructure is less dense than neighboring counties of Monongalia and Taylor, but similar to that of neighboring Barbour County. Of particular note is the presence of greater than 10 mbps of wireless speed across most of the County, mostly contiguous mobile wireless coverage, and limited areas where no broadband coverage is reported.

Map 15 shows physical cable infrastructure running from ISPs to other structures. DSL, BPL, and other copper represent the transferal system of broadband (Map 16). Map 17 shows the entire wire system, represented by physical wires, while Maps 18 and 19 show the maximum uploading and downloading speeds for the system. Map 20 shows the total number of providers, which is denser in the more economically developed areas of the State. Map 21 has fixed wireless coverage, or the connection between two fixed points wirelessly by radio or other links, and the next two maps show the maximum uploading and downloading speeds in a given area (22 and 23). Map 24 shows the location of mobile wireless coverage, including for smartphones and tablets, and Map 25 shows areas where no broadband coverage is reported in any way.

Each of these maps shows a similar pattern in Preston County internet service as exhibited by West Virginia. Internet service, specifically broadband, is non-existent in many rural areas, and instead focuses on population centers. While this may be financially wise, it deprives rural areas of an increasingly integral link to a globalized economy and society. All areas now need broadband service, and a complete inventory of these services is needed to plan for future investment in any given area. Note also that the map data is for 2014, the most recent map available. Changes have been made in recent years, thanks to broadband expansion programs encouraged by the State.



Source: West Virginia Broadband Mapping Program 2014

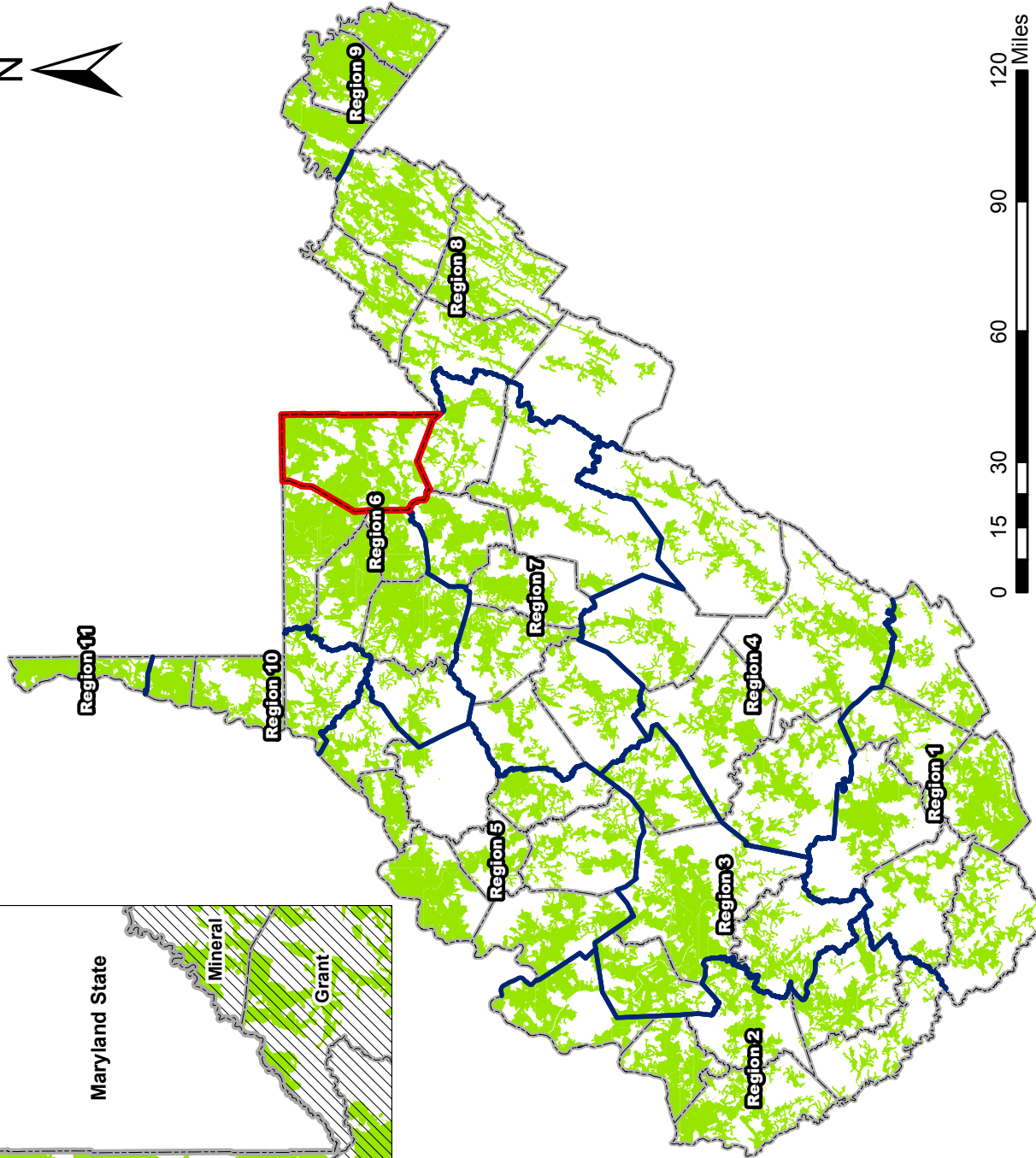
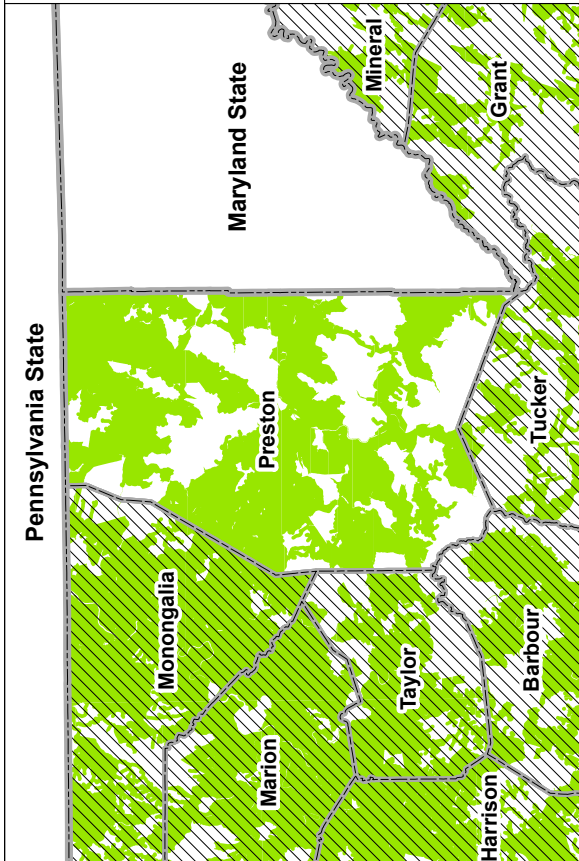
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# Broadband - Internet DSL, BPL, Other Copper

Preston County



- Planning Regions Line
- DSL, BPL, Other Copper
- County Boundaries



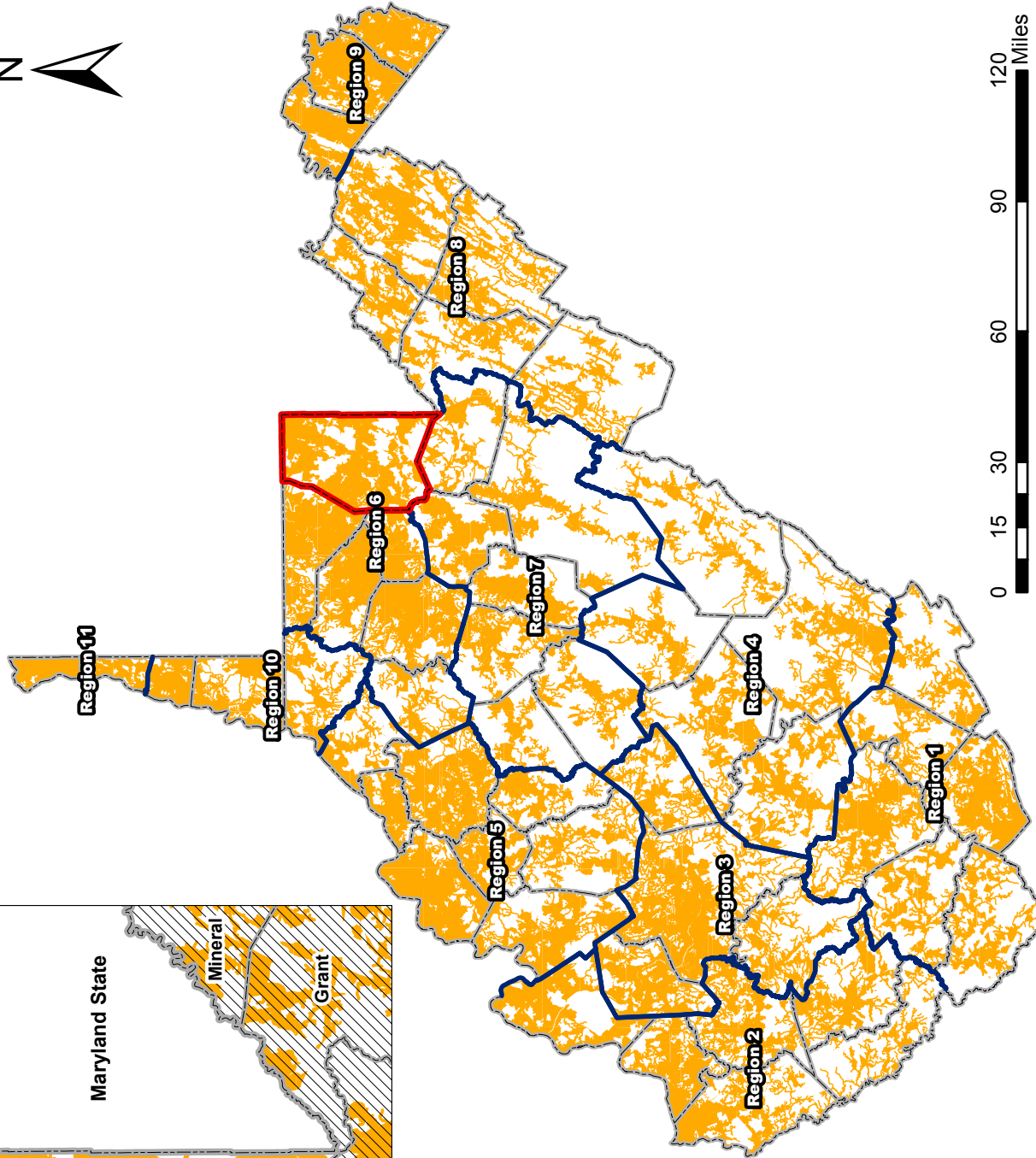
Source: West Virginia Broadband Mapping Program 2014

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# Broadband - Internet Wireline Coverage

Preston County



- Planning Regions Line
- Wireline Coverage
- County Boundaries

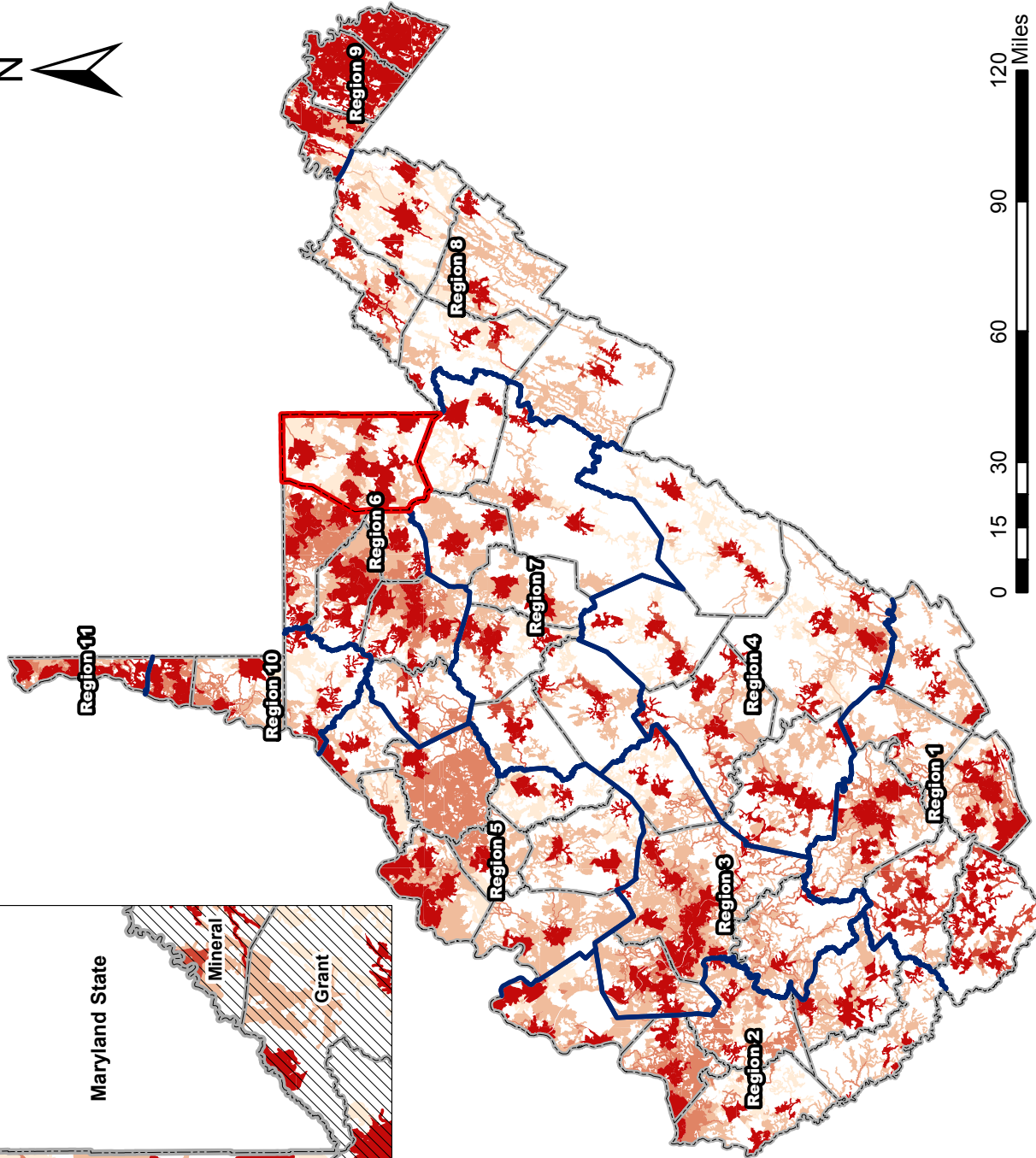
Source: West Virginia Broadband Mapping Program 2014

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# Broadband - Internet MaxUp Speed Wireline

Preston County



Pennsylvania State

Maryland State

Monongalia

Marion

Taylor

Harrison

Barbour

Tucker

Grant

Mineral

Planning Regions Line

200 - 768 kbps

768 kbps - 3 mbps

3 - 10 mbps

10 - 25 mbps

Greater than 25 mbps

County Boundaries

Source: West Virginia Broadband Mapping Program 2014

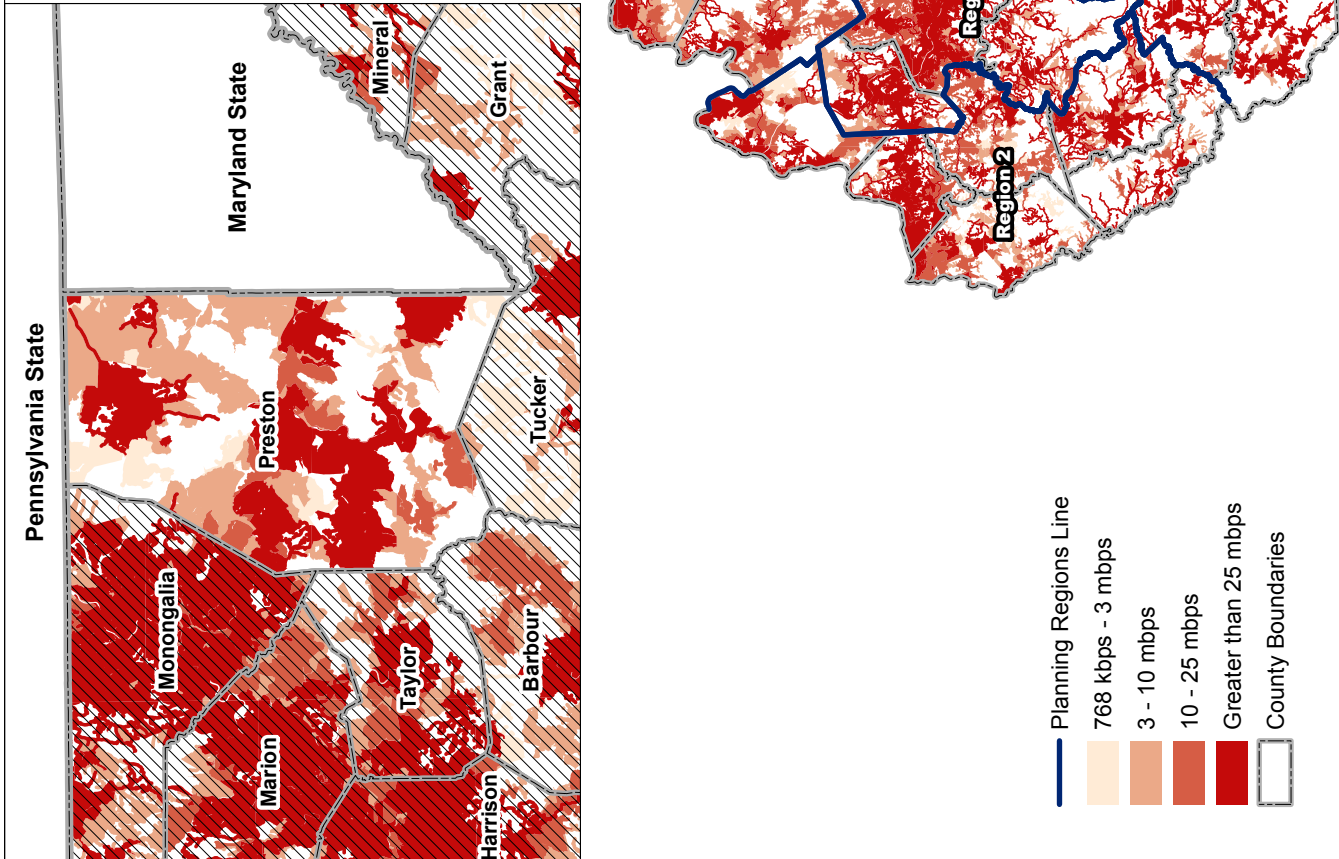
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# Broadband - Internet MaxDown Speed Wireline

Preston County



- Planning Regions Line
- 768 kbps - 3 mbps
- 3 - 10 mbps
- 10 - 25 mbps
- Greater than 25 mbps
- County Boundaries



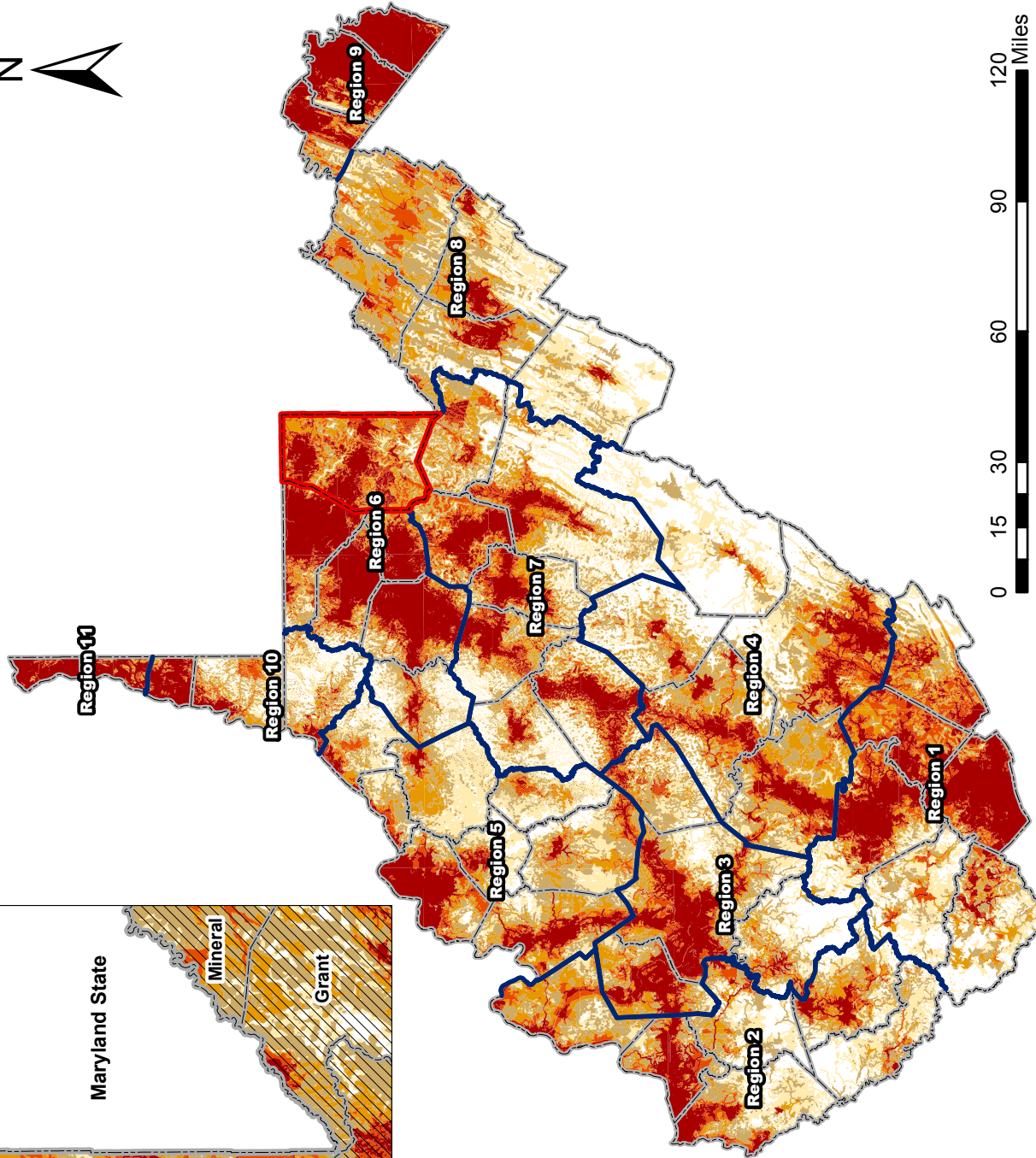
Source: West Virginia Broadband Mapping Program 2014

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# Broadband - Internet Total Number of Providers

Preston County



Pennsylvania State

Maryland State

Monongalia

Marion

Taylor

Barbour

Preston

Tucker

Mineral

Grant

Planning Regions Line

1 Provider

2 Providers

3 Providers

4 Providers

5 Providers

County Boundaries

Source: West Virginia Broadband Mapping Program 2014

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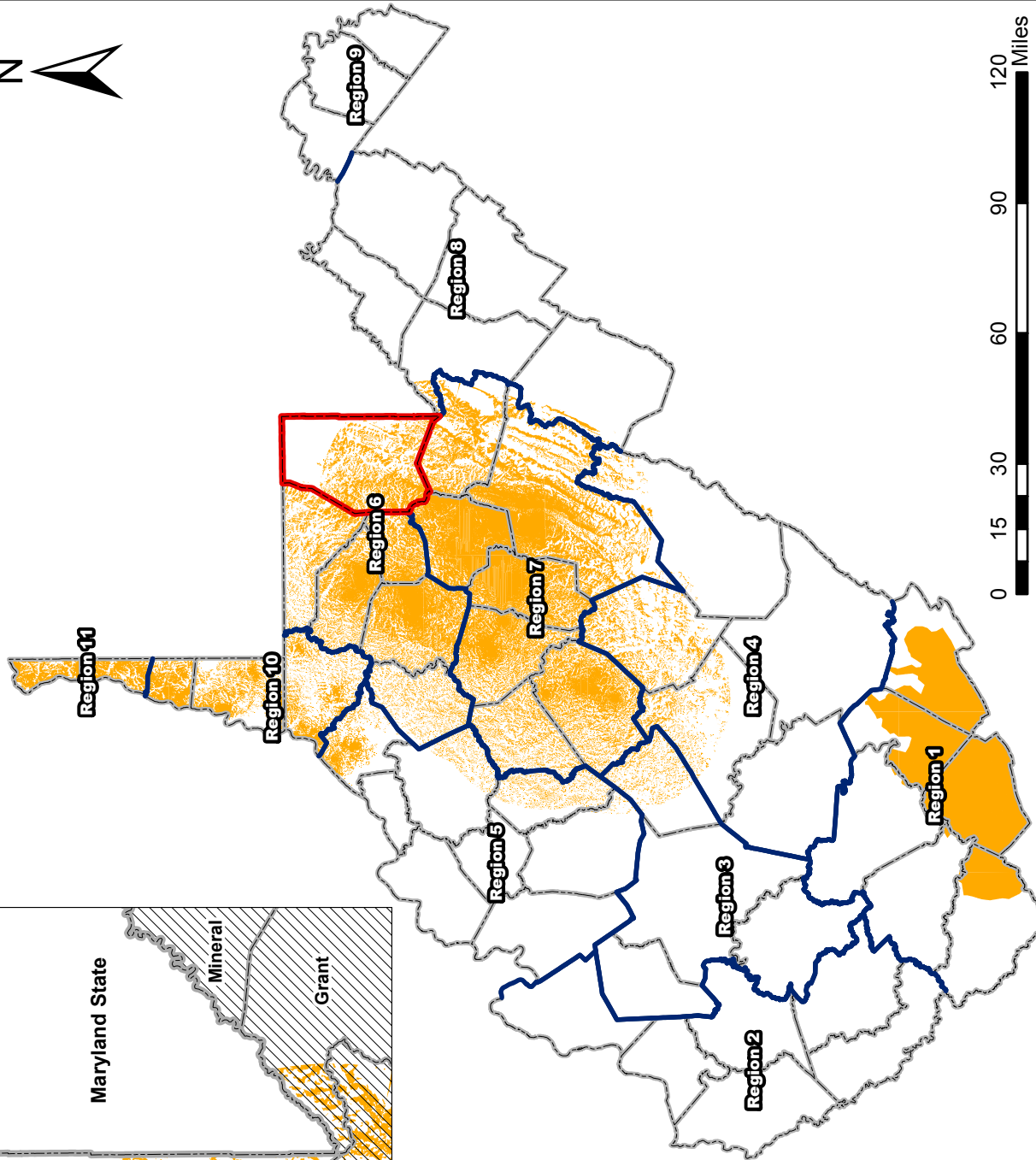


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# Broadband - Internet Fixed Wireless Coverage

Preston County



- Planning Regions Line
- Fixed Wireless
- County Boundaries

Source: West Virginia Broadband Mapping Program 2014

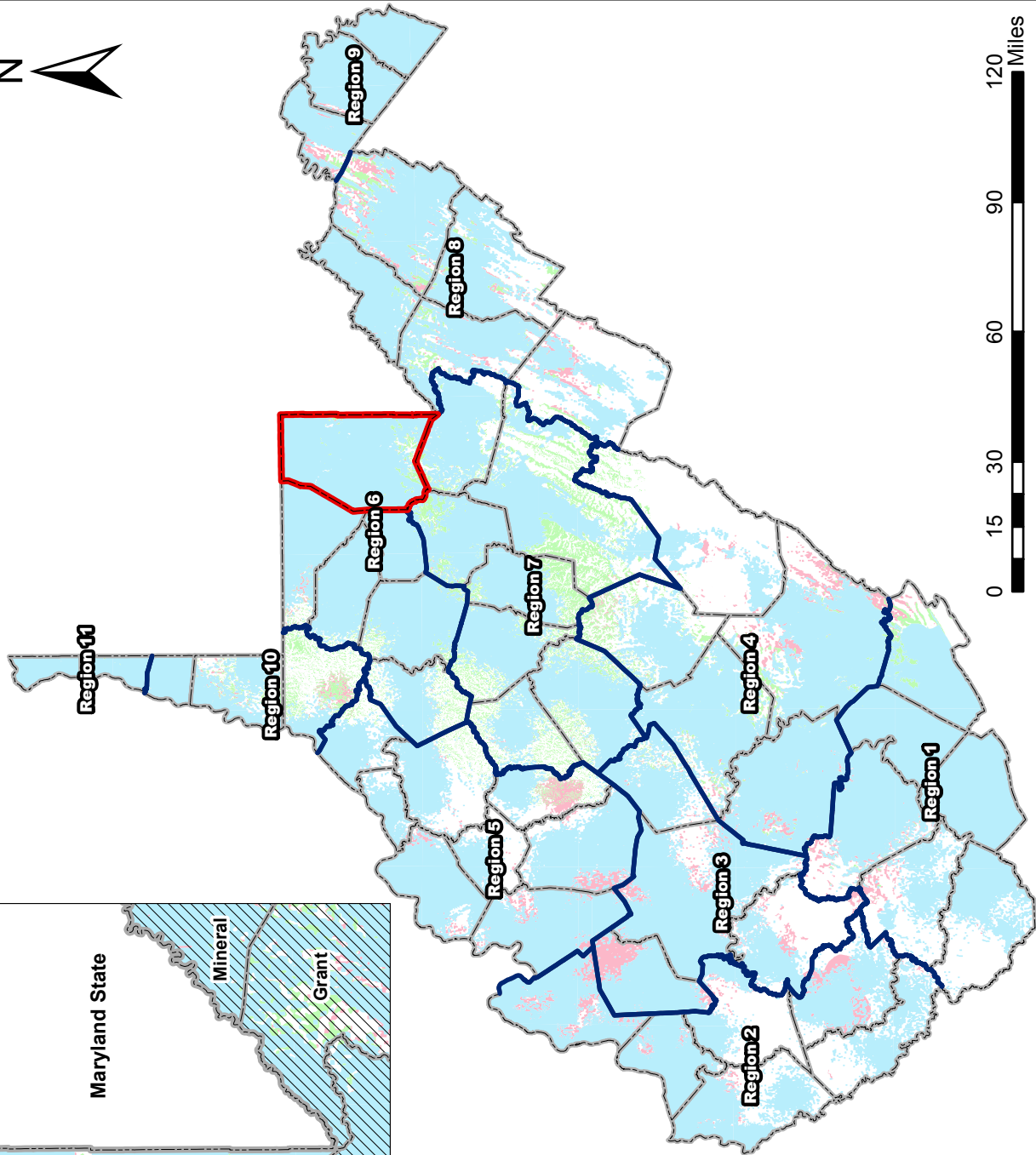
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# Broadband - Internet MaxDown Speed Wireless

Preston County



- Planning Regions Line
- 768 kbps - 3 mbps
- 3 - 10 mbps
- > 10 mbps
- County Boundaries



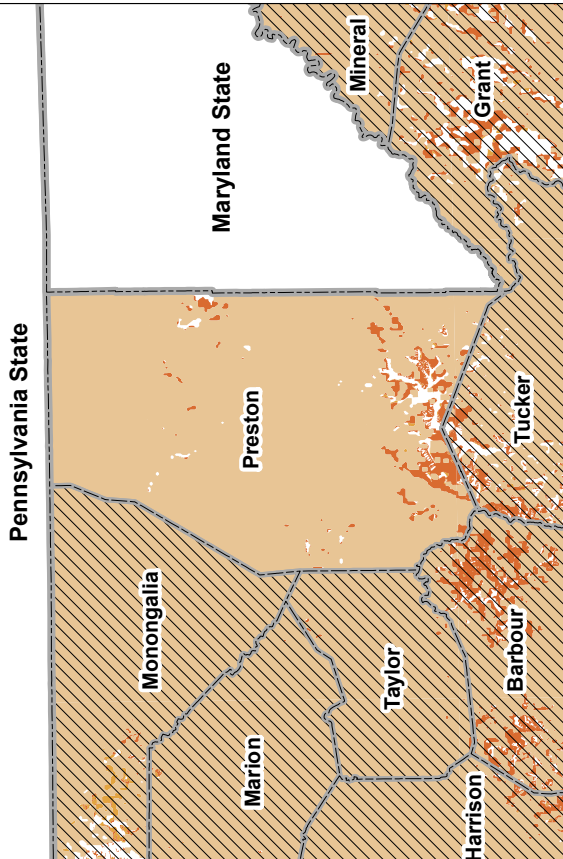
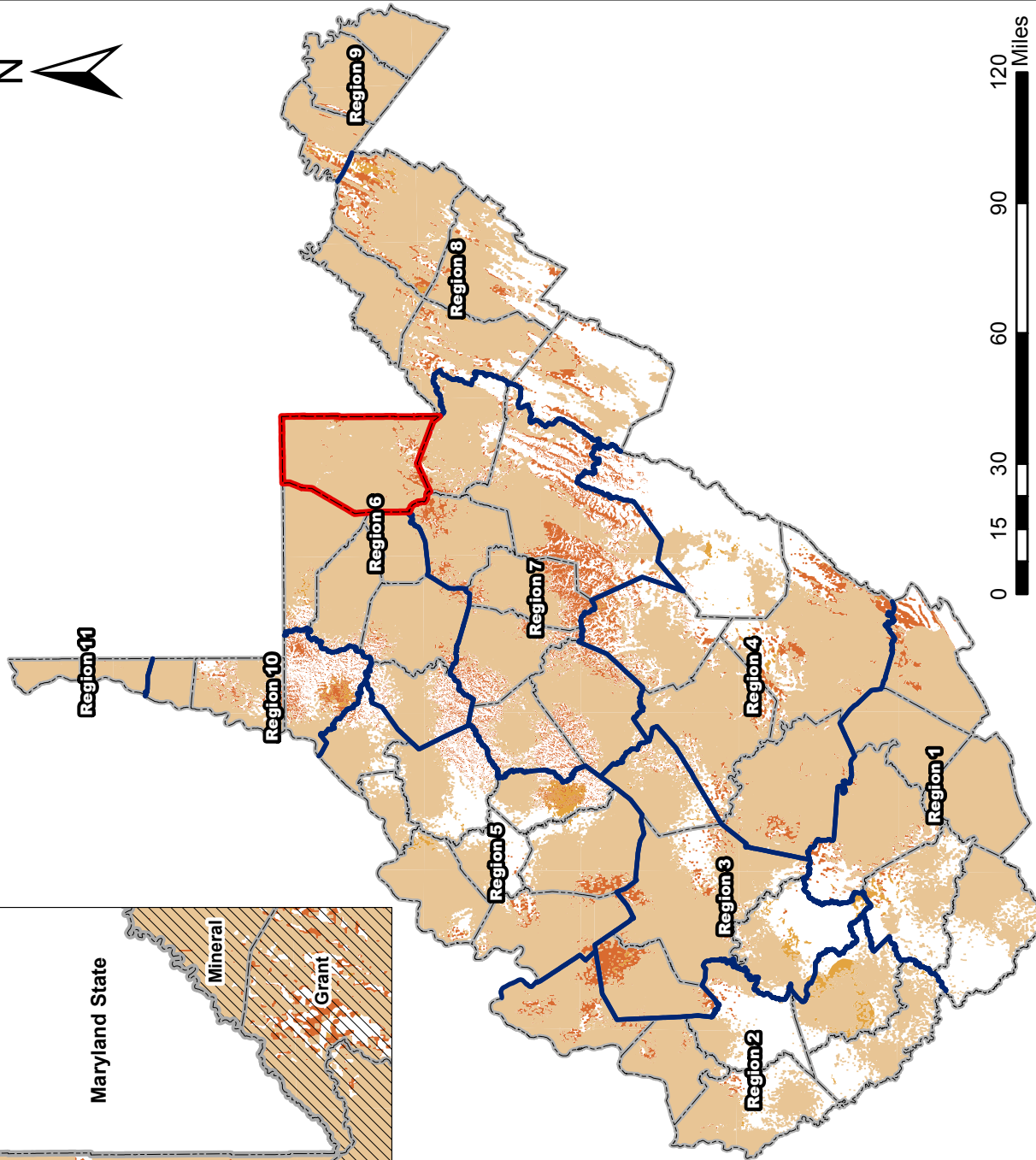
Source: West Virginia Broadband Mapping Program 2014

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# Broadband - Internet MaxUp Speed Wireless

Preston County



- Planning Regions Line
- 200 - 768 kbps
- 768 kbps - 3 mbps
- > 3 mbps
- County Boundaries

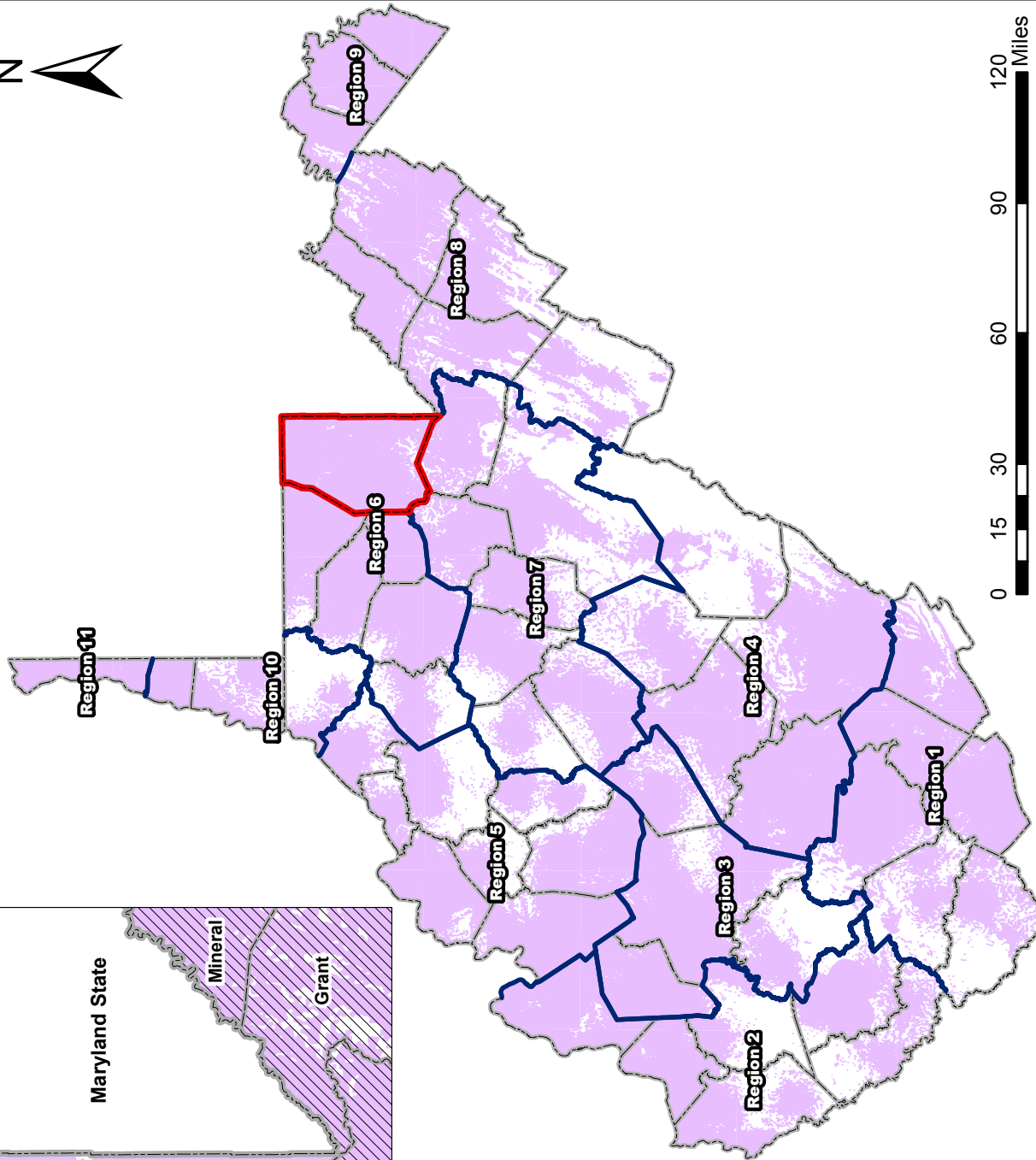
Source: West Virginia Broadband Mapping Program 2014

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# Broadband - Internet Mobile Wireless Coverage

Preston County



Pennsylvania State

Monongalia

Marion

Taylor

Harrison

Barbour

Tucker

Maryland State

Preston

Mineral

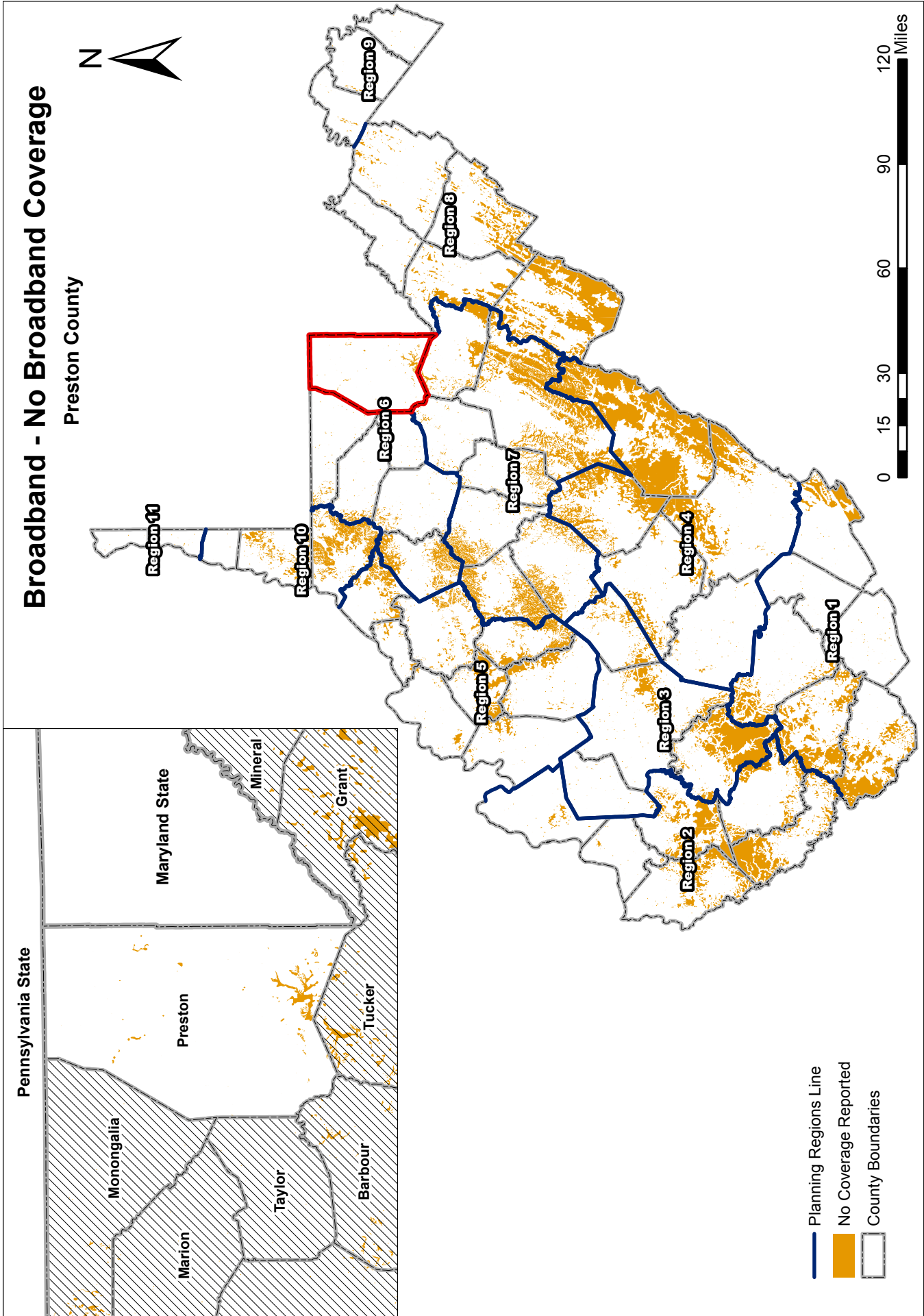
Grant

Source: West Virginia Broadband Mapping Program 2014

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Source: West Virginia Broadband Mapping Program 2014

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## **Transportation**

### *Highways*

Preston highway transportation include I-68 in the northern portion of the County, two U.S. routes (Route 50 and Route 219), and five State Routes 7, 24, 26, 72, and 92 (Map 26).

### *Rail*

Preston has a rail system present in the central portion of the County.

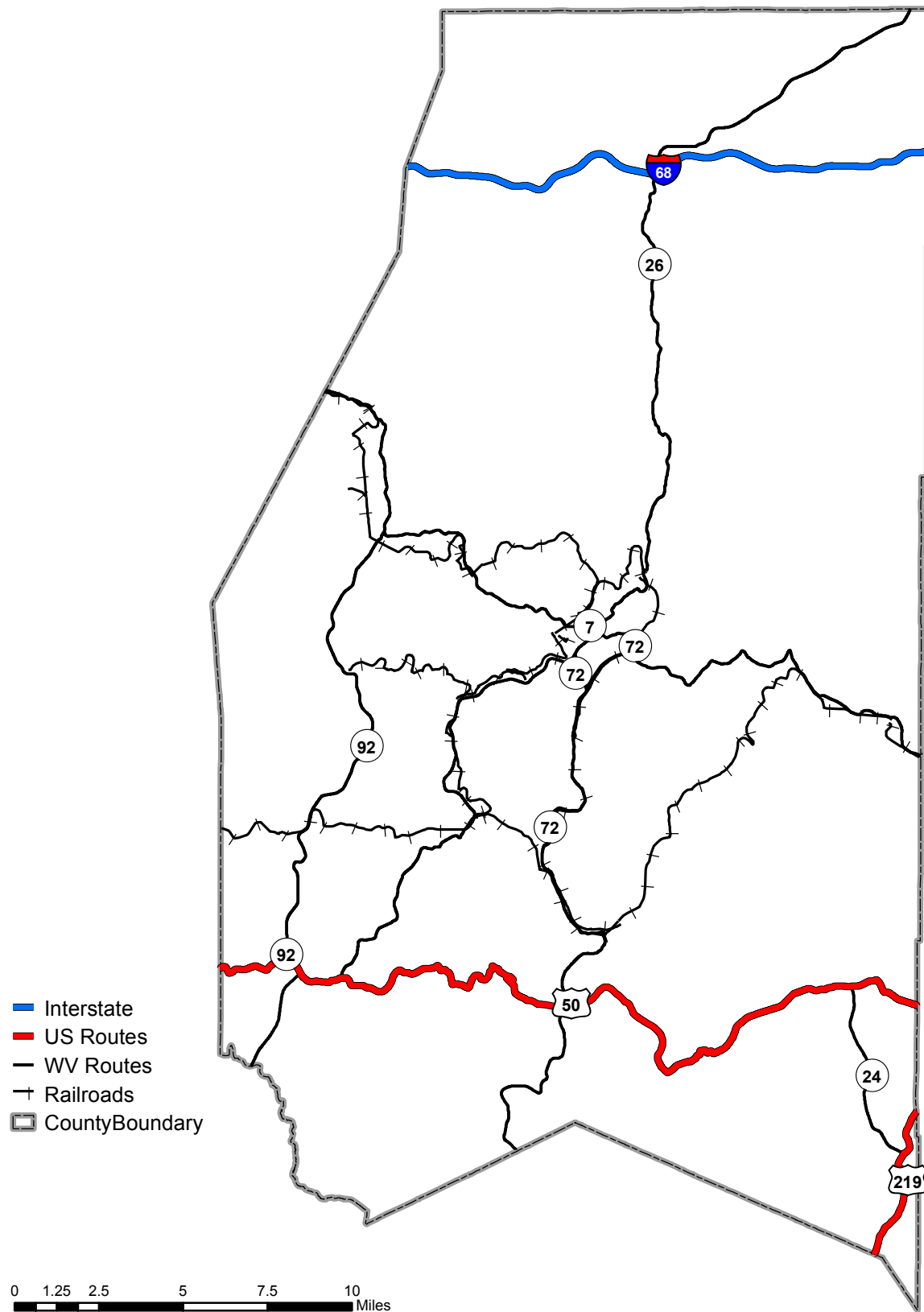
### *Air*

Preston County has no airports.



# Transportation

## Preston County



Source: Airports; United States Department of Transportation 2012; West Virginia GIS Technical Center; US Routes, West Virginia Routes; West Virginia Department of Transportation 2012; Railroads; Rahall Transportation Institute 2012

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### **Current Post-Mine Economic Development Sites**

Preston County has three major developments on its post-mine sites. This is an encouraging sign showcasing interest in post-mine land development, and the diversity in development types signifies the varying interests that post-mine land can be utilized to attract.

#### Northpointe Business and Industry Park

Northpointe Business and Industry Park is located in Hazleton, West Virginia.<sup>7</sup> The Park sits on approximately 64 acres of land and accommodates 11 lots, the majority of which have been sold. Businesses located at the Park include Puris, LLC (a titanium powder producer), Mountain Craft Wide Plank (a hardwood production company), and FMW Composite Systems, Inc. (a composite provider and manufacturer of titanium alloy products).<sup>8,9,10</sup>

#### USP Hazelton

USP Hazelton is a high-security U.S. penitentiary located near the Northpointe Business and Industry Park in Preston County. Operated by the Federal Bureau of Prisons, the Facility can house nearly 2,340 inmates and includes a secure female facility. USP Hazelton was opened in 2004.<sup>11</sup>

#### Valley Industrial Park

Valley Industrial Park is located in Reedsville, West Virginia.<sup>12</sup> The Park's total size is nearly 130 acres and houses such businesses as Fibertech (a fiberglass manufacturer), S&W Industries (a transportation company), and S&W Sanitation (a waste management and remediation service).

### **Historic Preservation**

Historic preservation will be essential in a county steeped in coal mining history. Preston County has 12 listings in the National Register of Historic Places, not including historic districts. There are a number of historic buildings in the County mostly built in the mid- to late-19<sup>th</sup> Century and early 20<sup>th</sup> Century that exemplify certain building styles popular at the time (Map 27). Other historic areas have been designated by West Virginia. Map 28 gives a spatial position to each designated State historic piece of architecture.

<sup>7</sup> West Virginia Development Office. n.d. "Available Property: Northpointe Business & Industry Park." Charleston, WV: West Virginia Development Office.

<sup>8</sup> McCloud, Cynthia. 2014. "Preston firm makes pure titanium powder." Charleston, WV: *The State Journal*.

<sup>9</sup> MetroNews. 2014. "Hardwood production company selects Preston County as location for headquarters." Charleston, WV: *MetroNews*.

<sup>10</sup> WBOY. 2012. "FMW Composite Systems expanding Preston site." Clarksburg, WV: WBOY.

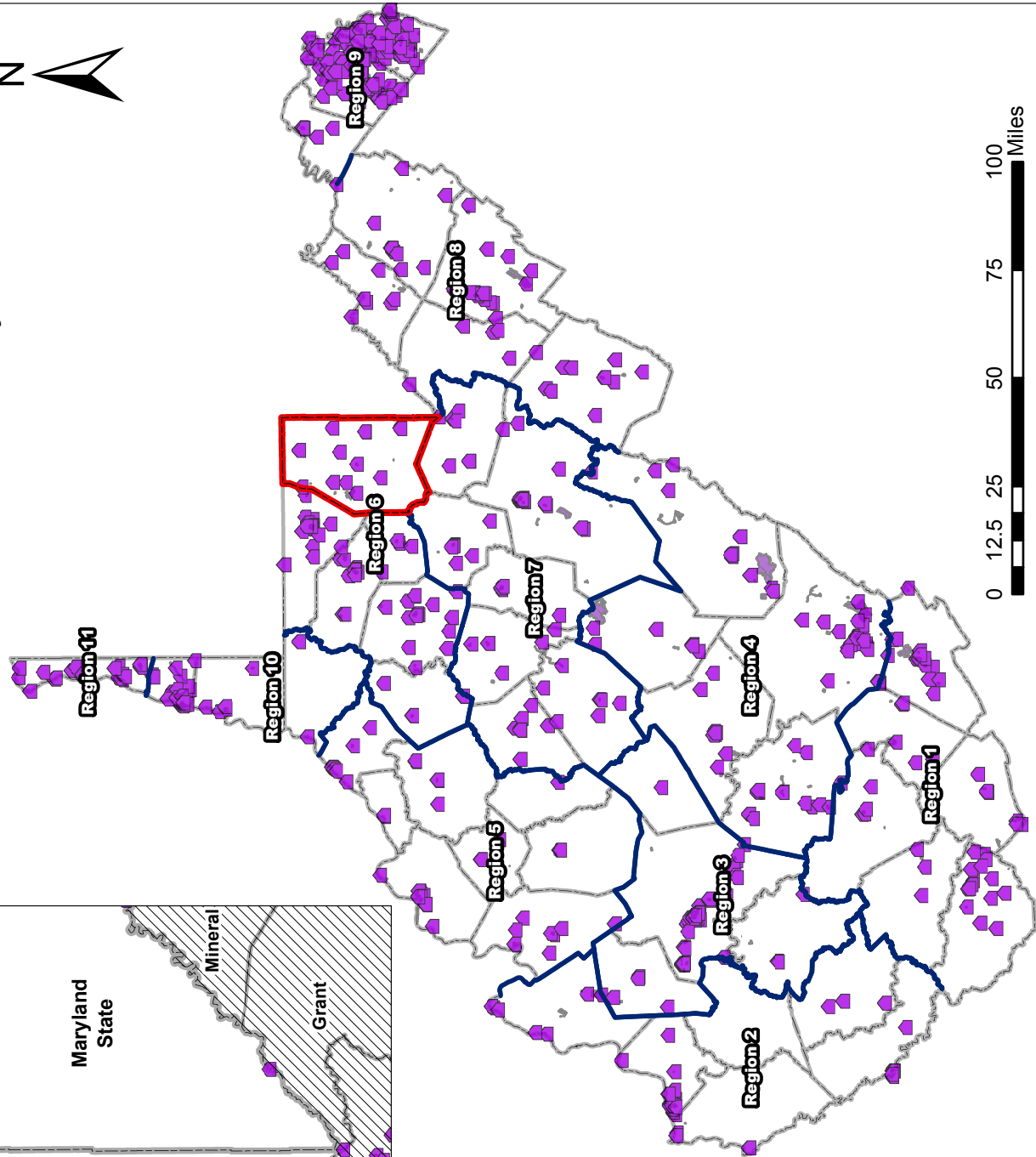
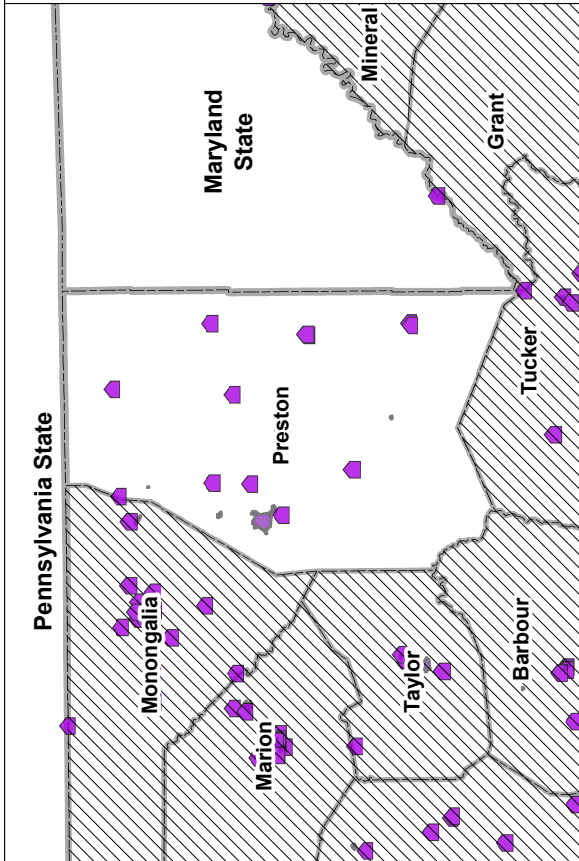
<sup>11</sup> Federal Bureau of Prisons. 2015. "USP Hazelton." Accessed March 26, 2015.

<http://www.bop.gov/locations/institutions/haz/>

<sup>12</sup> West Virginia Development Office. n.d. "Available Property: Valley Industrial Park." Charleston, WV: West Virginia Development Office.

# National Register of Historic Place

Preston County

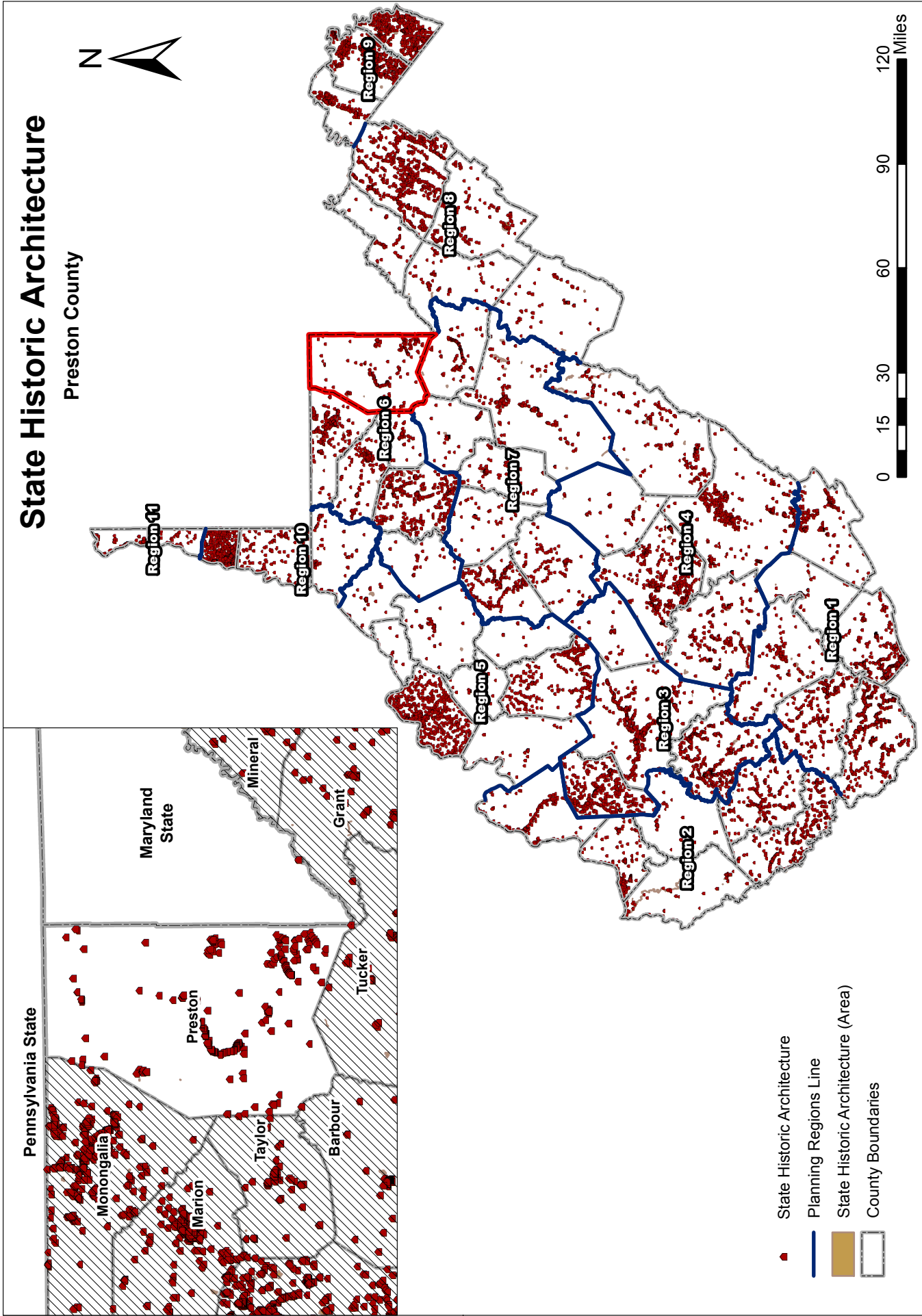


- National Register of Historic Place
- Planning Regions Line
- National Register of Historic Place (Area)
- County Boundaries

Source: West Virginia State Historic Preservation Office 2014

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Source: West Virginia State Historic Preservation Office 2012

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## **Natural Resources, Environment, and Energy**

Particular importance should be given to the spatial positions of natural resource areas, geographic environments, and potential energy resources in a county. This serves to inform potential investors about what possibilities the land provides for production of resources and energy. Preston County has several advantages in these areas that can be utilized to the advantage of the citizens.

West Virginia has an extensive wetlands inventory, because of its extensive system of lakes, streams, and rivers. Wetlands provide many environmental benefits, including housing fish, replenishing groundwater, and relaying nutrients. Preston's wetland inventory is clustered and present mostly in the northern portion of the County (Map 29).

The State also possesses a respectable amount of park and forest land. Most of this land is located in the eastern portion of the State, the area that contains the main part of the Appalachian Mountain range. Preston County contains a few small areas of state and national forests and wildlife management areas (Map 30).

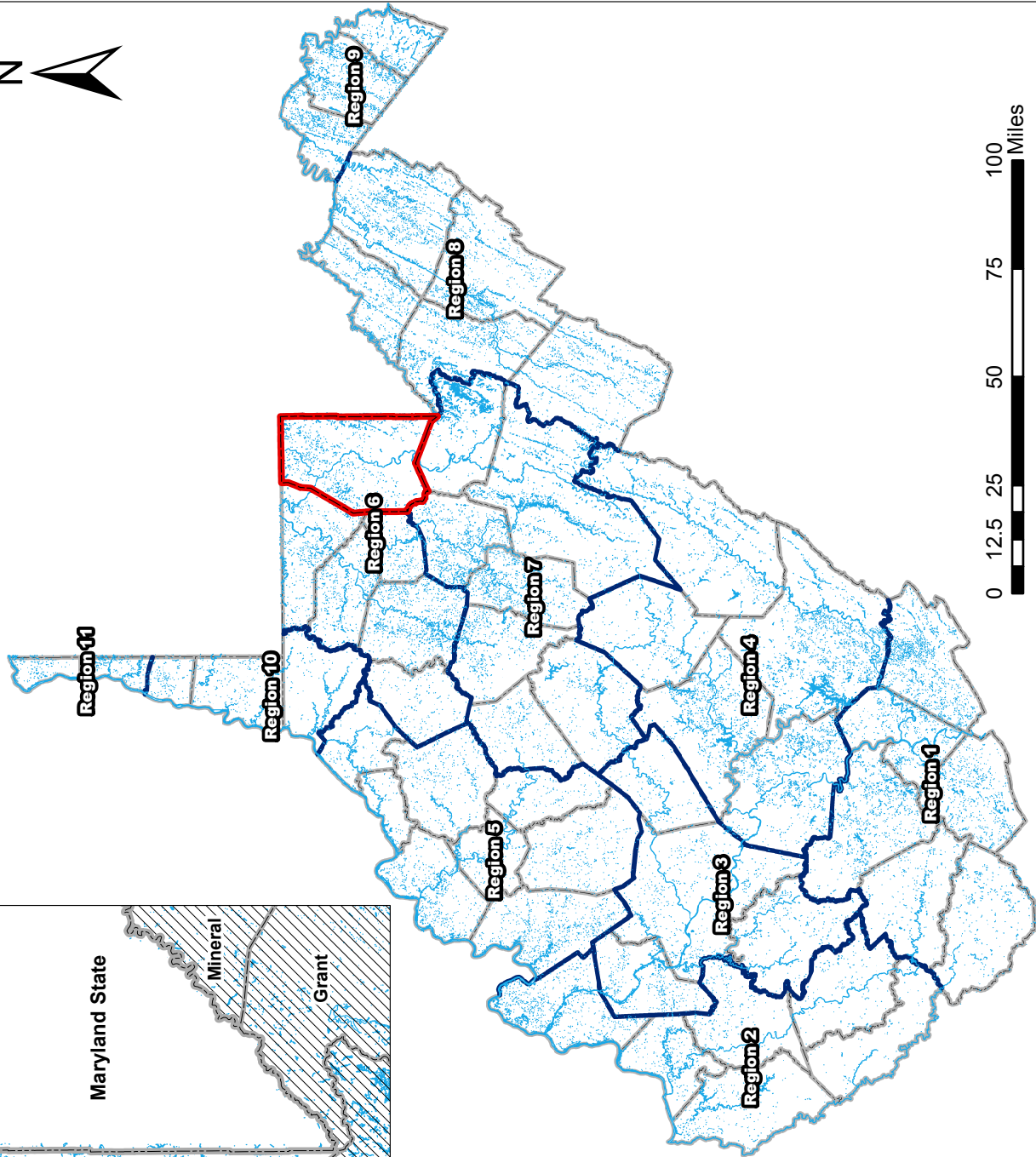
Air quality is a necessary environmental health benchmark that can determine the health and vitality of an area's residents. The air pollution non-attainment areas are "areas of the country where air pollution levels persistently exceed the national ambient air quality standards."<sup>13</sup> There are four full counties in West Virginia that are designated air pollution non-attainment areas, either in annual or 2006 24-hour standards as of the publication of this plan; Preston County is not among them (Map 31).

<sup>13</sup> "The Green Book Nonattainment Areas for Criteria Pollutants," Environmental Protection Agency, Accessed March 1, 2013, <http://www.epa.gov/oaqps001/greenbk/>.

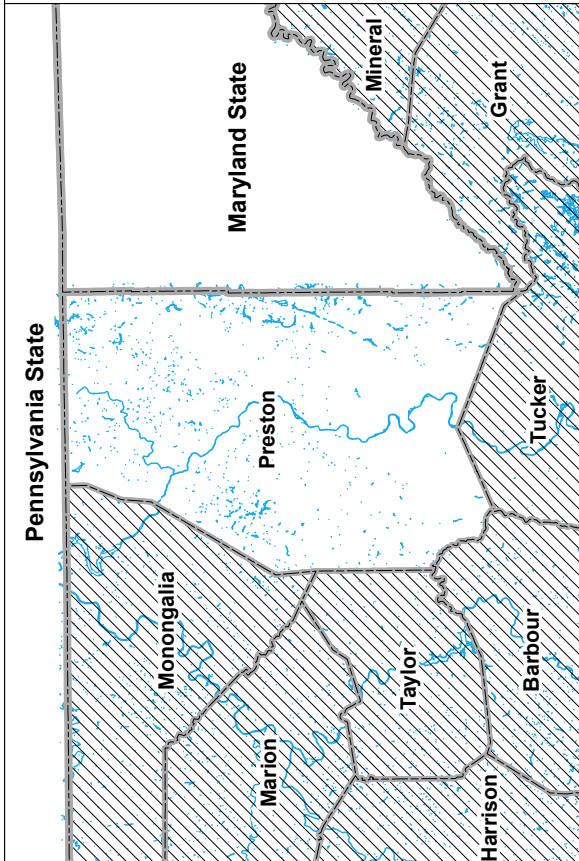


# Hydrology - National Wetlands Inventory

Preston County



- Planning Regions Line
- ▨ National Wetlands Inventory
- County Boundaries



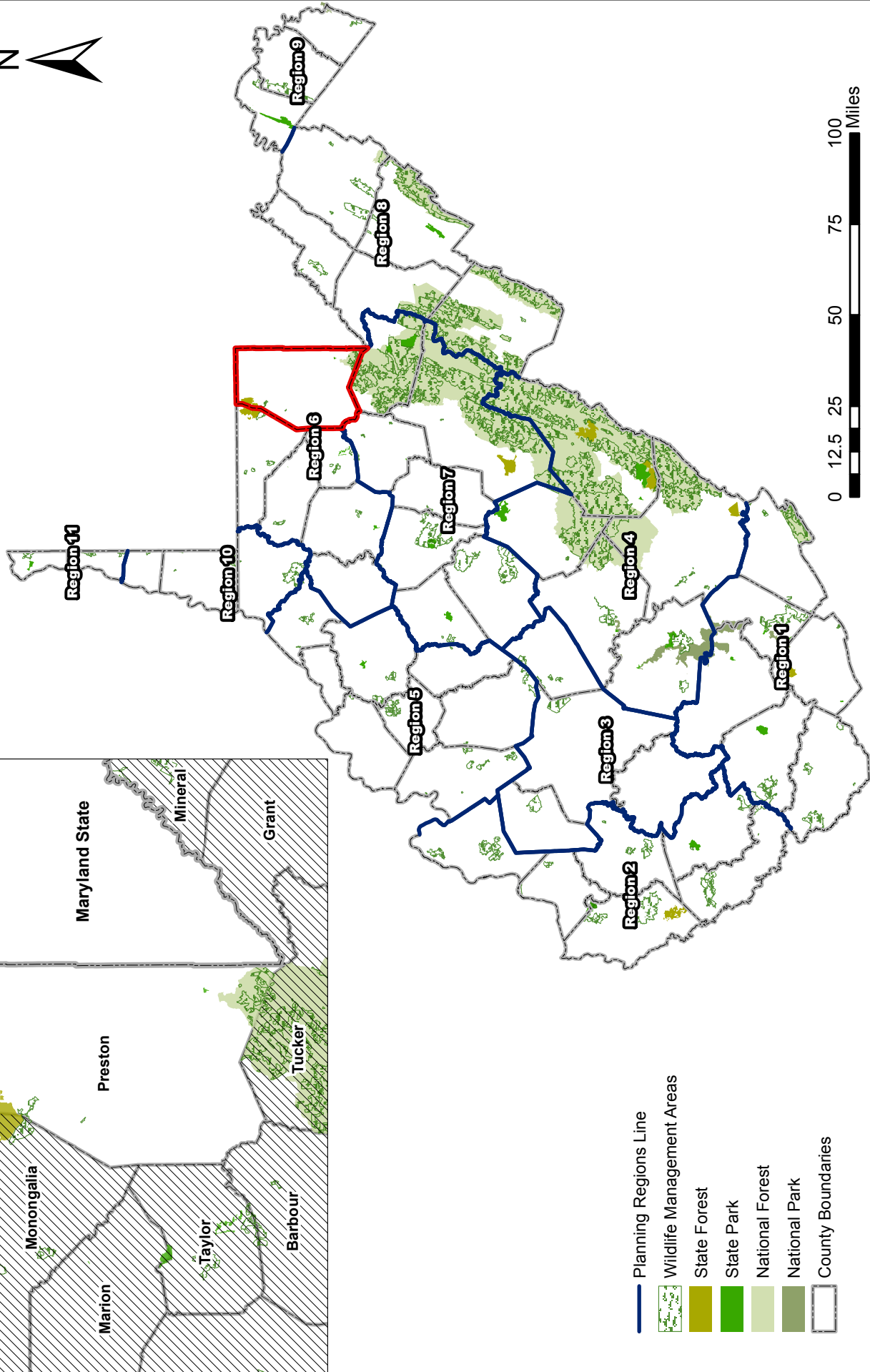
**RTHI**  
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TRANSPORTATION INSTITUTE  
[www.rthi.org](http://www.rthi.org)

Source: United States Fish and Wildlife Service 1996

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# Public Land - Parks and Forests

Preston County



- Planning Regions Line
- Wildlife Management Areas
- State Forest
- State Park
- National Forest
- National Park
- County Boundaries

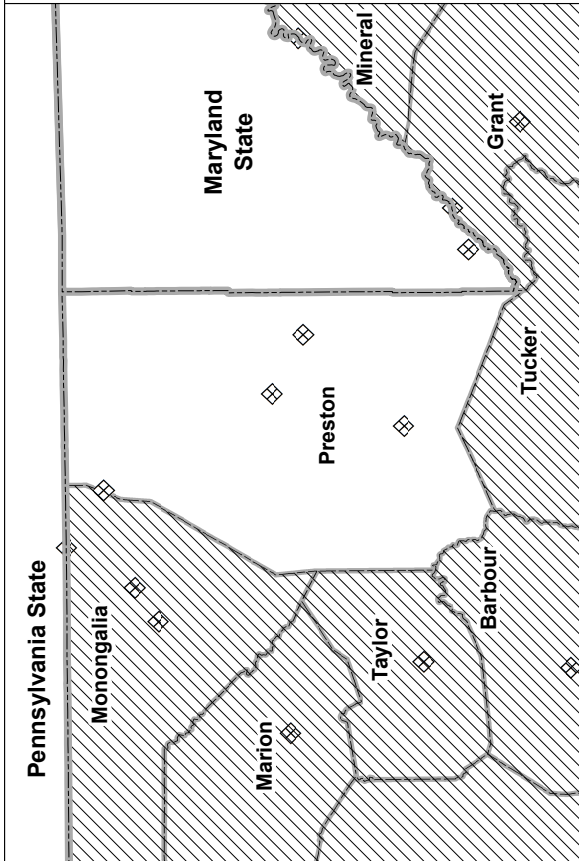
Source: Wildlife Management Areas: West Virginia Division of Natural Resources 2002; State Forest: West Virginia Division of Forestry 2004; State Park: West Virginia Division of Natural Resources; National Resource Analysis Center 2000; National Forest: United States Forest Service 2005; National Park: United States National Park Service 2003

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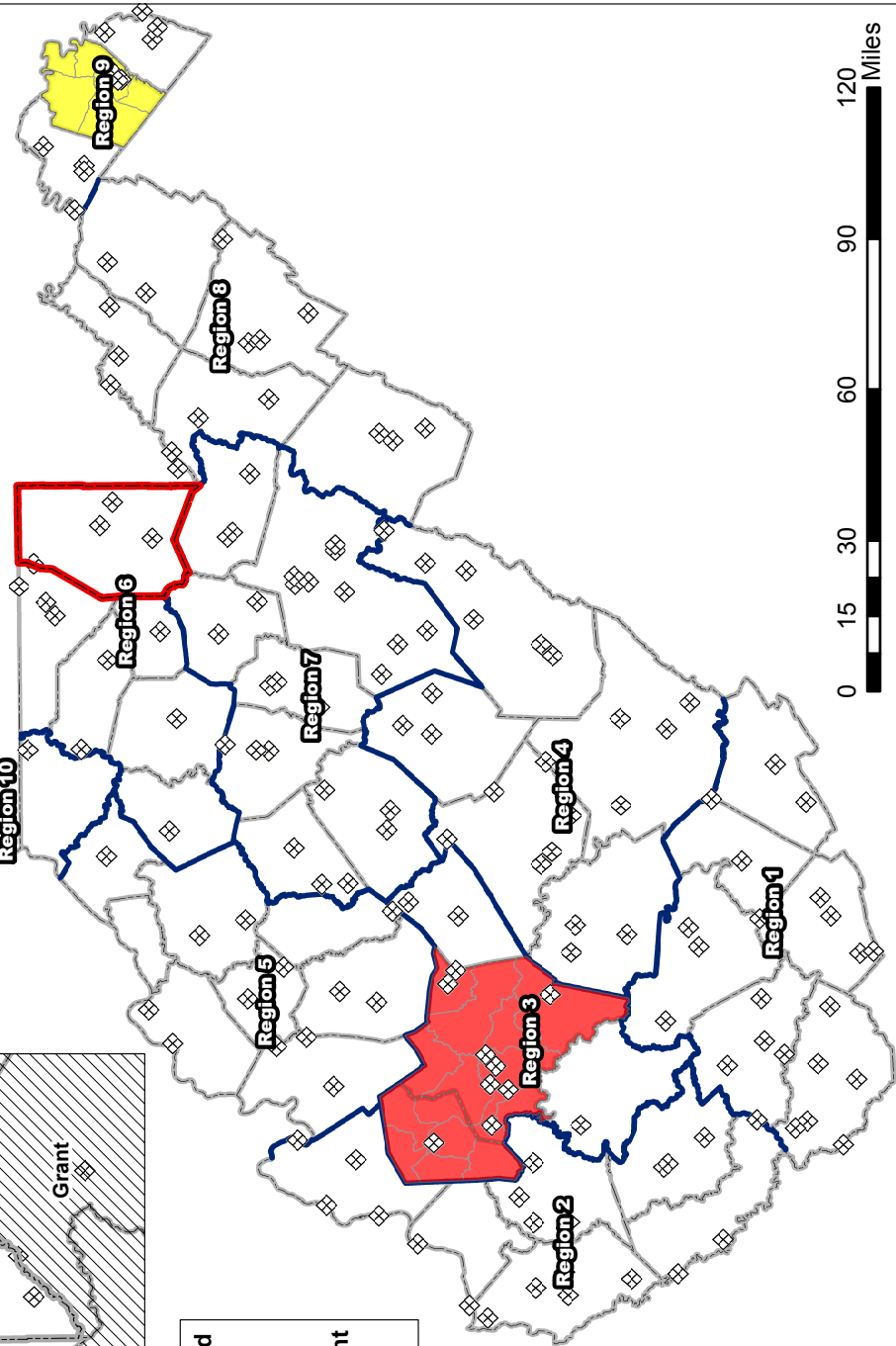


# Environment - Monitoring

Preston County



+ On December 28, 2012, U.S.EPA re-designated Cabell and Wayne Counties and the Graham Tax District in Mason County to attainment for the 1997 NAAQS.  
 + September , 2013, U.S.EPA re-designated Wood, Marshall and Ohio counties and the Grant Tax District in Pleasants County to attainment for the 1997 NAAQS.



- ◇ Weather\_ Stations
- Planning Regions Line
- Air Pollution Non Attainment Areas**
  - PM2.5 Nonattainment Areas (for both the Annual and the 2006 24-hr Standards)
  - PM2.5 Nonattainment Areas (Annual)
- County Boundaries

Source: Weather Stations; National Oceanic and Atmospheric Administration 1999; Air Pollution Non Attainment Areas; West Virginia Department of Environmental Protection and United States Environmental Protection Agency, 2013

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West Virginia's past and most likely its future are defined by energy. Besides coal, other options for energy have been investigated in the State. Gas and oil are of course the main energy staples in the nation, and West Virginia has access to this energy in a number of ways. Preston County has gas pipelines that run through the county, but no oil or oil pipeline presence (Map 32). Preston County does have play in the Marcellus shale, with a small number of completed and larger number of permitted wells (Map 33). The Marcellus Shale will continue to be a major player in West Virginia's energy layout for the foreseeable future, and as technology improves recoverability may also.

Potential renewable energy sources were also examined. Wood by-products are a potential energy source classified as biomass energy. Naturally it is most useful in areas with a great deal of wood products. West Virginia is one of the most forested States in the country. Preston County appears to be among the least forested counties in West Virginia (Map 34), but does have some wood by-products activity, with an above-average level of production of bark, chip, and sawdust volume in the state and a below-average volume of these wood by-products available (Maps 35 and 36).

Other potential renewable energy sources include geothermal (Map 37), solar (Map 38), and wind (Map 39). Each of these resources was examined in a recent report from the Center of Business and Economic Research at Marshall University.<sup>14</sup> None of these sources was "likely to provide fuel or electricity at a lower cost" than coal and oil. Subsidizing these resources appears to be the only way to encourage faster growth in consumption, and in some cases they still have very limited potential in West Virginia. Geothermal energy appears to have great potential in certain parts of the State, as shown in Map 37, and Preston appears to have a more favorable potential for enhanced geothermal systems. The potential for wind and solar development in the County is less favorable, but small portions of the County are ranked as "good" for wind potential. Still, technology is not predictable, and improvements could occur in each of these resource areas that will make generation more feasible. Efforts to monitor research in all these areas should be undertaken to make use of any potential developments.<sup>15</sup>

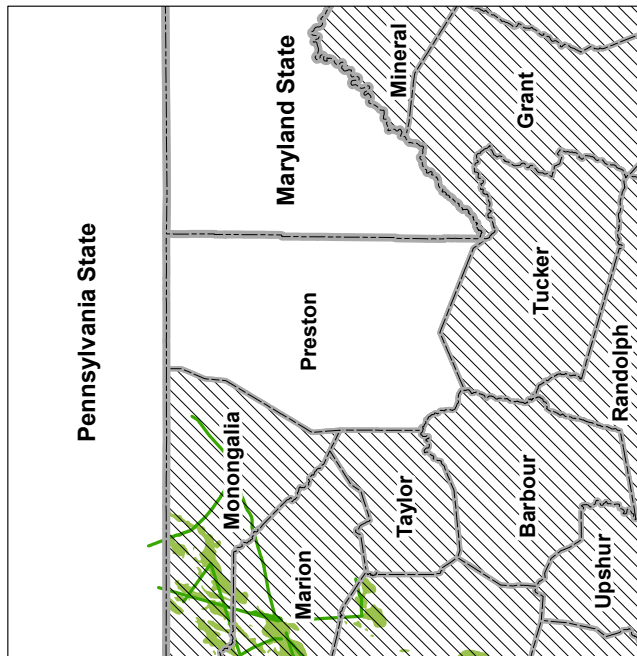
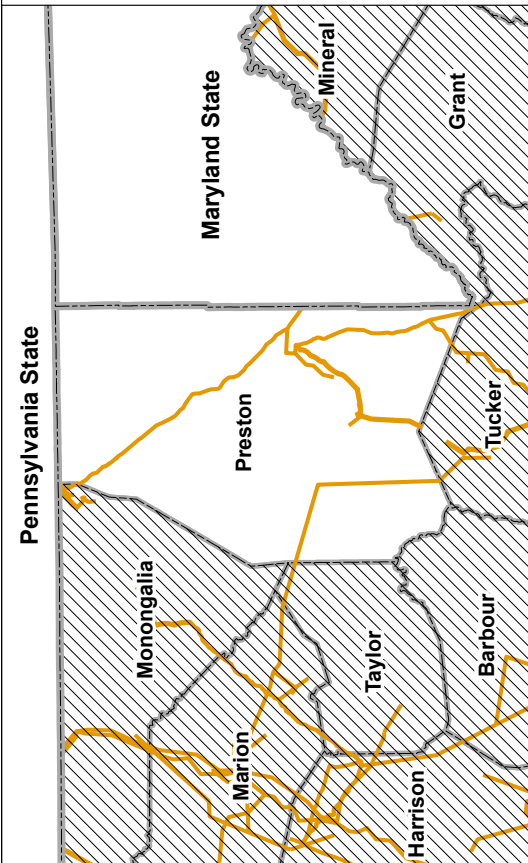
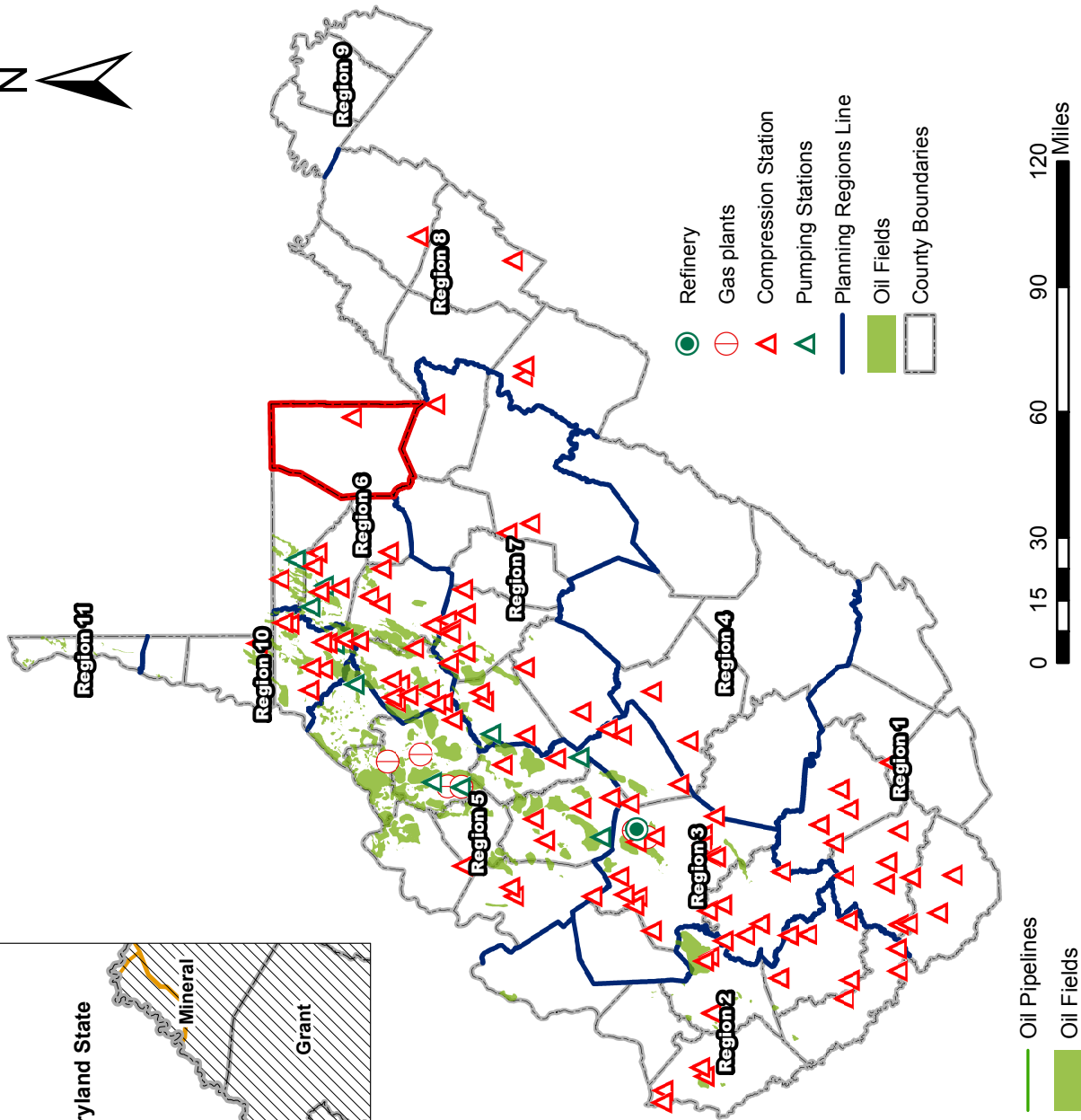
<sup>14</sup> Kent, Calvin, Risch, Christine, and Pardue, Elizabeth. *Renewable Energy Policy: Opportunities for West Virginia*. Center for Business and Economic Research, Huntington, WV (2012).

<sup>15</sup> Ibid.



# Energy - Gas and Oil

## Preston County



Source: West Virginia Geological and Economic Survey 2007

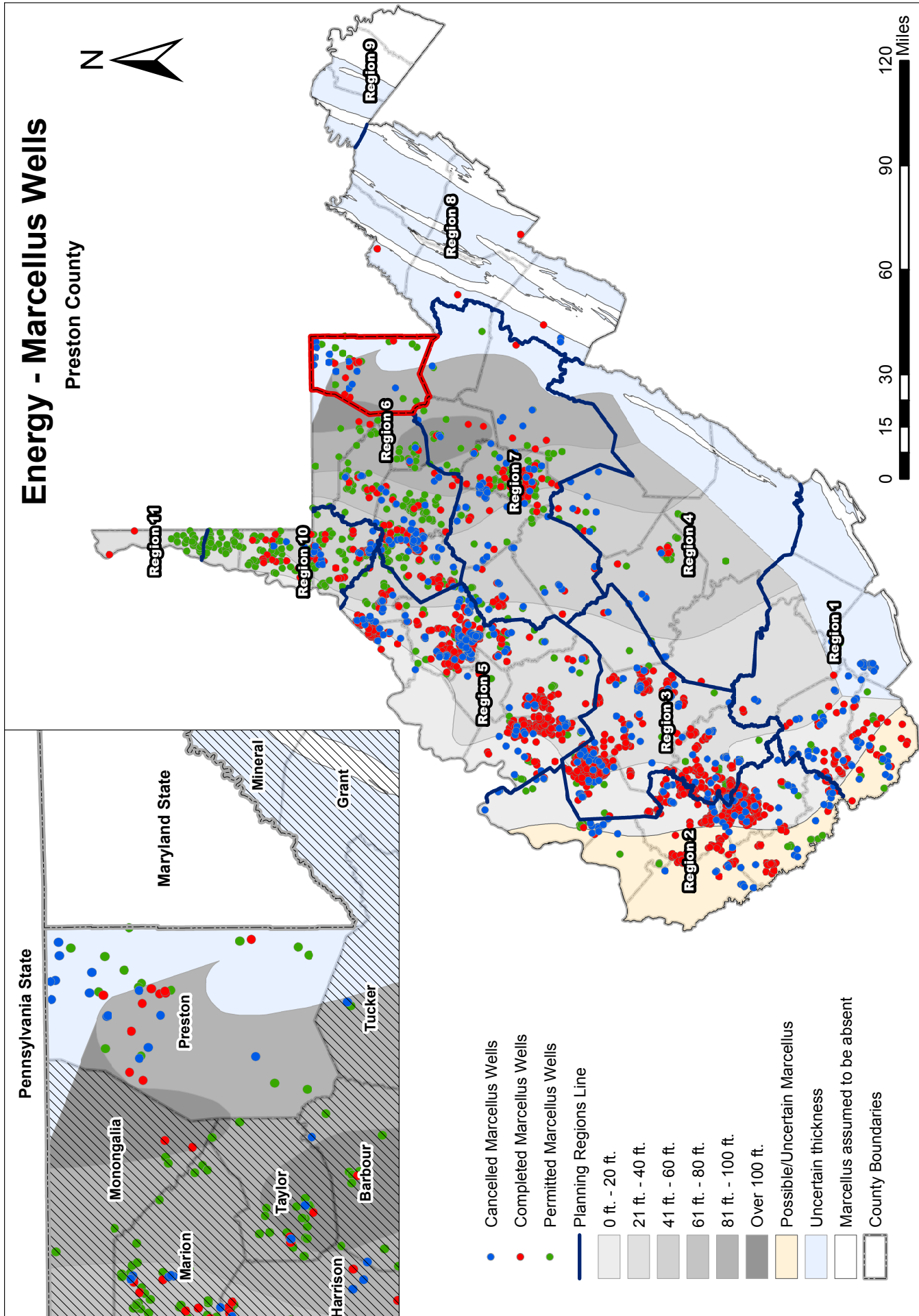
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# Energy - Marcellus Wells

Preston County



Source: West Virginia Geological and Economic Survey 2014

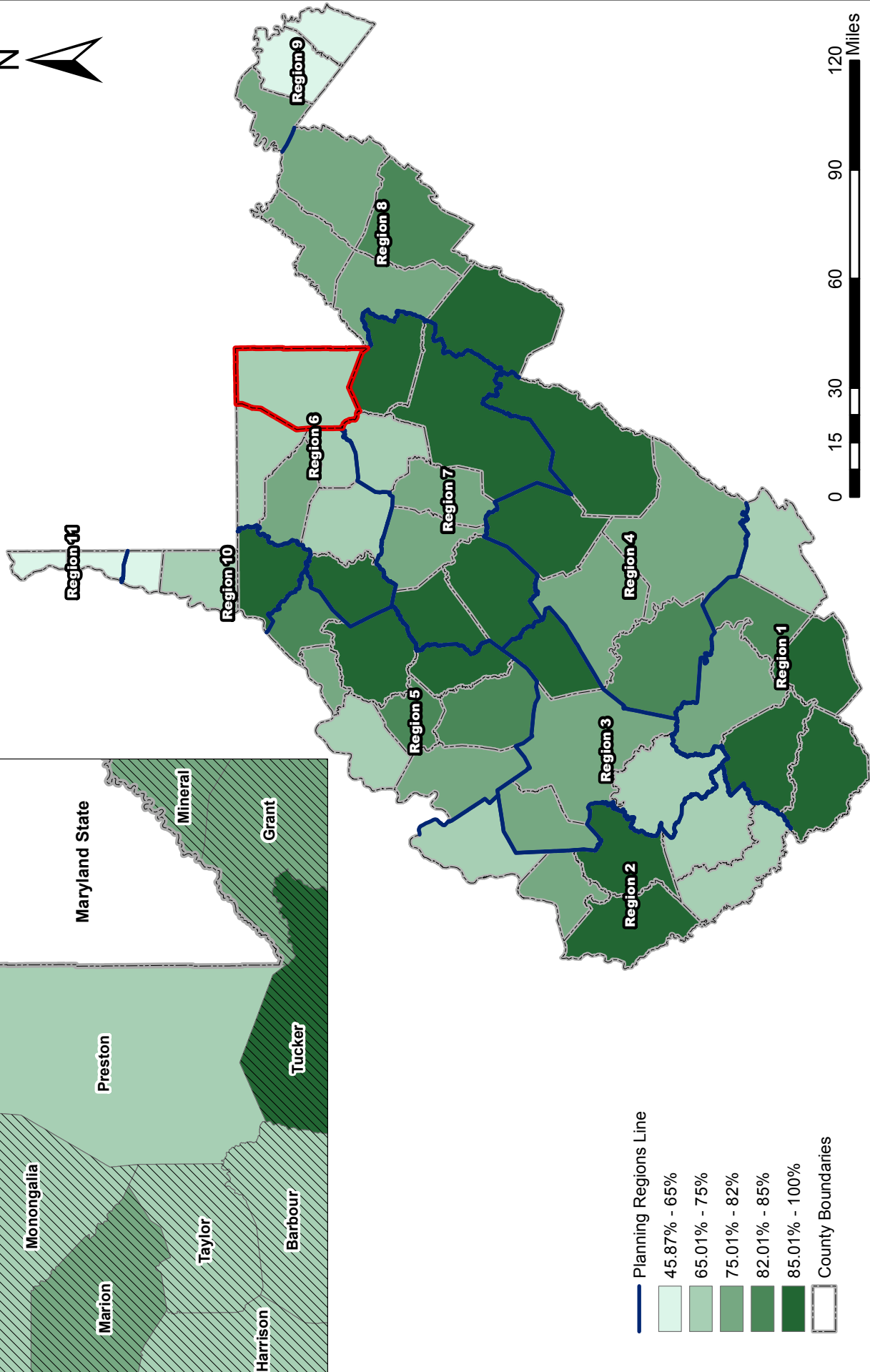
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# Energy - Percent Forest Coverage

Preston County



Source: Rahall Transportation Institute 2013

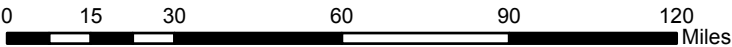
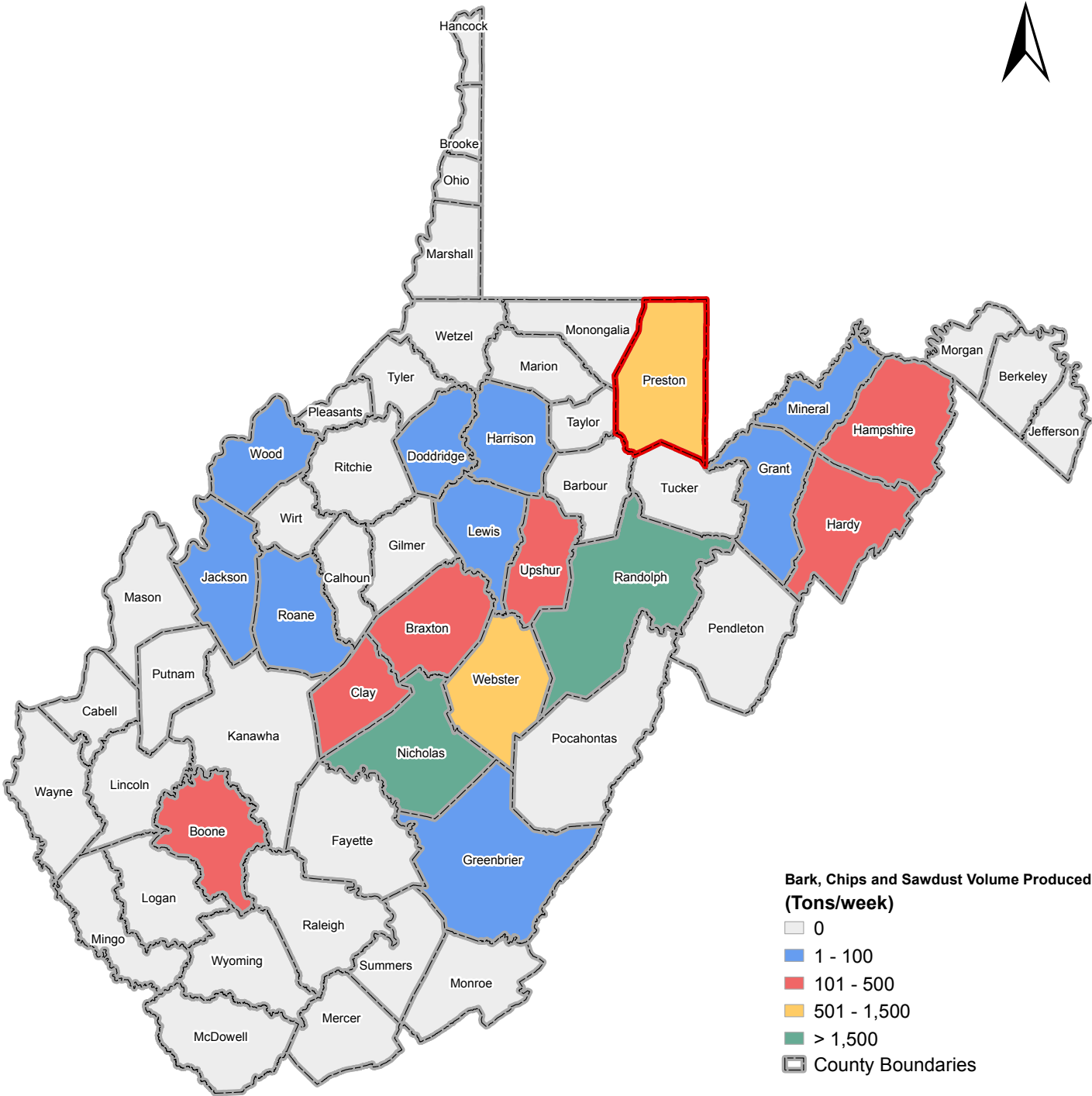
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# Renewable Energy - Wood By-Products

## Bark, Chip and Sawdust Volume Produced - Preston County



Source: Appalachian Hardwood Center 2011

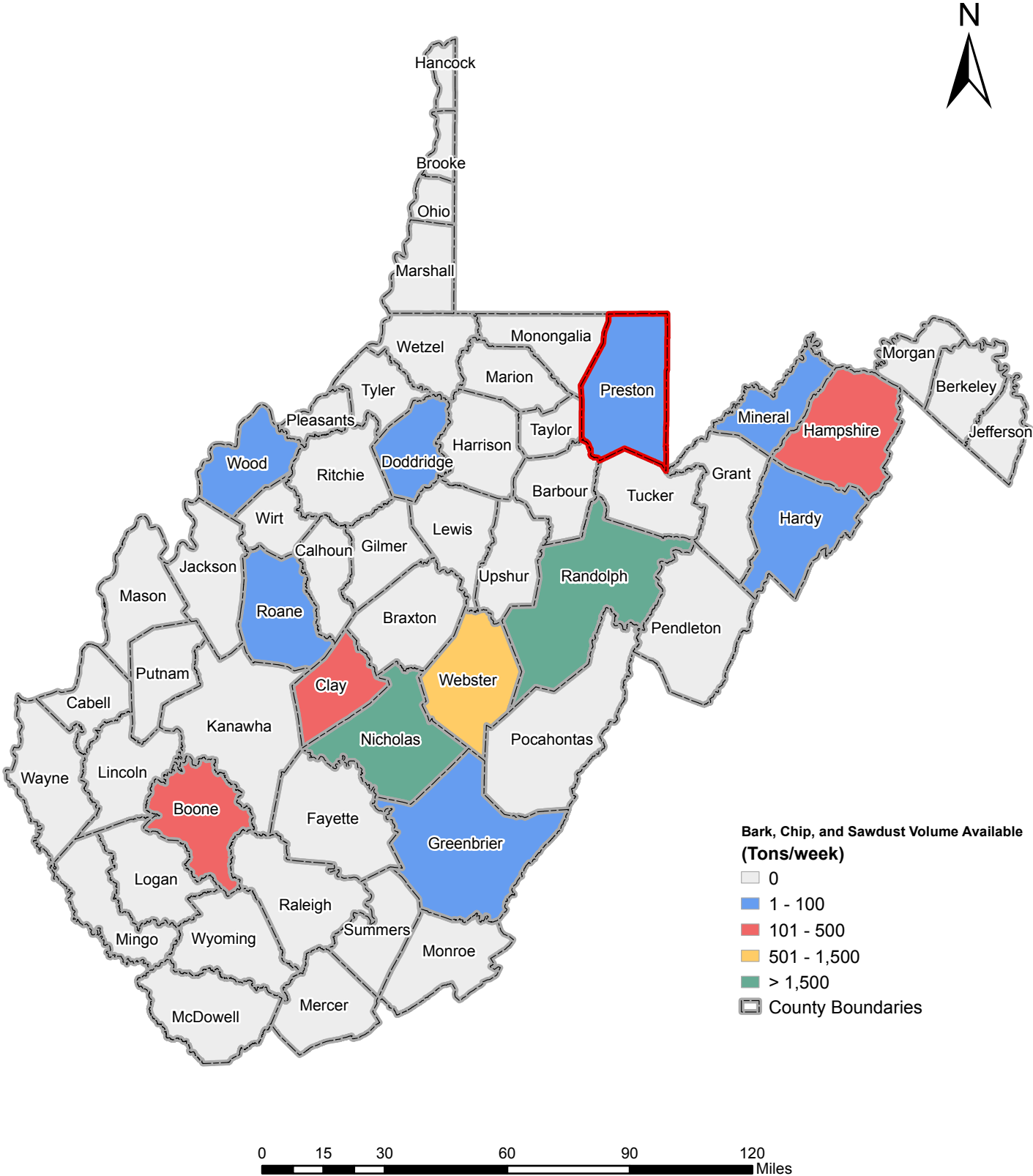
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# Renewable Energy - Wood By-Products

## Bark, Chip, and Sawdust Volume Available - Preston County



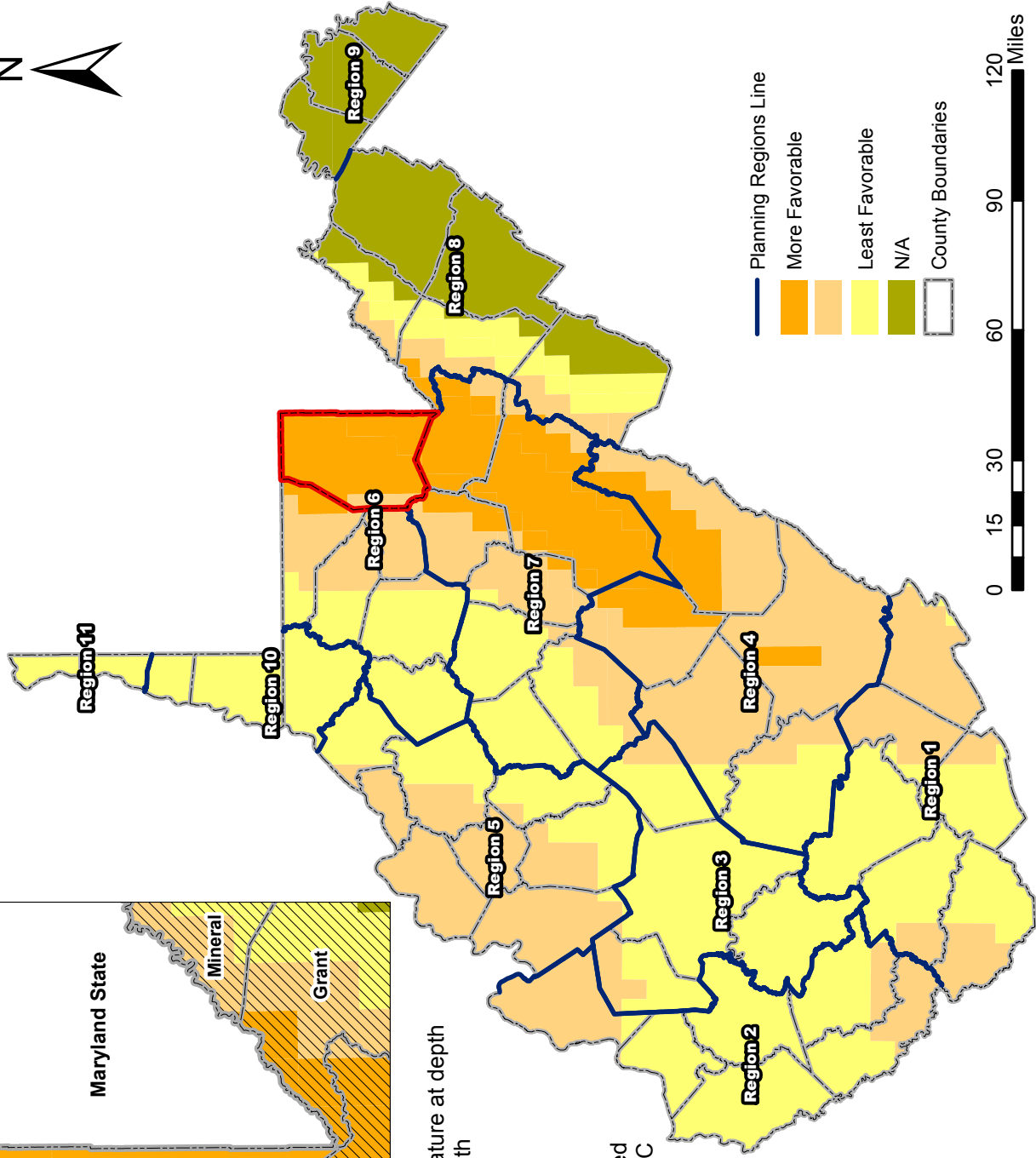
Source: Appalachian Hardwood Center 2011

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# Energy - Geothermal Resource of Preston County Favorability of Deep Enhanced Geothermal Systems



Source data for deep EGS includes temperature at depth from 3 to 10 km and analyses (for regions with temperatures  $\geq 150$  degrees C).

Class values reflect relative favorability, with 1 being more favorable, 3 being least favorable, and "N/A" regions not having been assessed due to temperatures less than 150 degrees C at 10 km depth.

Source: National Renewable Energy Laboratory 2009

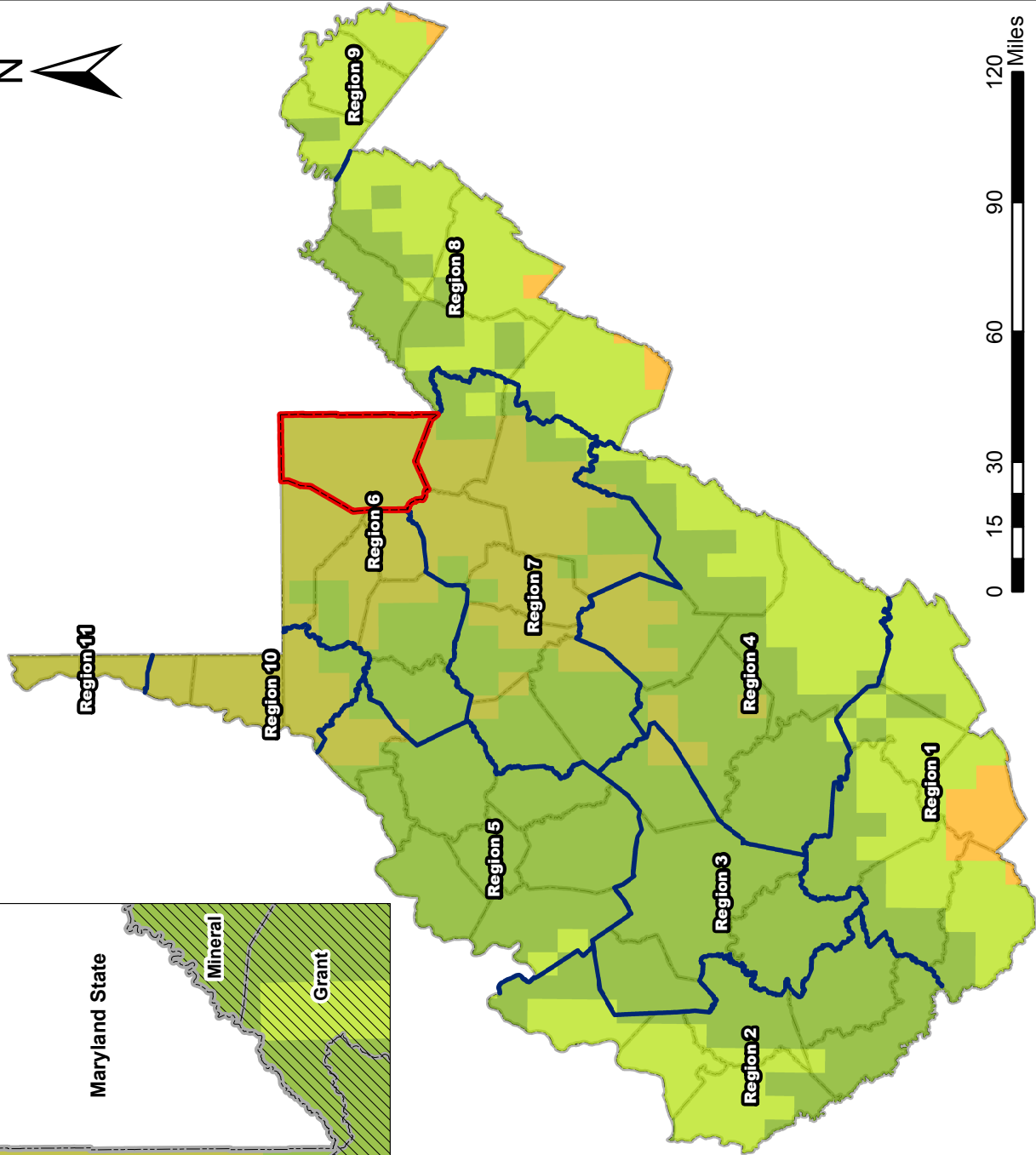
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# Solar - Renewable Energy

Preston County



Pennsylvania State

Maryland State

Monongalia

Preston

Mineral

Grant

Tucker

Barbour

Taylor

Marion

Harrison

Planning Regions Line

(kWh/m<sup>2</sup>/day)

4.2 - 4.4

3.9 - 4.1

3.7 - 3.8

3.4 - 3.6

County Boundaries

Source: National Renewable Energy Laboratory 2012

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www.rhaji.org

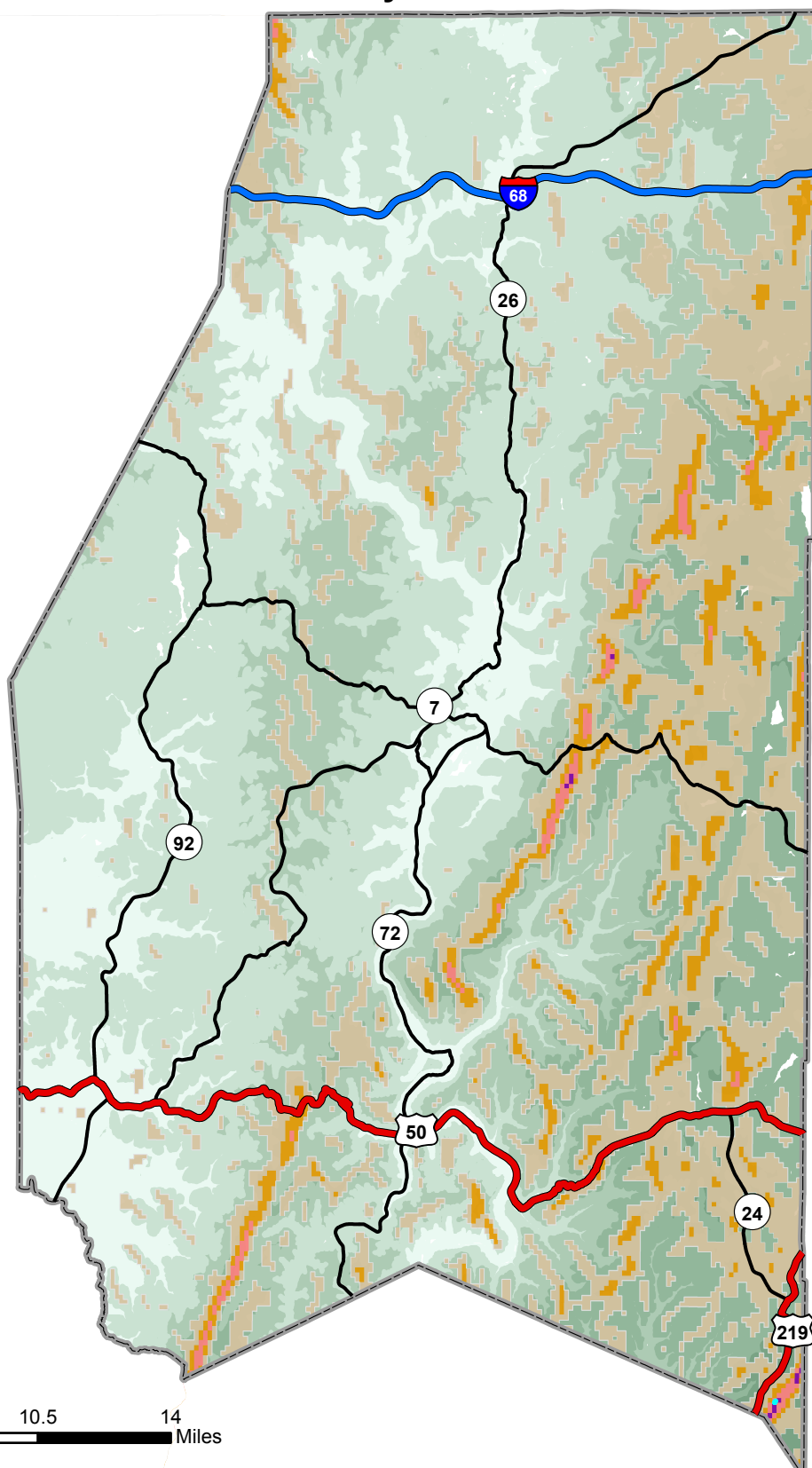
# Renewable Energy-Wind

## Preston County



- Interstate
- US Routes
- WV Routes
- Elevation (Feet)**
- 880 - 1640
- 1641 - 1980
- 1981 - 2340
- 2341 - 2680
- 2681 - 3420
- Wind Power Class**
- Potential Density (W/m<sup>2</sup>)**
- 0 - 200 Poor
- 200 - 300 Marginal
- 300 - 400 Fair
- 400 - 500 Good
- 500 - 600 Excellent
- 600 - 800 Outstanding
- > 800 Superb
- County Boundary

0 1.75 3.5 7 10.5 14 Miles



Source: National Renewable Energy Laboratory 2006, United States Geological Survey n.d., ESRI, 2013

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#### **IV. Land Use Smart Planning**

The research team constructed a smart planning criterion that would apply to each mine site in Preston. Tax Districts were utilized and labeled based on a particular land use practice that has previously been incorporated into the site. This criterion allows researchers and policymakers to determine suitability after weighing all the factors mentioned in the plan. A range of potential utilizations is given to give optimal control to policymakers and investors.

The table below (Table 2) provides the categories and their areas. The Smart Planning Map (Map 40) showcases the geographies separated by utilization.

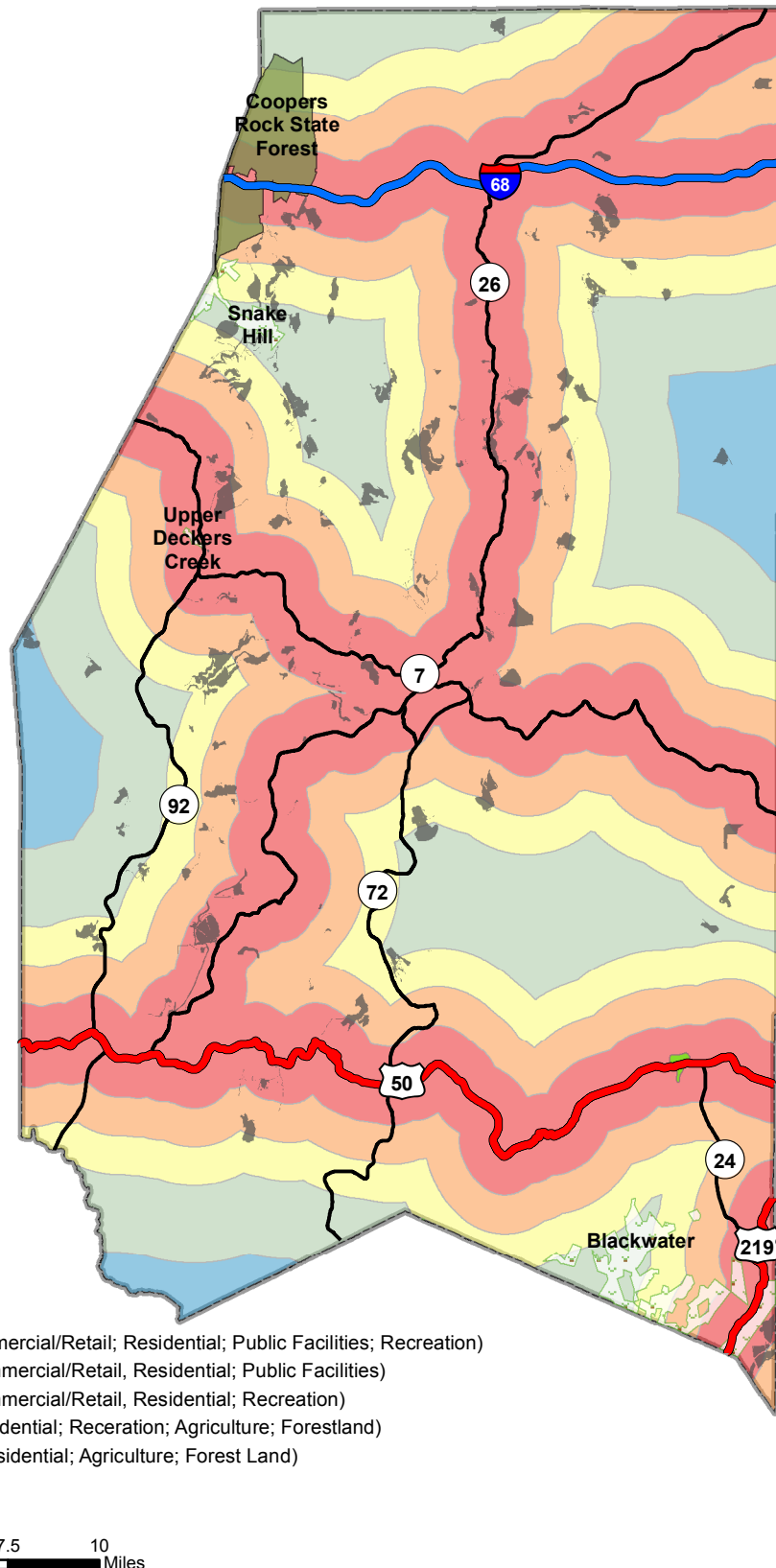
**Table 2: Smart Planning Utilizations**

| <b>Name</b>                 | <b>Smart Planning Criteria</b>                                            |
|-----------------------------|---------------------------------------------------------------------------|
| Utilization Area 0-1 mile   | Industrial, Commercial/Retail, Residential, Public Facility, Recreational |
| Utilization Area 1-2 miles  | Industrial, Commercial/Retail, Residential, Public Facilities             |
| Utilization Area 2-3 miles  | Industrial, Commercial/Retail, Residential, Recreation                    |
| Utilization Area 3-5 miles  | Industrial, Residential, Recreation, Agriculture, Forestland              |
| Utilization Area 5-10 miles | Industrial, Residential, Agriculture, Forest Land                         |
| Utilization Area 10 miles + | Industrial, Residential, Agriculture, Forest Land                         |

Land development or redevelopment options are determined through a review of the redevelopment authority's anticipated needs. The required infrastructure component standards are determined on a site by site basis by the county economic development authority as designated by West Virginia Code Chapter 05B Article 2A.

# Landuse Criteria

## Preston County



Source: Rahall Transportation Institute 2015

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## V. Site Evaluation

Once the smart planning buffers have been created, the sites available for analysis are confirmed. This evaluation provides the county with an inventory of post mine sites that are suitable for development. The evaluation consists of existing infrastructure availability, which gives the most accurate assessment of a site's physical capabilities for investment purposes. This will encourage strategic development and evaluation.

### Initial Data Collection:

The consulting team collected all available data on surface mines sites located in Preston County to produce an inventory of sites for analysis. The source for site information was primarily the West Virginia Department of Environment Protection (WV DEP) website, which allows permit searches by geographic location and mining type. The information provided by this source was used to develop a preliminary property database of all surface mines as well as general mapping.

The WV DEP permit database acts as a general clearinghouse for information, but is not infallible. The data is often updated by third-party sources, which increases the margin of error for site location. Because of this, the actual attributes being measured may not be at the distance stated because the mine site is not actually in the location given. The WV DEP has sought to minimize those errors, and RTI attempts to maintain the reliability of the measurements by observing their locations when mapping. RTI does not ensure the reliability of the site location or distances to the attributes. Any and all information should be verified for accuracy.

The initial data collection revealed all the mine sites in the county. Together, the team put together 221 sites for analysis. All of the sites and their distance attributes are listed below.

**Table 3: Preston County Potential Surface Mine Sites for Development**

| Site No | PermitID | Permittee                              | Facility Name | Acres | Issue Date | Expiration Date |
|---------|----------|----------------------------------------|---------------|-------|------------|-----------------|
| 1       | S104786  | TRONAGUN CORP                          | NA            | 0     | 11/19/1987 | 11/19/1992      |
| 2       | S003781  | BJORKMAN MINING CO                     | NA            | 0     | 5/18/1983  | 5/18/1988       |
| 3       | S108686  | AMBREC CORPORATION                     | NA            | 48.26 | 2/20/1987  | 2/2/1997        |
| 4       | S102687  | F & M COAL COMPANY LIMITED PARTNERSHIP | NA            | 0     | 10/2/1987  | 10/2/1992       |
| 5       | S101887  | G & B COAL INC                         | NA            | 0     | 9/18/1987  | 9/18/1997       |
| 6       | S101888  | AMANDA NICOLE FUELS INC                | NA            | 27.83 | 9/19/1988  | 9/19/1993       |
| 7       | S103291  | PRETZEL EXCAVATING, LLC                | NA            | 64    | 9/20/1991  | 9/20/1996       |
| 8       | S012976  | LAREW COAL CO.                         | NA            | 0     | 5/25/1976  | 5/25/1981       |
| 9       | S006572  | COAL LICK COAL CO                      | NA            | 0     | 4/4/1972   | 4/4/1977        |
| 10      | S006577  | DAUGHERTY COAL CO INC                  | NA            | 0     | 1/6/1977   | 1/6/1993        |
| 11      | S006578  | ROCKVILLE MINING CO                    | NA            | 111.2 | 12/29/1978 | 12/29/1992      |
| 12      | S009680  | PATRIOT MINING COMPANY INC             | NA            | 4.56  | 3/10/1980  | 3/10/1993       |
| 13      | S009682  | INTERSTATE LUMBER CO INC               | NA            | 0     | 10/8/1982  | 10/8/1992       |



| Site No | PermitID | Permittee                                   | Facility Name             | Acres  | Issue Date | Expiration Date |
|---------|----------|---------------------------------------------|---------------------------|--------|------------|-----------------|
| 14      | S102987  | PATRIOT MINING COMPANY INC                  | NA                        | 0      | 9/18/1987  | 9/18/1992       |
| 15      | S101987  | FREEPORT MINING CORPORATION                 | NA                        | 48     | 8/10/1987  | 8/10/1997       |
| 16      | S033171  | LAURITA TRUCKING & EXCAVATING               | NA                        | 11     | 12/14/1971 | 12/14/1976      |
| 17      | Z004781  | GUARANTY RESOURCES, INC                     | NA                        | 0      | 6/13/1983  | 6/13/1988       |
| 18      | S011676  | GRAFTON COAL COMPANY                        | NA                        | 14.75  | 5/4/1976   | 5/4/1981        |
| 19      | S002075  | COAL LICK COAL CO                           | NA                        | 0      | 6/13/1975  | 6/13/1993       |
| 20      | S200901  | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | WESLEY MINE               | 40     | 8/27/2002  | 8/27/2007       |
| 21      | S102389  | AMERIKOHL MINING INC                        | NA                        | 56.6   | 12/7/1989  | 12/7/1994       |
| 22      | S102386  | JONES COAL INC                              | NA                        | 60     | 1/28/1986  | 1/28/1996       |
| 23      | S005179  | HALLELUJAH MINING                           | NA                        | 0      | 4/25/1979  | 4/25/1984       |
| 24      | S017777  | COALTRAIN CORPORATION                       | NA                        | 17.4   | 10/15/1977 | 10/15/1992      |
| 25      | S001883  | MILLER, WAYNE L                             | NA                        | 0      | 2/18/1983  | 2/18/1993       |
| 26      | I046800  | COALTRAIN CORPORATION                       | COAL DRY LOADING FACILITY | 2.77   | 3/13/1980  | 7/23/2002       |
| 27      | S108786  | BEEFSTEAK MINING CO                         | NA                        | 0      | 8/10/1987  | 8/10/1992       |
| 28      | S103788  | AMBREC CORPORATION                          | SURFACE MINE III          | 166.25 | 3/10/1989  | 3/10/1999       |
| 29      | S004478  | F & M COAL COMPANY LIMITED PARTNERSHIP      | NA                        | 0      | 3/28/1978  | 12/29/1992      |
| 30      | S201192  | BUFFALO COAL COMPANY INC                    | KEMPTON #2 MINE           | 56     | 11/20/1992 | 11/20/1997      |
| 31      | S100393  | PATRIOT MINING COMPANY INC                  | ALBRIGHT MINE EXTENSION   | 13.55  | 2/8/1994   | 2/8/2004        |
| 32      | S004281  | VOLKSTONE CO                                | NA                        | 55     | 1/18/1981  | 8/10/1997       |
| 33      | S001578  | LEWIS COAL AND COKE CO                      | NA                        | 17.2   | 1/24/1978  | 1/24/1978       |
| 34      | S001575  | GRAFTON COAL COMPANY                        | NA                        | 11.75  | 1/23/1975  | 1/23/1980       |
| 35      | C000985  | K. C. COAL CO                               | NA                        | 0      | 12/19/1985 | 12/19/1990      |
| 36      | S102388  | K-C & M COAL COMPANY INC                    | NA                        | 35     | 9/22/1988  | 9/22/1998       |
| 37      | S008579  | PRIMROSE COAL INC                           | NA                        | 0      | 7/19/1979  | 7/19/1984       |
| 38      | S104086  | AMBREC CORPORATION                          | NA                        | 56     | 9/2/1986   | 9/2/1996        |
| 39      | S103188  | PRESTON COUNTY COAL AND COKE CORPORATION    | NA                        | 0      | 11/21/1988 | 11/21/1993      |
| 40      | S003377  | GARBART CONSTRUCTION CO, INC                | NA                        | 0      | 1/13/1977  | 1/13/1982       |
| 41      | S100293  | COLBY COAL COMPANY                          | THORNE NO. 1              | 58     | 11/18/1993 | 11/18/1998      |
| 42      | S100298  | ALI CO                                      | MARY BAILEY SURFACE MINE  | 26     | 11/2/1998  | 11/2/2003       |
| 43      | S100299  | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | HARTMAN                   | 33     | 2/18/2000  | 2/18/2010       |

| Site No | PermitID | Permittee                                   | Facility Name | Acres | Issue Date | Expiration Date |
|---------|----------|---------------------------------------------|---------------|-------|------------|-----------------|
| 44      | S012479  | DAUGHERTY COAL CO INC                       | NA            | 0     | 10/25/1979 | 1/7/1993        |
| 45      | S013180  | BJORKMAN MINING CO                          | NA            | 0     | 9/22/1983  | 9/22/1988       |
| 46      | S012274  | MAURICE JENNINGS                            | NA            | 0     | 6/19/1974  | 6/19/1979       |
| 47      | S011077  | WILLIFORD EXCAVATING CO INC                 | NA            | 0     | 7/27/1977  | 7/27/1982       |
| 48      | S001184  | SHARON COAL CO                              | NA            | 54.92 | 2/27/1984  | 2/27/1989       |
| 49      | S001679  | BUFFALO COAL COMPANY INC                    | NA            | 0     | 2/24/1979  | 2/24/1993       |
| 50      | S001676  | M & V FUEL CORP                             | NA            | 0     | 1/23/1976  | 1/23/1981       |
| 51      | S105886  | MAURICE JENNINGS                            | NA            | 94    | 9/25/1986  | 9/25/1996       |
| 52      | S007179  | WETER CO, INC                               | NA            | 3.61  | 5/31/1979  | 5/31/1984       |
| 53      | S100888  | HORIZON FUELS INC                           | NA            | 0     | 9/26/1988  | 9/26/1993       |
| 54      | S101592  | VOLKSTONE CO                                | NA            | 0     | 11/20/1992 | 11/20/1997      |
| 55      | S006183  | MAURICE JENNINGS                            | SCOTCH HILL   | 52    | 8/2/1983   | 8/2/1998        |
| 56      | S006182  | J.E.B., INC                                 | NA            | 8     | 6/17/1982  | 6/17/1992       |
| 57      | S006184  | WALTER GREEN INC                            | NA            | 10    | 8/20/1984  | 8/20/1994       |
| 58      | S004181  | INTERSTATE LUMBER CO INC                    | NA            | 10    | 11/16/1981 | 11/16/1986      |
| 59      | S002678  | MELIO MINING CO                             | NA            | 0     | 2/3/1978   | 2/3/1983        |
| 60      | S104088  | PRESTON COUNTY COAL AND COKE CORPORATION    | NA            | 0     | 4/17/1989  | 4/17/1999       |
| 61      | S003678  | MARY RUTH CORPORATION                       | NA            | 0     | 3/27/1978  | 3/27/1983       |
| 62      | S005784  | F & M COAL COMPANY LIMITED PARTNERSHIP      | NA            | 92.79 | 8/16/1984  | 8/16/1989       |
| 63      | S101691  | KRISTIE CORP                                | NA            | 0     | 5/19/1992  | 5/19/1997       |
| 64      | S019277  | DAUGHERTY COAL CO INC                       | NA            | 0     | 1/4/1977   | 1/4/1993        |
| 65      | S017677  | INTERSTATE LUMBER CO INC                    | NA            | 176   | 8/9/1977   | 8/9/1993        |
| 66      | S100487  | SIDELAND COAL CORP                          | NA            | 0     | 7/16/1987  | 7/16/1992       |
| 67      | S100489  | A C MINING CO                               | NA            | 65.2  | 4/17/1989  | 4/17/1994       |
| 68      | S100488  | FREEPORT MINING CORPORATION                 | NA            | 45    | 7/19/1988  | 7/19/2003       |
| 69      | S008185  | MARY LOU COAL CO                            | NA            | 0     | 9/4/1985   | 9/4/1990        |
| 70      | S011280  | INTERSTATE LUMBER CO INC                    | NA            | 0     | 8/10/1980  | 8/10/1992       |
| 71      | S004685  | K. C. COAL CO                               | NA            | 3     | 5/29/1985  | 5/29/1990       |
| 72      | S005882  | CENTURY ENTERPRISES INC                     | NA            | 0     | 6/17/1982  | 6/17/1992       |
| 73      | S022476  | INTERSTATE LUMBER CO INC                    | NA            | 15    | 10/20/1976 | 10/20/1981      |
| 74      | S100687  | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | NA            | 5     | 6/5/1987   | 6/5/1992        |
| 75      | S100688  | F & M COAL COMPANY LIMITED PARTNERSHIP      | NA            | 0     | 4/18/1988  | 4/18/1993       |
| 76      | S002881  | PRESTON ENERGY INC                          | NA            | 0     | 1/18/1981  | 1/26/1993       |
| 77      | S003875  | LEWIS COAL AND COKE CO                      | NA            | 0     | 2/7/1975   | 2/7/1980        |
| 78      | S001285  | SHARON COAL CO                              | NA            | 0     | 2/26/1985  | 2/26/1990       |

| Site No | PermitID | Permittee                                      | Facility Name | Acres | Issue Date | Expiration Date |
|---------|----------|------------------------------------------------|---------------|-------|------------|-----------------|
| 79      | S001281  | PATRIOT MINING COMPANY INC                     | NA            | 0     | 1/6/1981   | 1/6/1993        |
| 80      | C001382  | V & V CO                                       | NA            | 0     | 8/2/1982   | 8/2/1987        |
| 81      | S103987  | MARY RUTH CORPORATION                          | NA            | 0     | 12/18/1987 | 12/18/1992      |
| 82      | S103986  | DELTA MINING, INC                              | NA            | 0     | 4/7/1986   | 4/7/1996        |
| 83      | S002577  | MARY RUTH CORPORATION                          | NA            | 0     | 12/29/1977 | 12/29/1992      |
| 84      | S100188  | PATRIOT MINING COMPANY INC                     | NA            | 44    | 6/24/1988  | 6/24/1993       |
| 85      | S100986  | DAUGHERTY COAL CO INC                          | NA            | 0     | 3/10/1986  | 3/10/1991       |
| 86      | S100989  | LOYAL G. FORMAN JR DBA<br>LOYAL G FORMAN & SON | NA            | 60    | 5/31/1989  | 5/31/1999       |
| 87      | S012678  | RECKART MINING CO., INC                        | NA            | 0     | 6/8/1978   | 8/5/1993        |
| 88      | S006084  | HIDDEN VALLEY COAL CO                          | NA            | 0     | 8/16/1984  | 8/16/1989       |
| 89      | S015875  | GARBART CONSTRUCTION CO, INC                   | NA            | 11.75 | 7/14/1975  | 7/14/1980       |
| 90      | S006582  | ROCKVILLE MINING CO                            | NA            | 281.6 | 7/2/1982   | 7/2/1992        |
| 91      | S011982  | PATRIOT MINING COMPANY INC                     | NA            | 268   | 11/18/1982 | 11/18/1987      |
| 92      | S007183  | MARY RUTH CORPORATION                          | NA            | 0     | 9/8/1983   | 9/8/1993        |
| 93      | S104188  | AMERIKOHL MINING INC                           | NA            | 0     | 4/18/1989  | 4/18/1994       |
| 94      | S001174  | SPIKER, DEWEY                                  | NA            | 0     | 1/28/1974  | 1/28/1979       |
| 95      | S104487  | F & M COAL COMPANY LIMITED PARTNERSHIP         | NA            | 76.5  | 2/8/1988   | 2/8/1993        |
| 96      | S005480  | MAURICE JENNINGS                               | NA            | 0     | 12/29/1980 | 12/29/1992      |
| 97      | S003083  | RECKART MINING CO., INC                        | NA            | 31.2  | 4/18/1983  | 4/18/1988       |
| 98      | S017976  | LEWIS COAL AND COKE CO                         | NA            | 0     | 8/23/1976  | 8/23/1981       |
| 99      | S009184  | PATRIOT MINING COMPANY INC                     | NA            | 0     | 11/15/1984 | 11/15/1994      |
| 100     | S009185  | ROCKVILLE MINING CO                            | NA            | 45.6  | 9/16/1985  | 9/16/1995       |
| 101     | S103389  | PATRIOT MINING COMPANY INC                     | NA            | 10    | 10/12/1989 | 10/12/1994      |
| 102     | S017476  | POINT COAL CO                                  | NA            | 6.5   | 8/11/1976  | 8/11/1981       |
| 103     | Z008881  | MOUNTAIN FUELS                                 | NA            | 0     | 1/18/1981  | 8/2/1992        |
| 104     | S007582  | K. C. COAL CO                                  | NA            | 0     | 8/24/1982  | 8/24/1992       |
| 105     | S103286  | ED-E DEVELOPMENT CO INC                        | NA            | 96.8  | 6/23/1986  | 6/23/1991       |
| 106     | S102489  | VOLKSTONE CO                                   | NA            | 15.58 | 8/9/1989   | 8/9/1994        |
| 107     | S102488  | BOLINGREEN MINING CO                           | NA            | 21    | 11/23/1988 | 11/23/1998      |
| 108     | S103687  | SHARON COAL CO                                 | NA            | 6.3   | 4/8/1988   | 4/8/1993        |
| 109     | S100496  | COALTRAIN CORPORATION                          | SYPOLT JOB    | 91    | 7/19/1996  | 7/19/2006       |
| 110     | S001483  | R K COMPANY INC                                | NA            | 78    | 2/10/1983  | 2/10/1998       |
| 111     | S001482  | PATRIOT MINING COMPANY INC                     | NA            | 39.6  | 12/29/1982 | 12/29/1992      |

| Site No | PermitID | Permittee                              | Facility Name       | Acres | Issue Date | Expiration Date |
|---------|----------|----------------------------------------|---------------------|-------|------------|-----------------|
| 112     | S001485  | R & N MINING                           | NA                  | 25.84 | 2/26/1985  | 2/26/1995       |
| 113     | S009369  | ROCKVILLE MINING CO                    | NA                  | 0.03  | 4/25/1969  | 4/25/1974       |
| 114     | S101389  | PATRIOT MINING COMPANY INC             | NA                  | 54    | 6/28/1989  | 6/28/2009       |
| 115     | S101388  | VOLKSTONE CO                           | NA                  | 0     | 9/26/1988  | 9/26/1993       |
| 116     | S005378  | MAURICE JENNINGS                       | NA                  | 25.6  | 4/12/1978  | 1/25/1993       |
| 117     | S005085  | AMBREC CORPORATION                     | NA                  | 42.4  | 5/31/1985  | 5/31/1995       |
| 118     | S013278  | MILLER, WAYNE L                        | NA                  | 10.31 | 6/13/1978  | 6/13/1983       |
| 119     | S013273  | SHARON COAL CO                         | NA                  | 0     | 7/30/1973  | 7/30/1978       |
| 120     | Z000781  | PRIMROSE COAL INC                      | NA                  | 58.8  | 1/16/1981  | 7/8/1992        |
| 121     | Z001781  | DAUGHERTY COAL CO INC                  | NA                  | 0     | 1/6/1981   | 1/6/1993        |
| 122     | S101986  | R K COMPANY INC                        | NA                  | 32    | 1/23/1986  | 1/23/1996       |
| 123     | S005278  | INTERSTATE LUMBER CO INC               | NA                  | 15    | 4/12/1978  | 4/12/1983       |
| 124     | S014879  | PATRIOT MINING COMPANY INC             | NA                  | 25.5  | 12/13/1979 | 12/13/1984      |
| 125     | S002685  | WOCAP ENERGY RESOURCES, INC            | NA                  | 0     | 4/5/1985   | 4/5/1995        |
| 126     | Z004081  | HALLELUJAH MINING                      | NA                  | 0     | 6/13/1981  | 6/13/1993       |
| 127     | S105386  | ROCKVILLE MINING CO                    | NA                  | 64    | 9/11/1986  | 9/11/1996       |
| 128     | S000381  | MARY RUTH CORPORATION                  | NA                  | 0     | 1/25/1981  | 1/25/1993       |
| 129     | S000380  | KINGWOOD COAL COMPANY                  | NA                  | 0     | 1/14/1980  | 12/29/1992      |
| 130     | S100389  | MARY RUTH CORPORATION                  | NA                  | 40    | 5/5/1989   | 5/5/1994        |
| 131     | S007383  | DAUGHERTY COAL CO INC                  | NA                  | 0     | 9/15/1983  | 9/15/1988       |
| 132     | S008879  | COALTRAIN CORPORATION                  | NA                  | 6.75  | 7/25/1979  | 7/25/1984       |
| 133     | S018875  | DAUGHERTY COAL CO INC                  | NA                  | 13.25 | 8/21/1975  | 8/21/1980       |
| 134     | S103086  | JONES COAL INC                         | NA                  | 0     | 9/25/1986  | 9/25/1991       |
| 135     | S106786  | NORTHEASTERN MINING OF WV, IN          | NA                  | 0     | 2/11/1987  | 2/11/1992       |
| 136     | S103487  | HOBAR MINING, INC                      | NA                  | 94    | 11/10/1987 | 11/10/1992      |
| 137     | S106191  | COALTRAIN CORPORATION                  | STREET SURFACE MINE | 39    | 11/23/1992 | 11/23/1997      |
| 138     | S010775  | LEWIS COAL AND COKE CO                 | NA                  | 0     | 5/6/1975   | 5/6/1980        |
| 139     | S106386  | J.E.B., INC                            | NA                  | 42    | 10/27/1986 | 10/27/1991      |
| 140     | C000184  | THOMAS DEWITT EXCAVATING CO            | NA                  | 0     | 3/28/1984  | 3/28/1989       |
| 141     | S007078  | PORTLAND COAL, INC                     | NA                  | 17.75 | 1/25/1978  | 1/25/1988       |
| 142     | S004679  | F & M COAL COMPANY LIMITED PARTNERSHIP | NA                  | 0     | 12/29/1979 | 12/29/1992      |
| 143     | S002383  | DALTON, RAYMOND                        | NA                  | 0     | 3/9/1983   | 3/9/1988        |
| 144     | I063600  | FORMAN-LOSE MINING, INC                | NA                  | 4     | 1/18/1981  | 1/18/1986       |
| 145     | Z000581  | INTERSTATE LUMBER CO INC               | NA                  | 281.6 | 8/10/1981  | 8/10/1992       |
| 146     | S007574  | P & T COAL CO.                         | NA                  | 8     | 5/8/1974   | 5/8/1979        |

| Site No | PermitID | Permittee                        | Facility Name     | Acres | Issue Date | Expiration Date |
|---------|----------|----------------------------------|-------------------|-------|------------|-----------------|
| 147     | S007579  | PATRIOT MINING COMPANY INC       | NA                | 0     | 6/28/1979  | 6/28/1984       |
| 148     | Z002481  | MILLER, WAYNE L                  | NA                | 18.4  | 1/27/1981  | 1/27/1993       |
| 149     | S004073  | DAUGHERTY COAL CO INC            | NA                | 17.5  | 3/21/1973  | 3/21/1978       |
| 150     | S003385  | SHARON COAL CO                   | NA                | 2     | 4/12/1985  | 4/12/1989       |
| 151     | S104286  | BOLINGREEN MINING CO             | NA                | 14    | 4/17/1986  | 4/17/1996       |
| 152     | S103889  | COALTRAIN CORPORATION            | NA                | 30    | 6/21/1990  | 6/21/1995       |
| 153     | S103887  | NEW ALLEGHENY, INC.              | NA                | 0     | 3/25/1988  | 3/25/1993       |
| 154     | S002783  | CRANE COAL CO INC                | NA                | 0     | 4/5/1983   | 4/5/1993        |
| 155     | S010282  | LARRY UPHOLD DBA UPHOLD TRUCKING | NA                | 10    | 10/19/1982 | 10/19/1992      |
| 156     | S012282  | PRETZEL EXCAVATING, LLC          | NA                | 8.4   | 11/29/1982 | 11/29/1992      |
| 157     | S003685  | J & R COAL CO                    | NA                | 21.6  | 4/15/1985  | 4/15/1990       |
| 158     | S003684  | PATRIOT MINING COMPANY INC       | NA                | 127.3 | 5/11/1984  | 5/11/1989       |
| 159     | S101488  | BULLSKIN STONE & LIME LLC        | NA                | 118   | 10/12/1988 | 10/12/2013      |
| 160     | S101487  | AMBREC CORPORATION               | NA                | 137   | 8/24/1987  | 8/24/1997       |
| 161     | S003579  | MILLER, WAYNE L                  | NA                | 9.5   | 9/15/1982  | 9/15/1987       |
| 162     | S003574  | RECKART MINING CO., INC          | NA                | 410   | 3/12/1974  | 3/12/1979       |
| 163     | S010377  | LEWIS COAL AND COKE CO           | NA                | 0     | 7/18/1977  | 7/18/1982       |
| 164     | S010375  | WILLIFORD EXCAVATING CO INC      | NA                | 0     | 5/6/1975   | 5/6/1980        |
| 165     | S015775  | POINT COAL CO                    | NA                | 0     | 7/14/1975  | 7/14/1980       |
| 166     | S015776  | NORTHWEST COAL CO, INC           | NA                | 0     | 7/14/1976  | 7/14/1981       |
| 167     | S006079  | ZINN COAL CO                     | NA                | 0     | 7/8/1979   | 7/8/1992        |
| 168     | S103691  | MANGUS COAL, INC.                | SCOTCH HILL NO. 4 | 32    | 7/16/1992  | 7/16/2002       |
| 169     | S004481  | P & B FUELS                      | NA                | 0     | 8/5/1981   | 8/5/1993        |
| 170     | S005283  | INTERSTATE LUMBER CO INC         | NA                | 0     | 6/29/1983  | 6/29/1993       |
| 171     | S005285  | JCL DEVELOPMENT CORP             | NA                | 118.4 | 6/12/1985  | 6/12/1990       |
| 172     | S005284  | SHARON COAL CO                   | NA                | 34.6  | 8/3/1984   | 8/3/1999        |
| 173     | S021575  | COAL LICK COAL CO                | NA                | 0     | 1/5/1975   | 1/5/1993        |
| 174     | S031571  | LAREW COAL CO.                   | NA                | 0     | 11/22/1971 | 11/22/1976      |
| 175     | S025474  | CARDINAL COAL CO                 | NA                | 0     | 12/20/1974 | 12/20/1979      |
| 176     | S102587  | REBEKAH COAL COMPANY INC         | NA                | 26    | 8/13/1987  | 8/13/1992       |
| 177     | S103191  | COLBY COAL COMPANY               | NA                | 78    | 9/20/1991  | 9/20/1996       |
| 178     | S021173  | ROCKY RIDGE ENTERPRISES, INC     | NA                | 0     | 11/21/1973 | 11/21/1978      |
| 179     | S101588  | MARY RUTH CORPORATION            | NA                | 84    | 7/27/1988  | 7/27/1993       |
| 180     | S024674  | DAUGHERTY COAL CO INC            | NA                | 0     | 2/15/1974  | 2/15/1993       |



| Site No | PermitID | Permittee                        | Facility Name       | Acres  | Issue Date | Expiration Date |
|---------|----------|----------------------------------|---------------------|--------|------------|-----------------|
| 181     | S008482  | SHARON COAL CO                   | NA                  | 33.68  | 9/7/1982   | 9/7/1992        |
| 182     | S009375  | GARBART CONSTRUCTION CO, INC     | NA                  | 0      | 4/25/1975  | 4/25/1980       |
| 183     | S103586  | ROCKVILLE MINING CO              | NA                  | 82.4   | 6/6/1986   | 6/6/1996        |
| 184     | S100595  | FREEPORT MINING CORPORATION      | PISGAH SURFACE MINE | 107    | 1/20/2000  | 1/20/2005       |
| 185     | S100590  | VOLKSTONE CO                     | NA                  | 10     | 9/21/1990  | 9/21/1995       |
| 186     | S010980  | PONTORERO & SONS COAL CO INC     | NA                  | 23.72  | 1/5/1983   | 1/5/1988        |
| 187     | S011277  | MAURICE JENNINGS                 | NA                  | 9.25   | 7/27/1977  | 7/27/1982       |
| 188     | S010582  | ROCKVILLE MINING CO              | NA                  | 28.8   | 10/19/1982 | 10/19/1992      |
| 189     | S004984  | LARRY UPHOLD DBA UPHOLD TRUCKING | NA                  | 7      | 8/3/1984   | 8/3/1989        |
| 190     | S100197  | R K COMPANY INC                  | RK II JOB           | 173    | 5/30/1997  | 5/30/2007       |
| 191     | S102286  | COALTRAIN CORPORATION            | NA                  | 37     | 8/21/1986  | 8/21/1996       |
| 192     | S102288  | PATRIOT MINING COMPANY INC       | NA                  | 129    | 7/18/1989  | 7/18/1999       |
| 193     | S006678  | ROCKVILLE MINING CO              | NA                  | 16.5   | 4/24/1978  | 4/24/1983       |
| 194     | S101088  | NOGATCO, INC                     | NA                  | 0      | 8/15/1988  | 8/15/1993       |
| 195     | S003982  | INTERSTATE LUMBER CO INC         | NA                  | 0      | 4/9/1982   | 4/9/1992        |
| 196     | S005777  | DAUGHERTY COAL CO INC            | NA                  | 6.75   | 3/29/1977  | 3/29/1982       |
| 197     | S000981  | PATRIOT MINING COMPANY INC       | NA                  | 7.2    | 1/16/1981  | 1/7/1993        |
| 198     | S000983  | JONES COAL INC                   | NA                  | 128    | 1/24/1983  | 1/24/1993       |
| 199     | S102887  | SHARON COAL CO                   | NA                  | 79.33  | 9/25/1987  | 9/25/1997       |
| 200     | S012774  | INTERSTATE LUMBER CO INC         | NA                  | 25     | 7/9/1974   | 7/9/1979        |
| 201     | S012776  | M & J COAL COMPANY INC           | NA                  | 0      | 5/20/1976  | 5/20/1981       |
| 202     | S013579  | RECKART MINING CO., INC          | NA                  | 11.5   | 11/8/1979  | 11/8/1984       |
| 203     | S017077  | LEWIS COAL AND COKE CO           | NA                  | 0      | 10/28/1977 | 10/28/1982      |
| 204     | Z002281  | HILLTOP COAL CO                  | NA                  | 4.9    | 3/10/1981  | 3/10/1993       |
| 205     | S013076  | GARBART CONSTRUCTION CO, INC     | NA                  | 0      | 5/28/1976  | 5/28/1981       |
| 206     | S001876  | GARBART CONSTRUCTION CO, INC     | NA                  | 17.5   | 1/23/1976  | 1/23/1981       |
| 207     | S000476  | WILLIFORD EXCAVATING CO INC      | NA                  | 0      | 1/9/1976   | 1/9/1981        |
| 208     | S104090  | COALTRAIN CORPORATION            | NA                  | 222.71 | 5/14/1991  | 5/14/1996       |
| 209     | S003881  | COALTRAIN CORPORATION            | NA                  | 48.94  | 5/24/1981  | 5/24/1992       |
| 210     | S003884  | COALTRAIN CORPORATION            | NA                  | 25.8   | 7/12/1984  | 7/12/1989       |
| 211     | S023176  | MARY RUTH CORPORATION            | NA                  | 0      | 1/27/1976  | 1/27/1993       |
| 212     | S101686  | MARY RUTH CORPORATION            | CHURCH CREEK MINE   | 24     | 3/26/1986  | 3/26/2001       |

| Site No | PermitID | Permittee                                   | Facility Name | Acres  | Issue Date | Expiration Date |
|---------|----------|---------------------------------------------|---------------|--------|------------|-----------------|
| 213     | I064100  | LARRY UPHOLD DBA UPHOLD TRUCKING            | NA            | 0      | 1/18/1981  | 1/18/1986       |
| 214     | S015774  | LEWIS COAL AND COKE CO                      | NA            | 0      | 8/16/1974  | 8/16/1979       |
| 215     | S023776  | ROCKVILLE MINING CO                         | NA            | 40     | 12/29/1976 | 12/29/1992      |
| 216     | S008285  | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | NA            | 40     | 9/4/1985   | 9/4/1990        |
| 217     | S008280  | PATRIOT MINING COMPANY INC                  | NA            | 152.86 | 8/21/1980  | 1/5/1993        |
| 218     | S017177  | LEWIS COAL AND COKE CO                      | NA            | 11.5   | 10/28/1977 | 10/28/1982      |
| 219     | S006284  | J.E.B., INC                                 | NA            | 0      | 8/21/1984  | 8/21/1989       |
| 220     | S107386  | F & M COAL COMPANY LIMITED PARTNERSHIP      | NA            | 0      | 10/10/1986 | 10/10/1991      |
| 221     | S012280  | BUFFALO COAL COMPANY INC                    | NA            | 306    | 12/12/1980 | 9/14/2002       |

### Site Analysis (Distance Analysis)

Once the surface mining sites in the county were identified each of the sites were evaluated by estimating the shortest distance from the site to a specified criteria (features which are important to development). There are two types of distance calculation in this analysis: road-path and Euclidean distance. Road-path distance is the distance when travelling on an actual roadway from the site to the feature; Euclidean distance is when the distance is a straight line from the site to the feature, without the necessity of following a roadway. Following are lists of criteria used in the analysis:

- Road-path Distances:
  - Distance to nearest roadway (Interstate and Existing Highway)
  - Distance to Intermodal Terminal Facility, Huntington Port, and National Waterway Network
  - Distance to nearest Sewer/ Solid Waste Treatment Facility
- Euclidean Distances:
  - Distance to Water Lines, Sewer Lines, Power Lines and Broadband
  - Distance to Gas Pipe and Oil Pipe
  - Distance to Railroad

The following tables illustrate the results of road-path and Euclidean distance assessments for all of the identified sites for given criteria. All distances were recorded in miles.

**Table 4: Assessment of Distances**

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name                    |
|---------|-----------|-----------------|-----------|-----------------------|-----------|------------|------------------------------------|
| 1       | S104786   | 20.42           | I68       | 2.86                  | S26       | 0.20       | Bomar Road Kanetown Road           |
| 2       | S003781   | 15.16           | I68       | 0.98                  | S26       | 0.03       | Deaker Road                        |
| 3       | S108686   | 1.69            | I68       | 1.69                  | I68       | 0.10       | Pisgah Road and Ladley             |
| 4       | S102687   | 13.10           | I68       | 4.46                  | S7        | 0.36       | Ned Rows Rd                        |
| 5       | S101887   | 14.54           | I68       | 1.41                  | S7        | 0.12       |                                    |
| 6       | S101888   | 18.23           | I79       | 1.08                  | S26       | 0.26       | McGee Road                         |
| 7       | S103291   | 17.73           | I68       | 0.67                  | S72       | 0.39       | WV 72                              |
| 8       | S012976   | 11.94           | I79       | 2.84                  | S92       | 0.24       | Newburg- Hardman Rd                |
| 9       | S006572   | 7.69            | I68       | 0.83                  | S26       | 0.01       | Welsh Rd                           |
| 10      | S006577   | 10.35           | I68       | 3.06                  | S7        | 0.28       | Green's Run Road                   |
| 11      | S006578   | 6.69            | I68       | 1.50                  | S26       | 0.14       | Glade Road                         |
| 12      | S009680   | 11.48           | I68       | 2.08                  | S7        | 0.02       | Browns Mill- Manown (Dogtown Road) |
| 13      | S009682   | 14.90           | I68       | 1.57                  | S92       | 0.08       | Oriole- Mankins Rd                 |
| 14      | S102987   | 12.79           | I68       | 0.97                  | S7        | 0.06       | Browns Mill- Manown (Dogtown Road) |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name         |
|---------|-----------|-----------------|-----------|-----------------------|-----------|------------|-------------------------|
| 15      | S101987   | 1.57            | I68       | 1.57                  | I68       | 0.22       | Laurel Run- Pisgah Rd   |
| 16      | S033171   | 0.92            | I68       | 0.71                  | S26       | 0.07       | Eastend Moyers          |
| 17      | Z004781   | 1.84            | I68       | 1.84                  | I68       | 0.17       | Hileman                 |
| 18      | S011676   | 18.92           | I68       | 0.55                  | S7        | 0.03       | Cook Road               |
| 19      | S002075   | 8.08            | I68       | 1.23                  | S26       | 0.13       | Welsh Rd                |
| 20      | S200901   | 8.96            | I68       | 2.70                  | S26       | 0.33       | Coal Lick Road          |
| 21      | S102389   | 4.58            | I68       | 4.58                  | I68       | 0.24       | Wolfe Rd                |
| 22      | S102386   | 19.90           | I68       | 2.63                  | S7        | 0.08       | Freeport Road           |
| 23      | S005179   | 13.47           | I68       | 0.10                  | S92       | 0.13       | WV 92                   |
| 24      | S017777   | 14.71           | I79       | 1.72                  | S92       | 0.04       | Mays Rd                 |
| 25      | S001883   | 4.55            | I68       | 4.15                  | S26       | 0.13       | Auman Road              |
| 26      | I046800   | 9.45            | I68       | 0.17                  | S7        | 0.03       | Stones Lane             |
| 27      | S108786   | 16.71           | I79       | 1.43                  | S26       | 0.07       | Raccoon Valley Rd       |
| 28      | S103788   | 3.82            | I68       | 3.82                  | I68       | 0.47       | Beaver Hole Rd          |
| 29      | S004478   | 6.54            | I68       | 2.34                  | S26       | 0.20       | Woolen Mill- Gramh Rd   |
| 30      | S201192   | 32.78           | I68       | 0.06                  | U219      | 0.07       | US 219                  |
| 31      | S100393   | 10.05           | I68       | 0.34                  | S26       | 0.34       | WV 26                   |
| 32      | S004281   | 9.77            | I68       | 3.18                  | S7        | 0.14       | Green's Run Road        |
| 33      | S001578   | 7.35            | I68       | 3.41                  | S26       | 0.08       | Beech Run Rd            |
| 34      | S001575   | 18.90           | I68       | 0.53                  | S7        | 0.04       | Cook Road               |
| 35      | C000985   | 14.74           | I68       | 0.67                  | S7        | 0.04       | Grape Thicket Road      |
| 36      | S102388   | 14.87           | I68       | 2.09                  | S92       | 0.14       | McGinnis Rd             |
| 37      | S008579   | 5.73            | I68       | 5.73                  | I68       | 0.15       | Mt Nebo- Bull Run       |
| 38      | S104086   | 2.23            | I68       | 2.23                  | I68       | 0.03       | Burris Rd               |
| 39      | S103188   | 8.78            | I68       | 4.40                  | S7        | 0.19       | B Run Road              |
| 40      | S003377   | 3.96            | I68       | 0.27                  | S26       | 0.28       | WV 26                   |
| 41      | S100293   | 9.24            | I68       | 3.47                  | U119      | 0.32       | Flat Rock Road          |
| 42      | S100298   | 14.40           | I68       | 1.07                  | S92       | 0.17       | Oriole- Mankins Rd      |
| 43      | S100299   | 7.55            | I68       | 0.69                  | S26       | 0.18       | Wolen Mill Rd           |
| 44      | S012479   | 10.32           | I68       | 3.06                  | S7        | 0.35       | Green's Run Road        |
| 45      | S013180   | 13.92           | I68       | 1.26                  | S7        | 0.02       | Jenings Strip           |
| 46      | S012274   | 14.15           | I79       | 1.24                  | S92       | 0.04       | Old Evansville Pike     |
| 47      | S011077   | 5.40            | I68       | 1.40                  | S26       | 0.02       | Moon Rd                 |
| 48      | S001184   | 13.69           | I68       | 1.03                  | S7        | 0.01       | St Josephs To Manown Rd |
| 49      | S001679   | 18.07           | I68       | 0.44                  | S7        | 0.20       | Ashby Rd                |
| 50      | S001676   | 17.82           | I79       | 0.42                  | U50       | 0.18       | Russel Bolyard Rd       |
| 51      | S105886   | 13.72           | I68       | 1.59                  | S7        | 0.17       | Barlow Mine Road        |
| 52      | S007179   | 7.52            | I68       | 3.62                  | S7        | 0.03       | Beaver Hole Rd          |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name                    |
|---------|-----------|-----------------|-----------|-----------------------|-----------|------------|------------------------------------|
| 53      | S100888   | 5.19            | I68       | 2.29                  | S26       | 0.09       | Wolen Mill Rd                      |
| 54      | S101592   | 8.58            | I68       | 1.28                  | S7        | 0.05       | Miller Mine Rd                     |
| 55      | S006183   | 14.08           | I79       | 0.32                  | S92       | 0.01       | Scotch Hill Road                   |
| 56      | S006182   | 15.21           | I68       | 1.09                  | S26       | 0.16       | John Savage Road                   |
| 57      | S006184   | 1.79            | I68       | 1.45                  | S26       | 0.16       | Clifton Mills                      |
| 58      | S004181   | 8.20            | I68       | 4.30                  | S7        | 0.42       | Beaver Hole Rd                     |
| 59      | S002678   | 5.74            | I68       | 5.74                  | I68       | 0.20       | Mt Nebo- Bull Run                  |
| 60      | S104088   | 7.53            | I68       | 0.01                  | S7        | 0.01       | WV 7                               |
| 61      | S003678   | 17.83           | I68       | 1.27                  | S26       | 0.18       | Old Tunnelton- Kingwood Road       |
| 62      | S005784   | 22.17           | I79       | 2.65                  | U50       | 0.36       | Funk Rd                            |
| 63      | S101691   | 12.09           | I68       | 3.45                  | S92       | 0.17       | Independence- Gladesville          |
| 64      | S019277   | 11.40           | I68       | 3.52                  | S7        | 0.29       | Green's Run Road                   |
| 65      | S017677   | 9.25            | I68       | 3.96                  | S26       | 0.19       | Lick Run School To Crane School    |
| 66      | S100487   | 7.50            | I68       | 1.64                  | S7        | 0.13       | Old Kingwood Pike                  |
| 67      | S100489   | 9.21            | I68       | 0.99                  | S7        | 0.01       | Gibson Road- Valley District       |
| 68      | S100488   | 0.50            | I68       | 0.50                  | I68       | 0.12       | Pisgah Road and Ladley             |
| 69      | S008185   | 12.27           | I68       | 1.13                  | S92       | 0.06       | Old WV 92                          |
| 70      | S011280   | 7.19            | I68       | 3.29                  | S7        | 0.06       | Beaver Hole Rd                     |
| 71      | S004685   | 12.56           | I68       | 1.46                  | S7        | 0.01       | Sacks Run                          |
| 72      | S005882   | 6.24            | I68       | 1.92                  | S26       | 0.06       | John Miller Rd                     |
| 73      | S022476   | 16.77           | I68       | 0.60                  | S26       | 0.20       | Mt View Road                       |
| 74      | S100687   | 1.07            | I68       | 1.07                  | I68       | 0.14       | Lake-O- Woods Road                 |
| 75      | S100688   | 12.45           | I68       | 3.13                  | S7        | 0.17       | Green's Run Road                   |
| 76      | S002881   | 16.67           | I68       | 0.51                  | S26       | 0.04       | Mt View Road                       |
| 77      | S003875   | 13.94           | I68       | 0.31                  | S7        | 0.21       | WV 7                               |
| 78      | S001285   | 7.39            | I68       | 0.21                  | S7        | 0.18       | WV 7                               |
| 79      | S001281   | 3.66            | I68       | 0.81                  | S26       | 0.29       | Sugar Valley Rd                    |
| 80      | C001382   | 12.63           | I68       | 1.53                  | S7        | 0.19       | Browns Mill- Manown (Dogtown Road) |
| 81      | S103987   | 1.77            | I68       | 1.77                  | I68       | 0.33       | Brandonville Pike                  |
| 82      | S103986   | 3.28            | I68       | 3.28                  | I68       | 0.16       | Cherry Grove- Mountaindale Rd      |
| 83      | S002577   | 16.91           | I68       | 0.75                  | S26       | 0.10       | Mt View Road                       |
| 84      | S100188   | 5.10            | I68       | 5.10                  | I68       | 0.06       | Kidwell Rd                         |
| 85      | S100986   | 10.83           | I68       | 2.95                  | S7        | 0.10       | Green's Run Road                   |
| 86      | S100989   | 7.85            | I68       | 0.99                  | S26       | 0.17       | Welsh Rd                           |
| 87      | S012678   | 8.59            | I68       | 1.50                  | S26       | 0.06       | Sypolt Rd                          |
| 88      | S006084   | 1.62            | I68       | 1.62                  | I68       | 0.12       | Barnes Rd                          |
| 89      | S015875   | 3.09            | I68       | 3.09                  | I68       | 0.31       | Bruce Reckart Rd                   |



| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name                    |
|---------|-----------|-----------------|-----------|-----------------------|-----------|------------|------------------------------------|
| 90      | S006582   | 8.09            | I68       | 3.10                  | S26       | 0.29       | Beech Run Rd                       |
| 91      | S011982   | 12.55           | I68       | 3.14                  | S92       | 0.02       | Co. 56, Southern Section           |
| 92      | S007183   | 1.00            | I68       | 1.00                  | I68       | 0.21       | Ralph Deal Road                    |
| 93      | S104188   | 2.71            | I68       | 2.71                  | I68       | 0.17       | Bruce Reckart Rd                   |
| 94      | S001174   | 17.09           | I68       | 0.53                  | S26       | 0.18       | Old Tunnelton- Kingwood Road       |
| 95      | S104487   | 23.32           | I79       | 2.35                  | U50       | 0.27       |                                    |
| 96      | S005480   | 14.75           | I68       | 2.09                  | S7        | 0.23       | Howard Goff Rd                     |
| 97      | S003083   | 3.93            | I68       | 3.93                  | I68       | 0.01       | Bruce Reckart Rd                   |
| 98      | S017976   | 14.79           | I68       | 0.47                  | S92       | 0.15       | Squires Rd                         |
| 99      | S009184   | 12.99           | I68       | 1.89                  | S7        | 0.27       | Sacks Run                          |
| 100     | S009185   | 5.86            | I68       | 0.21                  | S26       | 0.11       | WV 26                              |
| 101     | S103389   | 13.80           | I68       | 0.67                  | S7        | 0.08       |                                    |
| 102     | S017476   | 14.50           | I68       | 1.63                  | S26       | 0.07       | Jenings Strip                      |
| 103     | Z008881   | 4.42            | I68       | 4.08                  | S26       | 0.41       | Clifton- Elliotsville Old Rd       |
| 104     | S007582   | 12.72           | I68       | 1.62                  | S7        | 0.01       | Sacks Run                          |
| 105     | S103286   | 13.22           | I68       | 0.56                  | S7        | 0.09       | Browns Mill- Manown (Dogtown Road) |
| 106     | S102489   | 9.96            | I68       | 0.99                  | S7        | 0.02       | Stones Road                        |
| 107     | S102488   | 8.95            | I68       | 1.74                  | S26       | 0.12       | Beech Run Rd                       |
| 108     | S103687   | 8.33            | I68       | 3.59                  | S7        | 0.16       | Mt Nebo- Bull Run                  |
| 109     | S100496   | 9.41            | I68       | 1.19                  | S7        | 0.22       | Herring Road                       |
| 110     | S001483   | 16.43           | I68       | 3.38                  | S7        | 0.12       | Whetsell- Trowbridge               |
| 111     | S001482   | 16.18           | I68       | 3.13                  | S7        | 0.52       | Childeste Rd                       |
| 112     | S001485   | 7.65            | I68       | 3.53                  | S7        | 0.20       | Ridge Road                         |
| 113     | S009369   | 5.23            | I68       | 1.51                  | S26       | 0.15       | Hudson Rd                          |
| 114     | S101389   | 10.05           | I68       | 0.34                  | S26       | 0.34       | WV 26                              |
| 115     | S101388   | 9.80            | I68       | 0.59                  | S7        | 0.10       | Oak Flat Rd                        |
| 116     | S005378   | 13.87           | I79       | 0.64                  | S92       | 0.09       | Scotch Hill Road                   |
| 117     | S005085   | 1.59            | I68       | 1.59                  | I68       | 0.18       | Beaver Hole Rd                     |
| 118     | S013278   | 4.97            | I68       | 1.86                  | S26       | 0.04       | Moon Rd                            |
| 119     | S013273   | 2.11            | I68       | 2.11                  | I68       | 0.42       | Pisgah Road and Ladley             |
| 120     | Z000781   | 3.99            | I68       | 3.99                  | I68       | 0.49       | Auman Road                         |
| 121     | Z001781   | 9.94            | I68       | 2.88                  | S7        | 0.08       | Green's Run Road                   |
| 122     | S101986   | 6.49            | I68       | 3.18                  | S26       | 0.15       | Lenox Woolen Road, Welsh Road      |
| 123     | S005278   | 16.65           | I68       | 0.18                  | S26       | 0.18       | WV 26                              |
| 124     | S014879   | 2.28            | I68       | 2.28                  | I68       | 0.03       | Henry Collins Rd                   |
| 125     | S002685   | 15.09           | I68       | 1.82                  | S26       | 0.46       | Jenings Strip                      |
| 126     | Z004081   | 14.00           | I68       | 0.86                  | S7        | 0.07       |                                    |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name                 |
|---------|-----------|-----------------|-----------|-----------------------|-----------|------------|---------------------------------|
| 127     | S105386   | 6.11            | I68       | 0.06                  | S26       | 0.07       | WV 26                           |
| 128     | S000381   | 6.41            | I68       | 3.48                  | S26       | 0.16       | Ralph Livengood Rd              |
| 129     | S000380   | 4.91            | I68       | 0.31                  | S26       | 0.09       | Guseman School Road             |
| 130     | S100389   | 3.58            | I68       | 0.54                  | S26       | 0.19       | Dennis Rd                       |
| 131     | S007383   | 6.59            | I68       | 6.08                  | S7        | 0.54       | Mt Nebo- Bull Run               |
| 132     | S008879   | 14.36           | I79       | 2.26                  | S92       | 0.33       | Sand Run Rd                     |
| 133     | S018875   | 9.65            | I68       | 3.17                  | S7        | 0.07       | Green's Run Road                |
| 134     | S103086   | 2.54            | I68       | 1.05                  | S26       | 0.07       | Salem Five Fork Road            |
| 135     | S106786   | 18.36           | I68       | 2.27                  | S7        | 0.04       | Freeport Road                   |
| 136     | S103487   | 14.18           | I68       | 2.45                  | S26       | 0.18       | Hayes Road                      |
| 137     | S106191   | 8.59            | I68       | 0.37                  | S7        | 0.09       | Herring Road                    |
| 138     | S010775   | 17.66           | I68       | 1.67                  | S72       | 0.39       | Atlantic Rd                     |
| 139     | S106386   | 14.43           | I68       | 0.16                  | S7        | 0.08       |                                 |
| 140     | C000184   | 11.77           | I68       | 3.55                  | S7        | 0.13       | Ned Rows Rd                     |
| 141     | S007078   | 21.40           | I68       | 4.87                  | S7        | 0.66       | Stanley Hoover                  |
| 142     | S004679   | 12.32           | I68       | 1.36                  | S7        | 0.38       | Caddel - st. Joe                |
| 143     | S002383   | 15.60           | I79       | 1.69                  | S92       | 0.24       | Raccoon Valley Rd               |
| 144     | I063600   | 9.50            | I68       | 4.21                  | S26       | 0.28       | Lick RUn School To Crane School |
| 145     | Z000581   | 1.13            | I68       | 1.13                  | I68       | 0.16       | Old Co 26/12                    |
| 146     | S007574   | 6.29            | I68       | 3.41                  | S26       | 0.39       | Harmony Grove Road              |
| 147     | S007579   | 15.68           | I68       | 2.64                  | S7        | 0.01       | Childester Rd                   |
| 148     | Z002481   | 5.10            | I68       | 3.60                  | S26       | 0.17       | Centenary- Mountain Dale        |
| 149     | S004073   | 6.80            | I68       | 5.67                  | S7        | 0.44       | Mt Nebo- Bull Run               |
| 150     | S003385   | 13.22           | I68       | 0.18                  | S92       | 0.09       | WV 92                           |
| 151     | S104286   | 7.02            | I68       | 2.70                  | S26       | 0.01       | Luthern Church Rd               |
| 152     | S103889   | 11.88           | I79       | 1.51                  | S92       | 0.09       | Independence- Victoria Rd       |
| 153     | S103887   | 21.21           | I68       | 4.67                  | S7        | 0.46       | Stanley Hoover                  |
| 154     | S002783   | 4.03            | I68       | 0.07                  | S26       | 0.02       | WV 26                           |
| 155     | S010282   | 0.15            | I68       | 0.15                  | I68       | 0.16       | I-68                            |
| 156     | S012282   | 6.71            | I68       | 1.36                  | S26       | 0.10       | Wolen Mill Rd                   |
| 157     | S003685   | 14.82           | I79       | 0.90                  | S92       | 0.16       | Raccoon Valley Rd               |
| 158     | S003684   | 13.62           | I68       | 2.92                  | S7        | 0.24       | Co. 56, Southern Section        |
| 159     | S101488   | 7.58            | I68       | 1.77                  | U119      | 0.29       | Kelly Road                      |
| 160     | S101487   | 2.71            | I68       | 2.71                  | I68       | 0.11       | Beaver Hole Rd                  |
| 161     | S003579   | 0.77            | I68       | 0.77                  | I68       | 0.02       | Eastend Moyers                  |
| 162     | S003574   | 5.04            | I68       | 3.09                  | S26       | 0.10       | Hume Livenwood Rd               |
| 163     | S010377   | 14.68           | I68       | 0.83                  | S92       | 0.10       | Concord Rd                      |
| 164     | S010375   | 5.48            | I68       | 1.51                  | S26       | 0.11       | Moon Rd                         |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name                    |
|---------|-----------|-----------------|-----------|-----------------------|-----------|------------|------------------------------------|
| 165     | S015775   | 13.97           | I68       | 1.31                  | S7        | 0.07       | Jenings Strip                      |
| 166     | S015776   | 3.82            | I68       | 0.13                  | S26       | 0.12       | WV 26                              |
| 167     | S006079   | 1.92            | I68       | 1.92                  | I68       | 0.03       | Savage Rd # 2                      |
| 168     | S103691   | 14.32           | I79       | 0.21                  | S92       | 0.08       | Scotch Hill Road                   |
| 169     | S004481   | 14.51           | I79       | 1.59                  | S92       | 0.24       | Sand Run Rd                        |
| 170     | S005283   | 15.31           | I68       | 1.91                  | S92       | 0.29       | Concord Rd                         |
| 171     | S005285   | 1.17            | I68       | 0.94                  | S26       | 0.32       | Eastend Moyers                     |
| 172     | S005284   | 7.15            | I68       | 1.34                  | U119      | 0.40       | Brewer Road                        |
| 173     | S021575   | 2.77            | I68       | 1.51                  | S26       | 0.27       | Moyers Rt 26 Rd                    |
| 174     | S031571   | 14.14           | I79       | 1.23                  | S92       | 0.19       | Sand Run Rd                        |
| 175     | S025474   | 8.65            | I68       | 1.56                  | S26       | 0.17       | Sypolt Rd                          |
| 176     | S102587   | 14.82           | I79       | 1.40                  | S92       | 0.25       | Joe Gibson Road                    |
| 177     | S103191   | 9.17            | I68       | 0.95                  | S7        | 0.10       | Gibson Road- Valley District       |
| 178     | S021173   | 5.58            | I68       | 4.21                  | S26       | 0.26       | Joe Ringer Rd                      |
| 179     | S101588   | 5.78            | I68       | 2.84                  | S26       | 0.22       | Brandonville Pike                  |
| 180     | S024674   | 6.80            | I68       | 5.67                  | S7        | 0.44       | Mt Nebo- Bull Run                  |
| 181     | S008482   | 8.43            | I68       | 0.40                  | S7        | 0.09       | Fairfax Street And Maryland Avenue |
| 182     | S009375   | 1.70            | I68       | 1.70                  | I68       | 0.27       | Castell Road                       |
| 183     | S103586   | 9.85            | I68       | 3.72                  | S7        | 0.44       | Green's Run Road                   |
| 184     | S100595   | 1.29            | I68       | 1.29                  | I68       | 0.13       | Laurel Run- Pisgah Rd              |
| 185     | S100590   | 8.04            | I68       | 3.56                  | S7        | 0.08       | Zion Road                          |
| 186     | S010980   | 17.82           | I79       | 0.42                  | U50       | 0.18       | Russel Bolyard Rd                  |
| 187     | S011277   | 14.46           | I68       | 2.29                  | S7        | 0.13       | Howard Goff Rd                     |
| 188     | S010582   | 6.14            | I68       | 2.07                  | S26       | 0.10       | John Miller Rd                     |
| 189     | S004984   | 1.13            | I68       | 1.13                  | I68       | 0.02       | Laurel Run- Pisgah Rd              |
| 190     | S100197   | 16.64           | I68       | 3.60                  | S7        | 0.38       | Whetsell- Trowbridge               |
| 191     | S102286   | 8.53            | I68       | 0.50                  | S7        | 0.20       | Fairfax Street And Maryland Avenue |
| 192     | S102288   | 14.12           | I68       | 0.24                  | S92       | 0.21       | Birds Creek Rd                     |
| 193     | S006678   | 6.68            | I68       | 1.63                  | S26       | 0.01       | Planeing Mill Rd # 2               |
| 194     | S101088   | 17.29           | I68       | 1.30                  | S72       | 0.07       | Atlantic Rd                        |
| 195     | S003982   | 16.28           | I79       | 1.84                  | S26       | 0.06       | Raccoon Valley Rd                  |
| 196     | S005777   | 10.58           | I68       | 2.36                  | S7        | 0.28       | Herring Road                       |
| 197     | S000981   | 1.55            | I68       | 1.55                  | I68       | 0.08       | Seese Rd                           |
| 198     | S000983   | 1.80            | I68       | 0.31                  | S26       | 0.01       | Salem Five Fork Road               |
| 199     | S102887   | 7.25            | I68       | 3.13                  | S7        | 0.17       | Ridge Road                         |
| 200     | S012774   | 9.69            | I68       | 4.29                  | S26       | 0.19       | Lick RUn School To Crane School    |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name          |
|---------|-----------|-----------------|-----------|-----------------------|-----------|------------|--------------------------|
| 201     | S012776   | 15.35           | I68       | 1.43                  | S92       | 0.01       | Squires Rd               |
| 202     | S013579   | 4.77            | I68       | 2.29                  | S26       | 0.15       | Jim Jackson Rd           |
| 203     | S017077   | 8.71            | I68       | 2.28                  | S26       | 0.27       | Beech Run Rd             |
| 204     | Z002281   | 2.68            | I68       | 0.91                  | S26       | 0.19       | Prison Rd                |
| 205     | S013076   | 3.53            | I68       | 0.16                  | S26       | 0.16       | WV 26                    |
| 206     | S001876   | 0.99            | I68       | 0.99                  | I68       | 0.24       | Collins Rd               |
| 207     | S000476   | 5.40            | I68       | 1.40                  | S26       | 0.02       | Moon Rd                  |
| 208     | S104090   | 14.14           | I79       | 1.23                  | S92       | 0.19       | Sand Run Rd              |
| 209     | S003881   | 9.96            | I68       | 1.74                  | S7        | 0.01       | Goff Taylor Rd           |
| 210     | S003884   | 9.68            | I68       | 1.46                  | S7        | 0.22       | Herring Road             |
| 211     | S023176   | 0.85            | I68       | 0.85                  | I68       | 0.12       | Ralph Deal Road          |
| 212     | S101686   | 15.09           | I68       | 0.92                  | S26       | 0.15       | Jenings Strip            |
| 213     | I064100   | 1.62            | I68       | 1.62                  | I68       | 0.04       | Laurel Run- Pisgah Rd    |
| 214     | S015774   | 16.42           | I68       | 0.44                  | S72       | 0.03       | Jerreries Road           |
| 215     | S023776   | 5.32            | I68       | 3.64                  | S26       | 0.02       | Harmony Grove Road       |
| 216     | S008285   | 11.67           | I68       | 1.62                  | S26       | 0.15       | Crane School Rd East End |
| 217     | S008280   | 16.14           | I68       | 3.10                  | S7        | 0.01       | Childeste Rd             |
| 218     | S017177   | 19.27           | I68       | 2.69                  | S26       | 0.15       | Danser To Blaster Bridge |
| 219     | S006284   | 15.57           | I68       | 0.46                  | S26       | 0.13       | John Savage Road         |
| 220     | S107386   | 23.92           | I68       | 0.40                  | U50       | 0.41       | US 50                    |
| 221     | S012280   | 37.43           | I68       | 2.97                  | U219      | 0.71       | Tucker Co- MD State Line |

**Table 5: Shortest Distances from Sites to Other Transportation Methods**

| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 1       | S104786   | 2.13     | 26.51                        | Anker Energy Scott's Run Dock     | 22.53             | MONONGAHELA RIVER      |
| 2       | S003781   | 0.80     | 21.90                        | Anker Energy Scott's Run Dock     | 18.57             | MONONGAHELA RIVER      |
| 3       | S108686   | 10.07    | 14.54                        | Anker Energy Scott's Run Dock     | 12.51             | MONONGAHELA RIVER      |
| 4       | S102687   | 4.61     | 18.97                        | Anker Energy Scott's Run Dock     | 16.02             | MONONGAHELA RIVER      |
| 5       | S101887   | 2.09     | 20.62                        | Anker Energy Scott's Run Dock     | 17.28             | MONONGAHELA RIVER      |
| 6       | S101888   | 1.36     | 25.92                        | Anker Energy Scott's Run Dock     | 21.52             | MONONGAHELA RIVER      |
| 7       | S103291   | 0.39     | 26.85                        | Anker Energy Scott's Run Dock     | 23.51             | MONONGAHELA RIVER      |
| 8       | S012976   | 0.51     | 20.13                        | Anker Energy Scott's Run Dock     | 15.23             | MONONGAHELA RIVER      |
| 9       | S006572   | 4.31     | 24.75                        | Anker Energy Scott's Run Dock     | 22.75             | MONONGAHELA RIVER      |
| 10      | S006577   | 7.34     | 16.56                        | Anker Energy Scott's Run Dock     | 13.60             | MONONGAHELA RIVER      |
| 11      | S006578   | 5.21     | 21.80                        | Anker Energy Scott's Run Dock     | 20.43             | MONONGAHELA RIVER      |
| 12      | S009680   | 5.06     | 17.57                        | Anker Energy Scott's Run Dock     | 13.57             | MONONGAHELA RIVER      |
| 13      | S009682   | 1.56     | 20.98                        | Anker Energy Scott's Run Dock     | 17.01             | MONONGAHELA RIVER      |
| 14      | S102987   | 3.28     | 18.87                        | Anker Energy Scott's Run Dock     | 15.54             | MONONGAHELA RIVER      |
| 15      | S101987   | 10.62    | 14.41                        | Anker Energy Scott's Run Dock     | 12.40             | MONONGAHELA RIVER      |
| 16      | S033171   | 12.51    | 22.17                        | Anker Energy Scott's Run Dock     | 20.17             | MONONGAHELA RIVER      |
| 17      | Z004781   | 12.93    | 18.25                        | Anker Energy Scott's Run Dock     | 16.25             | MONONGAHELA RIVER      |
| 18      | S011676   | 0.58     | 33.60                        | Anker Energy Scott's Run Dock     | 30.26             | MONONGAHELA RIVER      |
| 19      | S002075   | 3.96     | 25.14                        | Anker Energy Scott's Run Dock     | 23.15             | MONONGAHELA RIVER      |
| 20      | S200901   | 3.60     | 26.61                        | Anker Energy Scott's Run Dock     | 24.61             | MONONGAHELA RIVER      |
| 21      | S102389   | 9.48     | 19.31                        | Anker Energy Scott's Run Dock     | 17.31             | MONONGAHELA RIVER      |
| 22      | S102386   | 2.65     | 34.58                        | Anker Energy Scott's Run Dock     | 31.23             | MONONGAHELA RIVER      |



| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 23      | S005179   | 2.55     | 19.56                        | Anker Energy Scott's Run Dock     | 15.58             | MONONGAHELA RIVER      |
| 24      | S017777   | 1.76     | 22.89                        | Anker Energy Scott's Run Dock     | 17.99             | MONONGAHELA RIVER      |
| 25      | S001883   | 8.49     | 24.56                        | Anker Energy Scott's Run Dock     | 22.56             | MONONGAHELA RIVER      |
| 26      | I046800   | 6.05     | 15.54                        | Anker Energy Scott's Run Dock     | 12.19             | MONONGAHELA RIVER      |
| 27      | S108786   | 0.18     | 24.34                        | Anker Energy Scott's Run Dock     | 19.90             | MONONGAHELA RIVER      |
| 28      | S103788   | 9.70     | 16.66                        | Anker Energy Scott's Run Dock     | 14.65             | MONONGAHELA RIVER      |
| 29      | S004478   | 5.78     | 25.41                        | Anker Energy Scott's Run Dock     | 23.41             | MONONGAHELA RIVER      |
| 30      | S201192   | 12.04    | 45.95                        | Anker Energy Scott's Run Dock     | 42.60             | MONONGAHELA RIVER      |
| 31      | S100393   | 0.95     | 25.25                        | Anker Energy Scott's Run Dock     | 22.24             | MONONGAHELA RIVER      |
| 32      | S004281   | 7.89     | 15.98                        | Anker Energy Scott's Run Dock     | 13.02             | MONONGAHELA RIVER      |
| 33      | S001578   | 5.07     | 22.08                        | Anker Energy Scott's Run Dock     | 20.08             | MONONGAHELA RIVER      |
| 34      | S001575   | 0.56     | 33.59                        | Anker Energy Scott's Run Dock     | 30.23             | MONONGAHELA RIVER      |
| 35      | C000985   | 0.88     | 21.56                        | Anker Energy Scott's Run Dock     | 18.21             | MONONGAHELA RIVER      |
| 36      | S102388   | 4.02     | 20.96                        | Anker Energy Scott's Run Dock     | 16.98             | MONONGAHELA RIVER      |
| 37      | S008579   | 8.44     | 18.09                        | Anker Energy Scott's Run Dock     | 15.13             | MONONGAHELA RIVER      |
| 38      | S104086   | 10.76    | 15.08                        | Anker Energy Scott's Run Dock     | 13.06             | MONONGAHELA RIVER      |
| 39      | S103188   | 9.68     | 15.00                        | Anker Energy Scott's Run Dock     | 12.04             | MONONGAHELA RIVER      |
| 40      | S003377   | 7.15     | 22.88                        | Anker Energy Scott's Run Dock     | 20.86             | MONONGAHELA RIVER      |
| 41      | S100293   | 5.43     | 15.31                        | Anker Energy Scott's Run Dock     | 10.99             | MONONGAHELA RIVER      |
| 42      | S100298   | 1.73     | 20.49                        | Anker Energy Scott's Run Dock     | 16.51             | MONONGAHELA RIVER      |
| 43      | S100299   | 4.54     | 24.60                        | Anker Energy Scott's Run Dock     | 22.61             | MONONGAHELA RIVER      |
| 44      | S012479   | 7.47     | 16.53                        | Anker Energy Scott's Run Dock     | 13.57             | MONONGAHELA RIVER      |
| 45      | S013180   | 2.02     | 20.00                        | Anker Energy Scott's Run Dock     | 16.67             | MONONGAHELA RIVER      |

| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 46      | S012274   | 1.46     | 22.34                        | Anker Energy Scott's Run Dock     | 17.44             | MONONGAHELA RIVER      |
| 47      | S011077   | 6.67     | 24.09                        | Anker Energy Scott's Run Dock     | 22.09             | MONONGAHELA RIVER      |
| 48      | S001184   | 2.45     | 19.77                        | Anker Energy Scott's Run Dock     | 16.44             | MONONGAHELA RIVER      |
| 49      | S001679   | 0.59     | 32.75                        | Anker Energy Scott's Run Dock     | 29.40             | MONONGAHELA RIVER      |
| 50      | S001676   | 3.88     | 26.00                        | Anker Energy Scott's Run Dock     | 21.10             | MONONGAHELA RIVER      |
| 51      | S105886   | 3.92     | 19.81                        | Anker Energy Scott's Run Dock     | 15.89             | MONONGAHELA RIVER      |
| 52      | S007179   | 9.13     | 13.73                        | Anker Energy Scott's Run Dock     | 10.77             | MONONGAHELA RIVER      |
| 53      | S100888   | 6.77     | 24.11                        | Anker Energy Scott's Run Dock     | 22.10             | MONONGAHELA RIVER      |
| 54      | S101592   | 7.86     | 14.66                        | Anker Energy Scott's Run Dock     | 11.32             | MONONGAHELA RIVER      |
| 55      | S006183   | 0.99     | 22.27                        | Anker Energy Scott's Run Dock     | 17.38             | MONONGAHELA RIVER      |
| 56      | S006182   | 1.51     | 21.30                        | Anker Energy Scott's Run Dock     | 17.96             | MONONGAHELA RIVER      |
| 57      | S006184   | 13.32    | 21.65                        | Anker Energy Scott's Run Dock     | 19.64             | MONONGAHELA RIVER      |
| 58      | S004181   | 8.85     | 14.41                        | Anker Energy Scott's Run Dock     | 11.45             | MONONGAHELA RIVER      |
| 59      | S002678   | 8.50     | 18.19                        | Anker Energy Scott's Run Dock     | 15.24             | MONONGAHELA RIVER      |
| 60      | S104088   | 8.51     | 13.41                        | Anker Energy Scott's Run Dock     | 10.46             | MONONGAHELA RIVER      |
| 61      | S003678   | 1.56     | 23.92                        | Anker Energy Scott's Run Dock     | 19.95             | MONONGAHELA RIVER      |
| 62      | S005784   | 4.88     | 30.35                        | Anker Energy Scott's Run Dock     | 25.45             | MONONGAHELA RIVER      |
| 63      | S101691   | 2.04     | 18.41                        | Anker Energy Scott's Run Dock     | 13.66             | MONONGAHELA RIVER      |
| 64      | S019277   | 6.14     | 17.61                        | Anker Energy Scott's Run Dock     | 14.65             | MONONGAHELA RIVER      |
| 65      | S017677   | 3.42     | 27.87                        | Anker Energy Scott's Run Dock     | 25.62             | MONONGAHELA RIVER      |
| 66      | S100487   | 7.71     | 13.58                        | Anker Energy Scott's Run Dock     | 10.24             | MONONGAHELA RIVER      |
| 67      | S100489   | 6.68     | 15.10                        | Anker Energy Scott's Run Dock     | 12.13             | MONONGAHELA RIVER      |
| 68      | S100488   | 9.86     | 13.34                        | Anker Energy Scott's Run Dock     | 11.33             | MONONGAHELA RIVER      |

| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 69      | S008185   | 3.74     | 18.35                        | Anker Energy Scott's Run Dock     | 14.37             | MONONGAHELA RIVER      |
| 70      | S011280   | 8.88     | 13.40                        | Anker Energy Scott's Run Dock     | 10.45             | MONONGAHELA RIVER      |
| 71      | S004685   | 3.92     | 18.66                        | Anker Energy Scott's Run Dock     | 15.31             | MONONGAHELA RIVER      |
| 72      | S005882   | 5.05     | 21.86                        | Anker Energy Scott's Run Dock     | 19.86             | MONONGAHELA RIVER      |
| 73      | S022476   | 2.21     | 22.86                        | Anker Energy Scott's Run Dock     | 18.88             | MONONGAHELA RIVER      |
| 74      | S100687   | 10.78    | 15.78                        | Anker Energy Scott's Run Dock     | 13.77             | MONONGAHELA RIVER      |
| 75      | S100688   | 4.33     | 18.33                        | Anker Energy Scott's Run Dock     | 15.38             | MONONGAHELA RIVER      |
| 76      | S002881   | 2.39     | 22.75                        | Anker Energy Scott's Run Dock     | 18.79             | MONONGAHELA RIVER      |
| 77      | S003875   | 1.43     | 20.02                        | Anker Energy Scott's Run Dock     | 16.67             | MONONGAHELA RIVER      |
| 78      | S001285   | 8.51     | 13.27                        | Anker Energy Scott's Run Dock     | 10.32             | MONONGAHELA RIVER      |
| 79      | S001281   | 8.47     | 21.80                        | Anker Energy Scott's Run Dock     | 19.78             | MONONGAHELA RIVER      |
| 80      | C001382   | 3.54     | 18.71                        | Anker Energy Scott's Run Dock     | 15.34             | MONONGAHELA RIVER      |
| 81      | S103987   | 10.19    | 21.16                        | Anker Energy Scott's Run Dock     | 19.14             | MONONGAHELA RIVER      |
| 82      | S103986   | 10.11    | 25.77                        | Anker Energy Scott's Run Dock     | 23.76             | MONONGAHELA RIVER      |
| 83      | S002577   | 2.44     | 23.00                        | Anker Energy Scott's Run Dock     | 19.03             | MONONGAHELA RIVER      |
| 84      | S100188   | 9.02     | 19.83                        | Anker Energy Scott's Run Dock     | 17.16             | MONONGAHELA RIVER      |
| 85      | S100986   | 6.44     | 17.04                        | Anker Energy Scott's Run Dock     | 14.08             | MONONGAHELA RIVER      |
| 86      | S100989   | 4.43     | 24.90                        | Anker Energy Scott's Run Dock     | 22.91             | MONONGAHELA RIVER      |
| 87      | S012678   | 2.97     | 25.05                        | Anker Energy Scott's Run Dock     | 23.06             | MONONGAHELA RIVER      |
| 88      | S006084   | 12.19    | 25.63                        | Anker Energy Scott's Run Dock     | 23.62             | MONONGAHELA RIVER      |
| 89      | S015875   | 9.86     | 24.96                        | Anker Energy Scott's Run Dock     | 22.95             | MONONGAHELA RIVER      |
| 90      | S006582   | 4.63     | 22.81                        | Anker Energy Scott's Run Dock     | 20.81             | MONONGAHELA RIVER      |
| 91      | S011982   | 5.27     | 18.62                        | Anker Energy Scott's Run Dock     | 14.66             | MONONGAHELA RIVER      |

| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 92      | S007183   | 11.69    | 23.09                        | Anker Energy Scott's Run Dock     | 21.07             | MONONGAHELA RIVER      |
| 93      | S104188   | 10.26    | 24.59                        | Anker Energy Scott's Run Dock     | 22.57             | MONONGAHELA RIVER      |
| 94      | S001174   | 1.51     | 23.18                        | Anker Energy Scott's Run Dock     | 19.21             | MONONGAHELA RIVER      |
| 95      | S104487   | 5.58     | 31.09                        | Anker Energy Scott's Run Dock     | 26.61             | MONONGAHELA RIVER      |
| 96      | S005480   | 3.65     | 20.85                        | Anker Energy Scott's Run Dock     | 16.95             | MONONGAHELA RIVER      |
| 97      | S003083   | 8.73     | 25.11                        | Anker Energy Scott's Run Dock     | 23.11             | MONONGAHELA RIVER      |
| 98      | S017976   | 1.02     | 20.87                        | Anker Energy Scott's Run Dock     | 16.43             | MONONGAHELA RIVER      |
| 99      | S009184   | 4.39     | 19.08                        | Anker Energy Scott's Run Dock     | 15.74             | MONONGAHELA RIVER      |
| 100     | S009185   | 4.94     | 23.94                        | Anker Energy Scott's Run Dock     | 21.93             | MONONGAHELA RIVER      |
| 101     | S103389   | 1.84     | 19.88                        | Anker Energy Scott's Run Dock     | 16.54             | MONONGAHELA RIVER      |
| 102     | S017476   | 1.56     | 20.59                        | Anker Energy Scott's Run Dock     | 17.25             | MONONGAHELA RIVER      |
| 103     | Z008881   | 14.94    | 23.67                        | Anker Energy Scott's Run Dock     | 21.66             | MONONGAHELA RIVER      |
| 104     | S007582   | 4.08     | 18.80                        | Anker Energy Scott's Run Dock     | 15.48             | MONONGAHELA RIVER      |
| 105     | S103286   | 2.83     | 19.30                        | Anker Energy Scott's Run Dock     | 15.96             | MONONGAHELA RIVER      |
| 106     | S102489   | 6.24     | 15.84                        | Anker Energy Scott's Run Dock     | 12.88             | MONONGAHELA RIVER      |
| 107     | S102488   | 2.49     | 24.47                        | Anker Energy Scott's Run Dock     | 22.58             | MONONGAHELA RIVER      |
| 108     | S103687   | 8.63     | 15.53                        | Anker Energy Scott's Run Dock     | 12.57             | MONONGAHELA RIVER      |
| 109     | S100496   | 6.87     | 15.29                        | Anker Energy Scott's Run Dock     | 12.32             | MONONGAHELA RIVER      |
| 110     | S001483   | 0.50     | 27.09                        | Anker Energy Scott's Run Dock     | 23.74             | MONONGAHELA RIVER      |
| 111     | S001482   | 2.15     | 26.84                        | Anker Energy Scott's Run Dock     | 23.49             | MONONGAHELA RIVER      |
| 112     | S001485   | 9.10     | 13.86                        | Anker Energy Scott's Run Dock     | 10.90             | MONONGAHELA RIVER      |
| 113     | S009369   | 6.37     | 21.45                        | Anker Energy Scott's Run Dock     | 19.46             | MONONGAHELA RIVER      |
| 114     | S101389   | 0.95     | 25.25                        | Anker Energy Scott's Run Dock     | 22.24             | MONONGAHELA RIVER      |

| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 115     | S101388   | 6.37     | 15.87                        | Anker Energy Scott's Run Dock     | 12.54             | MONONGAHELA RIVER      |
| 116     | S005378   | 0.86     | 22.05                        | Anker Energy Scott's Run Dock     | 17.16             | MONONGAHELA RIVER      |
| 117     | S005085   | 10.34    | 14.43                        | Anker Energy Scott's Run Dock     | 12.42             | MONONGAHELA RIVER      |
| 118     | S013278   | 7.09     | 23.88                        | Anker Energy Scott's Run Dock     | 21.86             | MONONGAHELA RIVER      |
| 119     | S013273   | 9.45     | 14.95                        | Anker Energy Scott's Run Dock     | 12.94             | MONONGAHELA RIVER      |
| 120     | Z000781   | 9.36     | 24.27                        | Anker Energy Scott's Run Dock     | 22.26             | MONONGAHELA RIVER      |
| 121     | Z001781   | 7.48     | 16.15                        | Anker Energy Scott's Run Dock     | 13.19             | MONONGAHELA RIVER      |
| 122     | S101986   | 5.75     | 25.47                        | Anker Energy Scott's Run Dock     | 23.39             | MONONGAHELA RIVER      |
| 123     | S005278   | 1.98     | 22.73                        | Anker Energy Scott's Run Dock     | 18.76             | MONONGAHELA RIVER      |
| 124     | S014879   | 10.57    | 22.56                        | Anker Energy Scott's Run Dock     | 20.55             | MONONGAHELA RIVER      |
| 125     | S002685   | 1.94     | 21.17                        | Anker Energy Scott's Run Dock     | 17.84             | MONONGAHELA RIVER      |
| 126     | Z004081   | 1.98     | 20.08                        | Anker Energy Scott's Run Dock     | 16.73             | MONONGAHELA RIVER      |
| 127     | S105386   | 4.67     | 24.19                        | Anker Energy Scott's Run Dock     | 22.18             | MONONGAHELA RIVER      |
| 128     | S000381   | 6.36     | 25.70                        | Anker Energy Scott's Run Dock     | 23.69             | MONONGAHELA RIVER      |
| 129     | S000380   | 6.20     | 22.99                        | Anker Energy Scott's Run Dock     | 20.99             | MONONGAHELA RIVER      |
| 130     | S100389   | 15.05    | 24.12                        | Anker Energy Scott's Run Dock     | 22.11             | MONONGAHELA RIVER      |
| 131     | S007383   | 7.56     | 18.03                        | Anker Energy Scott's Run Dock     | 15.07             | MONONGAHELA RIVER      |
| 132     | S008879   | 0.69     | 22.72                        | Anker Energy Scott's Run Dock     | 17.76             | MONONGAHELA RIVER      |
| 133     | S018875   | 7.73     | 15.86                        | Anker Energy Scott's Run Dock     | 12.89             | MONONGAHELA RIVER      |
| 134     | S103086   | 13.85    | 22.53                        | Anker Energy Scott's Run Dock     | 20.53             | MONONGAHELA RIVER      |
| 135     | S106786   | 1.31     | 33.03                        | Anker Energy Scott's Run Dock     | 29.69             | MONONGAHELA RIVER      |
| 136     | S103487   | 2.08     | 21.38                        | Anker Energy Scott's Run Dock     | 18.42             | MONONGAHELA RIVER      |
| 137     | S106191   | 7.57     | 14.47                        | Anker Energy Scott's Run Dock     | 11.51             | MONONGAHELA RIVER      |

| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 138     | S010775   | 0.70     | 26.06                        | Anker Energy Scott's Run Dock     | 22.28             | MONONGAHELA RIVER      |
| 139     | S106386   | 0.47     | 20.70                        | Anker Energy Scott's Run Dock     | 17.36             | MONONGAHELA RIVER      |
| 140     | C000184   | 5.25     | 17.65                        | Anker Energy Scott's Run Dock     | 14.70             | MONONGAHELA RIVER      |
| 141     | S007078   | 3.63     | 35.88                        | Anker Energy Scott's Run Dock     | 32.54             | MONONGAHELA RIVER      |
| 142     | S004679   | 0.56     | 24.97                        | Anker Energy Scott's Run Dock     | 21.62             | MONONGAHELA RIVER      |
| 143     | S002383   | 0.36     | 23.24                        | Anker Energy Scott's Run Dock     | 18.79             | MONONGAHELA RIVER      |
| 144     | I063600   | 3.13     | 28.12                        | Anker Energy Scott's Run Dock     | 25.55             | MONONGAHELA RIVER      |
| 145     | Z000581   | 11.84    | 22.92                        | Anker Energy Scott's Run Dock     | 20.91             | MONONGAHELA RIVER      |
| 146     | S007574   | 6.31     | 21.02                        | Anker Energy Scott's Run Dock     | 19.03             | MONONGAHELA RIVER      |
| 147     | S007579   | 2.00     | 26.34                        | Anker Energy Scott's Run Dock     | 23.00             | MONONGAHELA RIVER      |
| 148     | Z002481   | 8.22     | 24.01                        | Anker Energy Scott's Run Dock     | 22.00             | MONONGAHELA RIVER      |
| 149     | S004073   | 8.16     | 17.61                        | Anker Energy Scott's Run Dock     | 14.65             | MONONGAHELA RIVER      |
| 150     | S003385   | 2.79     | 19.30                        | Anker Energy Scott's Run Dock     | 15.32             | MONONGAHELA RIVER      |
| 151     | S104286   | 5.24     | 25.95                        | Anker Energy Scott's Run Dock     | 23.93             | MONONGAHELA RIVER      |
| 152     | S103889   | 0.18     | 20.07                        | Anker Energy Scott's Run Dock     | 15.17             | MONONGAHELA RIVER      |
| 153     | S103887   | 3.56     | 35.68                        | Anker Energy Scott's Run Dock     | 32.34             | MONONGAHELA RIVER      |
| 154     | S002783   | 6.96     | 22.94                        | Anker Energy Scott's Run Dock     | 20.93             | MONONGAHELA RIVER      |
| 155     | S010282   | 10.78    | 14.16                        | Anker Energy Scott's Run Dock     | 12.15             | MONONGAHELA RIVER      |
| 156     | S012282   | 5.14     | 25.26                        | Anker Energy Scott's Run Dock     | 23.28             | MONONGAHELA RIVER      |
| 157     | S003685   | 0.31     | 22.45                        | Anker Energy Scott's Run Dock     | 18.01             | MONONGAHELA RIVER      |
| 158     | S003684   | 4.61     | 19.71                        | Anker Energy Scott's Run Dock     | 15.72             | MONONGAHELA RIVER      |
| 159     | S101488   | 6.91     | 13.91                        | Anker Energy Scott's Run Dock     | 9.15              | MONONGAHELA RIVER      |
| 160     | S101487   | 10.56    | 15.55                        | Anker Energy Scott's Run Dock     | 13.53             | MONONGAHELA RIVER      |



| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 161     | S003579   | 13.33    | 24.71                        | Anker Energy Scott's Run Dock     | 22.69             | MONONGAHELA RIVER      |
| 162     | S003574   | 7.48     | 23.93                        | Anker Energy Scott's Run Dock     | 21.94             | MONONGAHELA RIVER      |
| 163     | S010377   | 1.44     | 20.77                        | Anker Energy Scott's Run Dock     | 16.42             | MONONGAHELA RIVER      |
| 164     | S010375   | 6.63     | 24.19                        | Anker Energy Scott's Run Dock     | 22.19             | MONONGAHELA RIVER      |
| 165     | S015775   | 1.96     | 20.05                        | Anker Energy Scott's Run Dock     | 16.72             | MONONGAHELA RIVER      |
| 166     | S015776   | 16.70    | 25.93                        | Anker Energy Scott's Run Dock     | 23.94             | MONONGAHELA RIVER      |
| 167     | S006079   | 16.31    | 27.96                        | Anker Energy Scott's Run Dock     | 25.95             | MONONGAHELA RIVER      |
| 168     | S103691   | 1.14     | 22.51                        | Anker Energy Scott's Run Dock     | 17.62             | MONONGAHELA RIVER      |
| 169     | S004481   | 0.77     | 22.71                        | Anker Energy Scott's Run Dock     | 17.81             | MONONGAHELA RIVER      |
| 170     | S005283   | 1.03     | 21.39                        | Anker Energy Scott's Run Dock     | 17.42             | MONONGAHELA RIVER      |
| 171     | S005285   | 12.78    | 22.39                        | Anker Energy Scott's Run Dock     | 20.40             | MONONGAHELA RIVER      |
| 172     | S005284   | 6.68     | 13.48                        | Anker Energy Scott's Run Dock     | 8.73              | MONONGAHELA RIVER      |
| 173     | S021575   | 15.05    | 24.94                        | Anker Energy Scott's Run Dock     | 22.93             | MONONGAHELA RIVER      |
| 174     | S031571   | 0.87     | 22.33                        | Anker Energy Scott's Run Dock     | 17.44             | MONONGAHELA RIVER      |
| 175     | S025474   | 2.68     | 25.11                        | Anker Energy Scott's Run Dock     | 23.12             | MONONGAHELA RIVER      |
| 176     | S102587   | 1.17     | 21.37                        | Anker Energy Scott's Run Dock     | 16.92             | MONONGAHELA RIVER      |
| 177     | S103191   | 6.84     | 15.05                        | Anker Energy Scott's Run Dock     | 12.09             | MONONGAHELA RIVER      |
| 178     | S021173   | 7.14     | 25.07                        | Anker Energy Scott's Run Dock     | 23.06             | MONONGAHELA RIVER      |
| 179     | S101588   | 6.85     | 24.69                        | Anker Energy Scott's Run Dock     | 22.69             | MONONGAHELA RIVER      |
| 180     | S024674   | 8.16     | 17.61                        | Anker Energy Scott's Run Dock     | 14.65             | MONONGAHELA RIVER      |
| 181     | S008482   | 7.71     | 14.31                        | Anker Energy Scott's Run Dock     | 11.36             | MONONGAHELA RIVER      |
| 182     | S009375   | 14.22    | 25.64                        | Anker Energy Scott's Run Dock     | 23.63             | MONONGAHELA RIVER      |
| 183     | S103586   | 7.87     | 16.06                        | Anker Energy Scott's Run Dock     | 13.10             | MONONGAHELA RIVER      |

| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 184     | S100595   | 11.15    | 15.08                        | Anker Energy Scott's Run Dock     | 13.07             | MONONGAHELA RIVER      |
| 185     | S100590   | 8.79     | 14.25                        | Anker Energy Scott's Run Dock     | 11.29             | MONONGAHELA RIVER      |
| 186     | S010980   | 3.88     | 26.00                        | Anker Energy Scott's Run Dock     | 21.10             | MONONGAHELA RIVER      |
| 187     | S011277   | 4.06     | 20.55                        | Anker Energy Scott's Run Dock     | 16.57             | MONONGAHELA RIVER      |
| 188     | S010582   | 5.27     | 21.77                        | Anker Energy Scott's Run Dock     | 19.77             | MONONGAHELA RIVER      |
| 189     | S004984   | 10.28    | 13.96                        | Anker Energy Scott's Run Dock     | 11.95             | MONONGAHELA RIVER      |
| 190     | S100197   | 0.54     | 27.30                        | Anker Energy Scott's Run Dock     | 23.95             | MONONGAHELA RIVER      |
| 191     | S102286   | 7.64     | 14.42                        | Anker Energy Scott's Run Dock     | 11.45             | MONONGAHELA RIVER      |
| 192     | S102288   | 2.69     | 20.21                        | Anker Energy Scott's Run Dock     | 16.23             | MONONGAHELA RIVER      |
| 193     | S006678   | 4.63     | 22.30                        | Anker Energy Scott's Run Dock     | 20.31             | MONONGAHELA RIVER      |
| 194     | S101088   | 0.90     | 25.69                        | Anker Energy Scott's Run Dock     | 21.91             | MONONGAHELA RIVER      |
| 195     | S003982   | 0.13     | 23.91                        | Anker Energy Scott's Run Dock     | 19.47             | MONONGAHELA RIVER      |
| 196     | S005777   | 5.80     | 16.46                        | Anker Energy Scott's Run Dock     | 13.50             | MONONGAHELA RIVER      |
| 197     | S000981   | 11.06    | 21.69                        | Anker Energy Scott's Run Dock     | 19.67             | MONONGAHELA RIVER      |
| 198     | S000983   | 13.15    | 21.79                        | Anker Energy Scott's Run Dock     | 19.79             | MONONGAHELA RIVER      |
| 199     | S102887   | 9.17     | 13.46                        | Anker Energy Scott's Run Dock     | 10.49             | MONONGAHELA RIVER      |
| 200     | S012774   | 2.91     | 28.17                        | Anker Energy Scott's Run Dock     | 25.17             | MONONGAHELA RIVER      |
| 201     | S012776   | 1.08     | 21.44                        | Anker Energy Scott's Run Dock     | 17.09             | MONONGAHELA RIVER      |
| 202     | S013579   | 7.20     | 23.68                        | Anker Energy Scott's Run Dock     | 21.67             | MONONGAHELA RIVER      |
| 203     | S017077   | 2.85     | 24.33                        | Anker Energy Scott's Run Dock     | 22.35             | MONONGAHELA RIVER      |
| 204     | Z002281   | 8.78     | 21.59                        | Anker Energy Scott's Run Dock     | 19.58             | MONONGAHELA RIVER      |
| 205     | S013076   | 7.63     | 22.44                        | Anker Energy Scott's Run Dock     | 20.43             | MONONGAHELA RIVER      |
| 206     | S001876   | 12.45    | 18.15                        | Anker Energy Scott's Run Dock     | 16.15             | MONONGAHELA RIVER      |

| Site No | Permit_ID | Railroad | Intermodal Terminal Facility | Intermodal Terminal Facility Name | National Waterway | National Waterway Name |
|---------|-----------|----------|------------------------------|-----------------------------------|-------------------|------------------------|
| 207     | S000476   | 6.67     | 24.09                        | Anker Energy Scott's Run Dock     | 22.09             | MONONGAHELA RIVER      |
| 208     | S104090   | 0.87     | 22.33                        | Anker Energy Scott's Run Dock     | 17.44             | MONONGAHELA RIVER      |
| 209     | S003881   | 7.28     | 15.84                        | Anker Energy Scott's Run Dock     | 12.88             | MONONGAHELA RIVER      |
| 210     | S003884   | 7.07     | 15.55                        | Anker Energy Scott's Run Dock     | 12.60             | MONONGAHELA RIVER      |
| 211     | S023176   | 11.59    | 22.95                        | Anker Energy Scott's Run Dock     | 20.93             | MONONGAHELA RIVER      |
| 212     | S101686   | 1.01     | 21.61                        | Anker Energy Scott's Run Dock     | 18.28             | MONONGAHELA RIVER      |
| 213     | I064100   | 10.78    | 14.57                        | Anker Energy Scott's Run Dock     | 12.56             | MONONGAHELA RIVER      |
| 214     | S015774   | 0.36     | 25.55                        | Anker Energy Scott's Run Dock     | 22.16             | MONONGAHELA RIVER      |
| 215     | S023776   | 6.74     | 20.05                        | Anker Energy Scott's Run Dock     | 18.05             | MONONGAHELA RIVER      |
| 216     | S008285   | 0.92     | 25.50                        | Anker Energy Scott's Run Dock     | 22.50             | MONONGAHELA RIVER      |
| 217     | S008280   | 1.57     | 26.80                        | Anker Energy Scott's Run Dock     | 23.45             | MONONGAHELA RIVER      |
| 218     | S017177   | 0.47     | 26.53                        | Anker Energy Scott's Run Dock     | 22.55             | MONONGAHELA RIVER      |
| 219     | S006284   | 1.39     | 21.86                        | Anker Energy Scott's Run Dock     | 18.53             | MONONGAHELA RIVER      |
| 220     | S107386   | 3.06     | 30.01                        | Anker Energy Scott's Run Dock     | 26.03             | MONONGAHELA RIVER      |
| 221     | S012280   | 12.90    | 50.59                        | Anker Energy Scott's Run Dock     | 46.69             | MONONGAHELA RIVER      |

**Table 6: Shortest Distances from Sites to Sewer Lines (SL) and Water Lines (WL)**

| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 1       | S104786   | 2.35 | Town of Tunnelton                      | 0.25 | Town of Tunnelton                            |
| 2       | S003781   | 0.77 | City of Kingwood                       | 0.65 | City of Kingwood                             |
| 3       | S108686   | 4.48 | Morgantown Utility Board               | 0.87 | Preston County Public Service District No. 4 |
| 4       | S102687   | 3.91 | Preston County Public Service District | 1.38 | Preston County Public Service District No. 2 |
| 5       | S101887   | 1.30 | City of Kingwood                       | 0.96 | Preston County Public Service District No. 1 |
| 6       | S101888   | 1.69 | Town of Tunnelton                      | 0.41 | Preston County Public Service District       |
| 7       | S103291   | 2.94 | City of Kingwood                       | 1.94 | City of Kingwood                             |
| 8       | S012976   | 1.74 | Town of Newburg                        | 1.61 | Taylor County Public Service District        |
| 9       | S006572   | 1.86 | Preston County Public Service District | 1.78 | Preston County Public Service District No. 4 |
| 10      | S006577   | 4.33 | Town of Reedsville                     | 0.47 | Masontown Municipal Water Department         |
| 11      | S006578   | 0.95 | Preston County Public Service District | 0.98 | Preston County Public Service District No. 4 |
| 12      | S009680   | 1.58 | Town of Reedsville                     | 0.16 | Preston County Public Service District No. 1 |
| 13      | S009682   | 2.33 | Town of Tunnelton                      | 0.95 | Preston County Public Service District No. 2 |
| 14      | S102987   | 2.45 | Town of Reedsville                     | 0.07 | Preston County Public Service District No. 2 |
| 15      | S101987   | 5.24 | Morgantown Utility Board               | 0.25 | Preston County Public Service District No. 4 |
| 16      | S033171   | 2.88 | Preston County Public Service District | 0.67 | Preston County Public Service District No. 4 |
| 17      | Z004781   | 7.69 | Preston County Public Service District | 1.32 | Preston County Public Service District No. 4 |
| 18      | S011676   | 1.65 | Town of Terra Alta                     | 0.05 | Terra Alta Municipal Water Department        |
| 19      | S002075   | 2.16 | Preston County Public Service District | 2.09 | Preston County Public Service District No. 4 |
| 20      | S200901   | 2.64 | Preston County Public Service District | 2.57 | Preston County Public Service District No. 4 |
| 21      | S102389   | 5.04 | Preston County Public Service District | 1.77 | Preston County Public Service District No. 4 |
| 22      | S102386   | 3.30 | Town of Terra Alta                     | 1.75 | Terra Alta Municipal Water Department        |
| 23      | S005179   | 2.96 | Town of Newburg                        | 2.00 | Preston County Public Service District No. 2 |
| 24      | S017777   | 1.88 | Town of Newburg                        | 0.34 | Town of Newburg                              |

| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 25      | S001883   | 3.65 | Preston County Public Service District | 2.57 | Preston County Public Service District No. 4 |
| 26      | I046800   | 0.02 | Town of Reedsville                     | 0.09 | Preston County Public Service District No. 1 |
| 27      | S108786   | 2.06 | Town of Tunnelton                      | 0.88 | Denver Water Association                     |
| 28      | S103788   | 5.97 | Preston County Public Service District | 1.59 | Masontown Municipal Water Department         |
| 29      | S004478   | 1.86 | Preston County Public Service District | 1.51 | Preston County Public Service District No. 4 |
| 30      | S201192   | 4.52 | City of Thomas                         | 2.54 | Hamrick Public Service District              |
| 31      | S100393   | 0.50 | Town of Albright (Sewer)               | 0.39 | Town of Albright - Water Works               |
| 32      | S004281   | 4.31 | Town of Reedsville                     | 0.68 | Masontown Municipal Water Department         |
| 33      | S001578   | 1.92 | Preston County Public Service District | 1.95 | Preston County Public Service District No. 4 |
| 34      | S001575   | 1.64 | Town of Terra Alta                     | 0.05 | Terra Alta Municipal Water Department        |
| 35      | C000985   | 0.08 | City of Kingwood                       | 0.01 | Preston County Public Service District No. 1 |
| 36      | S102388   | 3.94 | Town of Reedsville                     | 1.25 | Preston County Public Service District No. 2 |
| 37      | S008579   | 5.03 | Preston County Public Service District | 1.46 | Masontown Municipal Water Department         |
| 38      | S104086   | 5.18 | Morgantown Utility Board               | 1.20 | Preston County Public Service District No. 4 |
| 39      | S103188   | 5.08 | Morgantown Utility Board               | 0.54 | Masontown Municipal Water Department         |
| 40      | S003377   | 1.47 | Preston County Public Service District | 0.31 | Preston County Public Service District No. 4 |
| 41      | S100293   | 3.46 | Town of Reedsville                     | 0.38 | Preston County Public Service District No. 1 |
| 42      | S100298   | 2.83 | Town of Tunnelton                      | 1.43 | Preston County Public Service District No. 2 |
| 43      | S100299   | 1.28 | Preston County Public Service District | 1.20 | Preston County Public Service District No. 4 |
| 44      | S012479   | 4.46 | Town of Reedsville                     | 0.62 | Masontown Municipal Water Department         |
| 45      | S013180   | 1.61 | City of Kingwood                       | 0.58 | Preston County Public Service District No. 2 |
| 46      | S012274   | 1.41 | Town of Newburg                        | 0.04 | Town of Newburg                              |
| 47      | S011077   | 1.49 | Preston County Public Service District | 0.48 | Preston County Public Service District No. 4 |
| 48      | S001184   | 2.03 | City of Kingwood                       | 0.21 | Preston County Public Service District No. 2 |
| 49      | S001679   | 1.34 | Town of Terra Alta                     | 0.22 | Terra Alta Municipal Water Department        |

| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 50      | S001676   | 3.51 | Town of Newburg                        | 1.55 | Town of Newburg                              |
| 51      | S105886   | 2.27 | Town of Reedsville                     | 0.53 | Preston County Public Service District No. 2 |
| 52      | S007179   | 4.54 | Morgantown Utility Board               | 0.85 | Masontown Municipal Water Department         |
| 53      | S100888   | 1.95 | Preston County Public Service District | 1.02 | Preston County Public Service District No. 4 |
| 54      | S101592   | 1.70 | Town of Reedsville                     | 0.38 | Preston County Public Service District No. 1 |
| 55      | S006183   | 0.77 | Town of Newburg                        | 0.01 | Town of Newburg                              |
| 56      | S006182   | 1.47 | City of Kingwood                       | 0.71 | Preston County Public Service District No. 2 |
| 57      | S006184   | 5.29 | Preston County Public Service District | 0.36 | Preston County Public Service District No. 4 |
| 58      | S004181   | 4.00 | Morgantown Utility Board               | 1.49 | Masontown Municipal Water Department         |
| 59      | S002678   | 5.05 | Preston County Public Service District | 1.49 | Masontown Municipal Water Department         |
| 60      | S104088   | 2.96 | Town of Reedsville                     | 0.41 | Masontown Municipal Water Department         |
| 61      | S003678   | 1.41 | Town of Tunnelton                      | 0.19 | Preston County Public Service District No. 2 |
| 62      | S005784   | 4.74 | Town of Rowlesburg Sanitary Board      | 3.22 | Town of Tunnelton                            |
| 63      | S101691   | 2.06 | Town of Newburg                        | 1.97 | Town of Newburg                              |
| 64      | S019277   | 3.92 | Town of Reedsville                     | 0.12 | Masontown Municipal Water Department         |
| 65      | S017677   | 3.07 | Town of Albright (Sewer)               | 2.82 | Town of Albright - Water Works               |
| 66      | S100487   | 1.41 | Town of Reedsville                     | 0.14 | Preston County Public Service District No. 1 |
| 67      | S100489   | 1.71 | Town of Reedsville                     | 0.68 | Masontown Municipal Water Department         |
| 68      | S100488   | 4.57 | Morgantown Utility Board               | 0.14 | Preston County Public Service District No. 4 |
| 69      | S008185   | 4.00 | Town of Newburg                        | 1.90 | Preston County Public Service District No. 1 |
| 70      | S011280   | 4.33 | Deckers Creek Public Service District  | 0.92 | Masontown Municipal Water Department         |
| 71      | S004685   | 1.80 | Town of Reedsville                     | 0.02 | Preston County Public Service District No. 2 |
| 72      | S005882   | 1.17 | Preston County Public Service District | 1.20 | Preston County Public Service District No. 4 |
| 73      | S022476   | 2.04 | Town of Tunnelton                      | 0.46 | Preston County Public Service District No. 2 |
| 74      | S100687   | 5.78 | Morgantown Utility Board               | 0.87 | Preston County Public Service District No. 4 |



| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 75      | S100688   | 3.56 | Town of Reedsville                     | 0.22 | Preston County Public Service District No. 2 |
| 76      | S002881   | 2.22 | Town of Tunnelton                      | 0.51 | Preston County Public Service District No. 2 |
| 77      | S003875   | 0.68 | City of Kingwood                       | 0.23 | Preston County Public Service District No. 1 |
| 78      | S001285   | 3.35 | Town of Reedsville                     | 0.52 | Masontown Municipal Water Department         |
| 79      | S001281   | 2.82 | Preston County Public Service District | 0.59 | Preston County Public Service District No. 4 |
| 80      | C001382   | 2.21 | Town of Reedsville                     | 0.22 | Preston County Public Service District No. 2 |
| 81      | S103987   | 4.50 | Preston County Public Service District | 1.53 | Preston County Public Service District No. 4 |
| 82      | S103986   | 3.27 | Preston County Public Service District | 2.67 | Preston County Public Service District No. 4 |
| 83      | S002577   | 2.40 | Town of Tunnelton                      | 0.60 | Preston County Public Service District No. 2 |
| 84      | S100188   | 4.78 | Preston County Public Service District | 2.31 | Preston County Public Service District No. 4 |
| 85      | S100986   | 3.84 | Town of Reedsville                     | 0.11 | Masontown Municipal Water Department         |
| 86      | S100989   | 1.94 | Preston County Public Service District | 1.86 | Preston County Public Service District No. 4 |
| 87      | S012678   | 2.41 | Town of Albright (Sewer)               | 2.05 | Town of Albright - Water Works               |
| 88      | S006084   | 1.15 | Preston County Public Service District | 0.55 | Preston County Public Service District No. 4 |
| 89      | S015875   | 3.38 | Preston County Public Service District | 2.71 | Preston County Public Service District No. 4 |
| 90      | S006582   | 1.62 | Preston County Public Service District | 1.66 | Preston County Public Service District No. 4 |
| 91      | S011982   | 2.54 | Town of Reedsville                     | 0.71 | Preston County Public Service District No. 1 |
| 92      | S007183   | 1.87 | Preston County Public Service District | 0.93 | Preston County Public Service District No. 4 |
| 93      | S104188   | 2.99 | Preston County Public Service District | 2.32 | Preston County Public Service District No. 4 |
| 94      | S001174   | 1.35 | Town of Tunnelton                      | 0.21 | Preston County Public Service District No. 2 |
| 95      | S104487   | 5.31 | Town of Rowlesburg Sanitary Board      | 4.12 | Town of Tunnelton                            |
| 96      | S005480   | 2.61 | Town of Reedsville                     | 0.56 | Preston County Public Service District No. 2 |
| 97      | S003083   | 4.15 | Preston County Public Service District | 3.10 | Preston County Public Service District No. 4 |
| 98      | S017976   | 1.94 | Town of Newburg                        | 1.93 | Town of Newburg                              |

| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 99      | S009184   | 1.33 | Town of Reedsville                     | 0.34 | Preston County Public Service District No. 2 |
| 100     | S009185   | 0.50 | Preston County Public Service District | 0.45 | Preston County Public Service District No. 4 |
| 101     | S103389   | 1.06 | City of Kingwood                       | 0.49 | Preston County Public Service District No. 1 |
| 102     | S017476   | 1.36 | City of Kingwood                       | 0.86 | Preston County Public Service District No. 2 |
| 103     | Z008881   | 6.92 | Preston County Public Service District | 2.52 | Preston County Public Service District No. 4 |
| 104     | S007582   | 1.65 | Town of Reedsville                     | 0.03 | Preston County Public Service District No. 2 |
| 105     | S103286   | 2.26 | City of Kingwood                       | 0.11 | Preston County Public Service District No. 2 |
| 106     | S102489   | 1.09 | Town of Reedsville                     | 0.53 | Preston County Public Service District No. 1 |
| 107     | S102488   | 2.02 | Town of Albright (Sewer)               | 1.74 | Town of Albright - Water Works               |
| 108     | S103687   | 5.21 | Town of Reedsville                     | 0.47 | Masontown Municipal Water Department         |
| 109     | S100496   | 2.14 | Town of Reedsville                     | 0.25 | Masontown Municipal Water Department         |
| 110     | S001483   | 1.98 | City of Kingwood                       | 1.00 | City of Kingwood                             |
| 111     | S001482   | 2.28 | City of Kingwood                       | 1.24 | City of Kingwood                             |
| 112     | S001485   | 4.67 | Deckers Creek Public Service District  | 0.19 | Masontown Municipal Water Department         |
| 113     | S009369   | 1.23 | Preston County Public Service District | 0.49 | Preston County Public Service District No. 4 |
| 114     | S101389   | 0.50 | Town of Albright (Sewer)               | 0.39 | Town of Albright - Water Works               |
| 115     | S101388   | 0.88 | Town of Reedsville                     | 0.24 | Preston County Public Service District No. 1 |
| 116     | S005378   | 0.80 | Town of Newburg                        | 0.08 | Town of Newburg                              |
| 117     | S005085   | 4.78 | Morgantown Utility Board               | 0.61 | Preston County Public Service District No. 4 |
| 118     | S013278   | 1.70 | Preston County Public Service District | 0.61 | Preston County Public Service District No. 4 |
| 119     | S013273   | 3.86 | Morgantown Utility Board               | 1.05 | Preston County Public Service District No. 4 |
| 120     | Z000781   | 3.95 | Preston County Public Service District | 3.14 | Preston County Public Service District No. 4 |
| 121     | Z001781   | 4.04 | Town of Reedsville                     | 0.40 | Masontown Municipal Water Department         |
| 122     | S101986   | 2.40 | Preston County Public Service District | 2.05 | Preston County Public Service District No. 4 |
| 123     | S005278   | 1.81 | Town of Tunnelton                      | 0.21 | Preston County Public Service District No. 2 |

| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 124     | S014879   | 3.44 | Preston County Public Service District | 2.31 | Preston County Public Service District No. 4 |
| 125     | S002685   | 1.90 | City of Kingwood                       | 0.74 | Preston County Public Service District No. 2 |
| 126     | Z004081   | 1.17 | City of Kingwood                       | 0.79 | Preston County Public Service District No. 1 |
| 127     | S105386   | 0.73 | Preston County Public Service District | 0.72 | Preston County Public Service District No. 4 |
| 128     | S000381   | 2.66 | Preston County Public Service District | 2.05 | Preston County Public Service District No. 4 |
| 129     | S000380   | 0.57 | Preston County Public Service District | 0.11 | Preston County Public Service District No. 4 |
| 130     | S100389   | 2.97 | Preston County Public Service District | 1.00 | Preston County Public Service District No. 4 |
| 131     | S007383   | 4.80 | Town of Reedsville                     | 0.90 | Masontown Municipal Water Department         |
| 132     | S008879   | 1.74 | Town of Newburg                        | 0.37 | Town of Newburg                              |
| 133     | S018875   | 4.38 | Town of Reedsville                     | 0.73 | Masontown Municipal Water Department         |
| 134     | S103086   | 3.58 | Preston County Public Service District | 0.66 | Preston County Public Service District No. 4 |
| 135     | S106786   | 1.79 | Town of Terra Alta                     | 0.46 | Terra Alta Municipal Water Department        |
| 136     | S103487   | 1.96 | Town of Albright (Sewer)               | 0.45 | Preston County Public Service District No. 2 |
| 137     | S106191   | 2.41 | Town of Reedsville                     | 0.11 | Masontown Municipal Water Department         |
| 138     | S010775   | 2.14 | Town of Tunnelton                      | 1.29 | Preston County Public Service District No. 2 |
| 139     | S106386   | 0.15 | City of Kingwood                       | 0.02 | City of Kingwood                             |
| 140     | C000184   | 3.77 | Town of Reedsville                     | 0.66 | Masontown Municipal Water Department         |
| 141     | S007078   | 4.17 | Town of Terra Alta                     | 2.73 | Terra Alta Municipal Water Department        |
| 142     | S004679   | 0.95 | Town of Albright (Sewer)               | 0.97 | City of Kingwood                             |
| 143     | S002383   | 1.83 | Town of Newburg                        | 1.83 | Town of Newburg                              |
| 144     | I063600   | 2.67 | Town of Albright (Sewer)               | 2.39 | Town of Albright - Water Works               |
| 145     | Z000581   | 3.30 | Preston County Public Service District | 1.07 | Preston County Public Service District No. 4 |
| 146     | S007574   | 1.68 | Preston County Public Service District | 1.12 | Preston County Public Service District No. 4 |
| 147     | S007579   | 2.20 | City of Kingwood                       | 1.42 | City of Kingwood                             |
| 148     | Z002481   | 3.13 | Preston County Public Service District | 2.04 | Preston County Public Service District No. 4 |
| 149     | S004073   | 5.05 | Town of Reedsville                     | 0.86 | Masontown Municipal Water Department         |

| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 150     | S003385   | 3.35 | Town of Newburg                        | 1.64 | Preston County Public Service District No. 2 |
| 151     | S104286   | 2.43 | Preston County Public Service District | 2.32 | Preston County Public Service District No. 4 |
| 152     | S103889   | 1.02 | Town of Newburg                        | 1.02 | Town of Newburg                              |
| 153     | S103887   | 4.01 | Town of Terra Alta                     | 2.63 | Terra Alta Municipal Water Department        |
| 154     | S002783   | 1.21 | Preston County Public Service District | 0.02 | Preston County Public Service District No. 4 |
| 155     | S010282   | 5.66 | Morgantown Utility Board               | 0.29 | Preston County Public Service District No. 4 |
| 156     | S012282   | 1.28 | Preston County Public Service District | 1.25 | Preston County Public Service District No. 4 |
| 157     | S003685   | 1.12 | Town of Newburg                        | 1.11 | Town of Newburg                              |
| 158     | S003684   | 2.42 | Town of Reedsville                     | 0.74 | Preston County Public Service District No. 2 |
| 159     | S101488   | 4.71 | Town of Reedsville                     | 0.80 | Clinton Water Association, Inc.              |
| 160     | S101487   | 5.31 | Morgantown Utility Board               | 1.76 | Preston County Public Service District No. 4 |
| 161     | S003579   | 0.20 | Preston County Public Service District | 0.62 | Preston County Public Service District No. 4 |
| 162     | S003574   | 2.63 | Preston County Public Service District | 1.59 | Preston County Public Service District No. 4 |
| 163     | S010377   | 2.55 | Town of Newburg                        | 1.90 | Preston County Public Service District No. 2 |
| 164     | S010375   | 1.37 | Preston County Public Service District | 0.33 | Preston County Public Service District No. 4 |
| 165     | S015775   | 1.56 | City of Kingwood                       | 0.64 | Preston County Public Service District No. 2 |
| 166     | S015776   | 3.26 | Preston County Public Service District | 1.63 | Preston County Public Service District No. 4 |
| 167     | S006079   | 2.82 | Preston County Public Service District | 1.02 | Preston County Public Service District No. 4 |
| 168     | S103691   | 0.82 | Town of Newburg                        | 0.10 | Town of Newburg                              |
| 169     | S004481   | 1.28 | Town of Newburg                        | 0.28 | Town of Newburg                              |
| 170     | S005283   | 2.14 | Town of Tunnelton                      | 1.01 | Preston County Public Service District No. 2 |
| 171     | S005285   | 2.75 | Preston County Public Service District | 0.55 | Preston County Public Service District No. 4 |
| 172     | S005284   | 4.96 | Town of Reedsville                     | 0.47 | Clinton Water Association, Inc.              |
| 173     | S021575   | 1.96 | Preston County Public Service District | 0.29 | Preston County Public Service District No. 4 |
| 174     | S031571   | 1.15 | Town of Newburg                        | 0.22 | Town of Newburg                              |
| 175     | S025474   | 2.12 | Town of Albright (Sewer)               | 1.77 | Town of Albright - Water Works               |
| 176     | S102587   | 1.22 | Town of Newburg                        | 1.14 | Town of Newburg                              |

| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 177     | S103191   | 1.86 | Town of Reedsville                     | 0.55 | Masontown Municipal Water Department         |
| 178     | S021173   | 3.11 | Preston County Public Service District | 2.27 | Preston County Public Service District No. 4 |
| 179     | S101588   | 2.53 | Preston County Public Service District | 1.69 | Preston County Public Service District No. 4 |
| 180     | S024674   | 5.05 | Town of Reedsville                     | 0.86 | Masontown Municipal Water Department         |
| 181     | S008482   | 2.60 | Town of Reedsville                     | 0.21 | Masontown Municipal Water Department         |
| 182     | S009375   | 0.69 | Preston County Public Service District | 0.72 | Preston County Public Service District No. 4 |
| 183     | S103586   | 4.86 | Town of Reedsville                     | 1.06 | Masontown Municipal Water Department         |
| 184     | S100595   | 5.91 | Morgantown Utility Board               | 0.16 | Preston County Public Service District No. 4 |
| 185     | S100590   | 4.28 | Town of Reedsville                     | 0.12 | Masontown Municipal Water Department         |
| 186     | S010980   | 3.51 | Town of Newburg                        | 1.55 | Town of Newburg                              |
| 187     | S011277   | 2.61 | Town of Reedsville                     | 0.87 | Preston County Public Service District No. 2 |
| 188     | S010582   | 1.22 | Preston County Public Service District | 1.25 | Preston County Public Service District No. 4 |
| 189     | S004984   | 4.93 | Morgantown Utility Board               | 0.02 | Preston County Public Service District No. 4 |
| 190     | S100197   | 2.28 | City of Kingwood                       | 1.27 | City of Kingwood                             |
| 191     | S102286   | 2.62 | Town of Reedsville                     | 0.28 | Masontown Municipal Water Department         |
| 192     | S102288   | 2.99 | Town of Tunnelton                      | 0.74 | Preston County Public Service District No. 2 |
| 193     | S006678   | 1.25 | Preston County Public Service District | 1.29 | Preston County Public Service District No. 4 |
| 194     | S101088   | 2.11 | Town of Tunnelton                      | 0.85 | Preston County Public Service District No. 2 |
| 195     | S003982   | 2.51 | Town of Tunnelton                      | 1.35 | Denver Water Association                     |
| 196     | S005777   | 2.49 | Town of Reedsville                     | 0.37 | Masontown Municipal Water Department         |
| 197     | S000981   | 3.50 | Preston County Public Service District | 1.65 | Preston County Public Service District No. 4 |
| 198     | S000983   | 3.71 | Preston County Public Service District | 0.34 | Preston County Public Service District No. 4 |
| 199     | S102887   | 4.61 | Town of Reedsville                     | 0.20 | Masontown Municipal Water Department         |
| 200     | S012774   | 2.61 | Town of Albright (Sewer)               | 2.43 | Town of Albright - Water Works               |
| 201     | S012776   | 2.69 | Town of Tunnelton                      | 1.53 | Preston County Public Service District No. 2 |

| Site No | Permit_ID | SL   | Utility (SL)                           | WL   | Utility (WL)                                 |
|---------|-----------|------|----------------------------------------|------|----------------------------------------------|
| 202     | S013579   | 1.95 | Preston County Public Service District | 0.86 | Preston County Public Service District No. 4 |
| 203     | S017077   | 2.33 | Town of Albright (Sewer)               | 2.02 | Town of Albright - Water Works               |
| 204     | Z002281   | 3.05 | Preston County Public Service District | 0.59 | Preston County Public Service District No. 4 |
| 205     | S013076   | 1.93 | Preston County Public Service District | 0.20 | Preston County Public Service District No. 4 |
| 206     | S001876   | 6.83 | Preston County Public Service District | 0.58 | Preston County Public Service District No. 4 |
| 207     | S000476   | 1.49 | Preston County Public Service District | 0.48 | Preston County Public Service District No. 4 |
| 208     | S104090   | 1.15 | Town of Newburg                        | 0.22 | Town of Newburg                              |
| 209     | S003881   | 3.14 | Town of Reedsville                     | 0.35 | Masontown Municipal Water Department         |
| 210     | S003884   | 2.79 | Town of Reedsville                     | 0.23 | Masontown Municipal Water Department         |
| 211     | S023176   | 2.20 | Preston County Public Service District | 1.20 | Preston County Public Service District No. 4 |
| 212     | S101686   | 0.93 | City of Kingwood                       | 0.40 | Preston County Public Service District No. 2 |
| 213     | I064100   | 5.54 | Morgantown Utility Board               | 0.05 | Preston County Public Service District No. 4 |
| 214     | S015774   | 1.88 | City of Kingwood                       | 0.72 | City of Kingwood                             |
| 215     | S023776   | 2.51 | Preston County Public Service District | 1.89 | Preston County Public Service District No. 4 |
| 216     | S008285   | 0.62 | Town of Albright (Sewer)               | 0.62 | Town of Albright - Water Works               |
| 217     | S008280   | 2.69 | City of Kingwood                       | 1.87 | City of Kingwood                             |
| 218     | S017177   | 1.72 | Town of Tunnelton                      | 0.85 | Preston County Public Service District       |
| 219     | S006284   | 1.30 | City of Kingwood                       | 0.23 | Preston County Public Service District No. 2 |
| 220     | S107386   | 2.73 | Town of Rowlesburg Sanitary Board      | 2.27 | Town of Tunnelton                            |
| 221     | S012280   | 4.46 | City of Thomas                         | 3.39 | City of Thomas                               |



**Table 7: Shortest Distances from Sites to Broadband (BB) and Power Lines (PL)**

| Site No | Permit ID | BB   | Provider                                             | PL   | Type             | Size kV |
|---------|-----------|------|------------------------------------------------------|------|------------------|---------|
| 1       | S104786   | 1.80 | Frontier West Virginia, Inc.                         | 0.86 | Transmission     | 500     |
| 2       | S003781   | 2.69 | Citizens Telecommunications Company of West Virginia | 0.46 | Sub-Transmission | Unknown |
| 3       | S108686   | 2.93 | Comcast Cable Communications, LLC                    | 1.83 | Transmission     | 115-138 |
| 4       | S102687   | 0.04 | Citizens Telecommunications Company of West Virginia | 2.40 | Transmission     | 115-138 |
| 5       | S101887   | 1.26 | Citizens Telecommunications Company of West Virginia | 1.59 | Transmission     | 115-138 |
| 6       | S101888   | 3.63 | Frontier West Virginia, Inc.                         | 0.83 | Sub-Transmission | Unknown |
| 7       | S103291   | 2.54 | Frontier West Virginia, Inc.                         | 2.03 | Transmission     | 115-138 |
| 8       | S012976   | 1.46 | Frontier West Virginia, Inc.                         | 0.73 | Transmission     | 115-138 |
| 9       | S006572   | 2.26 | Citizens Telecommunications Company of West Virginia | 0.34 | Transmission     | 115-138 |
| 10      | S006577   | 1.32 | Citizens Telecommunications Company of West Virginia | 2.37 | Transmission     | 115-138 |
| 11      | S006578   | 1.94 | Citizens Telecommunications Company of West Virginia | 0.52 | Transmission     | 115-138 |
| 12      | S009680   | 2.44 | Citizens Telecommunications Company of West Virginia | 1.22 | Sub-Transmission | Unknown |
| 13      | S009682   | 2.21 | Frontier West Virginia, Inc.                         | 0.99 | Transmission     | 115-138 |
| 14      | S102987   | 0.88 | Citizens Telecommunications Company of West Virginia | 0.11 | Transmission     | 115-138 |
| 15      | S101987   | 3.62 | Citizens Telecommunications Company of West Virginia | 1.48 | Transmission     | 115-138 |
| 16      | S033171   | 2.86 | Citizens Telecommunications Company of West Virginia | 0.15 | Transmission     | 115-138 |
| 17      | Z004781   | 0.03 | Citizens Telecommunications Company of West Virginia | 0.60 | Transmission     | 115-138 |
| 18      | S011676   | 0.99 | Frontier West Virginia, Inc.                         | 0.12 | Transmission     | 115-138 |
| 19      | S002075   | 2.64 | Citizens Telecommunications Company of West Virginia | 0.33 | Transmission     | 115-138 |
| 20      | S200901   | 3.12 | Citizens Telecommunications Company of West Virginia | 0.17 | Transmission     | 115-138 |
| 21      | S102389   | 1.96 | Citizens Telecommunications Company of West Virginia | 1.23 | Transmission     | 115-138 |
| 22      | S102386   | 1.29 | Frontier West Virginia, Inc.                         | 1.95 | Transmission     | 115-138 |
| 23      | S005179   | 1.41 | Frontier West Virginia, Inc.                         | 1.05 | Transmission     | 115-138 |
| 24      | S017777   | 3.14 | Frontier West Virginia, Inc.                         | 1.16 | Transmission     | 500     |
| 25      | S001883   | 1.94 | Citizens Telecommunications Company of West Virginia | 0.96 | Transmission     | 115-138 |
| 26      | I046800   | 1.17 | Citizens Telecommunications Company of West Virginia | 1.07 | Transmission     | 115-138 |

| Site No | Permit ID | BB   | Provider                                             | PL   | Type             | Size kV |
|---------|-----------|------|------------------------------------------------------|------|------------------|---------|
| 27      | S108786   | 2.58 | Frontier West Virginia, Inc.                         | 0.26 | Sub-Transmission | Unknown |
| 28      | S103788   | 2.93 | Comcast Cable Communications, LLC                    | 2.31 | Transmission     | 115-138 |
| 29      | S004478   | 1.23 | Citizens Telecommunications Company of West Virginia | 0.11 | Transmission     | 115-138 |
| 30      | S201192   | 0.65 | Citizens Telecommunications Company of West Virginia | 1.14 | Transmission     | 115-138 |
| 31      | S100393   | 1.35 | Frontier West Virginia, Inc.                         | 0.49 | Transmission     | 115-138 |
| 32      | S004281   | 1.84 | Citizens Telecommunications Company of West Virginia | 1.78 | Transmission     | 115-138 |
| 33      | S001578   | 1.96 | Citizens Telecommunications Company of West Virginia | 0.45 | Transmission     | 115-138 |
| 34      | S001575   | 1.02 | Frontier West Virginia, Inc.                         | 0.09 | Transmission     | 115-138 |
| 35      | C000985   | 1.99 | Frontier West Virginia, Inc.                         | 0.41 | Transmission     | 115-138 |
| 36      | S102388   | 2.25 | Citizens Telecommunications Company of West Virginia | 0.33 | Transmission     | 115-138 |
| 37      | S008579   | 2.75 | Citizens Telecommunications Company of West Virginia | 2.60 | Transmission     | 115-138 |
| 38      | S104086   | 3.15 | Comcast Cable Communications, LLC                    | 2.30 | Transmission     | 115-138 |
| 39      | S103188   | 1.15 | Comcast Cable Communications, LLC                    | 0.54 | Transmission     | 115-138 |
| 40      | S003377   | 0.67 | Citizens Telecommunications Company of West Virginia | 2.15 | Transmission     | 115-138 |
| 41      | S100293   | 0.88 | Citizens Telecommunications Company of West Virginia | 3.05 | Transmission     | 115-138 |
| 42      | S100298   | 1.78 | Frontier West Virginia, Inc.                         | 1.20 | Transmission     | 115-138 |
| 43      | S100299   | 1.93 | Citizens Telecommunications Company of West Virginia | 0.80 | Transmission     | 115-138 |
| 44      | S012479   | 1.47 | Citizens Telecommunications Company of West Virginia | 2.37 | Transmission     | 115-138 |
| 45      | S013180   | 1.68 | Citizens Telecommunications Company of West Virginia | 0.39 | Transmission     | 115-138 |
| 46      | S012274   | 2.75 | Frontier West Virginia, Inc.                         | 1.43 | Transmission     | 115-138 |
| 47      | S011077   | 0.23 | Citizens Telecommunications Company of West Virginia | 0.73 | Transmission     | 115-138 |
| 48      | S001184   | 1.63 | Citizens Telecommunications Company of West Virginia | 0.52 | Transmission     | 115-138 |
| 49      | S001679   | 1.79 | Frontier West Virginia, Inc.                         | 1.08 | Transmission     | 115-138 |
| 50      | S001676   | 4.54 | Frontier West Virginia, Inc.                         | 0.65 | Transmission     | 500     |
| 51      | S105886   | 1.82 | Citizens Telecommunications Company of West Virginia | 0.78 | Transmission     | 115-138 |
| 52      | S007179   | 0.71 | Comcast Cable Communications, LLC                    | 0.06 | Transmission     | 115-138 |
| 53      | S100888   | 0.72 | Citizens Telecommunications Company of West Virginia | 0.20 | Transmission     | 115-138 |
| 54      | S101592   | 2.18 | West Side Telephone Company                          | 0.23 | Sub-Transmission | Unknown |

| Site No | Permit ID | BB   | Provider                                             | PL   | Type             | Size kV |
|---------|-----------|------|------------------------------------------------------|------|------------------|---------|
| 55      | S006183   | 2.29 | Frontier West Virginia, Inc.                         | 1.31 | Transmission     | 115-138 |
| 56      | S006182   | 2.68 | Citizens Telecommunications Company of West Virginia | 0.38 | Sub-Transmission | Unknown |
| 57      | S006184   | 0.89 | Citizens Telecommunications Company of West Virginia | 0.07 | Transmission     | 115-138 |
| 58      | S004181   | 1.04 | Comcast Cable Communications, LLC                    | 0.02 | Transmission     | 115-138 |
| 59      | S002678   | 2.84 | Citizens Telecommunications Company of West Virginia | 2.57 | Transmission     | 115-138 |
| 60      | S104088   | 1.46 | West Side Telephone Company                          | 0.20 | Sub-Transmission | Unknown |
| 61      | S003678   | 4.54 | Frontier West Virginia, Inc.                         | 0.57 | Transmission     | 115-138 |
| 62      | S005784   | 0.99 | Frontier West Virginia, Inc.                         | 1.96 | Transmission     | 500     |
| 63      | S101691   | 0.65 | Frontier West Virginia, Inc.                         | 0.17 | Transmission     | 115-138 |
| 64      | S019277   | 0.33 | Citizens Telecommunications Company of West Virginia | 2.74 | Transmission     | 115-138 |
| 65      | S017677   | 4.19 | Frontier West Virginia, Inc.                         | 0.77 | Transmission     | 115-138 |
| 66      | S100487   | 2.68 | Citizens Telecommunications Company of West Virginia | 1.14 | Sub-Transmission | Unknown |
| 67      | S100489   | 1.53 | Citizens Telecommunications Company of West Virginia | 0.15 | Transmission     | 115-138 |
| 68      | S100488   | 2.98 | Frontier West Virginia, Inc.                         | 1.79 | Transmission     | 115-138 |
| 69      | S008185   | 1.04 | Citizens Telecommunications Company of West Virginia | 0.13 | Transmission     | 115-138 |
| 70      | S011280   | 0.46 | Comcast Cable Communications, LLC                    | 0.22 | Transmission     | 115-138 |
| 71      | S004685   | 0.86 | Citizens Telecommunications Company of West Virginia | 0.34 | Transmission     | 115-138 |
| 72      | S005882   | 2.18 | Citizens Telecommunications Company of West Virginia | 0.30 | Transmission     | 115-138 |
| 73      | S022476   | 3.38 | Frontier West Virginia, Inc.                         | 0.76 | Transmission     | 115-138 |
| 74      | S100687   | 2.49 | Citizens Telecommunications Company of West Virginia | 0.18 | Transmission     | 115-138 |
| 75      | S100688   | 0.22 | Citizens Telecommunications Company of West Virginia | 2.38 | Transmission     | 115-138 |
| 76      | S002881   | 3.36 | Frontier West Virginia, Inc.                         | 0.81 | Transmission     | 115-138 |
| 77      | S003875   | 1.61 | Citizens Telecommunications Company of West Virginia | 0.77 | Transmission     | 115-138 |
| 78      | S001285   | 1.13 | West Side Telephone Company                          | 0.08 | Transmission     | 115-138 |
| 79      | S001281   | 0.58 | Citizens Telecommunications Company of West Virginia | 2.38 | Transmission     | 115-138 |
| 80      | C001382   | 0.93 | Citizens Telecommunications Company of West Virginia | 0.13 | Transmission     | 115-138 |
| 81      | S103987   | 1.31 | Citizens Telecommunications Company of West Virginia | 1.27 | Transmission     | 115-138 |
| 82      | S103986   | 0.64 | Citizens Telecommunications Company of West Virginia | 2.71 | Transmission     | 115-138 |

| Site No | Permit ID | BB   | Provider                                             | PL   | Type             | Size kV |
|---------|-----------|------|------------------------------------------------------|------|------------------|---------|
| 83      | S002577   | 3.07 | Frontier West Virginia, Inc.                         | 1.12 | Transmission     | 115-138 |
| 84      | S100188   | 2.09 | Citizens Telecommunications Company of West Virginia | 1.47 | Transmission     | 115-138 |
| 85      | S100986   | 0.42 | Citizens Telecommunications Company of West Virginia | 2.58 | Transmission     | 115-138 |
| 86      | S100989   | 2.20 | Citizens Telecommunications Company of West Virginia | 0.16 | Transmission     | 115-138 |
| 87      | S012678   | 2.75 | Citizens Telecommunications Company of West Virginia | 0.82 | Transmission     | 115-138 |
| 88      | S006084   | 0.35 | Citizens Telecommunications Company of West Virginia | 2.52 | Transmission     | 115-138 |
| 89      | S015875   | 1.89 | Citizens Telecommunications Company of West Virginia | 1.36 | Transmission     | 115-138 |
| 90      | S006582   | 2.01 | Citizens Telecommunications Company of West Virginia | 0.10 | Transmission     | 115-138 |
| 91      | S011982   | 2.06 | Citizens Telecommunications Company of West Virginia | 1.27 | Transmission     | 115-138 |
| 92      | S007183   | 2.04 | Citizens Telecommunications Company of West Virginia | 1.31 | Transmission     | 115-138 |
| 93      | S104188   | 1.74 | Citizens Telecommunications Company of West Virginia | 1.51 | Transmission     | 115-138 |
| 94      | S001174   | 4.22 | Frontier West Virginia, Inc.                         | 0.12 | Transmission     | 115-138 |
| 95      | S104487   | 0.61 | Frontier West Virginia, Inc.                         | 2.85 | Transmission     | 500     |
| 96      | S005480   | 1.92 | Citizens Telecommunications Company of West Virginia | 0.55 | Transmission     | 115-138 |
| 97      | S003083   | 2.01 | Citizens Telecommunications Company of West Virginia | 1.58 | Transmission     | 115-138 |
| 98      | S017976   | 0.87 | Frontier West Virginia, Inc.                         | 0.46 | Transmission     | 115-138 |
| 99      | S009184   | 0.99 | Citizens Telecommunications Company of West Virginia | 0.17 | Sub-Transmission | Unknown |
| 100     | S009185   | 1.42 | Citizens Telecommunications Company of West Virginia | 1.50 | Transmission     | 115-138 |
| 101     | S103389   | 1.22 | Citizens Telecommunications Company of West Virginia | 1.17 | Transmission     | 115-138 |
| 102     | S017476   | 2.15 | Citizens Telecommunications Company of West Virginia | 0.07 | Transmission     | 115-138 |
| 103     | Z008881   | 1.04 | Citizens Telecommunications Company of West Virginia | 2.04 | Transmission     | 115-138 |
| 104     | S007582   | 1.00 | Citizens Telecommunications Company of West Virginia | 0.43 | Sub-Transmission | Unknown |
| 105     | S103286   | 1.12 | Citizens Telecommunications Company of West Virginia | 0.40 | Transmission     | 115-138 |
| 106     | S102489   | 1.01 | Citizens Telecommunications Company of West Virginia | 0.18 | Transmission     | 115-138 |
| 107     | S102488   | 1.59 | Citizens Telecommunications Company of West Virginia | 0.36 | Transmission     | 115-138 |

| Site No | Permit ID | BB   | Provider                                             | PL   | Type             | Size kV |
|---------|-----------|------|------------------------------------------------------|------|------------------|---------|
| 108     | S103687   | 2.62 | Citizens Telecommunications Company of West Virginia | 1.92 | Transmission     | 115-138 |
| 109     | S100496   | 1.84 | Citizens Telecommunications Company of West Virginia | 0.49 | Transmission     | 115-138 |
| 110     | S001483   | 3.41 | Frontier West Virginia, Inc.                         | 1.35 | Transmission     | 115-138 |
| 111     | S001482   | 1.33 | Frontier West Virginia, Inc.                         | 0.91 | Transmission     | 115-138 |
| 112     | S001485   | 0.66 | Comcast Cable Communications, LLC                    | 0.18 | Transmission     | 115-138 |
| 113     | S009369   | 1.14 | Citizens Telecommunications Company of West Virginia | 0.87 | Transmission     | 115-138 |
| 114     | S101389   | 1.35 | Frontier West Virginia, Inc.                         | 0.49 | Transmission     | 115-138 |
| 115     | S101388   | 1.16 | Citizens Telecommunications Company of West Virginia | 0.48 | Transmission     | 115-138 |
| 116     | S005378   | 2.16 | Frontier West Virginia, Inc.                         | 1.04 | Transmission     | 115-138 |
| 117     | S005085   | 3.37 | Comcast Cable Communications, LLC                    | 2.22 | Transmission     | 115-138 |
| 118     | S013278   | 0.31 | Citizens Telecommunications Company of West Virginia | 0.83 | Transmission     | 115-138 |
| 119     | S013273   | 2.60 | Comcast Cable Communications, LLC                    | 1.34 | Transmission     | 115-138 |
| 120     | Z000781   | 2.27 | Citizens Telecommunications Company of West Virginia | 0.93 | Transmission     | 115-138 |
| 121     | Z001781   | 1.42 | Citizens Telecommunications Company of West Virginia | 1.94 | Transmission     | 115-138 |
| 122     | S101986   | 1.76 | Citizens Telecommunications Company of West Virginia | 0.66 | Transmission     | 115-138 |
| 123     | S005278   | 3.66 | Frontier West Virginia, Inc.                         | 0.46 | Transmission     | 115-138 |
| 124     | S014879   | 2.40 | Citizens Telecommunications Company of West Virginia | 0.03 | Transmission     | 115-138 |
| 125     | S002685   | 2.60 | Citizens Telecommunications Company of West Virginia | 0.47 | Sub-Transmission | Unknown |
| 126     | Z004081   | 1.14 | Citizens Telecommunications Company of West Virginia | 1.42 | Transmission     | 115-138 |
| 127     | S105386   | 1.73 | Citizens Telecommunications Company of West Virginia | 1.37 | Transmission     | 115-138 |
| 128     | S000381   | 1.73 | Citizens Telecommunications Company of West Virginia | 0.81 | Transmission     | 115-138 |
| 129     | S000380   | 0.15 | Citizens Telecommunications Company of West Virginia | 1.64 | Transmission     | 115-138 |
| 130     | S100389   | 3.35 | Citizens Telecommunications Company of West Virginia | 1.26 | Transmission     | 115-138 |
| 131     | S007383   | 1.66 | Citizens Telecommunications Company of West Virginia | 2.64 | Transmission     | 115-138 |
| 132     | S008879   | 2.46 | Frontier West Virginia, Inc.                         | 0.31 | Transmission     | 115-138 |
| 133     | S018875   | 1.68 | Citizens Telecommunications Company of West Virginia | 2.03 | Transmission     | 115-138 |
| 134     | S103086   | 1.85 | Citizens Telecommunications Company of West Virginia | 0.41 | Transmission     | 115-138 |

| Site No | Permit ID | BB   | Provider                                             | PL   | Type             | Size kV |
|---------|-----------|------|------------------------------------------------------|------|------------------|---------|
| 135     | S106786   | 0.20 | Frontier West Virginia, Inc.                         | 0.81 | Transmission     | 115-138 |
| 136     | S103487   | 0.73 | Citizens Telecommunications Company of West Virginia | 1.83 | Transmission     | 115-138 |
| 137     | S106191   | 2.42 | West Side Telephone Company                          | 0.10 | Transmission     | 115-138 |
| 138     | S010775   | 3.06 | Frontier West Virginia, Inc.                         | 0.96 | Transmission     | 115-138 |
| 139     | S106386   | 2.16 | Frontier West Virginia, Inc.                         | 0.01 | Transmission     | 115-138 |
| 140     | C000184   | 0.16 | Citizens Telecommunications Company of West Virginia | 2.71 | Transmission     | 115-138 |
| 141     | S007078   | 1.47 | Citizens Telecommunications Company of West Virginia | 2.03 | Transmission     | 115-138 |
| 142     | S004679   | 1.97 | Frontier West Virginia, Inc.                         | 0.19 | Transmission     | 115-138 |
| 143     | S002383   | 1.37 | Frontier West Virginia, Inc.                         | 0.22 | Transmission     | 115-138 |
| 144     | I063600   | 3.99 | Frontier West Virginia, Inc.                         | 0.20 | Transmission     | 115-138 |
| 145     | Z000581   | 2.58 | Citizens Telecommunications Company of West Virginia | 0.46 | Transmission     | 115-138 |
| 146     | S007574   | 1.61 | Citizens Telecommunications Company of West Virginia | 0.25 | Transmission     | 115-138 |
| 147     | S007579   | 1.81 | Frontier West Virginia, Inc.                         | 1.44 | Transmission     | 115-138 |
| 148     | Z002481   | 1.32 | Citizens Telecommunications Company of West Virginia | 0.34 | Transmission     | 115-138 |
| 149     | S004073   | 2.19 | Citizens Telecommunications Company of West Virginia | 2.29 | Transmission     | 115-138 |
| 150     | S003385   | 1.67 | Citizens Telecommunications Company of West Virginia | 1.01 | Transmission     | 115-138 |
| 151     | S104286   | 2.06 | Citizens Telecommunications Company of West Virginia | 0.69 | Transmission     | 115-138 |
| 152     | S103889   | 0.99 | Frontier West Virginia, Inc.                         | 0.45 | Transmission     | 115-138 |
| 153     | S103887   | 1.25 | Citizens Telecommunications Company of West Virginia | 1.81 | Transmission     | 115-138 |
| 154     | S002783   | 0.33 | Citizens Telecommunications Company of West Virginia | 2.15 | Transmission     | 115-138 |
| 155     | S010282   | 3.08 | Citizens Telecommunications Company of West Virginia | 0.67 | Transmission     | 115-138 |
| 156     | S012282   | 1.38 | Citizens Telecommunications Company of West Virginia | 0.48 | Transmission     | 115-138 |
| 157     | S003685   | 1.17 | Frontier West Virginia, Inc.                         | 0.31 | Transmission     | 115-138 |
| 158     | S003684   | 2.68 | Citizens Telecommunications Company of West Virginia | 1.02 | Transmission     | 115-138 |
| 159     | S101488   | 1.37 | Comcast Cable Communications, LLC                    | 4.69 | Sub-Transmission | Unknown |
| 160     | S101487   | 2.72 | Comcast Cable Communications, LLC                    | 2.01 | Transmission     | 115-138 |
| 161     | S003579   | 1.14 | Citizens Telecommunications Company of West Virginia | 1.43 | Transmission     | 115-138 |
| 162     | S003574   | 1.32 | Citizens Telecommunications Company of West Virginia | 0.30 | Transmission     | 115-138 |



| Site No | Permit ID | BB   | Provider                                             | PL   | Type         | Size kV |
|---------|-----------|------|------------------------------------------------------|------|--------------|---------|
| 163     | S010377   | 1.24 | Frontier West Virginia, Inc.                         | 0.87 | Transmission | 115-138 |
| 164     | S010375   | 0.08 | Citizens Telecommunications Company of West Virginia | 0.88 | Transmission | 115-138 |
| 165     | S015775   | 1.71 | Citizens Telecommunications Company of West Virginia | 0.36 | Transmission | 115-138 |
| 166     | S015776   | 4.77 | Citizens Telecommunications Company of West Virginia | 2.20 | Transmission | 115-138 |
| 167     | S006079   | 3.74 | Citizens Telecommunications Company of West Virginia | 0.91 | Transmission | 115-138 |
| 168     | S103691   | 2.45 | Frontier West Virginia, Inc.                         | 1.53 | Transmission | 115-138 |
| 169     | S004481   | 2.25 | Frontier West Virginia, Inc.                         | 0.58 | Transmission | 115-138 |
| 170     | S005283   | 2.22 | Frontier West Virginia, Inc.                         | 0.45 | Transmission | 115-138 |
| 171     | S005285   | 2.83 | Citizens Telecommunications Company of West Virginia | 0.01 | Transmission | 115-138 |
| 172     | S005284   | 1.29 | Comcast Cable Communications, LLC                    | 4.90 | Transmission | 115-138 |
| 173     | S021575   | 3.50 | Citizens Telecommunications Company of West Virginia | 0.82 | Transmission | 115-138 |
| 174     | S031571   | 2.24 | Frontier West Virginia, Inc.                         | 0.72 | Transmission | 115-138 |
| 175     | S025474   | 2.61 | Citizens Telecommunications Company of West Virginia | 0.65 | Transmission | 115-138 |
| 176     | S102587   | 0.19 | Frontier West Virginia, Inc.                         | 0.89 | Transmission | 115-138 |
| 177     | S103191   | 1.70 | Citizens Telecommunications Company of West Virginia | 0.19 | Transmission | 115-138 |
| 178     | S021173   | 1.97 | Citizens Telecommunications Company of West Virginia | 1.05 | Transmission | 115-138 |
| 179     | S101588   | 1.38 | Citizens Telecommunications Company of West Virginia | 0.46 | Transmission | 115-138 |
| 180     | S024674   | 2.19 | Citizens Telecommunications Company of West Virginia | 2.29 | Transmission | 115-138 |
| 181     | S008482   | 2.35 | West Side Telephone Company                          | 0.10 | Transmission | 115-138 |
| 182     | S009375   | 1.93 | Citizens Telecommunications Company of West Virginia | 0.66 | Transmission | 115-138 |
| 183     | S103586   | 1.91 | Citizens Telecommunications Company of West Virginia | 2.39 | Transmission | 115-138 |
| 184     | S100595   | 3.10 | Citizens Telecommunications Company of West Virginia | 0.75 | Transmission | 115-138 |
| 185     | S100590   | 1.72 | Comcast Cable Communications, LLC                    | 0.54 | Transmission | 115-138 |
| 186     | S010980   | 4.54 | Frontier West Virginia, Inc.                         | 0.65 | Transmission | 500     |
| 187     | S011277   | 2.34 | Citizens Telecommunications Company of West Virginia | 0.81 | Transmission | 115-138 |
| 188     | S010582   | 2.17 | Citizens Telecommunications Company of West Virginia | 0.26 | Transmission | 115-138 |
| 189     | S004984   | 3.40 | Frontier West Virginia, Inc.                         | 1.60 | Transmission | 115-138 |
| 190     | S100197   | 3.20 | Frontier West Virginia, Inc.                         | 1.51 | Transmission | 115-138 |

| Site No | Permit ID | BB   | Provider                                             | PL   | Type             | Size kV |
|---------|-----------|------|------------------------------------------------------|------|------------------|---------|
| 191     | S102286   | 2.47 | West Side Telephone Company                          | 0.23 | Transmission     | 115-138 |
| 192     | S102288   | 2.54 | Frontier West Virginia, Inc.                         | 1.61 | Transmission     | 115-138 |
| 193     | S006678   | 2.31 | Citizens Telecommunications Company of West Virginia | 0.33 | Transmission     | 115-138 |
| 194     | S101088   | 3.50 | Frontier West Virginia, Inc.                         | 0.50 | Transmission     | 115-138 |
| 195     | S003982   | 2.13 | Frontier West Virginia, Inc.                         | 0.43 | Transmission     | 115-138 |
| 196     | S005777   | 0.95 | Citizens Telecommunications Company of West Virginia | 1.37 | Transmission     | 115-138 |
| 197     | S000981   | 2.49 | Citizens Telecommunications Company of West Virginia | 0.38 | Transmission     | 115-138 |
| 198     | S000983   | 1.81 | Citizens Telecommunications Company of West Virginia | 0.22 | Transmission     | 115-138 |
| 199     | S102887   | 0.99 | Comcast Cable Communications, LLC                    | 0.13 | Transmission     | 115-138 |
| 200     | S012774   | 3.95 | Frontier West Virginia, Inc.                         | 0.64 | Transmission     | 115-138 |
| 201     | S012776   | 1.67 | Frontier West Virginia, Inc.                         | 0.54 | Transmission     | 115-138 |
| 202     | S013579   | 0.60 | Citizens Telecommunications Company of West Virginia | 0.52 | Transmission     | 115-138 |
| 203     | S017077   | 2.03 | Citizens Telecommunications Company of West Virginia | 0.10 | Transmission     | 115-138 |
| 204     | Z002281   | 0.32 | Citizens Telecommunications Company of West Virginia | 1.66 | Transmission     | 115-138 |
| 205     | S013076   | 0.29 | Citizens Telecommunications Company of West Virginia | 2.35 | Transmission     | 115-138 |
| 206     | S001876   | 0.28 | Citizens Telecommunications Company of West Virginia | 1.10 | Transmission     | 115-138 |
| 207     | S000476   | 0.23 | Citizens Telecommunications Company of West Virginia | 0.73 | Transmission     | 115-138 |
| 208     | S104090   | 2.24 | Frontier West Virginia, Inc.                         | 0.72 | Transmission     | 115-138 |
| 209     | S003881   | 1.59 | Citizens Telecommunications Company of West Virginia | 1.24 | Transmission     | 115-138 |
| 210     | S003884   | 1.62 | Citizens Telecommunications Company of West Virginia | 1.09 | Transmission     | 115-138 |
| 211     | S023176   | 2.44 | Citizens Telecommunications Company of West Virginia | 0.90 | Transmission     | 115-138 |
| 212     | S101686   | 3.12 | Citizens Telecommunications Company of West Virginia | 0.03 | Sub-Transmission | Unknown |
| 213     | I064100   | 3.37 | Citizens Telecommunications Company of West Virginia | 0.96 | Transmission     | 115-138 |
| 214     | S015774   | 3.89 | Frontier West Virginia, Inc.                         | 0.49 | Transmission     | 115-138 |
| 215     | S023776   | 1.76 | Citizens Telecommunications Company of West Virginia | 0.50 | Transmission     | 115-138 |
| 216     | S008285   | 2.26 | Frontier West Virginia, Inc.                         | 0.05 | Transmission     | 115-138 |
| 217     | S008280   | 1.60 | Frontier West Virginia, Inc.                         | 1.25 | Transmission     | 115-138 |
| 218     | S017177   | 2.56 | Frontier West Virginia, Inc.                         | 1.26 | Transmission     | 115-138 |

| Site No | Permit ID | BB   | Provider                                             | PL   | Type             | Size kV |
|---------|-----------|------|------------------------------------------------------|------|------------------|---------|
| 219     | S006284   | 3.28 | Citizens Telecommunications Company of West Virginia | 0.19 | Sub-Transmission | Unknown |
| 220     | S107386   | 1.28 | Frontier West Virginia, Inc.                         | 1.39 | Transmission     | 500     |
| 221     | S012280   | 1.51 | Citizens Telecommunications Company of West Virginia | 0.26 | Transmission     | 115-138 |

**Table 8: Shortest Distances from Sites to Sewer (SW) and Solid Waste (SD) Treatment Facilities**

| Site No | Permit ID | SW   | Facility (SW)                        | SD    | Facility (SD)           |
|---------|-----------|------|--------------------------------------|-------|-------------------------|
| 1       | S104786   | 3.90 | Town of Tunnelton                    | 5.39  | Charlie Pase (monofill) |
| 2       | S003781   | 1.27 | VILLONOVA VILLAGE                    | 2.36  | City of Kingwood        |
| 3       | S108686   | 4.11 | Coopers Rock State Pk                | 10.42 | Suburban Sanitation     |
| 4       | S102687   | 4.38 | LIGHT MOBILE HOME PARK               | 3.87  | Kingwood, City of       |
| 5       | S101887   | 2.09 | WINDY HILL MANOR                     | 2.50  | Kingwood, City of       |
| 6       | S101888   | 2.77 | SHUMAN'S TRAILER PARK                | 5.49  | Charlie Pase (monofill) |
| 7       | S103291   | 3.11 | Kingwood Water Works                 | 3.23  | City of Kingwood        |
| 8       | S012976   | 2.45 | NEWBURG TOWN OF                      | 8.87  | Charlie Pase (monofill) |
| 9       | S006572   | 7.45 | Preston High School-Wrestling Center | 6.89  | Big Bear                |
| 10      | S006577   | 3.96 | PLUM HILL TERRACE APTS.              | 6.21  | Kingwood, City of       |
| 11      | S006578   | 6.33 | BRUCETON/BRANDONVILLE PSD            | 8.49  | Kingwood, City of       |
| 12      | S009680   | 1.60 | Valley Elementary School             | 2.05  | Preston (Rehe)          |
| 13      | S009682   | 3.97 | Town of Tunnelton                    | 2.38  | Charlie Pase (monofill) |
| 14      | S102987   | 1.18 | WINDY HILL MANOR                     | 3.81  | Preston (Rehe)          |
| 15      | S101987   | 3.99 | Coopers Rock State Pk                | 10.30 | Suburban Sanitation     |
| 16      | S033171   | 2.24 | Belgian Estates                      | 8.28  | Big Bear                |
| 17      | Z004781   | 3.41 | BRUCETON/BRANDONVILLE PSD            | 12.41 | Big Bear                |
| 18      | S011676   | 3.72 | TERRA ALTA TOWN OF                   | 12.06 | City of Kingwood        |
| 19      | S002075   | 7.64 | Preston High School-Wrestling Center | 6.76  | Big Bear                |
| 20      | S200901   | 6.57 | Preston High School-Wrestling Center | 6.29  | Kingwood, City of       |
| 21      | S102389   | 6.38 | BRUCETON/BRANDONVILLE PSD            | 12.35 | Big Bear                |
| 22      | S102386   | 4.70 | TERRA ALTA TOWN OF                   | 13.04 | City of Kingwood        |
| 23      | S005179   | 3.73 | NEWBURG TOWN OF                      | 4.30  | Charlie Pase (monofill) |
| 24      | S017777   | 3.20 | NEWBURG TOWN OF                      | 8.93  | Charlie Pase (monofill) |
| 25      | S001883   | 4.28 | Outlet 003                           | 3.99  | Big Bear                |
| 26      | I046800   | 1.49 |                                      | 1.92  | Preston (Rehe)          |
| 27      | S108786   | 3.52 | Town of Tunnelton                    | 4.53  | Charlie Pase (monofill) |
| 28      | S103788   | 6.23 | Coopers Rock State Pk                | 12.54 | Suburban Sanitation     |
| 29      | S004478   | 6.69 | BRUCETON/BRANDONVILLE PSD            | 6.56  | Big Bear                |
| 30      | S201192   | 4.53 | Thomas Water Treatment Plant         | 6.98  | Tucker Co. Landfill     |
| 31      | S100393   | 4.11 | Preston High School-Wrestling Center | 3.84  | Kingwood, City of       |
| 32      | S004281   | 4.08 | PLUM HILL TERRACE APTS.              | 6.51  | Kingwood, City of       |
| 33      | S001578   | 7.67 | BRUCETON/BRANDONVILLE PSD            | 8.16  | Kingwood, City of       |
| 34      | S001575   | 3.71 | TERRA ALTA TOWN OF                   | 12.05 | City of Kingwood        |
| 35      | C000985   | 1.21 | VILLONOVA VILLAGE                    | 3.44  | Kingwood, City of       |
| 36      | S102388   | 5.42 | WINDY HILL MANOR                     | 3.91  | Charlie Pase (monofill) |
| 37      | S008579   | 7.04 | PLUM HILL TERRACE APTS.              | 10.11 | Preston (Rehe)          |

| Site No | Permit ID | SW   | Facility (SW)                           | SD    | Facility (SD)           |
|---------|-----------|------|-----------------------------------------|-------|-------------------------|
| 38      | S104086   | 4.65 | Coopers Rock State Pk                   | 10.96 | Suburban Sanitation     |
| 39      | S103188   | 5.30 | PLUM HILL TERRACE APTS.                 | 8.36  | Preston (Rehe)          |
| 40      | S003377   | 4.12 | BRUCETON/BRANDONVILLE PSD               | 8.53  | Big Bear                |
| 41      | S100293   | 1.39 | MAJESTIC ACRES                          | 4.17  | Preston (Rehe)          |
| 42      | S100298   | 4.63 | Town of Tunnelton                       | 3.05  | Charlie Pase (monofill) |
| 43      | S100299   | 7.31 | Preston High School-Wrestling Center    | 7.03  | Kingwood, City of       |
| 44      | S012479   | 3.95 | PLUM HILL TERRACE APTS.                 | 6.38  | Kingwood, City of       |
| 45      | S013180   | 1.47 | WINDY HILL MANOR                        | 3.65  | City of Kingwood        |
| 46      | S012274   | 2.65 | NEWBURG TOWN OF                         | 8.37  | Charlie Pase (monofill) |
| 47      | S011077   | 5.55 | BRUCETON/BRANDONVILLE PSD               | 6.00  | Big Bear                |
| 48      | S001184   | 1.24 | WINDY HILL MANOR                        | 4.25  | City of Kingwood        |
| 49      | S001679   | 2.87 | TERRA ALTA TOWN OF                      | 11.20 | City of Kingwood        |
| 50      | S001676   | 2.18 | SHUMAN'S TRAILER PARK                   | 8.59  | Charlie Pase (monofill) |
| 51      | S105886   | 1.81 | WINDY HILL MANOR                        | 3.96  | Preston (Rehe)          |
| 52      | S007179   | 5.71 | Sunshine Estates Homeowners Association | 9.55  | Preston (Rehe)          |
| 53      | S100888   | 5.36 | BRUCETON/BRANDONVILLE PSD               | 5.23  | Big Bear                |
| 54      | S101592   | 1.44 |                                         | 4.06  | Preston (Rehe)          |
| 55      | S006183   | 1.74 | NEWBURG TOWN OF                         | 7.46  | Charlie Pase (monofill) |
| 56      | S006182   | 2.26 | VILLONOVA VILLAGE                       | 3.14  | City of Kingwood        |
| 57      | S006184   | 2.93 | BRUCETON/BRANDONVILLE PSD               | 10.66 | Big Bear                |
| 58      | S004181   | 6.39 | Sunshine Estates Homeowners Association | 10.23 | Preston (Rehe)          |
| 59      | S002678   | 7.14 | PLUM HILL TERRACE APTS.                 | 10.21 | Preston (Rehe)          |
| 60      | S104088   | 1.60 | PLUM HILL TERRACE APTS.                 | 4.66  | Preston (Rehe)          |
| 61      | S003678   | 2.02 | Town of Tunnelton                       | 1.87  | Charlie Pase (monofill) |
| 62      | S005784   | 3.77 | ETAM SATELLITE EARTH STATION            | 10.94 | Charlie Pase (monofill) |
| 63      | S101691   | 3.47 | NEWBURG TOWN OF                         | 6.82  | Preston (Rehe)          |
| 64      | S019277   | 4.41 | PLUM HILL TERRACE APTS.                 | 5.17  | Kingwood, City of       |
| 65      | S017677   | 7.16 | CAMP DAWSON                             | 6.90  | Big Bear                |
| 66      | S100487   | 1.09 |                                         | 2.99  | Preston (Rehe)          |
| 67      | S100489   | 1.89 | PLUM HILL TERRACE APTS.                 | 3.71  | Preston (Rehe)          |
| 68      | S100488   | 2.91 | Coopers Rock State Pk                   | 9.22  | Suburban Sanitation     |
| 69      | S008185   | 3.18 | MAJESTIC ACRES                          | 4.77  | Preston (Rehe)          |
| 70      | S011280   | 5.38 | Sunshine Estates Homeowners Association | 9.21  | Preston (Rehe)          |
| 71      | S004685   | 1.80 | WINDY HILL MANOR                        | 3.57  | Preston (Rehe)          |
| 72      | S005882   | 6.39 | BRUCETON/BRANDONVILLE PSD               | 8.29  | Kingwood, City of       |
| 73      | S022476   | 3.98 | Town of Tunnelton                       | 1.68  | Charlie Pase (monofill) |
| 74      | S100687   | 5.10 | BRUCETON/BRANDONVILLE PSD               | 11.67 | Suburban Sanitation     |
| 75      | S100688   | 3.05 | LIGHT MOBILE HOME PARK                  | 3.52  | Kingwood, City of       |
| 76      | S002881   | 3.88 | Town of Tunnelton                       | 1.58  | Charlie Pase (monofill) |

| Site No | Permit ID | SW   | Facility (SW)                        | SD    | Facility (SD)           |
|---------|-----------|------|--------------------------------------|-------|-------------------------|
| 77      | S003875   | 1.07 | VILLONOVA VILLAGE                    | 4.05  | Kingwood, City of       |
| 78      | S001285   | 2.09 | PLUM HILL TERRACE APTS.              | 5.15  | Preston (Rehe)          |
| 79      | S001281   | 3.81 | BRUCETON/BRANDONVILLE PSD            | 8.98  | Big Bear                |
| 80      | C001382   | 1.84 | WINDY HILL MANOR                     | 3.41  | Preston (Rehe)          |
| 81      | S103987   | 2.40 | BRUCETON/BRANDONVILLE PSD            | 7.75  | Big Bear                |
| 82      | S103986   | 1.61 | Outlet 003                           | 5.47  | Big Bear                |
| 83      | S002577   | 4.13 | Town of Tunnelton                    | 1.83  | Charlie Pase (monofill) |
| 84      | S100188   | 6.91 | BRUCETON/BRANDONVILLE PSD            | 12.14 | Preston (Rehe)          |
| 85      | S100986   | 3.84 | PLUM HILL TERRACE APTS.              | 5.37  | Kingwood, City of       |
| 86      | S100989   | 7.61 | Preston High School-Wrestling Center | 7.08  | Big Bear                |
| 87      | S012678   | 7.87 | Preston High School-Wrestling Center | 7.60  | Kingwood, City of       |
| 88      | S006084   | 2.38 | Outlet 003                           | 6.97  | Big Bear                |
| 89      | S015875   | 2.82 | Outlet 003                           | 5.10  | Big Bear                |
| 90      | S006582   | 8.12 | Preston High School-Wrestling Center | 7.85  | Kingwood, City of       |
| 91      | S011982   | 3.46 | MAJESTIC ACRES                       | 5.05  | Preston (Rehe)          |
| 92      | S007183   | 3.18 | Belgian Estates                      | 6.79  | Big Bear                |
| 93      | S104188   | 2.83 | Outlet 003                           | 5.11  | Big Bear                |
| 94      | S001174   | 2.81 | Town of Tunnelton                    | 1.13  | Charlie Pase (monofill) |
| 95      | S104487   | 3.28 | ETAM SATELLITE EARTH STATION         | 10.65 | Charlie Pase (monofill) |
| 96      | S005480   | 2.32 | WINDY HILL MANOR                     | 5.15  | Preston (Rehe)          |
| 97      | S003083   | 3.66 | Outlet 003                           | 3.72  | Big Bear                |
| 98      | S017976   | 2.58 | NEWBURG TOWN OF                      | 4.15  | Charlie Pase (monofill) |
| 99      | S009184   | 2.21 | WINDY HILL MANOR                     | 3.98  | Preston (Rehe)          |
| 100     | S009185   | 6.01 | BRUCETON/BRANDONVILLE PSD            | 7.59  | Kingwood, City of       |
| 101     | S103389   | 1.34 | WINDY HILL MANOR                     | 3.18  | Kingwood, City of       |
| 102     | S017476   | 2.05 | WINDY HILL MANOR                     | 3.18  | City of Kingwood        |
| 103     | Z008881   | 5.35 | GLADE FARMS CAMPGROUND               | 13.33 | Big Bear                |
| 104     | S007582   | 1.94 | WINDY HILL MANOR                     | 3.71  | Preston (Rehe)          |
| 105     | S103286   | 0.77 | WINDY HILL MANOR                     | 4.21  | Preston (Rehe)          |
| 106     | S102489   | 1.85 |                                      | 2.93  | Preston (Rehe)          |
| 107     | S102488   | 6.06 | Preston High School-Wrestling Center | 5.79  | Kingwood, City of       |
| 108     | S103687   | 4.48 | PLUM HILL TERRACE APTS.              | 7.54  | Preston (Rehe)          |
| 109     | S100496   | 2.08 | PLUM HILL TERRACE APTS.              | 5.14  | Preston (Rehe)          |
| 110     | S001483   | 2.08 | CAMP DAWSON                          | 5.54  | City of Kingwood        |
| 111     | S001482   | 3.52 | CAMP DAWSON                          | 5.29  | City of Kingwood        |
| 112     | S001485   | 5.25 | PLUM HILL TERRACE APTS.              | 8.31  | Preston (Rehe)          |
| 113     | S009369   | 5.39 | BRUCETON/BRANDONVILLE PSD            | 8.85  | Big Bear                |
| 114     | S101389   | 4.11 | Preston High School-Wrestling Center | 3.84  | Kingwood, City of       |
| 115     | S101388   | 1.44 |                                      | 2.99  | Preston (Rehe)          |



| Site No | Permit ID | SW   | Facility (SW)                        | SD    | Facility (SD)           |
|---------|-----------|------|--------------------------------------|-------|-------------------------|
| 116     | S005378   | 2.07 | NEWBURG TOWN OF                      | 7.79  | Charlie Pase (monofill) |
| 117     | S005085   | 4.01 | Coopers Rock State Pk                | 10.32 | Suburban Sanitation     |
| 118     | S013278   | 5.13 | BRUCETON/BRANDONVILLE PSD            | 5.58  | Big Bear                |
| 119     | S013273   | 4.53 | Coopers Rock State Pk                | 10.84 | Suburban Sanitation     |
| 120     | Z000781   | 5.52 | BRUCETON/BRANDONVILLE PSD            | 5.29  | Big Bear                |
| 121     | Z001781   | 3.78 | PLUM HILL TERRACE APTS.              | 6.20  | Kingwood, City of       |
| 122     | S101986   | 5.61 | Outlet 003                           | 5.24  | Big Bear                |
| 123     | S005278   | 3.26 | Town of Tunnelton                    | 0.96  | Charlie Pase (monofill) |
| 124     | S014879   | 3.81 | BRUCETON/BRANDONVILLE PSD            | 6.48  | Big Bear                |
| 125     | S002685   | 2.48 | VILLONOVA VILLAGE                    | 3.36  | City of Kingwood        |
| 126     | Z004081   | 1.55 | WINDY HILL MANOR                     | 2.96  | Kingwood, City of       |
| 127     | S105386   | 6.27 | BRUCETON/BRANDONVILLE PSD            | 7.23  | Kingwood, City of       |
| 128     | S000381   | 5.03 | Outlet 003                           | 4.66  | Big Bear                |
| 129     | S000380   | 5.07 | BRUCETON/BRANDONVILLE PSD            | 7.21  | Big Bear                |
| 130     | S100389   | 0.97 | GLADE FARMS CAMPGROUND               | 10.85 | Big Bear                |
| 131     | S007383   | 6.98 | PLUM HILL TERRACE APTS.              | 10.04 | Preston (Rehe)          |
| 132     | S008879   | 3.68 | NEWBURG TOWN OF                      | 9.40  | Charlie Pase (monofill) |
| 133     | S018875   | 4.06 | PLUM HILL TERRACE APTS.              | 6.49  | Kingwood, City of       |
| 134     | S103086   | 2.61 | Belgian Estates                      | 9.91  | Big Bear                |
| 135     | S106786   | 3.15 | TERRA ALTA TOWN OF                   | 11.49 | City of Kingwood        |
| 136     | S103487   | 4.04 | Preston High School-Wrestling Center | 0.97  | Kingwood, City of       |
| 137     | S106191   | 1.26 | PLUM HILL TERRACE APTS.              | 4.33  | Preston (Rehe)          |
| 138     | S010775   | 1.92 | Town of Tunnelton                    | 3.17  | City of Kingwood        |
| 139     | S106386   | 0.36 | VILLONOVA VILLAGE                    | 3.13  | Kingwood, City of       |
| 140     | C000184   | 4.19 | LIGHT MOBILE HOME PARK               | 4.67  | Kingwood, City of       |
| 141     | S007078   | 5.52 | TERRA ALTA TOWN OF                   | 14.33 | City of Kingwood        |
| 142     | S004679   | 2.86 | CAMP DAWSON                          | 3.42  | City of Kingwood        |
| 143     | S002383   | 2.79 | NEWBURG TOWN OF                      | 5.98  | Charlie Pase (monofill) |
| 144     | I063600   | 7.08 | CAMP DAWSON                          | 7.15  | Big Bear                |
| 145     | Z000581   | 3.31 | Belgian Estates                      | 8.17  | Big Bear                |
| 146     | S007574   | 7.49 | BRUCETON/BRANDONVILLE PSD            | 9.78  | Kingwood, City of       |
| 147     | S007579   | 3.02 | CAMP DAWSON                          | 4.80  | City of Kingwood        |
| 148     | Z002481   | 4.37 | Outlet 003                           | 4.08  | Big Bear                |
| 149     | S004073   | 6.56 | PLUM HILL TERRACE APTS.              | 9.63  | Preston (Rehe)          |
| 150     | S003385   | 3.90 | NEWBURG TOWN OF                      | 4.33  | Charlie Pase (monofill) |
| 151     | S104286   | 5.99 | Outlet 003                           | 5.63  | Big Bear                |
| 152     | S103889   | 1.12 | NEWBURG TOWN OF                      | 7.40  | Charlie Pase (monofill) |
| 153     | S103887   | 5.32 | TERRA ALTA TOWN OF                   | 14.14 | City of Kingwood        |
| 154     | S002783   | 4.18 | BRUCETON/BRANDONVILLE PSD            | 7.93  | Big Bear                |

| Site No | Permit ID | SW   | Facility (SW)                        | SD    | Facility (SD)           |
|---------|-----------|------|--------------------------------------|-------|-------------------------|
| 155     | S010282   | 3.74 | Coopers Rock State Pk                | 10.05 | Suburban Sanitation     |
| 156     | S012282   | 6.86 | BRUCETON/BRANDONVILLE PSD            | 6.73  | Big Bear                |
| 157     | S003685   | 2.00 | NEWBURG TOWN OF                      | 6.21  | Charlie Pase (monofill) |
| 158     | S003684   | 3.14 | WINDY HILL MANOR                     | 5.29  | Preston (Rehe)          |
| 159     | S101488   | 2.17 | MARION MEADOWS SUBDIVISION           | 5.94  | Preston (Rehe)          |
| 160     | S101487   | 5.12 | Coopers Rock State Pk                | 11.43 | Suburban Sanitation     |
| 161     | S003579   | 2.99 | I-68 WELCOME CENTER                  | 7.88  | Big Bear                |
| 162     | S003574   | 4.77 | Outlet 003                           | 4.48  | Big Bear                |
| 163     | S010377   | 3.52 | NEWBURG TOWN OF                      | 3.19  | Charlie Pase (monofill) |
| 164     | S010375   | 5.64 | BRUCETON/BRANDONVILLE PSD            | 6.08  | Big Bear                |
| 165     | S015775   | 1.52 | WINDY HILL MANOR                     | 3.70  | City of Kingwood        |
| 166     | S015776   | 1.93 | GLADE FARMS CAMPGROUND               | 10.93 | Big Bear                |
| 167     | S006079   | 2.12 | I-68 WELCOME CENTER                  | 11.03 | Big Bear                |
| 168     | S103691   | 1.62 | NEWBURG TOWN OF                      | 7.35  | Charlie Pase (monofill) |
| 169     | S004481   | 3.02 | NEWBURG TOWN OF                      | 8.74  | Charlie Pase (monofill) |
| 170     | S005283   | 4.07 | Town of Tunnelton                    | 2.49  | Charlie Pase (monofill) |
| 171     | S005285   | 2.46 | Belgian Estates                      | 8.55  | Big Bear                |
| 172     | S005284   | 1.74 | MARION MEADOWS SUBDIVISION           | 6.66  | Preston (Rehe)          |
| 173     | S021575   | 1.93 | Belgian Estates                      | 9.88  | Big Bear                |
| 174     | S031571   | 2.65 | NEWBURG TOWN OF                      | 8.37  | Charlie Pase (monofill) |
| 175     | S025474   | 7.94 | Preston High School-Wrestling Center | 7.66  | Kingwood, City of       |
| 176     | S102587   | 2.82 | NEWBURG TOWN OF                      | 5.23  | Charlie Pase (monofill) |
| 177     | S103191   | 1.85 | PLUM HILL TERRACE APTS.              | 3.92  | Preston (Rehe)          |
| 178     | S021173   | 4.21 | Outlet 003                           | 3.84  | Big Bear                |
| 179     | S101588   | 5.94 | BRUCETON/BRANDONVILLE PSD            | 5.81  | Big Bear                |
| 180     | S024674   | 6.56 | PLUM HILL TERRACE APTS.              | 9.63  | Preston (Rehe)          |
| 181     | S008482   | 1.37 | PLUM HILL TERRACE APTS.              | 4.44  | Preston (Rehe)          |
| 182     | S009375   | 3.93 | I-68 WELCOME CENTER                  | 8.82  | Big Bear                |
| 183     | S103586   | 4.61 | PLUM HILL TERRACE APTS.              | 7.04  | Kingwood, City of       |
| 184     | S100595   | 4.66 | Coopers Rock State Pk                | 10.97 | Suburban Sanitation     |
| 185     | S100590   | 4.46 | PLUM HILL TERRACE APTS.              | 7.52  | Preston (Rehe)          |
| 186     | S010980   | 2.18 | SHUMAN'S TRAILER PARK                | 8.59  | Charlie Pase (monofill) |
| 187     | S011277   | 2.50 | WINDY HILL MANOR                     | 5.32  | Preston (Rehe)          |
| 188     | S010582   | 6.31 | BRUCETON/BRANDONVILLE PSD            | 8.45  | Kingwood, City of       |
| 189     | S004984   | 3.54 | Coopers Rock State Pk                | 9.84  | Suburban Sanitation     |
| 190     | S100197   | 2.39 | CAMP DAWSON                          | 5.76  | City of Kingwood        |
| 191     | S102286   | 1.48 | PLUM HILL TERRACE APTS.              | 4.54  | Preston (Rehe)          |
| 192     | S102288   | 5.04 | MAJESTIC ACRES                       | 3.58  | Charlie Pase (monofill) |
| 193     | S006678   | 6.84 | BRUCETON/BRANDONVILLE PSD            | 7.80  | Kingwood, City of       |

| Site No | Permit ID | SW   | Facility (SW)                        | SD    | Facility (SD)           |
|---------|-----------|------|--------------------------------------|-------|-------------------------|
| 194     | S101088   | 1.66 | Town of Tunnelton                    | 2.80  | City of Kingwood        |
| 195     | S003982   | 3.46 | NEWBURG TOWN OF                      | 4.94  | Charlie Pase (monofill) |
| 196     | S005777   | 3.26 | PLUM HILL TERRACE APTS.              | 5.00  | Preston (Rehe)          |
| 197     | S000981   | 2.93 | BRUCETON/BRANDONVILLE PSD            | 7.13  | Big Bear                |
| 198     | S000983   | 1.87 | Belgian Estates                      | 9.17  | Big Bear                |
| 199     | S102887   | 4.85 | PLUM HILL TERRACE APTS.              | 7.91  | Preston (Rehe)          |
| 200     | S012774   | 6.70 | CAMP DAWSON                          | 6.75  | Kingwood, City of       |
| 201     | S012776   | 3.54 | NEWBURG TOWN OF                      | 2.90  | Charlie Pase (monofill) |
| 202     | S013579   | 4.93 | BRUCETON/BRANDONVILLE PSD            | 5.38  | Big Bear                |
| 203     | S017077   | 6.49 | Preston High School-Wrestling Center | 6.22  | Kingwood, City of       |
| 204     | Z002281   | 2.83 | BRUCETON/BRANDONVILLE PSD            | 6.83  | Big Bear                |
| 205     | S013076   | 3.69 | BRUCETON/BRANDONVILLE PSD            | 8.73  | Big Bear                |
| 206     | S001876   | 2.40 | BRUCETON/BRANDONVILLE PSD            | 11.40 | Big Bear                |
| 207     | S000476   | 5.55 | BRUCETON/BRANDONVILLE PSD            | 6.00  | Big Bear                |
| 208     | S104090   | 2.65 | NEWBURG TOWN OF                      | 8.37  | Charlie Pase (monofill) |
| 209     | S003881   | 2.63 | PLUM HILL TERRACE APTS.              | 5.69  | Preston (Rehe)          |
| 210     | S003884   | 2.35 | PLUM HILL TERRACE APTS.              | 4.95  | Preston (Rehe)          |
| 211     | S023176   | 3.04 | Belgian Estates                      | 6.76  | Big Bear                |
| 212     | S101686   | 1.41 | VILLONOVA VILLAGE                    | 2.29  | City of Kingwood        |
| 213     | I064100   | 4.15 | Coopers Rock State Pk                | 10.46 | Suburban Sanitation     |
| 214     | S015774   | 1.81 | Kingwood Water Works                 | 1.93  | City of Kingwood        |
| 215     | S023776   | 7.12 | BRUCETON/BRANDONVILLE PSD            | 10.01 | Kingwood, City of       |
| 216     | S008285   | 4.03 | CAMP DAWSON                          | 4.09  | Kingwood, City of       |
| 217     | S008280   | 3.49 | CAMP DAWSON                          | 5.26  | City of Kingwood        |
| 218     | S017177   | 1.74 | Town of Tunnelton                    | 4.78  | City of Kingwood        |
| 219     | S006284   | 2.38 | Preston High School-Wrestling Center | 2.78  | City of Kingwood        |
| 220     | S107386   | 4.87 | ALBRIGHT TOWN OF                     | 8.89  | Charlie Pase (monofill) |
| 221     | S012280   | 5.44 | Thomas Water Treatment Plant         | 7.89  | Tucker Co. Landfill     |

**Table 9: Shortest Distances from Sites to Gas Pipe (GP) and Oil Pipe (OP)**

| Site No | Permit ID | GP   | Company (GP)                    | OP   | Company (OP) |
|---------|-----------|------|---------------------------------|------|--------------|
| 1       | S104786   | 1.54 | Hope Gas, Inc.                  | 0.11 | Unknown      |
| 2       | S003781   | 5.63 | Hope Gas, Inc.                  | 1.20 | Unknown      |
| 3       | S108686   | 2.50 | Columbia Gas Transmission Corp. | 2.55 | Unknown      |
| 4       | S102687   | 3.59 | Columbia Gas Transmission Corp. | 2.95 | Unknown      |
| 5       | S101887   | 5.57 | Columbia Gas Transmission Corp. | 0.58 | Unknown      |
| 6       | S101888   | 0.06 | Hope Gas, Inc.                  | 0.93 | CN           |
| 7       | S103291   | 3.25 | Columbia Gas Transmission Corp. | 1.31 | CN           |
| 8       | S012976   | 1.94 | Hope Gas, Inc.                  | 3.90 | CN           |
| 9       | S006572   | 0.25 | Columbia Gas Transmission Corp. | 0.19 | CL           |
| 10      | S006577   | 4.37 | Columbia Gas Transmission Corp. | 1.51 | Unknown      |
| 11      | S006578   | 0.62 | Columbia Gas Transmission Corp. | 0.66 | CL           |
| 12      | S009680   | 5.24 | Hope Gas, Inc.                  | 2.74 | CN           |
| 13      | S009682   | 0.67 | Hope Gas, Inc.                  | 0.70 | CN           |
| 14      | S102987   | 6.14 | Hope Gas, Inc.                  | 2.46 | Unknown      |
| 15      | S101987   | 1.32 | Columbia Gas Transmission Corp. | 1.37 | CL           |
| 16      | S033171   | 6.65 | Columbia Gas Transmission Corp. | 4.34 | Unknown      |
| 17      | Z004781   | 3.17 | Columbia Gas Transmission Corp. | 2.69 | Unknown      |
| 18      | S011676   | 0.30 | Columbia Gas Transmission Corp. | 0.39 | CL           |
| 19      | S002075   | 0.24 | Columbia Gas Transmission Corp. | 0.18 | CL           |
| 20      | S200901   | 0.24 | Columbia Gas Transmission Corp. | 0.18 | CL           |
| 21      | S102389   | 1.40 | Columbia Gas Transmission Corp. | 1.45 | CL           |
| 22      | S102386   | 1.20 | Columbia Gas Transmission Corp. | 1.14 | CL           |
| 23      | S005179   | 1.36 | Hope Gas, Inc.                  | 0.51 | CN           |
| 24      | S017777   | 3.98 | Hope Gas, Inc.                  | 4.47 | CN           |
| 25      | S001883   | 4.20 | Columbia Gas Transmission Corp. | 4.17 | CL           |
| 26      | I046800   | 7.61 | Hope Gas, Inc.                  | 1.86 | Unknown      |
| 27      | S108786   | 0.87 | Hope Gas, Inc.                  | 0.35 | CN           |
| 28      | S103788   | 2.81 | Columbia Gas Transmission Corp. | 2.05 | Unknown      |
| 29      | S004478   | 1.57 | Columbia Gas Transmission Corp. | 1.53 | CL           |
| 30      | S201192   | 0.74 | Columbia Gas Transmission Corp. | 0.81 | CL           |
| 31      | S100393   | 2.17 | Columbia Gas Transmission Corp. | 2.21 | CL           |
| 32      | S004281   | 4.64 | Columbia Gas Transmission Corp. | 0.85 | Unknown      |
| 33      | S001578   | 1.55 | Columbia Gas Transmission Corp. | 1.59 | CL           |
| 34      | S001575   | 0.27 | Columbia Gas Transmission Corp. | 0.36 | CL           |
| 35      | C000985   | 5.60 | Columbia Gas Transmission Corp. | 0.23 | Unknown      |
| 36      | S102388   | 3.07 | Hope Gas, Inc.                  | 0.63 | CN           |
| 37      | S008579   | 3.05 | Columbia Gas Transmission Corp. | 2.11 | Unknown      |

| Site No | Permit ID | GP   | Company (GP)                    | OP   | Company (OP) |
|---------|-----------|------|---------------------------------|------|--------------|
| 38      | S104086   | 2.26 | Columbia Gas Transmission Corp. | 2.30 | CL           |
| 39      | S103188   | 4.44 | Columbia Gas Transmission Corp. | 0.31 | Unknown      |
| 40      | S003377   | 1.21 | Columbia Gas Transmission Corp. | 1.17 | CL           |
| 41      | S100293   | 3.77 | Hope Gas, Inc.                  | 1.74 | CN           |
| 42      | S100298   | 0.78 | Hope Gas, Inc.                  | 0.22 | CN           |
| 43      | S100299   | 0.09 | Columbia Gas Transmission Corp. | 0.06 | CL           |
| 44      | S012479   | 4.28 | Columbia Gas Transmission Corp. | 1.46 | Unknown      |
| 45      | S013180   | 5.53 | Hope Gas, Inc.                  | 1.59 | Unknown      |
| 46      | S012274   | 3.53 | Hope Gas, Inc.                  | 3.95 | CN           |
| 47      | S011077   | 2.15 | Columbia Gas Transmission Corp. | 2.11 | CL           |
| 48      | S001184   | 5.40 | Hope Gas, Inc.                  | 1.98 | Unknown      |
| 49      | S001679   | 1.11 | Columbia Gas Transmission Corp. | 1.06 | CL           |
| 50      | S001676   | 3.45 | Hope Gas, Inc.                  | 2.82 | CN           |
| 51      | S105886   | 5.30 | Hope Gas, Inc.                  | 2.70 | CN           |
| 52      | S007179   | 4.70 | Columbia Gas Transmission Corp. | 0.47 | Unknown      |
| 53      | S100888   | 2.40 | Columbia Gas Transmission Corp. | 2.37 | CL           |
| 54      | S101592   | 8.44 | Dominion Transmission Inc.      | 0.26 | Unknown      |
| 55      | S006183   | 2.96 | Hope Gas, Inc.                  | 3.29 | CN           |
| 56      | S006182   | 5.02 | Hope Gas, Inc.                  | 1.55 | CN           |
| 57      | S006184   | 5.71 | Columbia Gas Transmission Corp. | 2.53 | Unknown      |
| 58      | S004181   | 4.16 | Chestnut Ridge Storage, LLC     | 1.10 | Unknown      |
| 59      | S002678   | 3.01 | Columbia Gas Transmission Corp. | 2.14 | Unknown      |
| 60      | S104088   | 7.25 | Columbia Gas Transmission Corp. | 0.14 | Unknown      |
| 61      | S003678   | 2.09 | Hope Gas, Inc.                  | 1.33 | CN           |
| 62      | S005784   | 0.07 | Hope Gas, Inc.                  | 0.54 | CN           |
| 63      | S101691   | 0.84 | Hope Gas, Inc.                  | 1.45 | CN           |
| 64      | S019277   | 4.42 | Columbia Gas Transmission Corp. | 2.56 | Unknown      |
| 65      | S017677   | 0.83 | Columbia Gas Transmission Corp. | 0.79 | CL           |
| 66      | S100487   | 7.67 | Hope Gas, Inc.                  | 1.17 | Unknown      |
| 67      | S100489   | 7.02 | Columbia Gas Transmission Corp. | 1.56 | Unknown      |
| 68      | S100488   | 1.51 | Columbia Gas Transmission Corp. | 1.56 | CL           |
| 69      | S008185   | 2.64 | Hope Gas, Inc.                  | 0.18 | CN           |
| 70      | S011280   | 4.83 | Chestnut Ridge Storage, LLC     | 0.61 | Unknown      |
| 71      | S004685   | 6.41 | Hope Gas, Inc.                  | 3.01 | Unknown      |
| 72      | S005882   | 0.86 | Columbia Gas Transmission Corp. | 0.90 | CL           |
| 73      | S022476   | 1.69 | Hope Gas, Inc.                  | 1.13 | CN           |
| 74      | S100687   | 0.19 | Columbia Gas Transmission Corp. | 0.14 | CL           |
| 75      | S100688   | 4.90 | Columbia Gas Transmission Corp. | 2.57 | Unknown      |
| 76      | S002881   | 1.84 | Hope Gas, Inc.                  | 0.95 | CN           |

| Site No | Permit ID | GP   | Company (GP)                    | OP   | Company (OP) |
|---------|-----------|------|---------------------------------|------|--------------|
| 77      | S003875   | 6.19 | Columbia Gas Transmission Corp. | 0.52 | Unknown      |
| 78      | S001285   | 7.22 | Columbia Gas Transmission Corp. | 0.07 | Unknown      |
| 79      | S001281   | 1.63 | Columbia Gas Transmission Corp. | 1.59 | CL           |
| 80      | C001382   | 6.12 | Hope Gas, Inc.                  | 2.71 | Unknown      |
| 81      | S103987   | 4.18 | Columbia Gas Transmission Corp. | 4.13 | CL           |
| 82      | S103986   | 6.04 | Columbia Gas Transmission Corp. | 6.00 | CL           |
| 83      | S002577   | 1.77 | Hope Gas, Inc.                  | 0.79 | CN           |
| 84      | S100188   | 1.78 | Columbia Gas Transmission Corp. | 1.82 | CL           |
| 85      | S100986   | 4.59 | Columbia Gas Transmission Corp. | 2.22 | Unknown      |
| 86      | S100989   | 0.44 | Columbia Gas Transmission Corp. | 0.38 | CL           |
| 87      | S012678   | 1.09 | Columbia Gas Transmission Corp. | 1.15 | CL           |
| 88      | S006084   | 8.01 | Columbia Gas Transmission Corp. | 7.41 | Unknown      |
| 89      | S015875   | 5.55 | Columbia Gas Transmission Corp. | 5.52 | CL           |
| 90      | S006582   | 1.37 | Columbia Gas Transmission Corp. | 1.40 | CL           |
| 91      | S011982   | 4.17 | Hope Gas, Inc.                  | 1.70 | CN           |
| 92      | S007183   | 6.86 | Columbia Gas Transmission Corp. | 6.08 | Unknown      |
| 93      | S104188   | 5.95 | Columbia Gas Transmission Corp. | 5.92 | CL           |
| 94      | S001174   | 1.72 | Hope Gas, Inc.                  | 1.44 | CN           |
| 95      | S104487   | 0.16 | Hope Gas, Inc.                  | 0.38 | CN           |
| 96      | S005480   | 5.12 | Hope Gas, Inc.                  | 2.44 | CN           |
| 97      | S003083   | 4.54 | Columbia Gas Transmission Corp. | 4.51 | CL           |
| 98      | S017976   | 0.17 | Hope Gas, Inc.                  | 0.80 | CN           |
| 99      | S009184   | 6.55 | Hope Gas, Inc.                  | 3.45 | Unknown      |
| 100     | S009185   | 0.15 | Columbia Gas Transmission Corp. | 0.12 | CL           |
| 101     | S103389   | 6.28 | Columbia Gas Transmission Corp. | 0.75 | Unknown      |
| 102     | S017476   | 5.38 | Hope Gas, Inc.                  | 1.43 | Unknown      |
| 103     | Z008881   | 6.00 | Columbia Gas Transmission Corp. | 0.40 | Unknown      |
| 104     | S007582   | 6.38 | Hope Gas, Inc.                  | 3.17 | Unknown      |
| 105     | S103286   | 5.86 | Hope Gas, Inc.                  | 2.14 | Unknown      |
| 106     | S102489   | 7.33 | Columbia Gas Transmission Corp. | 1.64 | Unknown      |
| 107     | S102488   | 2.25 | Columbia Gas Transmission Corp. | 2.31 | CL           |
| 108     | S103687   | 3.97 | Columbia Gas Transmission Corp. | 1.14 | Unknown      |
| 109     | S100496   | 6.68 | Columbia Gas Transmission Corp. | 1.65 | Unknown      |
| 110     | S001483   | 4.20 | Columbia Gas Transmission Corp. | 0.44 | CN           |
| 111     | S001482   | 3.68 | Columbia Gas Transmission Corp. | 0.88 | CN           |
| 112     | S001485   | 5.45 | Columbia Gas Transmission Corp. | 0.32 | Unknown      |
| 113     | S009369   | 0.17 | Columbia Gas Transmission Corp. | 0.22 | CL           |
| 114     | S101389   | 2.17 | Columbia Gas Transmission Corp. | 2.21 | CL           |
| 115     | S101388   | 7.63 | Columbia Gas Transmission Corp. | 1.43 | Unknown      |



| Site No | Permit ID | GP   | Company (GP)                    | OP   | Company (OP) |
|---------|-----------|------|---------------------------------|------|--------------|
| 116     | S005378   | 2.92 | Hope Gas, Inc.                  | 3.54 | CN           |
| 117     | S005085   | 2.06 | Columbia Gas Transmission Corp. | 2.11 | CL           |
| 118     | S013278   | 2.48 | Columbia Gas Transmission Corp. | 2.44 | CL           |
| 119     | S013273   | 2.73 | Chestnut Ridge Storage, LLC     | 2.61 | Unknown      |
| 120     | Z000781   | 5.00 | Columbia Gas Transmission Corp. | 4.97 | CL           |
| 121     | Z001781   | 4.76 | Columbia Gas Transmission Corp. | 1.17 | Unknown      |
| 122     | S101986   | 1.79 | Columbia Gas Transmission Corp. | 1.74 | CL           |
| 123     | S005278   | 1.69 | Hope Gas, Inc.                  | 1.25 | CN           |
| 124     | S014879   | 5.30 | Columbia Gas Transmission Corp. | 5.25 | CL           |
| 125     | S002685   | 4.77 | Hope Gas, Inc.                  | 1.45 | CN           |
| 126     | Z004081   | 6.08 | Columbia Gas Transmission Corp. | 0.76 | Unknown      |
| 127     | S105386   | 0.19 | Columbia Gas Transmission Corp. | 0.23 | CL           |
| 128     | S000381   | 2.35 | Columbia Gas Transmission Corp. | 2.31 | CL           |
| 129     | S000380   | 1.33 | Columbia Gas Transmission Corp. | 1.29 | CL           |
| 130     | S100389   | 9.11 | Columbia Gas Transmission Corp. | 3.88 | Unknown      |
| 131     | S007383   | 3.92 | Columbia Gas Transmission Corp. | 1.67 | Unknown      |
| 132     | S008879   | 3.28 | Hope Gas, Inc.                  | 4.88 | CN           |
| 133     | S018875   | 4.47 | Columbia Gas Transmission Corp. | 1.10 | Unknown      |
| 134     | S103086   | 7.36 | Columbia Gas Transmission Corp. | 3.03 | Unknown      |
| 135     | S106786   | 1.07 | Columbia Gas Transmission Corp. | 1.11 | CL           |
| 136     | S103487   | 3.55 | Columbia Gas Transmission Corp. | 1.46 | Unknown      |
| 137     | S106191   | 6.92 | Columbia Gas Transmission Corp. | 0.96 | Unknown      |
| 138     | S010775   | 3.70 | Columbia Gas Transmission Corp. | 1.46 | CN           |
| 139     | S106386   | 5.70 | Columbia Gas Transmission Corp. | 0.62 | Unknown      |
| 140     | C000184   | 4.47 | Columbia Gas Transmission Corp. | 3.39 | Unknown      |
| 141     | S007078   | 0.50 | Columbia Gas Transmission Corp. | 0.43 | CL           |
| 142     | S004679   | 2.65 | Columbia Gas Transmission Corp. | 1.05 | Unknown      |
| 143     | S002383   | 0.81 | Hope Gas, Inc.                  | 0.86 | CN           |
| 144     | I063600   | 0.43 | Columbia Gas Transmission Corp. | 0.37 | CL           |
| 145     | Z000581   | 5.94 | Columbia Gas Transmission Corp. | 4.66 | Unknown      |
| 146     | S007574   | 0.79 | Columbia Gas Transmission Corp. | 0.83 | CL           |
| 147     | S007579   | 3.84 | Columbia Gas Transmission Corp. | 0.35 | CN           |
| 148     | Z002481   | 3.82 | Columbia Gas Transmission Corp. | 3.79 | CL           |
| 149     | S004073   | 3.88 | Columbia Gas Transmission Corp. | 1.35 | Unknown      |
| 150     | S003385   | 1.67 | Hope Gas, Inc.                  | 0.28 | CN           |
| 151     | S104286   | 1.44 | Columbia Gas Transmission Corp. | 1.38 | CL           |
| 152     | S103889   | 1.84 | Hope Gas, Inc.                  | 3.89 | CN           |
| 153     | S103887   | 0.41 | Columbia Gas Transmission Corp. | 0.35 | CL           |
| 154     | S002783   | 1.52 | Columbia Gas Transmission Corp. | 1.47 | CL           |

| Site No | Permit ID | GP    | Company (GP)                    | OP   | Company (OP) |
|---------|-----------|-------|---------------------------------|------|--------------|
| 155     | S010282   | 0.49  | Columbia Gas Transmission Corp. | 0.54 | CL           |
| 156     | S012282   | 0.76  | Columbia Gas Transmission Corp. | 0.73 | CL           |
| 157     | S003685   | 1.06  | Hope Gas, Inc.                  | 1.60 | CN           |
| 158     | S003684   | 4.60  | Hope Gas, Inc.                  | 2.13 | CN           |
| 159     | S101488   | 4.31  | Hope Gas, Inc.                  | 1.47 | Unknown      |
| 160     | S101487   | 2.74  | Columbia Gas Transmission Corp. | 2.01 | Unknown      |
| 161     | S003579   | 9.09  | Columbia Gas Transmission Corp. | 7.00 | Unknown      |
| 162     | S003574   | 3.15  | Columbia Gas Transmission Corp. | 3.12 | CL           |
| 163     | S010377   | 0.35  | Hope Gas, Inc.                  | 0.26 | CN           |
| 164     | S010375   | 2.06  | Columbia Gas Transmission Corp. | 2.03 | CL           |
| 165     | S015775   | 5.54  | Hope Gas, Inc.                  | 1.54 | Unknown      |
| 166     | S015776   | 11.46 | Columbia Gas Transmission Corp. | 5.92 | Unknown      |
| 167     | S006079   | 11.97 | Columbia Gas Transmission Corp. | 7.81 | Unknown      |
| 168     | S103691   | 3.03  | Hope Gas, Inc.                  | 3.16 | CN           |
| 169     | S004481   | 3.13  | Hope Gas, Inc.                  | 4.36 | CN           |
| 170     | S005283   | 0.14  | Hope Gas, Inc.                  | 0.56 | CN           |
| 171     | S005285   | 6.93  | Columbia Gas Transmission Corp. | 4.24 | Unknown      |
| 172     | S005284   | 3.99  | Hope Gas, Inc.                  | 1.15 | Unknown      |
| 173     | S021575   | 9.81  | Columbia Gas Transmission Corp. | 5.25 | Unknown      |
| 174     | S031571   | 3.12  | Hope Gas, Inc.                  | 4.18 | CN           |
| 175     | S025474   | 1.24  | Columbia Gas Transmission Corp. | 1.30 | CL           |
| 176     | S102587   | 0.01  | Hope Gas, Inc.                  | 2.20 | CN           |
| 177     | S103191   | 6.98  | Columbia Gas Transmission Corp. | 1.52 | Unknown      |
| 178     | S021173   | 3.08  | Columbia Gas Transmission Corp. | 3.04 | CL           |
| 179     | S101588   | 2.65  | Columbia Gas Transmission Corp. | 2.61 | CL           |
| 180     | S024674   | 3.88  | Columbia Gas Transmission Corp. | 1.35 | Unknown      |
| 181     | S008482   | 6.80  | Columbia Gas Transmission Corp. | 0.82 | Unknown      |
| 182     | S009375   | 9.89  | Columbia Gas Transmission Corp. | 7.00 | Unknown      |
| 183     | S103586   | 3.97  | Columbia Gas Transmission Corp. | 1.42 | Unknown      |
| 184     | S100595   | 0.61  | Columbia Gas Transmission Corp. | 0.66 | CL           |
| 185     | S100590   | 5.41  | Columbia Gas Transmission Corp. | 0.14 | Unknown      |
| 186     | S010980   | 3.45  | Hope Gas, Inc.                  | 2.82 | CN           |
| 187     | S011277   | 4.77  | Hope Gas, Inc.                  | 2.19 | CN           |
| 188     | S010582   | 0.84  | Columbia Gas Transmission Corp. | 0.88 | CL           |
| 189     | S004984   | 1.41  | Columbia Gas Transmission Corp. | 1.46 | CL           |
| 190     | S100197   | 3.89  | Columbia Gas Transmission Corp. | 0.73 | CN           |
| 191     | S102286   | 6.68  | Columbia Gas Transmission Corp. | 0.88 | Unknown      |
| 192     | S102288   | 1.80  | Hope Gas, Inc.                  | 0.54 | CN           |
| 193     | S006678   | 1.00  | Columbia Gas Transmission Corp. | 1.04 | CL           |

| Site No | Permit ID | GP   | Company (GP)                    | OP   | Company (OP) |
|---------|-----------|------|---------------------------------|------|--------------|
| 194     | S101088   | 3.72 | Hope Gas, Inc.                  | 1.15 | CN           |
| 195     | S003982   | 0.83 | Hope Gas, Inc.                  | 0.01 | CN           |
| 196     | S005777   | 5.78 | Columbia Gas Transmission Corp. | 2.78 | Unknown      |
| 197     | S000981   | 5.39 | Columbia Gas Transmission Corp. | 5.35 | CL           |
| 198     | S000983   | 6.64 | Columbia Gas Transmission Corp. | 3.30 | Unknown      |
| 199     | S102887   | 5.70 | Columbia Gas Transmission Corp. | 0.11 | Unknown      |
| 200     | S012774   | 0.31 | Columbia Gas Transmission Corp. | 0.28 | CL           |
| 201     | S012776   | 0.10 | Hope Gas, Inc.                  | 0.07 | CN           |
| 202     | S013579   | 2.67 | Columbia Gas Transmission Corp. | 2.64 | CL           |
| 203     | S017077   | 1.82 | Columbia Gas Transmission Corp. | 1.88 | CL           |
| 204     | Z002281   | 2.87 | Columbia Gas Transmission Corp. | 2.83 | CL           |
| 205     | S013076   | 1.48 | Columbia Gas Transmission Corp. | 1.43 | CL           |
| 206     | S001876   | 3.51 | Columbia Gas Transmission Corp. | 3.37 | Unknown      |
| 207     | S000476   | 2.15 | Columbia Gas Transmission Corp. | 2.11 | CL           |
| 208     | S104090   | 3.12 | Hope Gas, Inc.                  | 4.18 | CN           |
| 209     | S003881   | 5.73 | Columbia Gas Transmission Corp. | 1.34 | Unknown      |
| 210     | S003884   | 6.03 | Columbia Gas Transmission Corp. | 1.64 | Unknown      |
| 211     | S023176   | 6.55 | Columbia Gas Transmission Corp. | 5.82 | Unknown      |
| 212     | S101686   | 5.28 | Hope Gas, Inc.                  | 1.67 | Unknown      |
| 213     | I064100   | 0.80 | Columbia Gas Transmission Corp. | 0.85 | CL           |
| 214     | S015774   | 4.47 | Hope Gas, Inc.                  | 0.45 | CN           |
| 215     | S023776   | 1.43 | Columbia Gas Transmission Corp. | 1.49 | CL           |
| 216     | S008285   | 1.54 | Columbia Gas Transmission Corp. | 1.59 | CL           |
| 217     | S008280   | 3.35 | Columbia Gas Transmission Corp. | 0.10 | CN           |
| 218     | S017177   | 3.30 | Columbia Gas Transmission Corp. | 1.85 | Unknown      |
| 219     | S006284   | 4.90 | Hope Gas, Inc.                  | 1.30 | CN           |
| 220     | S107386   | 2.11 | Hope Gas, Inc.                  | 0.70 | Unknown      |
| 221     | S012280   | 0.67 | Columbia Gas Transmission Corp. | 0.60 | CL           |

### Suitability Model

The suitability model for Preston County is created with a weighted scoring method. The method scores options against a prioritized requirements list to determine which option best fits the selection criteria. Using a consistent list of criteria, weighted according to the importance or priority of the criteria to the researcher, a comparison of similar “products” can be completed. If numerical values are assigned to the criteria priorities (**weighting**) and the ability of the product to meet a specific criterion (**scoring**), a “score” can be derived. By summing the score (**total score**), the product most closely meeting the criteria can be determined.

Criteria are chosen and weighted based on published Land Use Master Plans (LUMPs) for several counties in West Virginia, RTI's own research on the existing conditions in Preston County and expert advice about important factors to site development.<sup>16</sup> Then, scores for each site are given by comparing the closest distance from the site to all factors within given distance thresholds. There are four sets of scores in this suitability model: **absolute scores**, **relative scores**, and the **total score**.

*Absolute scores* are given by comparing certain distance thresholds with the results of GIS Distance Analysis. Thresholds are determined mainly based on the researcher's experience, characteristics of the considered criteria and the priority given to the criteria. For example, if the closest distance from a site to an existing highway ranges from 2.5 to 5 miles, the site will be given 7 points for the Existing Highways Criteria. Absolute scores will directly affect the site selection. Different score categories may result in significant change in the cost of investment, and will thus impact the county's decisions.

*Relative scores*, on the other hand, depend solely on the closest distances of sites to relative criteria features. Initially, statistical values will be computed according to distance values from all sites to a certain factor (criteria), including min, quartile 1 – Q1, quartile 2 – Q2, quartile 3 – Q3, and max. Then, distance values will be classified into four groups and given the scores shown in Table 12 (below). This score set is used to sharpen differences between all sites in a certain category and therefore aid the decision maker. For example, two sites may have the same absolute score (in the same range of miles) but may fall in different statistical groups. Then the two sites will have different relative scores.

*The total score* is a combination of weights, absolute scores, and relative scores. The following equation is used to calculate the total score of a certain studied site:

$$\text{Total score of site A} = \sum (\text{absolute score} \times \text{relative score} \times \text{weight})_{ci} / 10 \quad (\text{ci: criteria i})$$

Sites with higher total scores reveal a higher chance of being developed. Total scores will vary according to a combination of four components: weights, absolute scores, and relative scores.

## 1. Weighting

<sup>16</sup> Joseph, M. *A Decision-Support Model of Land Suitability Analysis for the Ohio Lake Erie Balanced Growth Program*. EcoCity Cleveland. (2006).

Table 10 prioritizes post-mining land-use criteria for surface coal mining site selection in Preston County. Criteria weights are assigned on a one-to-ten scale. According to Joseph, utilities (power, water, and sewer) and road networks are considered more important factors to development. Therefore, those factors receive higher weights (7-10) in the suitability model. On the other hand, decision-makers are less affected by factors such as airports, national waterways, and ports. Those factors may be good supplements but do not critically change the investments.

**Table 10: Weighting Sites Selection Criteria**

| No | Criteria                         | Weight |
|----|----------------------------------|--------|
| 1  | Broadband                        | 9      |
| 2  | Gas Pipes                        | 6      |
| 3  | National Waterway Network        | 4      |
| 4  | Oil Pipeline                     | 6      |
| 5  | Power Lines                      | 10     |
| 6  | Railroads                        | 5      |
| 7  | Sewer Lines                      | 8      |
| 8  | Water Lines                      | 10     |
| 9  | Existing Highway                 | 8      |
| 10 | Intermodal Terminal Facilities   | 6      |
| 11 | Interstate                       | 8      |
| 12 | Sewer Treatment Facilities       | 7      |
| 13 | Solid Waste Treatment Facilities | 8      |

## 2. Scoring

### 2.1 Absolute Scores:

The shorter the distance to a feature from a site, the higher absolute score the site receives. Table 11 describes the thresholds and score categories for each criterion, ranging from 1 to 10. In order to achieve a better comparison between sites, the score scale is evenly distributed between five distance groups (1-3-5-7-10).

As mentioned previously, thresholds are mainly defined based on researcher experience, traveling method from a site to the features (road-path vs. Euclidean), and characteristic of criteria (type of feature, priority, and density). For example, distance thresholds for “Existing Highway” are much smaller than ones for “Solid Waste Treatment Facilities”. This is because highways are denser than solid waste treatment facilities. Both, however, have the same weights.

**Table 11: Absolute Scoring System**

| Absolute Score   |                                  | 10       | 7          | 5          | 3        | 1     |
|------------------|----------------------------------|----------|------------|------------|----------|-------|
| Criteria (Miles) | Existing Highway                 | 0 - 5    | 5 - 10     | 10 - 15    | 15 - 20  | > 20  |
|                  | Intermodal Terminal Facility     | 0 - 10   | 10 - 20    | 20 - 30    | 30 - 40  | > 40  |
|                  | Interstate                       | 0 - 5    | 5 - 14     | 14 - 22    | 22 - 30  | > 30  |
|                  | Sewer Treatment Facilities       | 0 - 2.5  | 2.5 - 5    | 5 - 7.5    | 7.5 - 10 | > 10  |
|                  | Solid Waste Treatment Facilities | 0 - 5    | 5 - 14     | 14 - 22    | 22 - 30  | > 30  |
|                  | Broadband                        | 0 - 0.5  | 0.5 - 2    | 2 - 3      | 3 - 4    | > 4   |
|                  | Gas Pipes                        | 0 - 0.5  | 0.5 - 1.5  | 1.5 - 2    | 2 - 2.5  | > 2.5 |
|                  | National Waterway Network        | 0 - 2.5  | 2.5 - 5    | 5 - 7.5    | 7.5 - 10 | > 10  |
|                  | Power Line                       | 0 - 0.5  | 0.5 - 1.5  | 1.5 - 2    | 2 - 2.5  | > 2.5 |
|                  | Oil Pipeline                     | 0 - 0.25 | 0.25 - 0.5 | 0.5 - 0.75 | 0.75 - 1 | > 1   |
|                  | Railroads                        | 0 - 1    | 1 - 3      | 3 - 4      | 4 - 5    | > 5   |
|                  | Sewer Lines                      | 0 - 1    | 1 - 3      | 3 - 4      | 4 - 5    | > 5   |
|                  | Water Lines                      | 0 - 0.25 | 0.25 - 0.5 | 0.5 - 0.75 | 0.75 - 1 | > 1   |

### 2.2 Relative Scores:

Table 12 shows four statistical groups and their relative scores in the Preston County land suitability model. The total number of coal mining sites will be equally distributed in each group. The relative score differs from the absolute score in two ways. First, thresholds for relative scores are derived only from real distances from the sites to the features (criteria). Second, it is not affected by personal opinion and does not consider either traveling method or nature of criteria.



**Table 12: Relative Scoring System**

|     |                                  | Threshold (Distances in miles) | Min - Q1 | Q1 - Q2 | Q2 - Q3 | Q3 – Max |
|-----|----------------------------------|--------------------------------|----------|---------|---------|----------|
|     |                                  | Relative Score                 | 10       | 7.5     | 5       | 2.5      |
| No. | Criteria                         | Min                            | Q1       | Q2      | Q3      | Max      |
| 1   | Broadband                        | 0.03                           | 4.77     | 1.17    | 1.82    | 2.54     |
| 2   | Gas Pipes                        | 0.01                           | 11.97    | 1.44    | 3.25    | 5.38     |
| 3   | National Waterway Network        | 8.73                           | 46.69    | 15.07   | 18.28   | 22.19    |
| 4   | Oil Pipeline                     | 0.01                           | 7.81     | 0.75    | 1.46    | 2.56     |
| 5   | Power Lines                      | 0.01                           | 4.90     | 0.34    | 0.78    | 1.43     |
| 6   | Railroads                        | 0.13                           | 16.70    | 2.02    | 5.24    | 8.49     |
| 7   | Sewer Lines                      | 0.02                           | 7.69     | 1.64    | 2.41    | 3.71     |
| 8   | Water Lines                      | 0.01                           | 4.12     | 0.36    | 0.74    | 1.53     |
| 9   | Existing Highway                 | 0.01                           | 6.08     | 0.90    | 1.59    | 2.88     |
| 10  | Intermodal Terminal Facilities   | 13.27                          | 50.59    | 18.19   | 21.80   | 24.60    |
| 11  | Interstate                       | 0.15                           | 37.43    | 5.40    | 9.45    | 14.43    |
| 12  | Sewer Treatment Facilities       | 0.36                           | 8.12     | 2.24    | 3.54    | 5.04     |
| 13  | Solid Waste Treatment Facilities | 0.96                           | 14.33    | 4.09    | 6.21    | 8.55     |

**3. Preston County's Suitability Model:**

Table 13 shows the total scores of all studied sites in Preston County. Site 35 (Permit ID = C000985) has the highest score of 663.5. The sites with higher total scores suggest better opportunities for development. Results in Table 13 are also plotted in the bar chart (Figure 15) for better visualization. Among 221 analyzed potential development sites of Preston County, it is easy to notice the top five sites and determine the most suitable sites for investment.

Certainly, any change in weight values or the scoring system will result in different output and may change the decision. For better analysis and decision-making, the dynamic suitability model, which allows modification in criteria's weights, thresholds and scores is available for distribution through RTI's Geospatial Program.

Besides a distance analysis, a suitability model for Preston is supported by demographic data as well as two additional analyses, which are workforce analysis and retail location density (shown on Table 14 and Map 41 below). The best decision will be made with careful consideration of the suitability analysis as well as the demographic and economic information.

**Table 13: Total Score of Mine Sites in Preston County**

| Site No | Permitee                                    | Permit ID | Score  |
|---------|---------------------------------------------|-----------|--------|
| 1       | TRONAGUN CORP                               | S104786   | 458    |
| 2       | BJORKMAN MINING CO                          | S003781   | 496.75 |
| 3       | AMBREC CORPORATION                          | S108686   | 258    |
| 4       | F & M COAL COMPANY LIMITED PARTNERSHIP      | S102687   | 315.25 |
| 5       | G & B COAL INC                              | S101887   | 434    |
| 6       | AMANDA NICOLE FUELS INC                     | S101888   | 403    |
| 7       | PRETZEL EXCAVATING, LLC                     | S103291   | 323.5  |
| 8       | LAREW COAL CO.                              | S012976   | 378.25 |
| 9       | COAL LICK COAL CO                           | S006572   | 465.5  |
| 10      | DAUGHERTY COAL CO INC                       | S006577   | 282.25 |
| 11      | ROCKVILLE MINING CO                         | S006578   | 410.5  |
| 12      | PATRIOT MINING COMPANY INC                  | S009680   | 485.75 |
| 13      | INTERSTATE LUMBER CO INC                    | S009682   | 421.5  |
| 14      | PATRIOT MINING COMPANY INC                  | S102987   | 586.75 |
| 15      | FREEPORT MINING CORPORATION                 | S101987   | 368.5  |
| 16      | LAURITA TRUCKING & EXCAVATING               | S033171   | 456    |
| 17      | GUARANTY RESOURCES, INC                     | Z004781   | 362    |
| 18      | GRAFTON COAL COMPANY                        | S011676   | 591    |
| 19      | COAL LICK COAL CO                           | S002075   | 438.25 |
| 20      | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | S200901   | 403.25 |
| 21      | AMERIKOHL MINING INC                        | S102389   | 276    |
| 22      | JONES COAL INC                              | S102386   | 249    |
| 23      | HALLELUJAH MINING                           | S005179   | 438    |
| 24      | COALTRAIN CORPORATION                       | S017777   | 312    |
| 25      | MILLER, WAYNE L                             | S001883   | 316.5  |
| 26      | COALTRAIN CORPORATION                       | I046800   | 587.25 |
| 27      | BEEFSTEAK MINING CO                         | S108786   | 486    |
| 28      | AMBREC CORPORATION                          | S103788   | 200.75 |
| 29      | F & M COAL COMPANY LIMITED PARTNERSHIP      | S004478   | 349.5  |
| 30      | BUFFALO COAL COMPANY INC                    | S201192   | 300.25 |
| 31      | PATRIOT MINING COMPANY INC                  | S100393   | 542.25 |
| 32      | VOLKSTONE CO                                | S004281   | 253    |
| 33      | LEWIS COAL AND COKE CO                      | S001578   | 292.5  |

| Site No | Permittee                                   | Permit ID | Score  |
|---------|---------------------------------------------|-----------|--------|
| 34      | GRAFTON COAL COMPANY                        | S001575   | 605    |
| 35      | K. C. COAL CO                               | C000985   | 663.5  |
| 36      | K-C & M COAL COMPANY INC                    | S102388   | 347.5  |
| 37      | PRIMROSE COAL INC                           | S008579   | 154.5  |
| 38      | AMBREC CORPORATION                          | S104086   | 243.5  |
| 39      | PRESTON COUNTY COAL AND COKE CORPORATION    | S103188   | 346    |
| 40      | GARBART CONSTRUCTION CO, INC                | S003377   | 475    |
| 41      | COLBY COAL COMPANY                          | S100293   | 384.5  |
| 42      | ALI CO                                      | S100298   | 462.25 |
| 43      | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | S100299   | 433.5  |
| 44      | DAUGHERTY COAL CO INC                       | S012479   | 254.75 |
| 45      | BJORKMAN MINING CO                          | S013180   | 518.75 |
| 46      | MAURICE JENNINGS                            | S012274   | 404.5  |
| 47      | WILLIFORD EXCAVATING CO INC                 | S011077   | 453.75 |
| 48      | SHARON COAL CO                              | S001184   | 525    |
| 49      | BUFFALO COAL COMPANY INC                    | S001679   | 481    |
| 50      | M & V FUEL CORP                             | S001676   | 284    |
| 51      | MAURICE JENNINGS                            | S105886   | 455    |
| 52      | WETER CO, INC                               | S007179   | 361    |
| 53      | HORIZON FUELS INC                           | S100888   | 392.75 |
| 54      | VOLKSTONE CO                                | S101592   | 561    |
| 55      | MAURICE JENNINGS                            | S006183   | 509.5  |
| 56      | J.E.B., INC                                 | S006182   | 448.75 |
| 57      | WALTER GREEN INC                            | S006184   | 456    |
| 58      | INTERSTATE LUMBER CO INC                    | S004181   | 313.5  |
| 59      | MELIO MINING CO                             | S002678   | 153.25 |
| 60      | PRESTON COUNTY COAL AND COKE CORPORATION    | S104088   | 588.5  |
| 61      | MARY RUTH CORPORATION                       | S003678   | 500.75 |
| 62      | F & M COAL COMPANY LIMITED PARTNERSHIP      | S005784   | 275.25 |
| 63      | KRISTIE CORP                                | S101691   | 428.5  |
| 64      | DAUGHERTY COAL CO INC                       | S019277   | 371.5  |
| 65      | INTERSTATE LUMBER CO INC                    | S017677   | 258.75 |
| 66      | SIDELAND COAL CORP                          | S100487   | 488.75 |
| 67      | A C MINING CO                               | S100489   | 531.75 |
| 68      | FREEPORT MINING CORPORATION                 | S100488   | 413.25 |
| 69      | MARY LOU COAL CO                            | S008185   | 475    |
| 70      | INTERSTATE LUMBER CO INC                    | S011280   | 376    |
| 71      | K. C. COAL CO                               | S004685   | 599.25 |
| 72      | CENTURY ENTERPRISES INC                     | S005882   | 378.5  |
| 73      | INTERSTATE LUMBER CO INC                    | S022476   | 418.5  |

| Site No | Permittee                                   | Permit ID | Score  |
|---------|---------------------------------------------|-----------|--------|
| 74      | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | S100687   | 469.5  |
| 75      | F & M COAL COMPANY LIMITED PARTNERSHIP      | S100688   | 432.5  |
| 76      | PRESTON ENERGY INC                          | S002881   | 395    |
| 77      | LEWIS COAL AND COKE CO                      | S003875   | 629.75 |
| 78      | SHARON COAL CO                              | S001285   | 563.25 |
| 79      | PATRIOT MINING COMPANY INC                  | S001281   | 387    |
| 80      | V & V CO                                    | C001382   | 599.25 |
| 81      | MARY RUTH CORPORATION                       | S103987   | 324    |
| 82      | DELTA MINING, INC                           | S103986   | 312.75 |
| 83      | MARY RUTH CORPORATION                       | S002577   | 395    |
| 84      | PATRIOT MINING COMPANY INC                  | S100188   | 202.5  |
| 85      | DAUGHERTY COAL CO INC                       | S100986   | 371.5  |
| 86      | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | S100989   | 424    |
| 87      | RECKART MINING CO., INC                     | S012678   | 307.25 |
| 88      | HIDDEN VALLEY COAL CO                       | S006084   | 399.25 |
| 89      | GARBART CONSTRUCTION CO, INC                | S015875   | 280.5  |
| 90      | ROCKVILLE MINING CO                         | S006582   | 351    |
| 91      | PATRIOT MINING COMPANY INC                  | S011982   | 293.75 |
| 92      | MARY RUTH CORPORATION                       | S007183   | 340.5  |
| 93      | AMERIKOHL MINING INC                        | S104188   | 309.25 |
| 94      | SPIKER, DEWEY                               | S001174   | 544    |
| 95      | F & M COAL COMPANY LIMITED PARTNERSHIP      | S104487   | 276.75 |
| 96      | MAURICE JENNINGS                            | S005480   | 344.25 |
| 97      | RECKART MINING CO., INC                     | S003083   | 262.25 |
| 98      | LEWIS COAL AND COKE CO                      | S017976   | 503.25 |
| 99      | PATRIOT MINING COMPANY INC                  | S009184   | 555.75 |
| 100     | ROCKVILLE MINING CO                         | S009185   | 499.25 |
| 101     | PATRIOT MINING COMPANY INC                  | S103389   | 537.75 |
| 102     | POINT COAL CO                               | S017476   | 461.5  |
| 103     | MOUNTAIN FUELS                              | Z008881   | 259.5  |
| 104     | K. C. COAL CO                               | S007582   | 546.75 |
| 105     | ED-E DEVELOPMENT CO INC                     | S103286   | 583.25 |
| 106     | VOLKSTONE CO                                | S102489   | 547.5  |
| 107     | BOLINGREEN MINING CO                        | S102488   | 358.25 |
| 108     | SHARON COAL CO                              | S103687   | 247.5  |
| 109     | COALTRAIN CORPORATION                       | S100496   | 515.5  |
| 110     | R K COMPANY INC                             | S001483   | 344.25 |
| 111     | PATRIOT MINING COMPANY INC                  | S001482   | 289.25 |
| 112     | R & N MINING                                | S001485   | 458.5  |
| 113     | ROCKVILLE MINING CO                         | S009369   | 492.25 |

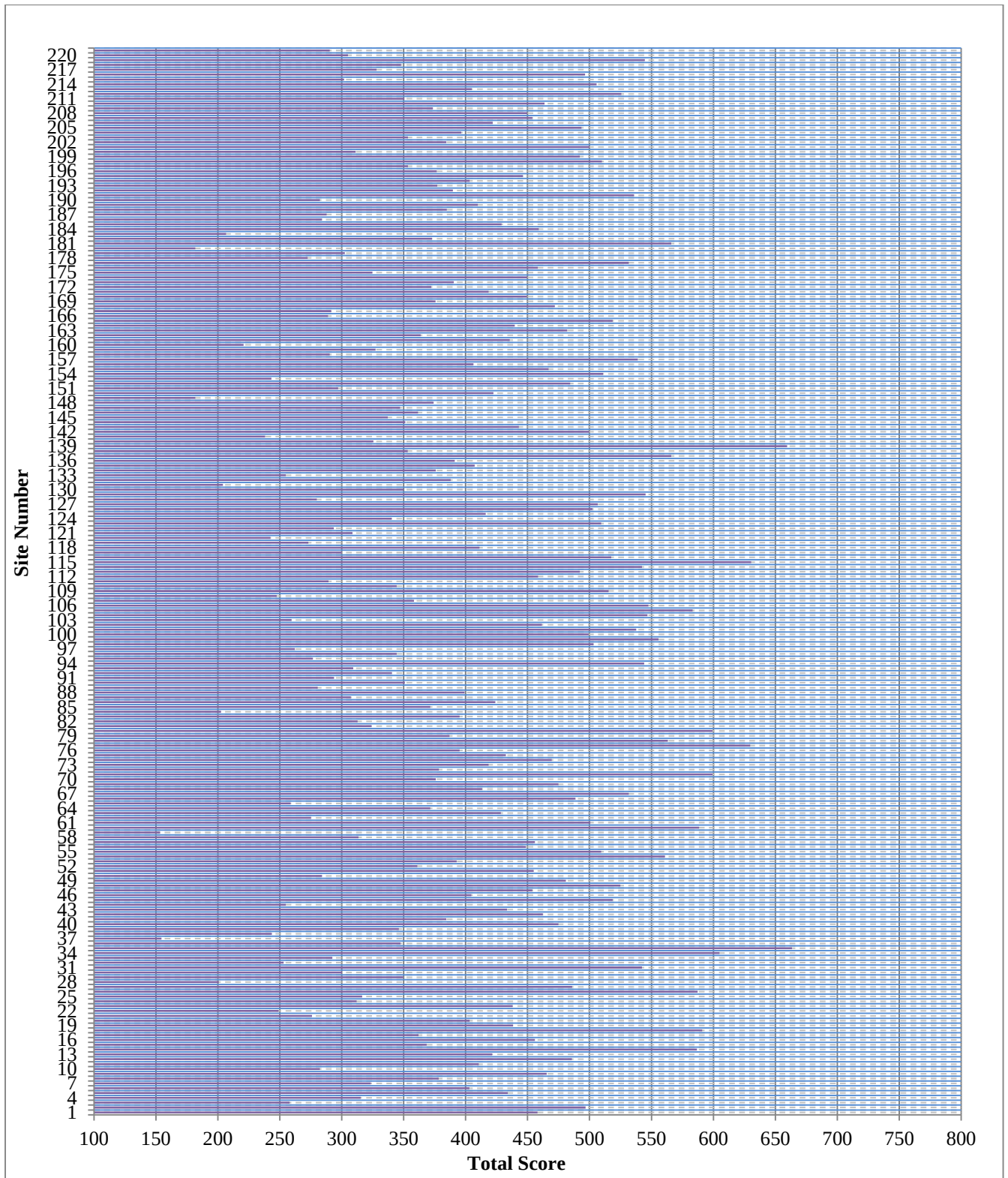
| Site No | Permittee                              | Permit ID | Score  |
|---------|----------------------------------------|-----------|--------|
| 114     | PATRIOT MINING COMPANY INC             | S101389   | 542.25 |
| 115     | VOLKSTONE CO                           | S101388   | 630.5  |
| 116     | MAURICE JENNINGS                       | S005378   | 517.5  |
| 117     | AMBREC CORPORATION                     | S005085   | 300    |
| 118     | MILLER, WAYNE L                        | S013278   | 411.25 |
| 119     | SHARON COAL CO                         | S013273   | 273    |
| 120     | PRIMROSE COAL INC                      | Z000781   | 242.5  |
| 121     | DAUGHERTY COAL CO INC                  | Z001781   | 308.75 |
| 122     | R K COMPANY INC                        | S101986   | 293.5  |
| 123     | INTERSTATE LUMBER CO INC               | S005278   | 509.5  |
| 124     | PATRIOT MINING COMPANY INC             | S014879   | 340.25 |
| 125     | WOCAP ENERGY RESOURCES, INC            | S002685   | 416.25 |
| 126     | HALLELUJAH MINING                      | Z004081   | 502.5  |
| 127     | ROCKVILLE MINING CO                    | S105386   | 506.75 |
| 128     | MARY RUTH CORPORATION                  | S000381   | 279.75 |
| 129     | KINGWOOD COAL COMPANY                  | S000380   | 545.25 |
| 130     | MARY RUTH CORPORATION                  | S100389   | 350    |
| 131     | DAUGHERTY COAL CO INC                  | S007383   | 204    |
| 132     | COALTRAIN CORPORATION                  | S008879   | 388    |
| 133     | DAUGHERTY COAL CO INC                  | S018875   | 254.75 |
| 134     | JONES COAL INC                         | S103086   | 376    |
| 135     | NORTHEASTERN MINING OF WV, IN          | S106786   | 407.25 |
| 136     | HOBAR MINING, INC                      | S103487   | 391.25 |
| 137     | COALTRAIN CORPORATION                  | S106191   | 566    |
| 138     | LEWIS COAL AND COKE CO                 | S010775   | 353.25 |
| 139     | J.E.B., INC                            | S106386   | 659.5  |
| 140     | THOMAS DEWITT EXCAVATING CO            | C000184   | 325.5  |
| 141     | PORTLAND COAL, INC                     | S007078   | 238.25 |
| 142     | F & M COAL COMPANY LIMITED PARTNERSHIP | S004679   | 499.75 |
| 143     | DALTON, RAYMOND                        | S002383   | 443    |
| 144     | FORMAN-LOSE MINING, INC                | I063600   | 351.25 |
| 145     | INTERSTATE LUMBER CO INC               | Z000581   | 337.25 |
| 146     | P & T COAL CO.                         | S007574   | 361.5  |
| 147     | PATRIOT MINING COMPANY INC             | S007579   | 347    |
| 148     | MILLER, WAYNE L                        | Z002481   | 374.25 |
| 149     | DAUGHERTY COAL CO INC                  | S004073   | 181.75 |
| 150     | SHARON COAL CO                         | S003385   | 422.5  |
| 151     | BOLINGREEN MINING CO                   | S104286   | 297    |
| 152     | COALTRAIN CORPORATION                  | S103889   | 484.5  |
| 153     | NEW ALLEGHENY, INC.                    | S103887   | 243.25 |

| Site No | Permittee                        | Permit ID | Score  |
|---------|----------------------------------|-----------|--------|
| 154     | CRANE COAL CO INC                | S002783   | 511    |
| 155     | LARRY UPHOLD DBA UPHOLD TRUCKING | S010282   | 467    |
| 156     | PRETZEL EXCAVATING, LLC          | S012282   | 406.25 |
| 157     | J & R COAL CO                    | S003685   | 539    |
| 158     | PATRIOT MINING COMPANY INC       | S003684   | 290.25 |
| 159     | BULLSKIN STONE & LIME LLC        | S101488   | 327.25 |
| 160     | AMBREC CORPORATION               | S101487   | 220.75 |
| 161     | MILLER, WAYNE L                  | S003579   | 435.5  |
| 162     | RECKART MINING CO., INC          | S003574   | 363.75 |
| 163     | LEWIS COAL AND COKE CO           | S010377   | 482    |
| 164     | WILLIFORD EXCAVATING CO INC      | S010375   | 439.75 |
| 165     | POINT COAL CO                    | S015775   | 518.75 |
| 166     | NORTHWEST COAL CO, INC           | S015776   | 289    |
| 167     | ZINN COAL CO                     | S006079   | 291.5  |
| 168     | MANGUS COAL, INC.                | S103691   | 472    |
| 169     | P & B FUELS                      | S004481   | 375.75 |
| 170     | INTERSTATE LUMBER CO INC         | S005283   | 449.5  |
| 171     | JCL DEVELOPMENT CORP             | S005285   | 418.5  |
| 172     | SHARON COAL CO                   | S005284   | 372.25 |
| 173     | COAL LICK COAL CO                | S021575   | 390.5  |
| 174     | LAREW COAL CO.                   | S031571   | 449.75 |
| 175     | CARDINAL COAL CO                 | S025474   | 324.75 |
| 176     | REBEKAH COAL COMPANY INC         | S102587   | 458.25 |
| 177     | COLBY COAL COMPANY               | S103191   | 531.75 |
| 178     | ROCKY RIDGE ENTERPRISES, INC     | S021173   | 272.5  |
| 179     | MARY RUTH CORPORATION            | S101588   | 302.5  |
| 180     | DAUGHERTY COAL CO INC            | S024674   | 181.75 |
| 181     | SHARON COAL CO                   | S008482   | 566    |
| 182     | GARBART CONSTRUCTION CO, INC     | S009375   | 372.75 |
| 183     | ROCKVILLE MINING CO              | S103586   | 206.5  |
| 184     | FREEPORT MINING CORPORATION      | S100595   | 459    |
| 185     | VOLKSTONE CO                     | S100590   | 429    |
| 186     | PONTORERO & SONS COAL CO INC     | S010980   | 284    |
| 187     | MAURICE JENNINGS                 | S011277   | 287.75 |
| 188     | ROCKVILLE MINING CO              | S010582   | 384.75 |
| 189     | LARRY UPHOLD DBA UPHOLD TRUCKING | S004984   | 409.75 |
| 190     | R K COMPANY INC                  | S100197   | 282.25 |
| 191     | COALTRAIN CORPORATION            | S102286   | 536    |
| 192     | PATRIOT MINING COMPANY INC       | S102288   | 389.75 |
| 193     | ROCKVILLE MINING CO              | S006678   | 377    |



| Site No | Permittee                                   | Permit ID | Score  |
|---------|---------------------------------------------|-----------|--------|
| 194     | NOGATCO, INC                                | S101088   | 403.25 |
| 195     | INTERSTATE LUMBER CO INC                    | S003982   | 446.25 |
| 196     | DAUGHERTY COAL CO INC                       | S005777   | 376.75 |
| 197     | PATRIOT MINING COMPANY INC                  | S000981   | 353.5  |
| 198     | JONES COAL INC                              | S000983   | 510    |
| 199     | SHARON COAL CO                              | S102887   | 492.25 |
| 200     | INTERSTATE LUMBER CO INC                    | S012774   | 311.25 |
| 201     | M & J COAL COMPANY INC                      | S012776   | 500    |
| 202     | RECKART MINING CO., INC                     | S013579   | 384.5  |
| 203     | LEWIS COAL AND COKE CO                      | S017077   | 353.5  |
| 204     | HILLTOP COAL CO                             | Z002281   | 396.5  |
| 205     | GARBART CONSTRUCTION CO, INC                | S013076   | 493.5  |
| 206     | GARBART CONSTRUCTION CO, INC                | S001876   | 421.75 |
| 207     | WILLIFORD EXCAVATING CO INC                 | S000476   | 453.75 |
| 208     | COALTRAIN CORPORATION                       | S104090   | 449.75 |
| 209     | COALTRAIN CORPORATION                       | S003881   | 373.5  |
| 210     | COALTRAIN CORPORATION                       | S003884   | 463.75 |
| 211     | MARY RUTH CORPORATION                       | S023176   | 350.5  |
| 212     | MARY RUTH CORPORATION                       | S101686   | 525.75 |
| 213     | LARRY UPHOLD DBA UPHOLD TRUCKING            | I064100   | 405    |
| 214     | LEWIS COAL AND COKE CO                      | S015774   | 505.75 |
| 215     | ROCKVILLE MINING CO                         | S023776   | 302    |
| 216     | LOYAL G. FORMAN JR DBA LOYAL G FORMAN & SON | S008285   | 496.5  |
| 217     | PATRIOT MINING COMPANY INC                  | S008280   | 328    |
| 218     | LEWIS COAL AND COKE CO                      | S017177   | 347.75 |
| 219     | J.E.B., INC                                 | S006284   | 544.75 |
| 220     | F & M COAL COMPANY LIMITED PARTNERSHIP      | S107386   | 305    |
| 221     | BUFFALO COAL COMPANY INC                    | S012280   | 290.25 |

**Figure 15: Preston County's Suitability Model (Total Score of Each Surface Coal Mining Site)**



## Work Force Analysis

A work force analysis estimates total employment and unemployment within a certain distance, providing potential labor sources if an investment is made on the site. According to Gary Langer, the average one-way commute time is 26 minutes or 16 miles.<sup>17</sup> It is reasonable to consider unemployment within 15 miles of the site as an upper limit for a potential employer. This data set does not provide a skill set analysis however; therefore employers may not find the labor skills they need. This dataset provides the pool of labor resources from which to choose.

**Table 14: Employment and Unemployment within 5-, 10- and 15-mile Radii from the Site**

| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---------|-----------|--------|----------|--------|----------|--------|----------|
| 1       | S104786   | 1,312  | 134      | 6,183  | 620      | 10,259 | 929      |
| 2       | S003781   | 3,888  | 367      | 8,891  | 764      | 12,465 | 1,093    |
| 3       | S108686   | 1,215  | 46       | 4,583  | 242      | 9,635  | 760      |
| 4       | S102687   | 3,027  | 210      | 8,626  | 701      | 12,082 | 1,009    |
| 5       | S101887   | 3,930  | 341      | 8,833  | 739      | 12,504 | 1,073    |
| 6       | S101888   | 1,598  | 161      | 6,580  | 660      | 10,291 | 915      |
| 7       | S103291   | 1,882  | 181      | 7,498  | 713      | 11,842 | 1,060    |
| 8       | S012976   | 890    | 87       | 4,368  | 427      | 8,592  | 763      |
| 9       | S006572   | 1,513  | 133      | 7,290  | 627      | 11,529 | 941      |
| 10      | S006577   | 2,292  | 98       | 7,825  | 596      | 11,293 | 937      |
| 11      | S006578   | 1,782  | 104      | 8,172  | 661      | 11,536 | 946      |
| 12      | S009680   | 3,816  | 339      | 8,019  | 666      | 11,234 | 958      |
| 13      | S009682   | 2,487  | 244      | 7,702  | 709      | 10,739 | 935      |
| 14      | S102987   | 4,282  | 376      | 8,468  | 703      | 12,025 | 1,041    |
| 15      | S101987   | 1,245  | 46       | 4,351  | 216      | 9,570  | 755      |
| 16      | S033171   | 1,247  | 83       | 3,233  | 223      | 6,816  | 514      |
| 17      | Z004781   | 1,137  | 42       | 3,385  | 178      | 7,509  | 556      |
| 18      | S011676   | 620    | 60       | 2,566  | 259      | 7,410  | 726      |
| 19      | S002075   | 1,608  | 147      | 7,322  | 636      | 11,651 | 953      |
| 20      | S200901   | 1,680  | 161      | 7,262  | 641      | 11,769 | 964      |
| 21      | S102389   | 1,636  | 62       | 6,039  | 397      | 10,457 | 846      |
| 22      | S102386   | 659    | 55       | 2,577  | 247      | 7,167  | 709      |
| 23      | S005179   | 2,576  | 250      | 7,550  | 679      | 10,479 | 906      |
| 24      | S017777   | 925    | 94       | 3,817  | 385      | 8,109  | 746      |
| 25      | S001883   | 1,285  | 134      | 4,834  | 377      | 9,375  | 747      |
| 26      | I046800   | 3,413  | 255      | 7,820  | 623      | 11,123 | 930      |

<sup>17</sup> Gary Langer, "Poll: Traffic in the United States," ABC News Online, February 13, 2005, Accessed March 1, 2013, <http://abcnews.go.com/Technology/Traffic/story?id=485098&page=1>.

| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---------|-----------|--------|----------|--------|----------|--------|----------|
| 27      | S108786   | 1,939  | 191      | 7,095  | 693      | 10,339 | 907      |
| 28      | S103788   | 1,651  | 64       | 6,185  | 413      | 10,510 | 852      |
| 29      | S004478   | 1,302  | 129      | 6,535  | 547      | 10,916 | 885      |
| 30      | S201192   | 272    | 20       | 893    | 69       | 2,050  | 175      |
| 31      | S100393   | 2,666  | 251      | 8,460  | 737      | 12,612 | 1,060    |
| 32      | S004281   | 2,158  | 91       | 7,571  | 566      | 11,069 | 913      |
| 33      | S001578   | 2,087  | 117      | 8,379  | 677      | 11,715 | 965      |
| 34      | S001575   | 619    | 60       | 2,561  | 259      | 7,404  | 724      |
| 35      | C000985   | 3,823  | 349      | 8,913  | 758      | 12,563 | 1,091    |
| 36      | S102388   | 3,397  | 331      | 8,080  | 701      | 11,182 | 967      |
| 37      | S008579   | 1,934  | 76       | 7,264  | 535      | 10,964 | 897      |
| 38      | S104086   | 1,365  | 52       | 5,042  | 288      | 9,963  | 795      |
| 39      | S103188   | 1,525  | 61       | 5,928  | 384      | 10,140 | 813      |
| 40      | S003377   | 1,395  | 90       | 7,043  | 539      | 10,746 | 873      |
| 41      | S100293   | 2,018  | 177      | 6,773  | 575      | 9,766  | 818      |
| 42      | S100298   | 2,495  | 243      | 7,632  | 699      | 10,625 | 924      |
| 43      | S100299   | 1,519  | 125      | 7,522  | 635      | 11,496 | 939      |
| 44      | S012479   | 2,241  | 94       | 7,771  | 589      | 11,253 | 931      |
| 45      | S013180   | 4,218  | 385      | 8,725  | 739      | 12,280 | 1,071    |
| 46      | S012274   | 1,014  | 103      | 4,231  | 426      | 8,450  | 766      |
| 47      | S011077   | 1,306  | 118      | 6,564  | 521      | 10,650 | 861      |
| 48      | S001184   | 4,205  | 385      | 8,644  | 730      | 12,180 | 1,062    |
| 49      | S001679   | 581    | 63       | 2,475  | 263      | 7,393  | 721      |
| 50      | S001676   | 1,080  | 115      | 3,645  | 369      | 8,167  | 765      |
| 51      | S105886   | 4,077  | 370      | 8,312  | 695      | 11,707 | 1,011    |
| 52      | S007179   | 1,391  | 56       | 5,545  | 344      | 9,898  | 787      |
| 53      | S100888   | 1,296  | 125      | 6,222  | 498      | 10,525 | 850      |
| 54      | S101592   | 2,474  | 158      | 7,203  | 553      | 10,461 | 854      |
| 55      | S006183   | 1,135  | 114      | 4,791  | 482      | 8,798  | 788      |
| 56      | S006182   | 3,999  | 378      | 8,811  | 757      | 12,331 | 1,081    |
| 57      | S006184   | 1,109  | 54       | 3,190  | 198      | 6,643  | 480      |
| 58      | S004181   | 1,220  | 49       | 5,016  | 289      | 9,633  | 759      |
| 59      | S002678   | 1,916  | 74       | 7,211  | 528      | 10,939 | 896      |
| 60      | S104088   | 2,138  | 117      | 6,921  | 510      | 10,393 | 844      |
| 61      | S003678   | 2,860  | 287      | 8,291  | 755      | 11,621 | 1,023    |
| 62      | S005784   | 1,068  | 121      | 3,772  | 373      | 8,591  | 812      |
| 63      | S101691   | 2,021  | 192      | 6,699  | 616      | 9,855  | 851      |
| 64      | S019277   | 2,802  | 155      | 8,225  | 646      | 11,664 | 973      |
| 65      | S017677   | 1,570  | 170      | 6,675  | 615      | 11,766 | 965      |

| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---------|-----------|--------|----------|--------|----------|--------|----------|
| 66      | S100487   | 2,520  | 175      | 7,209  | 566      | 10,406 | 853      |
| 67      | S100489   | 2,975  | 188      | 7,783  | 602      | 11,132 | 923      |
| 68      | S100488   | 1,084  | 40       | 3,900  | 176      | 9,156  | 710      |
| 69      | S008185   | 3,072  | 296      | 7,739  | 672      | 10,692 | 920      |
| 70      | S011280   | 1,354  | 54       | 5,465  | 336      | 9,825  | 778      |
| 71      | S004685   | 4,188  | 360      | 8,327  | 685      | 11,838 | 1,018    |
| 72      | S005882   | 1,860  | 109      | 8,251  | 669      | 11,610 | 954      |
| 73      | S022476   | 2,944  | 295      | 8,119  | 732      | 11,299 | 989      |
| 74      | S100687   | 1,107  | 40       | 3,714  | 174      | 8,792  | 681      |
| 75      | S100688   | 3,547  | 261      | 8,575  | 694      | 12,136 | 1,023    |
| 76      | S002881   | 3,014  | 301      | 8,135  | 730      | 11,311 | 988      |
| 77      | S003875   | 4,049  | 364      | 8,852  | 746      | 12,471 | 1,083    |
| 78      | S001285   | 1,949  | 102      | 6,624  | 481      | 10,225 | 825      |
| 79      | S001281   | 1,364  | 80       | 6,167  | 439      | 10,223 | 827      |
| 80      | C001382   | 4,239  | 372      | 8,407  | 697      | 11,941 | 1,032    |
| 81      | S103987   | 1,342  | 92       | 4,456  | 296      | 8,811  | 699      |
| 82      | S103986   | 1,144  | 130      | 3,478  | 283      | 7,998  | 634      |
| 83      | S002577   | 2,981  | 296      | 8,071  | 723      | 11,196 | 976      |
| 84      | S100188   | 1,731  | 66       | 6,536  | 454      | 10,658 | 865      |
| 85      | S100986   | 2,710  | 143      | 8,128  | 633      | 11,569 | 965      |
| 86      | S100989   | 1,467  | 133      | 7,164  | 618      | 11,467 | 936      |
| 87      | S012678   | 2,119  | 186      | 8,102  | 696      | 12,087 | 996      |
| 88      | S006084   | 1,075  | 102      | 2,864  | 232      | 6,395  | 493      |
| 89      | S015875   | 1,283  | 126      | 3,908  | 296      | 8,440  | 668      |
| 90      | S006582   | 2,064  | 129      | 8,410  | 688      | 11,776 | 971      |
| 91      | S011982   | 3,551  | 327      | 7,923  | 667      | 11,002 | 942      |
| 92      | S007183   | 1,288  | 106      | 3,244  | 243      | 7,148  | 552      |
| 93      | S104188   | 1,272  | 124      | 3,703  | 282      | 8,140  | 642      |
| 94      | S001174   | 2,814  | 281      | 8,209  | 749      | 11,499 | 1,010    |
| 95      | S104487   | 985    | 112      | 3,242  | 323      | 7,978  | 770      |
| 96      | S005480   | 4,092  | 376      | 8,381  | 704      | 11,801 | 1,023    |
| 97      | S003083   | 1,263  | 141      | 4,472  | 355      | 9,112  | 727      |
| 98      | S017976   | 2,070  | 200      | 6,974  | 661      | 10,116 | 880      |
| 99      | S009184   | 4,097  | 345      | 8,214  | 672      | 11,665 | 997      |
| 100     | S009185   | 1,544  | 111      | 7,756  | 639      | 11,438 | 936      |
| 101     | S103389   | 4,128  | 365      | 8,797  | 737      | 12,430 | 1,076    |
| 102     | S017476   | 4,120  | 382      | 8,801  | 750      | 12,346 | 1,080    |
| 103     | Z008881   | 766    | 29       | 2,537  | 141      | 5,053  | 317      |
| 104     | S007582   | 4,156  | 356      | 8,287  | 681      | 11,768 | 1,011    |

| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---------|-----------|--------|----------|--------|----------|--------|----------|
| 105     | S103286   | 4,282  | 383      | 8,563  | 717      | 12,126 | 1,053    |
| 106     | S102489   | 3,260  | 222      | 7,860  | 616      | 11,218 | 935      |
| 107     | S102488   | 2,588  | 222      | 8,653  | 737      | 12,329 | 1,023    |
| 108     | S103687   | 1,924  | 76       | 7,175  | 523      | 10,859 | 889      |
| 109     | S100496   | 2,830  | 170      | 7,767  | 598      | 11,123 | 921      |
| 110     | S001483   | 2,444  | 245      | 7,783  | 728      | 12,110 | 1,078    |
| 111     | S001482   | 2,040  | 202      | 7,341  | 694      | 12,283 | 1,095    |
| 112     | S001485   | 1,571  | 64       | 6,111  | 408      | 10,101 | 809      |
| 113     | S009369   | 1,628  | 86       | 7,766  | 609      | 11,177 | 914      |
| 114     | S101389   | 2,666  | 251      | 8,460  | 737      | 12,612 | 1,060    |
| 115     | S101388   | 3,210  | 222      | 7,795  | 611      | 11,121 | 925      |
| 116     | S005378   | 1,088  | 109      | 4,675  | 470      | 8,726  | 781      |
| 117     | S005085   | 1,238  | 47       | 4,536  | 237      | 9,665  | 764      |
| 118     | S013278   | 1,311  | 115      | 6,414  | 499      | 10,481 | 847      |
| 119     | S013273   | 1,079  | 41       | 4,232  | 206      | 9,341  | 728      |
| 120     | Z000781   | 1,295  | 126      | 4,296  | 321      | 8,860  | 704      |
| 121     | Z001781   | 2,299  | 101      | 7,745  | 586      | 11,217 | 928      |
| 122     | S101986   | 1,287  | 136      | 6,251  | 534      | 10,883 | 880      |
| 123     | S005278   | 2,925  | 292      | 8,160  | 737      | 11,389 | 998      |
| 124     | S014879   | 1,324  | 104      | 3,964  | 279      | 8,241  | 648      |
| 125     | S002685   | 4,018  | 383      | 8,747  | 750      | 12,243 | 1,072    |
| 126     | Z004081   | 4,085  | 358      | 8,798  | 736      | 12,445 | 1,075    |
| 127     | S105386   | 1,646  | 117      | 7,921  | 655      | 11,560 | 947      |
| 128     | S000381   | 1,277  | 140      | 5,884  | 495      | 10,598 | 854      |
| 129     | S000380   | 1,373  | 106      | 7,237  | 575      | 10,960 | 890      |
| 130     | S100389   | 899    | 52       | 2,409  | 168      | 4,667  | 321      |
| 131     | S007383   | 2,183  | 89       | 7,747  | 586      | 11,240 | 929      |
| 132     | S008879   | 848    | 85       | 3,829  | 381      | 8,128  | 740      |
| 133     | S018875   | 2,188  | 92       | 7,652  | 575      | 11,149 | 921      |
| 134     | S103086   | 1,066  | 60       | 2,889  | 192      | 5,785  | 408      |
| 135     | S106786   | 690    | 64       | 2,857  | 285      | 7,744  | 754      |
| 136     | S103487   | 3,247  | 288      | 8,841  | 748      | 12,611 | 1,063    |
| 137     | S106191   | 2,510  | 142      | 7,511  | 570      | 10,810 | 888      |
| 138     | S010775   | 2,323  | 230      | 7,864  | 736      | 11,813 | 1,049    |
| 139     | S106386   | 3,772  | 351      | 8,911  | 761      | 12,564 | 1,096    |
| 140     | C000184   | 3,117  | 199      | 8,433  | 674      | 11,910 | 998      |
| 141     | S007078   | 687    | 54       | 2,585  | 242      | 7,067  | 702      |
| 142     | S004679   | 2,298  | 235      | 7,589  | 698      | 12,522 | 1,089    |
| 143     | S002383   | 1,900  | 184      | 6,722  | 650      | 9,988  | 873      |



| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---------|-----------|--------|----------|--------|----------|--------|----------|
| 144     | I063600   | 1,724  | 177      | 7,039  | 637      | 11,920 | 978      |
| 145     | Z000581   | 1,304  | 88       | 3,525  | 242      | 7,421  | 569      |
| 146     | S007574   | 1,745  | 84       | 7,901  | 618      | 11,279 | 924      |
| 147     | S007579   | 2,062  | 204      | 7,422  | 702      | 12,231 | 1,092    |
| 148     | Z002481   | 1,295  | 126      | 5,249  | 404      | 9,670  | 773      |
| 149     | S004073   | 2,035  | 81       | 7,457  | 553      | 11,041 | 908      |
| 150     | S003385   | 2,759  | 270      | 7,704  | 687      | 10,640 | 920      |
| 151     | S104286   | 1,312  | 136      | 6,474  | 561      | 11,089 | 899      |
| 152     | S103889   | 1,063  | 104      | 4,837  | 475      | 8,842  | 781      |
| 153     | S103887   | 707    | 56       | 2,707  | 254      | 7,247  | 717      |
| 154     | S002783   | 1,362  | 96       | 7,012  | 541      | 10,748 | 872      |
| 155     | S010282   | 1,201  | 44       | 4,017  | 188      | 9,234  | 723      |
| 156     | S012282   | 1,395  | 122      | 7,153  | 600      | 11,234 | 914      |
| 157     | S003685   | 1,731  | 169      | 6,312  | 613      | 9,720  | 850      |
| 158     | S003684   | 3,822  | 352      | 8,159  | 686      | 11,391 | 980      |
| 159     | S101488   | 1,226  | 106      | 5,328  | 438      | 8,965  | 738      |
| 160     | S101487   | 1,456  | 56       | 5,467  | 335      | 10,149 | 815      |
| 161     | S003579   | 986    | 85       | 2,563  | 207      | 5,526  | 420      |
| 162     | S003574   | 1,289  | 131      | 5,664  | 449      | 10,077 | 809      |
| 163     | S010377   | 2,298  | 222      | 7,331  | 681      | 10,373 | 902      |
| 164     | S010375   | 1,309  | 115      | 6,661  | 528      | 10,687 | 865      |
| 165     | S015775   | 4,213  | 386      | 8,735  | 739      | 12,292 | 1,073    |
| 166     | S015776   | 593    | 31       | 1,793  | 134      | 3,599  | 262      |
| 167     | S006079   | 543    | 35       | 1,712  | 142      | 3,559  | 274      |
| 168     | S103691   | 1,158  | 117      | 4,822  | 485      | 8,825  | 791      |
| 169     | S004481   | 943    | 94       | 4,153  | 415      | 8,399  | 758      |
| 170     | S005283   | 2,281  | 223      | 7,522  | 707      | 10,605 | 926      |
| 171     | S005285   | 1,221  | 80       | 3,135  | 218      | 6,569  | 491      |
| 172     | S005284   | 1,161  | 103      | 5,176  | 432      | 8,889  | 735      |
| 173     | S021575   | 848    | 56       | 2,267  | 168      | 4,482  | 318      |
| 174     | S031571   | 972    | 98       | 4,254  | 426      | 8,472  | 763      |
| 175     | S025474   | 2,201  | 196      | 8,149  | 702      | 12,179 | 1,006    |
| 176     | S102587   | 1,805  | 172      | 6,411  | 603      | 9,710  | 843      |
| 177     | S103191   | 2,883  | 179      | 7,740  | 597      | 11,082 | 918      |
| 178     | S021173   | 1,271  | 143      | 5,447  | 451      | 10,104 | 811      |
| 179     | S101588   | 1,282  | 135      | 5,845  | 477      | 10,373 | 835      |
| 180     | S024674   | 2,035  | 81       | 7,457  | 553      | 11,041 | 908      |
| 181     | S008482   | 2,427  | 135      | 7,461  | 565      | 10,771 | 883      |
| 182     | S009375   | 857    | 68       | 2,307  | 186      | 4,784  | 355      |

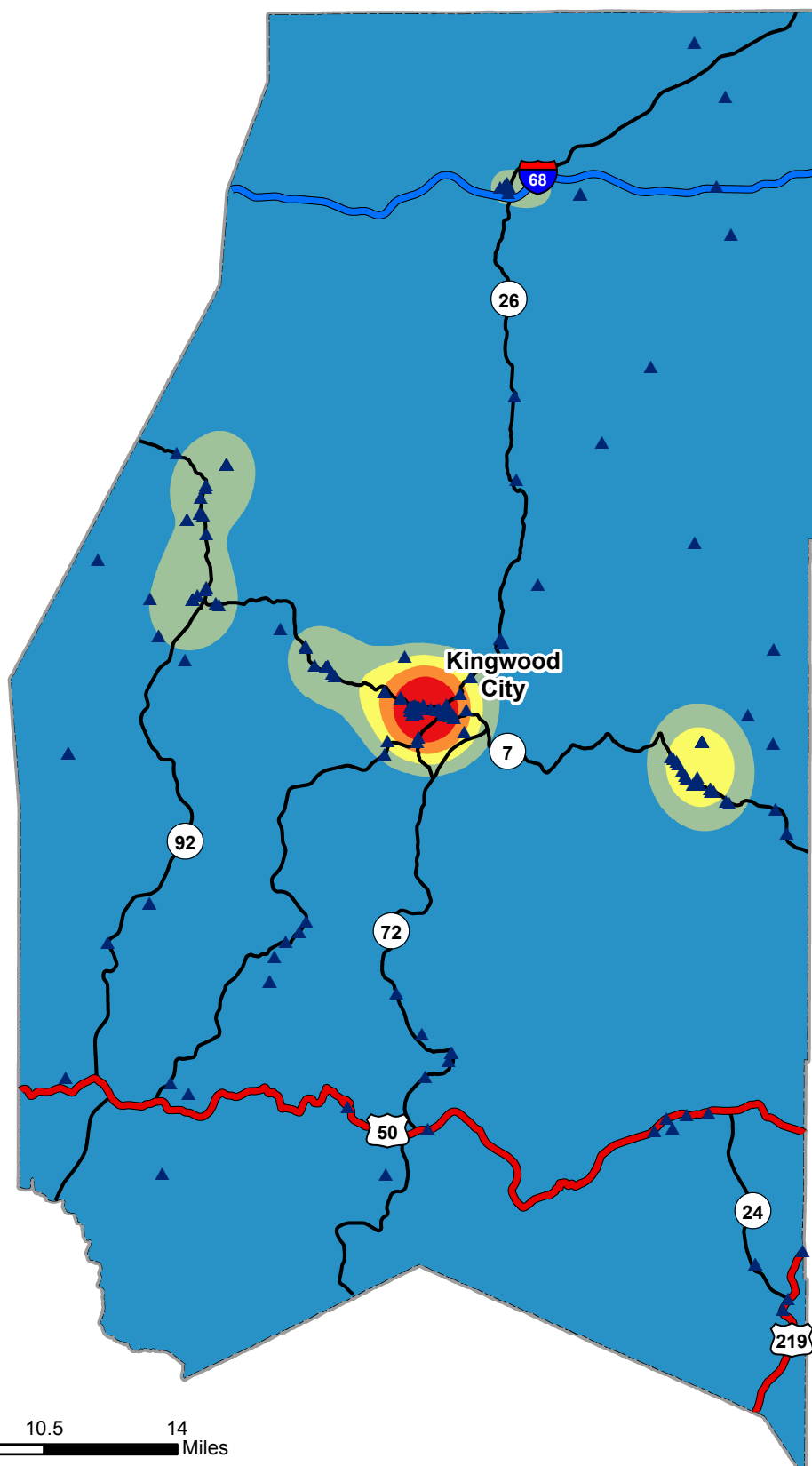
| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---------|-----------|--------|----------|--------|----------|--------|----------|
| 183     | S103586   | 2,112  | 85       | 7,600  | 571      | 11,134 | 919      |
| 184     | S100595   | 1,293  | 48       | 4,338  | 216      | 9,523  | 753      |
| 185     | S100590   | 1,907  | 81       | 6,963  | 500      | 10,557 | 858      |
| 186     | S010980   | 1,080  | 115      | 3,645  | 369      | 8,167  | 765      |
| 187     | S011277   | 3,956  | 368      | 8,293  | 697      | 11,618 | 1,005    |
| 188     | S010582   | 1,843  | 103      | 8,213  | 660      | 11,559 | 949      |
| 189     | S004984   | 1,173  | 44       | 4,135  | 195      | 9,394  | 736      |
| 190     | S100197   | 2,283  | 227      | 7,712  | 726      | 12,026 | 1,073    |
| 191     | S102286   | 2,447  | 134      | 7,502  | 567      | 10,817 | 889      |
| 192     | S102288   | 2,944  | 291      | 7,949  | 709      | 10,991 | 955      |
| 193     | S006678   | 1,924  | 123      | 8,312  | 682      | 11,714 | 963      |
| 194     | S101088   | 2,587  | 260      | 8,036  | 746      | 11,890 | 1,055    |
| 195     | S003982   | 1,958  | 192      | 7,006  | 680      | 10,224 | 895      |
| 196     | S005777   | 3,256  | 211      | 8,158  | 642      | 11,658 | 978      |
| 197     | S000981   | 1,336  | 95       | 3,849  | 266      | 7,987  | 624      |
| 198     | S000983   | 1,154  | 67       | 3,114  | 206      | 6,452  | 472      |
| 199     | S102887   | 1,694  | 71       | 6,430  | 445      | 10,232 | 824      |
| 200     | S012774   | 1,684  | 180      | 6,822  | 630      | 11,955 | 985      |
| 201     | S012776   | 2,253  | 219      | 7,365  | 690      | 10,436 | 910      |
| 202     | S013579   | 1,304  | 120      | 6,195  | 483      | 10,380 | 837      |
| 203     | S017077   | 2,389  | 202      | 8,477  | 721      | 12,194 | 1,008    |
| 204     | Z002281   | 1,337  | 95       | 5,566  | 393      | 9,794  | 786      |
| 205     | S013076   | 1,362  | 87       | 6,712  | 502      | 10,541 | 855      |
| 206     | S001876   | 1,239  | 52       | 3,750  | 215      | 7,918  | 604      |
| 207     | S000476   | 1,306  | 118      | 6,564  | 521      | 10,650 | 861      |
| 208     | S104090   | 972    | 98       | 4,254  | 426      | 8,472  | 763      |
| 209     | S003881   | 2,499  | 128      | 7,748  | 589      | 11,128 | 921      |
| 210     | S003884   | 2,635  | 144      | 7,785  | 595      | 11,160 | 924      |
| 211     | S023176   | 1,317  | 105      | 3,341  | 246      | 7,311  | 566      |
| 212     | S101686   | 3,821  | 366      | 8,861  | 769      | 12,426 | 1,091    |
| 213     | I064100   | 1,233  | 45       | 4,168  | 200      | 9,403  | 741      |
| 214     | S015774   | 2,793  | 283      | 8,041  | 744      | 12,088 | 1,072    |
| 215     | S023776   | 1,850  | 77       | 7,840  | 605      | 11,255 | 923      |
| 216     | S008285   | 2,161  | 221      | 7,557  | 686      | 12,470 | 1,057    |
| 217     | S008280   | 1,834  | 178      | 7,203  | 689      | 12,126 | 1,086    |
| 218     | S017177   | 2,076  | 202      | 7,740  | 733      | 11,624 | 1,034    |
| 219     | S006284   | 3,818  | 369      | 8,824  | 767      | 12,354 | 1,086    |
| 220     | S107386   | 996    | 109      | 4,273  | 416      | 9,041  | 853      |
| 221     | S012280   | 219    | 16       | 786    | 60       | 1,819  | 152      |

**Retail Location Analysis**

A retail location analysis is a hot spot analysis that depicts a number of retailers within 25 square miles of any certain location in the county (Map 41). The result, as shown on the map, is displayed in blue-to-red color for retail's density from low to high. Normally, the area with a high density of retailers indicates an already developed and populated community, which possibly has the highest opportunity as well as the heaviest competition. The areas with low retail density showcase where population is lowest, but also where competition is lowest and which may provide retail opportunities.

# Retail Location Density

## Preston County



- ▲ Retail Location
- Interstate
- US Routes
- WV Routes

### Retail Location Density

Search Area = 25 Square Miles

- 0 < Retail Density < 1
- 1 < Retail Density < 2
- 2 < Retail Density < 3
- 3 < Retail Density < 4
- 4 < Retail Density < 6
- County Boundary

0 1.75 3.5 7 10.5 14 Miles

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## **VI. Conclusion**

Based on historical trends and future population projections, Preston County is well-positioned for economic stability. Despite an anticipated decline in the State population, Preston County is expected to grow by more than 13 percent from 201 to 2030. Employment in Government and Education and Health Services sectors has experienced steady growth in the last decade, coupled with relatively steady increases in wages. However, a substantial portion of Preston County's total personal income is derived from government transfers. Better diversification and concentrated growth among its sectors is beneficial in ensuring that the County will grow and thrive. This plan could be useful in that respect by assisting Preston County in creating a development plan using their post-mine sites.

This plan has identified and displayed the five post-mine sites that are most suitable for development. These sites have the integral tools that researchers have shown can assist in spatial development. Though success is not guaranteed, this overview combined with careful strategic planning can bring about the changes in the trends that are necessary for Preston County to thrive.

Through a site distance analysis and complete demographic calculation, this plan provides the most comprehensive understanding of the economic state of Preston County and the potential of its land. By analyzing specific infrastructures and demographics, policymakers can begin attracting investors to post-mine sites, and continue the process of developing the economy. This plan provides strategic information; the choice as to how to utilize this information belongs with the administrators and people of the county.