# Harrison County, WV

## Land Use Master Plan 2015

OCCD

Office of Coalfield Community Development

WV Division of Energy

Photo: Gen. "Stonewall" Jackson statue in front of the Harrison County Courthouse. - Snoopywv

## Contents

**List of Tables**



**List of Figures**

**List of Maps**

**Executive Summary**

This Land Use Master Plan (LUMP) conveys information on Harrison County's current demographic and geographic status. This plan will be used to evaluate the potential of post-mine sites for development, and evaluate Harrison 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 Harrison 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. Five major post-mine developments in Harrison County include the Pete Dye Golf Club, the FBI Center, Charles Pointe, Meadowbrook Mall and the Eastpointe/New Pointe Shopping Center.

Harrison County's population has fluctuated since the 1980s, experiencing decline through the early 2000s and then increasing through 2013. The County's median age and age distribution are average for the State, indicative of a population capable of productivity in the labor force. The population is projected to decrease through 2030.

Employment consists mainly of Government; Trade, Transportation, and Utilities; and Education and Health Services. Government and Trade, Transportation and Utilities are the major wage contributors. Harrison County total wages have been on the rise since the mid-1990s, with increases in the Government and Education and Health Services sectors largely driving this increase. Of particular note is the amount of income, as opposed to wages, derived from government transfers. In 2013, approximately 21 percent of Harrison County income is from government transfers. Harrison 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.

Harrison 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 13 percent of Harrison County residents 25 and over 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 consideration in any development strategy. Harrison County has one interstate, two U.S. Routes, and seven State Routes. The County does have significant rail presence, and hosts two local airports.

Harrison County also has 21 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 Harrison County. The environment of the County should be considered in an overall development strategy. Harrison County is not heavily forested and produces very little wood by-products, but does have a few scattered areas of state parks and wildlife management areas. Harrison County is also not on the list of air pollution non-attainment areas, which is positive. Harrison County has a small number of completed Marcellus Shale wells, as well as several more that are permitted, and has a lower favorability for enhanced geothermal drilling. However, Harrison appears to have very little potential among wind and solar renewable energy resources.

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 Harrison County. The researchers identified sites in areas 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. 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**

| Suitability Ranking | 1 | 2 | 3 | 4 | 5 | Weight |
|---|---|---|---|---|---|---|
| Broadband | 0.74 | 0.41 | 0.64 | 0.01 | 1.00 | **9** |
| Gas Pipes | 0.13 | 0.02 | 3.77 | 1.72 | 1.69 | **6** |
| National Waterway Network | 20.76 | 21.34 | 0.03 | 21.18 | 8.25 | **4** |
| Oil Pipelines | 0.09 | 0.06 | 0.54 | 0.35 | 0.13 | **6** |
| Power Lines | 0.94 | 0.35 | 0.72 | 0.01 | 0.02 | **10** |
| Railroads | 0.58 | 3.02 | 0.60 | 1.51 | 0.61 | **5** |
| Sewer Lines | 0.19 | 0.30 | 0.07 | 1.20 | 0.17 | **8** |
| Water Lines | 0.21 | 0.01 | 0.01 | 0.01 | 0.16 | **10** |
| Existing Highway | 0.49 | 1.30 | 0.02 | 2.62 | 1.93 | **8** |
| Intermodal Terminal Facilities | 3.98 | 4.49 | 3.00 | 3.86 | 3.20 | **6** |
| Interstate | 5.29 | 6.99 | 0.16 | 2.62 | 5.50 | **8** |
| Sewer Treatment Facilities | 0.68 | 1.62 | 0.03 | 0.95 | 1.02 | **7** |
| Solid Waste Treatment Facilities | 2.90 | 4.38 | 3.77 | 3.60 | 3.68 | **8** |
| Yeager Airport | 108.15 | 112.05 | 111.25 | 112.44 | 108.62 | **3** |

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

| Suitability Ranking | 1 | 2 | 3 | 4 | 5 | Weight |
|---|---|---|---|---|---|---|
| Broadband | 31.5 | 67.5 | 31.5 | 90 | 31.5 | **9** |
| Gas Pipes | 60 | 60 | 1.5 | 7.5 | 7.5 | **6** |
| National Waterway Network | 2 | 2 | 40 | 2 | 12 | **4** |
| Oil Pipelines | 60 | 60 | 15 | 31.5 | 60 | **6** |
| Power Lines | 35 | 75 | 35 | 100 | 100 | **10** |
| Railroads | 50 | 18.75 | 50 | 35 | 50 | **5** |
| Sewer Lines | 80 | 80 | 80 | 42 | 80 | **8** |
| Water Lines | 75 | 100 | 100 | 100 | 75 | **10** |
| Existing Highway | 80 | 60 | 80 | 20 | 40 | **8** |
| Intermodal Terminal Facilities | 60 | 60 | 60 | 60 | 60 | **6** |
| Interstate | 42 | 28 | 80 | 80 | 42 | **8** |
| Sewer Treatment Facilities | 70 | 52.5 | 70 | 70 | 70 | **7** |
| Solid Waste Treatment Facilities | 80 | 60 | 80 | 80 | 80 | **8** |
| Yeager Airport | 2.25 | 1.5 | 1.5 | 1.5 | 2.25 | **3** |
| **Total Weighted Score** | 727.75 | 725.25 | 724.5 | 719.5 | 710.25 | |

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

| Suitability Ranking | 1 | 2 | 3 | 4 | 5 | Weight |
|---|---|---|---|---|---|---|
| Broadband | 7 | 10 | 7 | 10 | 7 | **9** |
| Gas Pipes | 10 | 10 | 1 | 5 | 5 | **6** |
| National Waterway Network | 1 | 1 | 10 | 1 | 3 | **4** |
| Oil Pipelines | 10 | 10 | 5 | 7 | 10 | **6** |
| Power Lines | 7 | 10 | 7 | 10 | 10 | **10** |
| Railroads | 10 | 5 | 10 | 7 | 10 | **5** |
| Sewer Lines | 10 | 10 | 10 | 7 | 10 | **8** |
| Water Lines | 10 | 10 | 10 | 10 | 10 | **10** |
| Existing Highway | 10 | 10 | 10 | 10 | 10 | **8** |
| Intermodal Terminal Facilities | 10 | 10 | 10 | 10 | 10 | **6** |
| Interstate | 7 | 7 | 10 | 10 | 7 | **8** |
| Sewer Treatment Facilities | 10 | 10 | 10 | 10 | 10 | **7** |
| Solid Waste Treatment Facilities | 10 | 10 | 10 | 10 | 10 | **8** |
| Yeager Airport | 1 | 1 | 1 | 1 | 1 | **3** |
| **Total Absolute Score** | 113 | 114 | 111 | 108 | 113 | |

| Suitability Ranking | 1 | 2 | 3 | 4 | 5 | Weight |
|---|---|---|---|---|---|---|
| Broadband | 5 | 7.5 | 5 | 10 | 5 | **9** |
| Gas Pipes | 10 | 10 | 2.5 | 2.5 | 2.5 | **6** |
| National Waterway Network | 5 | 5 | 10 | 5 | 10 | **4** |
| Oil Pipelines | 10 | 10 | 5 | 7.5 | 10 | **6** |
| Power Lines | 5 | 7.5 | 5 | 10 | 10 | **10** |
| Railroads | 10 | 7.5 | 10 | 10 | 10 | **5** |
| Sewer Lines | 10 | 10 | 10 | 7.5 | 10 | **8** |
| Water Lines | 7.5 | 10 | 10 | 10 | 7.5 | **10** |
| Existing Highway | 10 | 7.5 | 10 | 2.5 | 5 | **8** |
| Intermodal Terminal Facilities | 10 | 10 | 10 | 10 | 10 | **6** |
| Interstate | 7.5 | 5 | 10 | 10 | 7.5 | **8** |
| Sewer Treatment Facilities | 10 | 7.5 | 10 | 10 | 10 | **7** |
| Solid Waste Treatment Facilities | 10 | 7.5 | 10 | 10 | 10 | **8** |
| Yeager Airport | 7.5 | 5 | 5 | 5 | 7.5 | **3** |
| **Total Relative Score** | 117.5 | 110 | 112.5 | 110 | 115 | |

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.

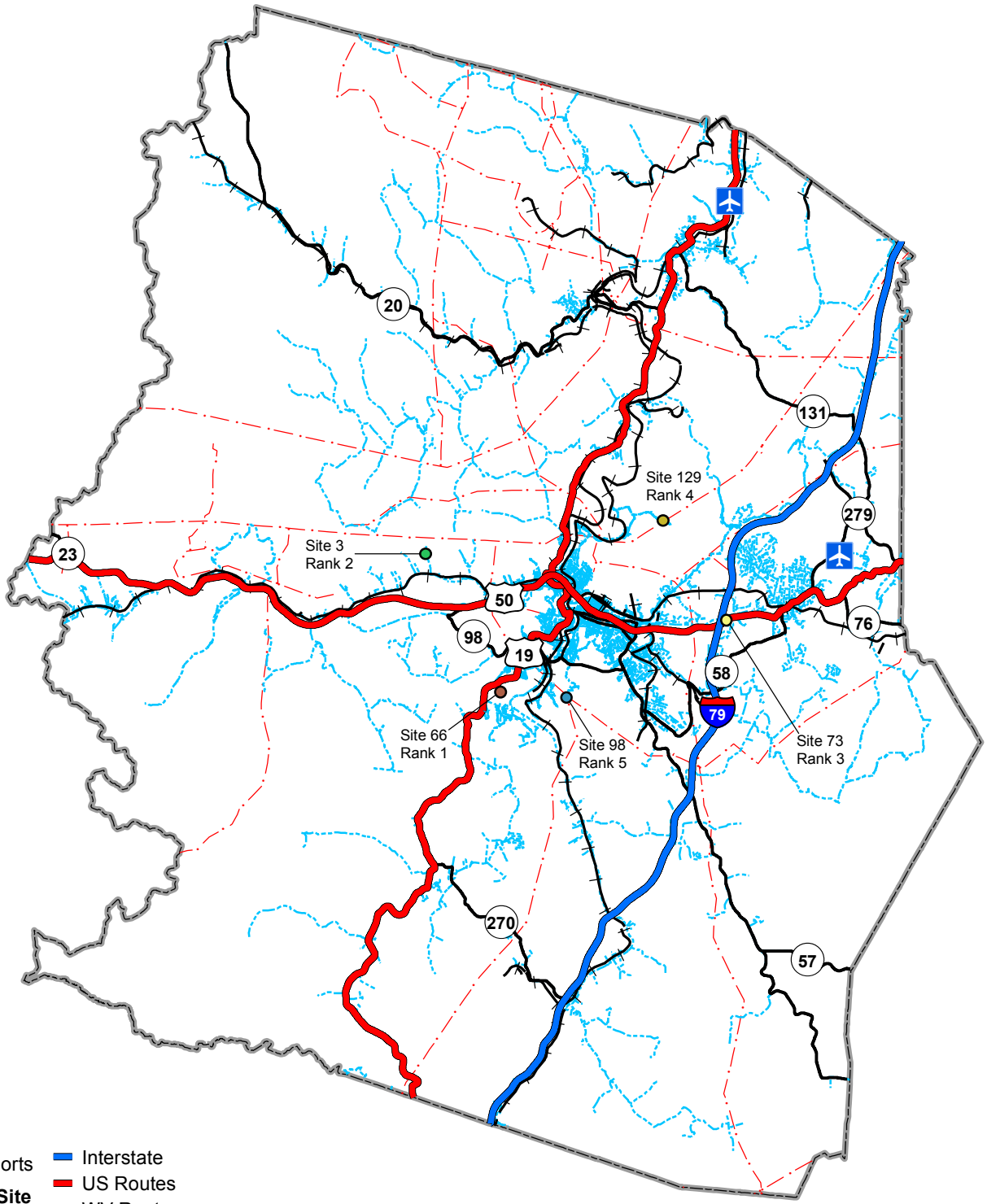
Table C illustrates how each criterion contributes to the final total score and the importance of the weights. A scale of values, based on ideal distances for each criteria, is used to calculate the total Absolute score. The Relative scale is calculated by comparing each site in relationship to others 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 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.

Map A

# Top Five Sites for Potential Development

## Harrison County




Airports

**Mining Site**

- Site 66
- Site 3
- Site 73
- Site 129
- Site 98

- Interstate
- US Routes
- WV Routes
- Railroads
- Water Lines
- Power Lines
- County Boundary

Source: Rahall Transportation Institute Analysis 2015

0 1.25 2.5 5 7.5 10 Miles

**Site's General Info.**

| | |
|---|---|
| Permittee | J & B Coal Company |
| Facility Name | N/A |
| Permit ID | S104486 |
| Issue Date | 1/26/1987 |
| Expiration Date | 1/26/1992 |
| Current Acres | N/A |
| Lat | 39° 15'26.0000" |
| Long | 80° 22'57.0000" |
| Nearest Post Office | Unknown |

| | |
|---|---|
| Site Number | **66** |
| Suitability Ranking | **1** |
| Total Score | **727.75** |

**Distance Analysis Results**

| | |
|---|---|
| Broadband | 0.74 |
| Gas Pipes | 0.13 |
| National Waterway Network | 20.76 |
| Oil Pipelines | 0.09 |
| Power Lines | 0.94 |
| Railroads | 0.58 |
| Sewer Lines | 0.19 |
| Water Lines | 0.21 |
| Existing Highway | 0.49 |
| Intermodal Terminal Facilities | 3.98 |
| Interstate | 5.29 |
| Sewer Treatment Facilities | 0.68 |
| Solid Waste Treatment Facilities | 2.90 |
| Yeager Airport | 108.15 |

Site number 66 should be the first choice for potential development. Although the distance from the site to Broadband access and Power Lines is just below average, the site still has the highest score since it is located near several other criteria such as Gas Pipes (0.13 miles) and Sewer Lines (0.19 miles). While this site did not score highest in all criteria, but individuals scores are still favorable.

**Site's General Info.**

| | |
|---|---|
| Permittee | Ten-A-Coal Company |
| Facility Name | N/A |
| Permit ID | S000783 |
| Issue Date | 1/17/1983 |
| Expiration Date | 1/17/2003 |
| Current Acres | 74.92 |
| Lat | 39° 18'0" |
| Long | 80° 25'0" |
| Nearest Post Office | Coal |

| | |
|---|---|
| Site Number | **3** |
| Suitability Ranking | **2** |
| Total Score | **725.25** |

**Distance Analysis Results**

| | |
|---|---|
| Broadband | 0.41 |
| Gas Pipes | 0.02 |
| National Waterway Network | 21.34 |
| Oil Pipelines | 0.06 |
| Power Lines | 0.35 |
| Railroads | 3.02 |
| Sewer Lines | 0.30 |
| Water Lines | 0.01 |
| Existing Highway | 1.30 |
| Intermodal Terminal Facilities | 4.49 |
| Interstate | 6.99 |
| Sewer Treatment Facilities | 1.62 |
| Solid Waste Treatment Facilities | 4.38 |
| Yeager Airport | 112.05 |

Site number 3 is listed as the next most suitable site for post-mine land development. It is very close to several criteria, such as Gas Pipes (0.02 miles), Pipe Lines (0.06 miles), and Water Lines (0.01 miles). The main disadvantage to this site is the long distance to Railroad access (3.02 miles).

**Site's General Info.**

| | |
|---|---|
| Permittee | Bridgeport Hills Dev Corp |
| Facility Name | N/A |
| Permit ID | C001281 |
| Issue Date | 12/16/1981 |
| Expiration Date | 12/16/1986 |
| Current Acres | N/A |
| Lat | 39° 16'47.0000" |
| Long | 80° 16'52.0000" |
| Nearest Post Office | Unknown |

| | |
|---|---|
| Site Number | **73** |
| Suitability Ranking | **3** |
| Total Score | **724.5** |

**Distance Analysis Results**

| | |
|---|---|
| Broadband | 0.64 |
| Gas Pipes | 3.77 |
| National Waterway Network | 0.03 |
| Oil Pipelines | 0.54 |
| Power Lines | 0.72 |
| Railroads | 0.60 |
| Sewer Lines | 0.07 |
| Water Lines | 0.01 |
| Existing Highway | 0.02 |
| Intermodal Terminal Facilities | 3.00 |
| Interstate | 0.16 |
| Sewer Treatment Facilities | 0.03 |
| Solid Waste Treatment Facilities | 3.77 |
| Yeager Airport | 111.25 |

Site number 73 is ranked as the third most suitable site for post-mine land development in the County. This site scored the high in the most criteria. Key disadvantages for this site include longer than average distances to Gas Pipes (3.77 miles) and Oil Pipelines (0.54 miles).

**Site's General Info.**

| | |
|---|---|
| Permittee | Fresa Construction Co Inc |
| Facility Name | N/A |
| Permit ID | C000682 |
| Issue Date | 2/12/1982 |
| Expiration Date | 2/12/1987 |
| Current Acres | N/A |
| Lat | 39° 18'38.0000" |
| Long | 80° 18'35.0000" |
| Nearest Post Office | Unknown |

| | |
|---|---|
| Site Number | **129** |
| Suitability Ranking | **4** |
| Total Score | **719.5** |

**Distance Analysis Results**

| | |
|---|---|
| Broadband | 0.01 |
| Gas Pipes | 1.72 |
| National Waterway Network | 21.18 |
| Oil Pipelines | 0.35 |
| Power Lines | 0.01 |
| Railroads | 1.51 |
| Sewer Lines | 1.20 |
| Water Lines | 0.01 |
| Existing Highway | 2.62 |
| Intermodal Terminal Facilities | 3.86 |
| Interstate | 2.62 |
| Sewer Treatment Facilities | 0.95 |
| Solid Waste Treatment Facilities | 3.60 |
| Yeager Airport | 112.44 |

Site number 129 has the fourth-highest score in the suitability model for its relatively close distances to several criteria, including Power Lines (0.01 miles), Water Lines (0.01 miles), and Broadband (0.01 miles). Each of these criteria receive high absolute points. The distances from the site to Water Lines and Sewer Lines are above average.

**Site's General Info.**

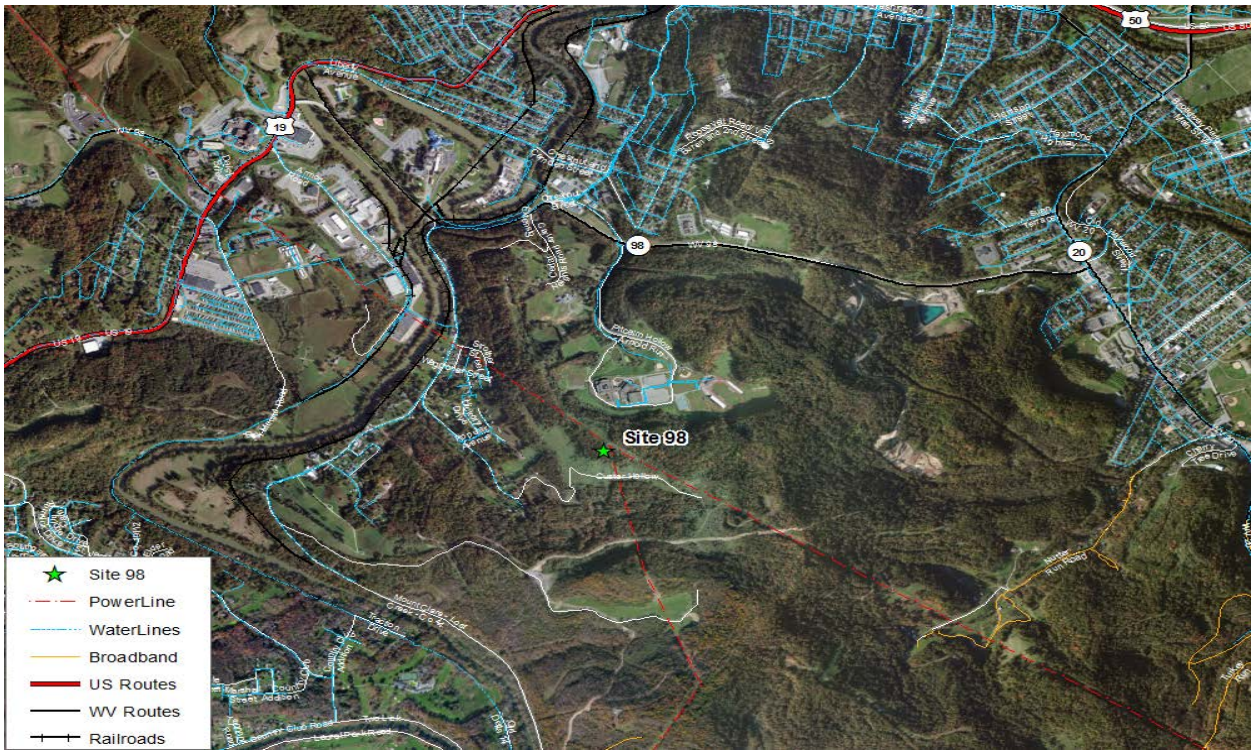
| | |
|---|---|
| Permittee | Kwd Construction Co., Inc |
| Facility Name | N/A |
| Permit ID | S025875 |
| Issue Date | 12/19/1975 |
| Expiration Date | 12/19/1980 |
| Current Acres | N/A |
| Lat | 39° 15'20.0000" |
| Long | 80° 21'10.0000" |
| Nearest Post Office | Unknown |

| | |
|---|---|
| Site Number | **98** |
| Suitability Ranking | **5** |
| Total Score | **710.25** |

**Distance Analysis Results**

| | |
|---|---|
| Broadband | 1.00 |
| Gas Pipes | 1.69 |
| National Waterway Network | 8.25 |
| Oil Pipelines | 0.13 |
| Power Lines | 0.02 |
| Railroads | 0.61 |
| Sewer Lines | 0.17 |
| Water Lines | 0.16 |
| Existing Highway | 1.93 |
| Intermodal Terminal Facilities | 3.20 |
| Interstate | 5.50 |
| Sewer Treatment Facilities | 1.02 |
| Solid Waste Treatment Facilities | 3.68 |
| Yeager Airport | 108.62 |

Site number 98 has the fifth-highest score in the suitability model. The site is located close to utility features such as Power Lines (0.02 miles), Water Lines (0.16 miles), and Broadband (1.00 miles), making it a good candidate for future residential development. The only disadvantage is the above average distance to transportation features such as interstates and airports.



## 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 Harrison County. Harrison County's economy is comprised mainly of employment and activities in the Government; Trade, Transportation and Utilities and the Education and Health Services sectors. The resulting combination has led to a constant increase in total wages. However, this has not translated to a complete success, as the population continues to fluctuate (with expected declines in the next 15 years) and employment diversification is limited. 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 and 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

Harrison County was formed in 1784 by the Virginia General Assembly, nearly 80 years before West Virginia became a state. The County was named for Benjamin Harrison, the Governor of Virginia from 1781-1784. By the mid-19$^{th}$ Century, Harrison had developed a thriving cattle industry complements of the County's rich soil and abundant bluegrass. Rich coal deposits had been identified as early as 1836, and by the early 1900s the County was ranked fourth in the State in coal production. The discovery of petroleum gushers at Salem and Shinnston in the early 20$^{th}$ Century and continued coal production incited the growth of numerous industries, such as glass factories, gas companies, and steel mills.[1]

## III. Existing Conditions

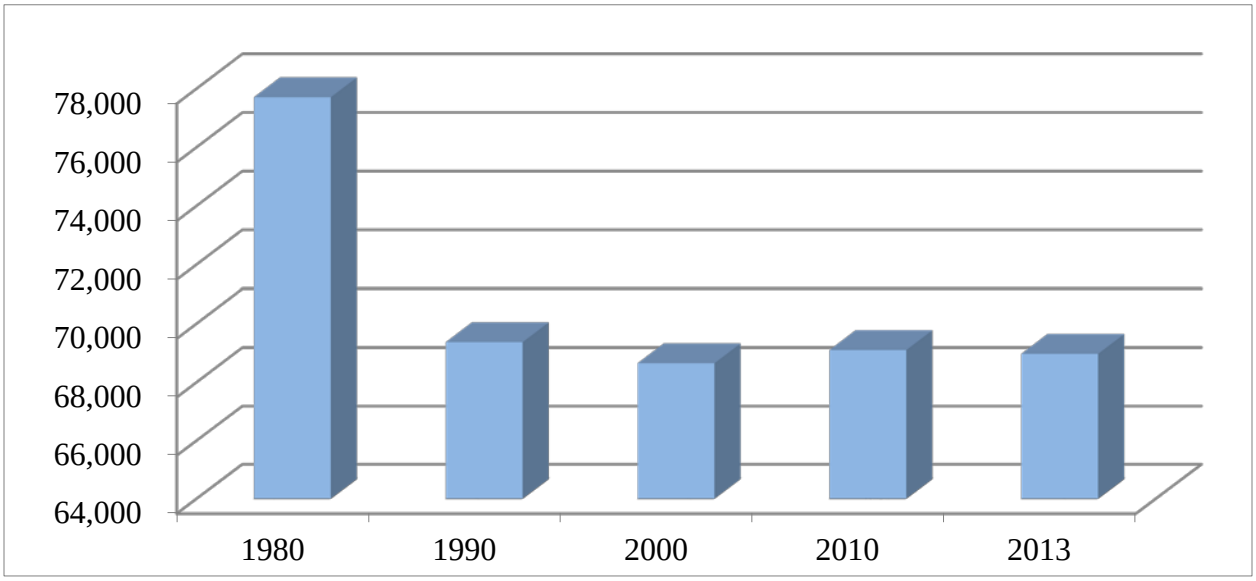
This information will provide a background understanding of the demographic trends in the County. This base information is meant to provide overall detail on Harrison County's status as it stands. Part IV will deal with possible future site development information, to be considered with the demographic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

[1] Davis, Dorothy U. 2013. "Harrison County." e-WV: The West Virginia Encyclopedia. Accessed March 9, 2015.

**Population**

The population of Harrison County was 68,972 in 2013 according to Stats Indiana, ranking it 7th in county population among the 55 counties in West Virginia.[2] The decennial censuses show that Harrison County lost more than 8,000 individuals in the 1980s. Afterward the population has largely stabilized.

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




Source: Stats Indiana, USA Counties in Profile

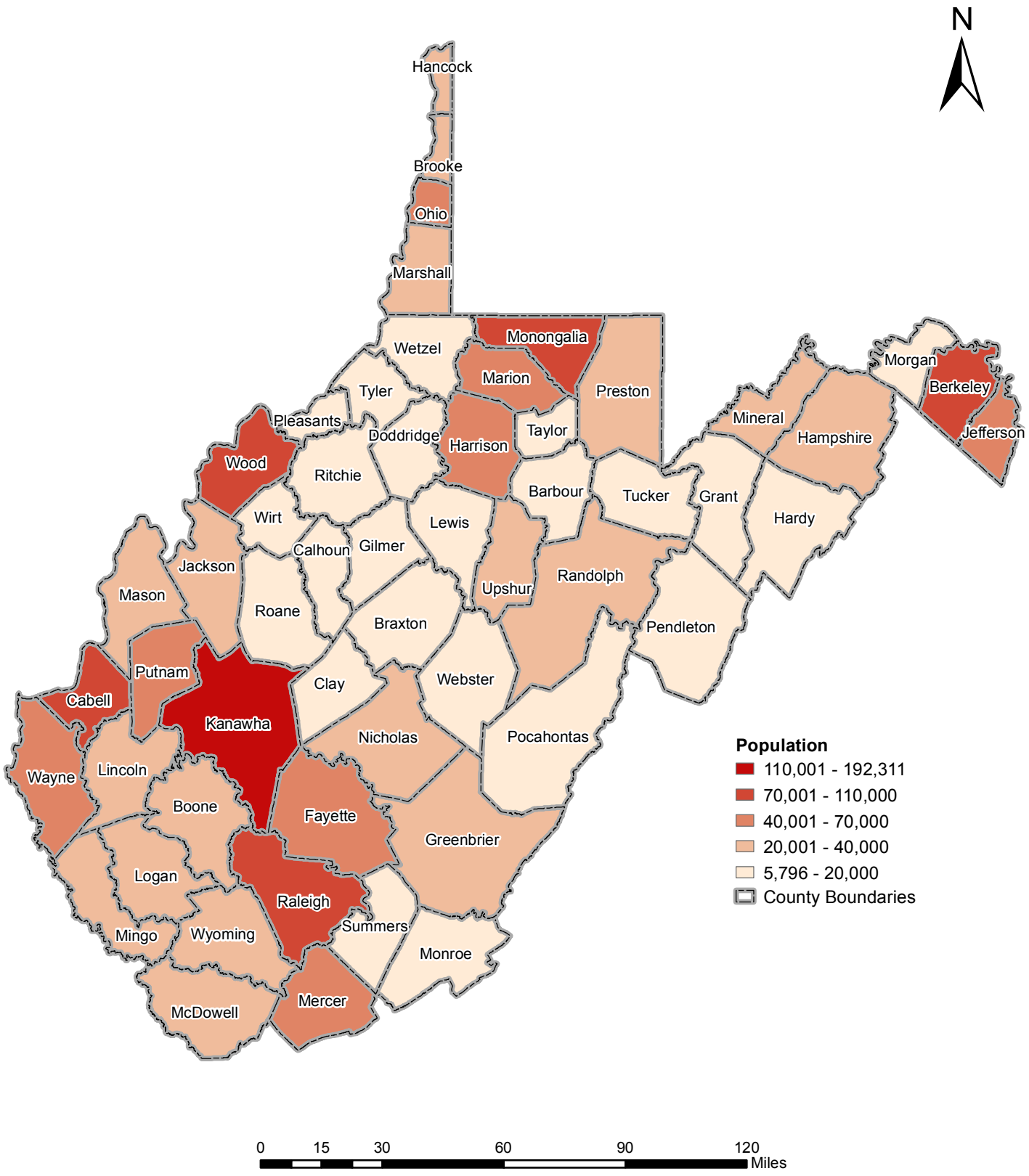
Map 1 illustrates the Harrison County population compared to West Virginia overall. Harrison is one of the more-populated counties in the State.

[2] U.S. Census Bureau, "2013 American Community Survey 5-year Estimates," Accessed January 19, 2015, www.factfinder2.census.gov

Map 1

# Demographic

## Population



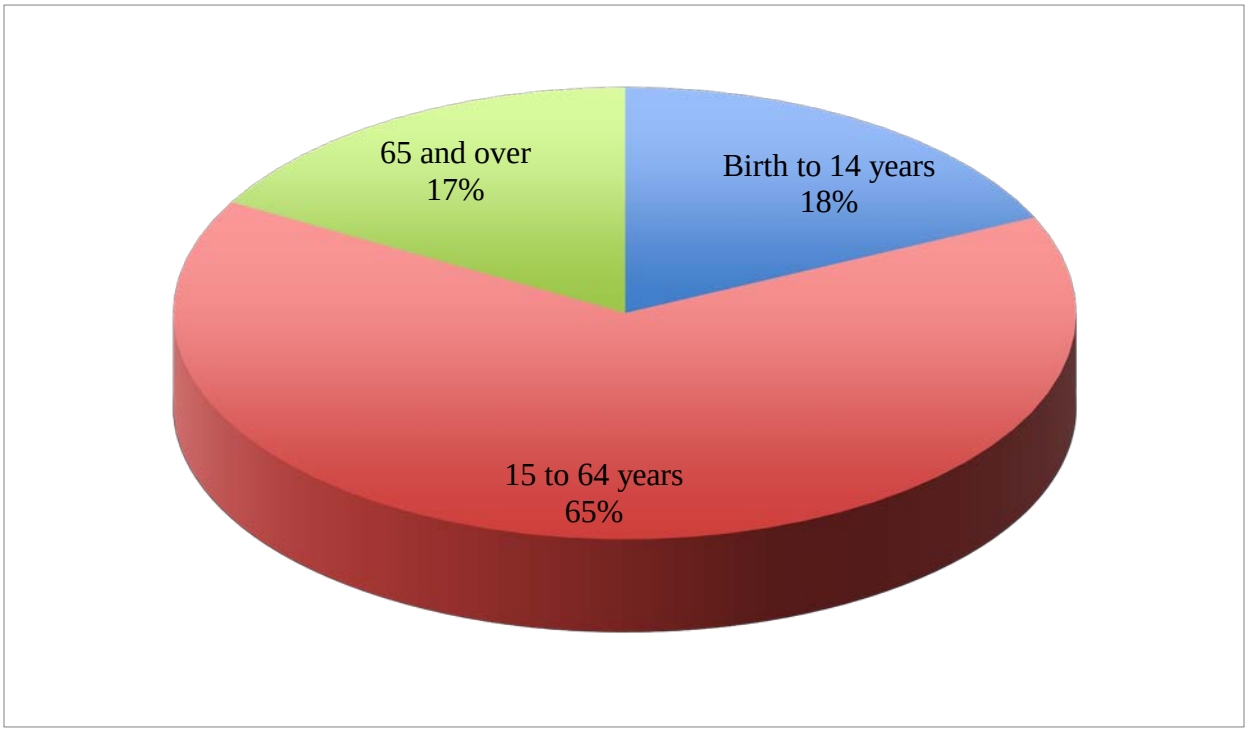

Source: U.S. Census Bureau, 2009-2013 American Community Survey



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

According to the ACS, approximately 23 percent of Harrison County residents are 60 years of age and older, while 16 percent are between 5 and 17 years of age and nearly 6 percent are below the age of 5. Approximately 14,230 people (or nearly 21 percent) are of retirement age. The median age in Harrison 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: Harrison County Age Breakdown**

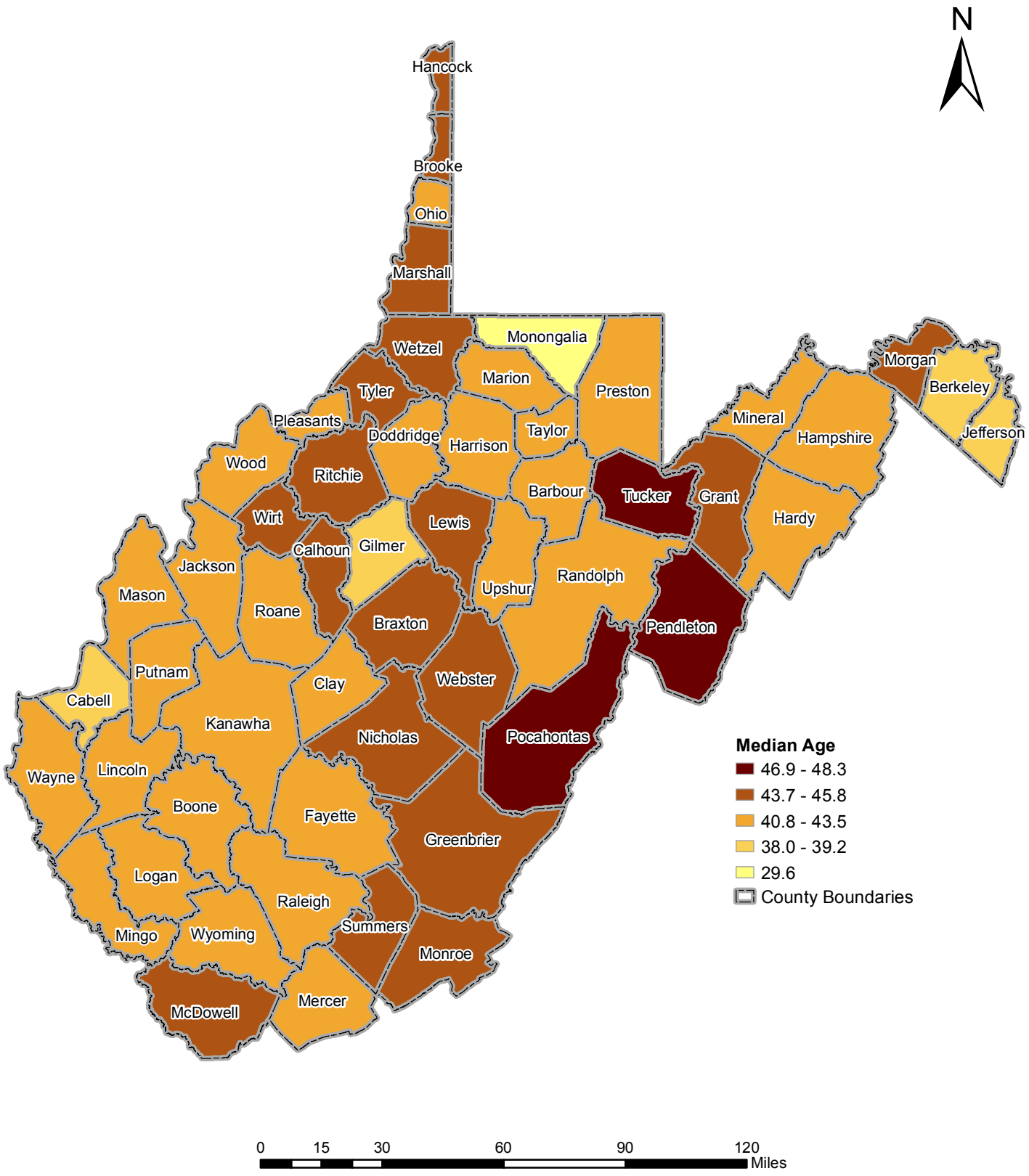



Source: 2013 American Community Survey 5-Year Estimate Calculation

Map 2

# Demographic

## Median Age



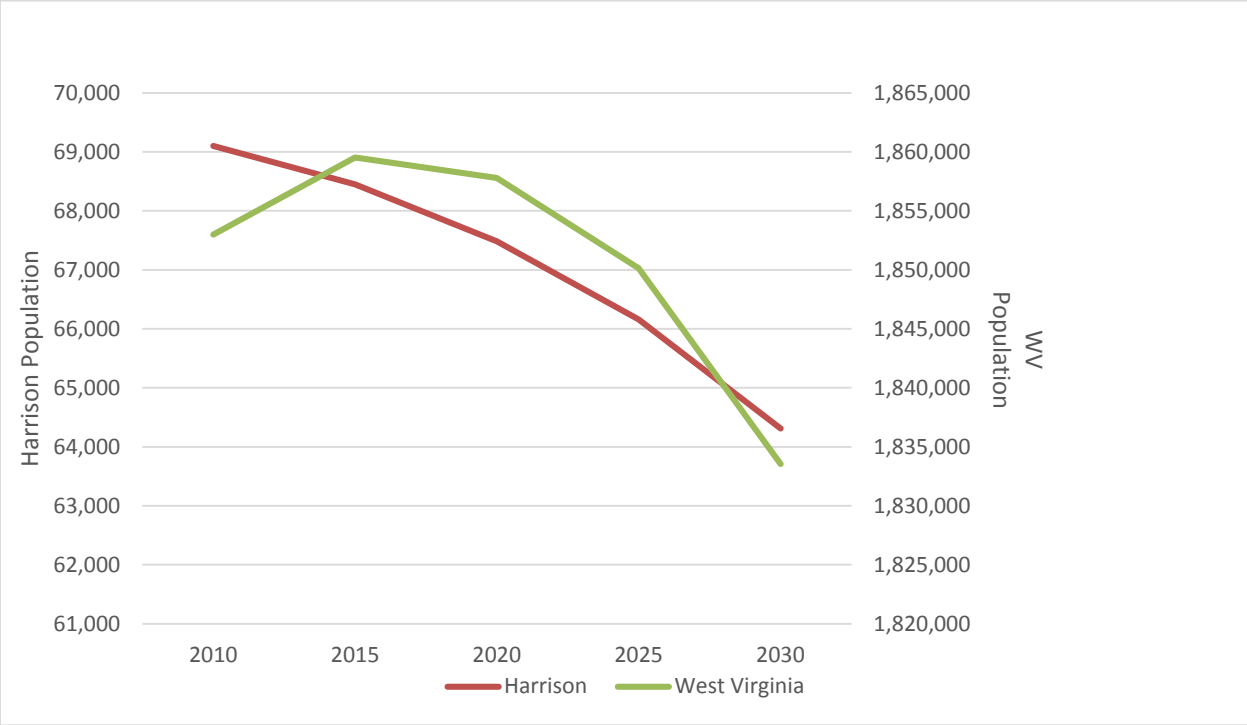

Source: U.S. Census Bureau, 2009-2013 American Community Survey



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

The Bureau of Business and Economic Research at West Virginia University projects a -7.45 percent decrease in the Harrison County population between 2010 and 2030, which is higher than the projected decline of the West Virginia population.[3] The model for the projection is based on past population patterns and statistics, and should not be taken as permanent.

**Figure 3: Population Projections**



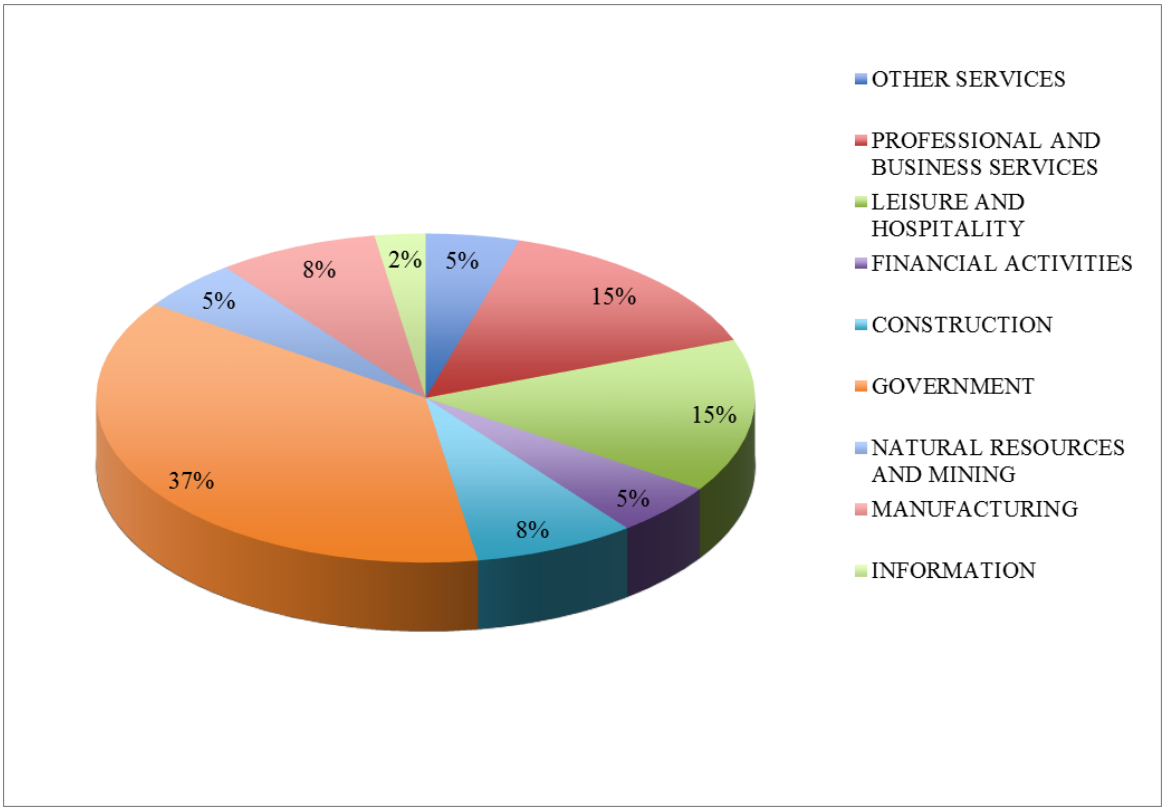

Source: WVU Bureau of Business and Economic Research

**Employment**

Workforce West Virginia has a complete dataset on employment numbers and wages. The total number of employed in 2013 was 34,885. Approximately 37 percent of wage earners in Harrison County worked in Government. Approximately 15 percent worked in Professional and Business Services, and another 15 percent worked in Leisure and Hospitality. These three industries comprise approximately two-thirds of Harrison County's total employment, suggesting a less-diversified mix of industry employment.

[3] 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).

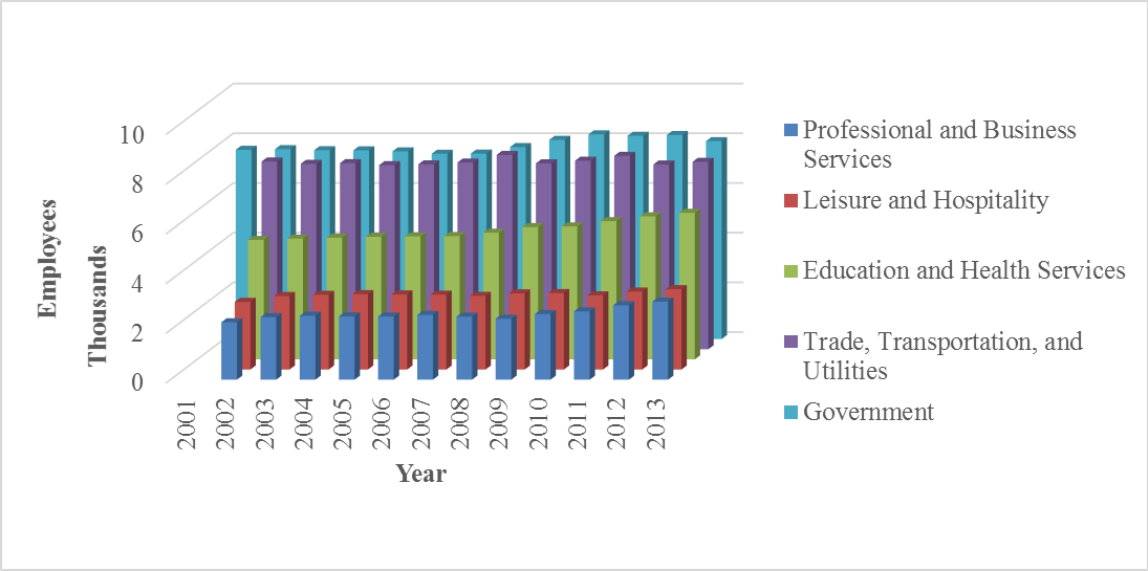
**Figure 4: 2013 Harrison County Employment**




Source: Workforce West Virginia

The current top five sectors have generally been the top five employers over the past decade in Harrison County. The Professional and Business Services sector has seen the largest growth (of approximately 36 percent since 2001). Education and Health Services grew the second most (23 percent) followed by Leisure and Hospitality (19 percent). Although possibly due in part to the economic recession occurring from 2008 to 2010, these sectors experienced some fluctuation over this time period. Employment in the Government sector grew by 5 percent, and employment in Trade, Transportation, and Utilities remained stagnant with 0 percent growth.

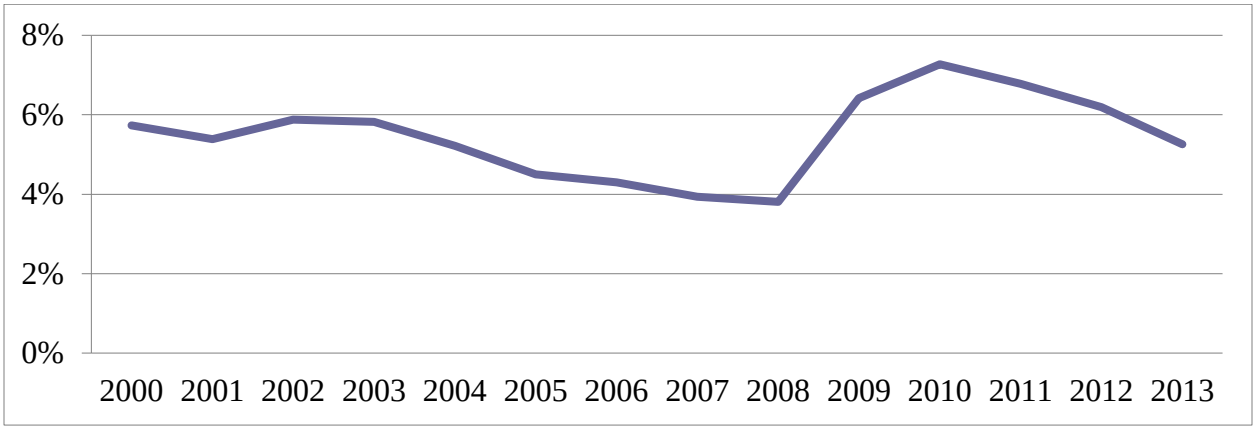
**Figure 5: Harrison County Employment by 5 Sectors 2001-2012**




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, Harrison's participation rate is above average compared to other 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, Harrison experienced a sudden increase in the unemployment rate in 2008 (Figure 6). Unemployment has been slowly falling since peaking in 2010. Note that 2013 data is used for this graph and map, as the data for Workforce West Virginia and the Census Bureau did not match because the most recent data has not been seasonally adjusted.

**Figure 6: Harrison County Unemployment Rate**

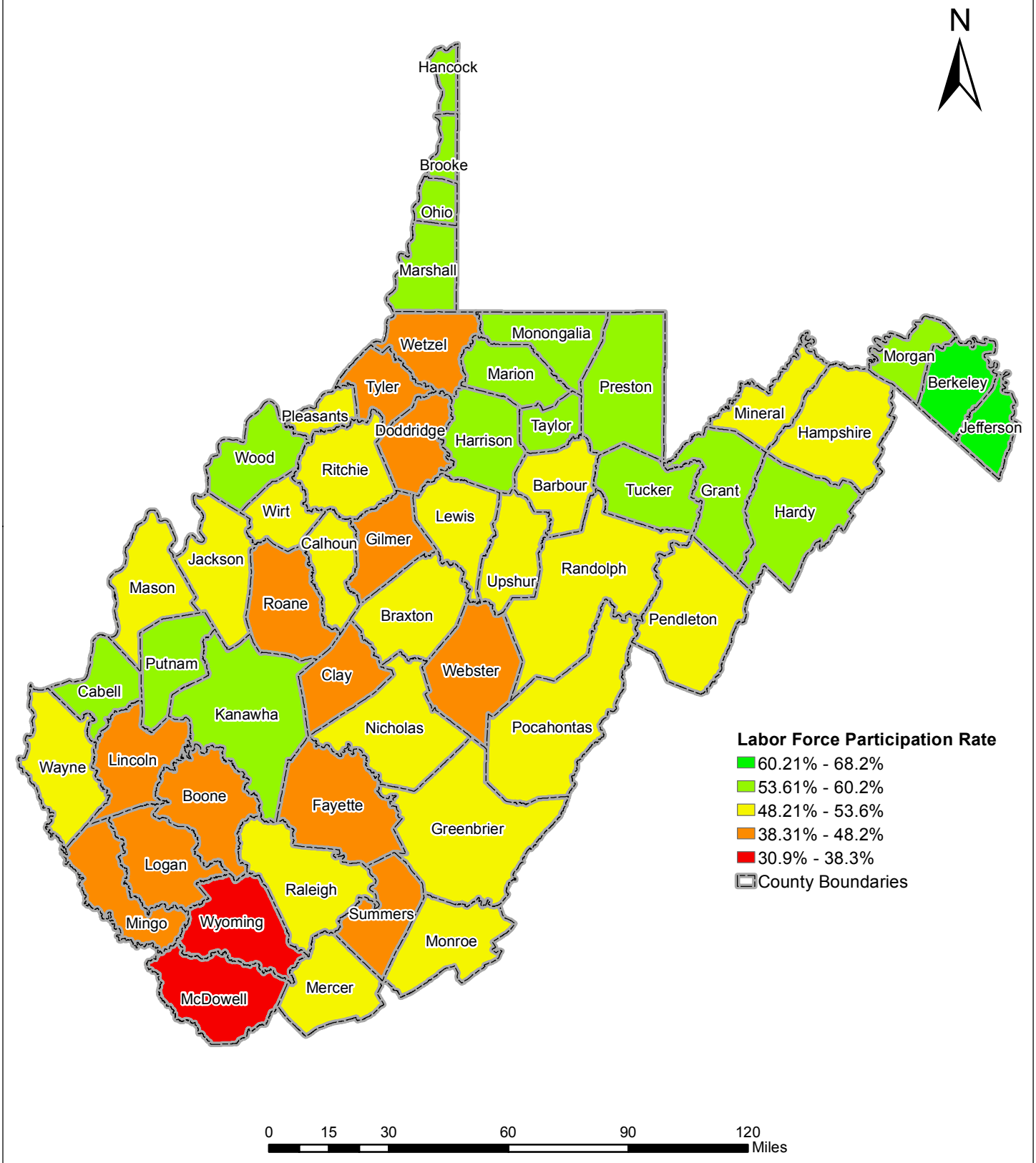



Source: Workforce West Virginia

Map 3

# Demographic

## Labor Force Participation Rate




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

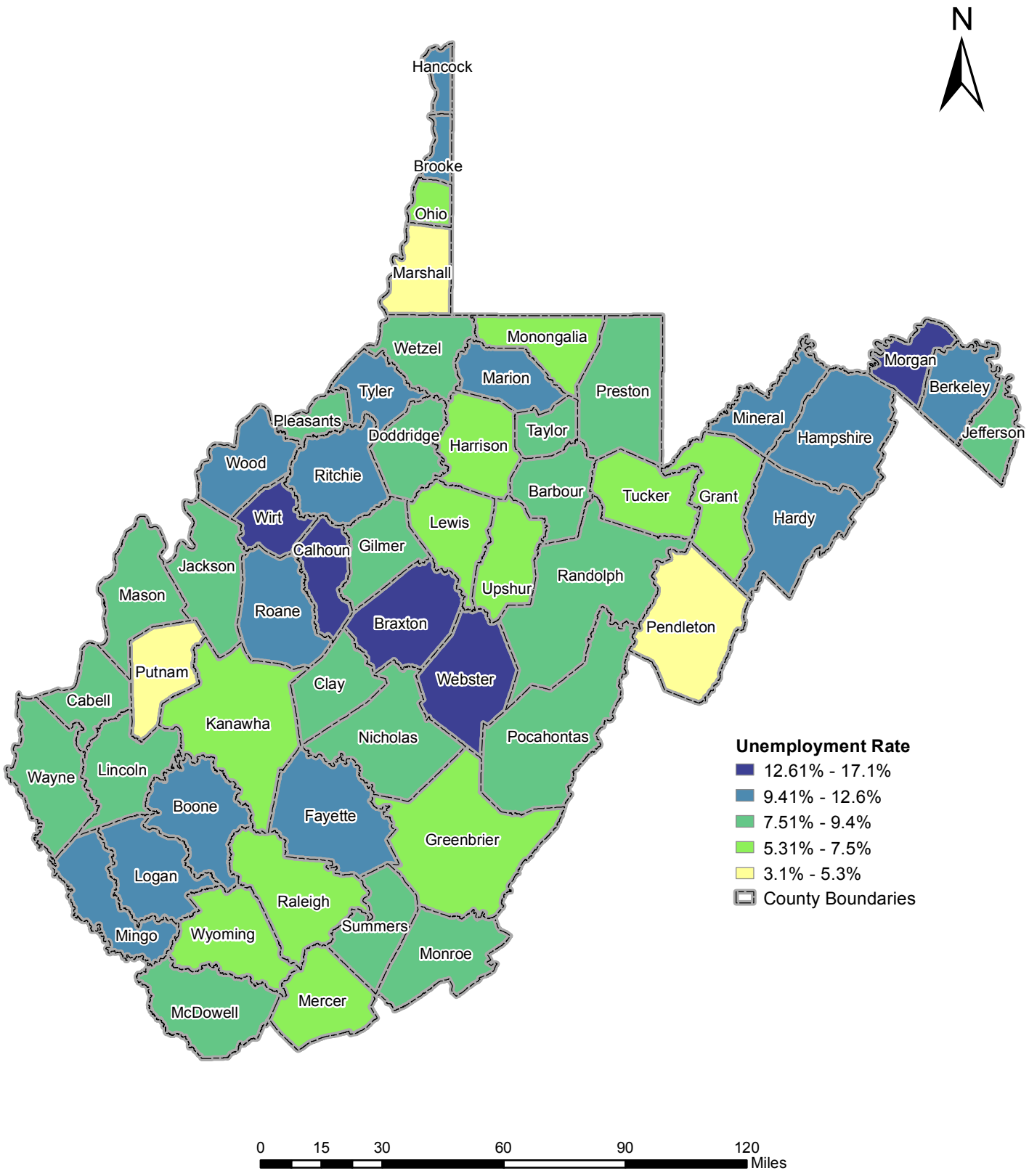


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 4

# Demographic

## Unemployment Rate




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

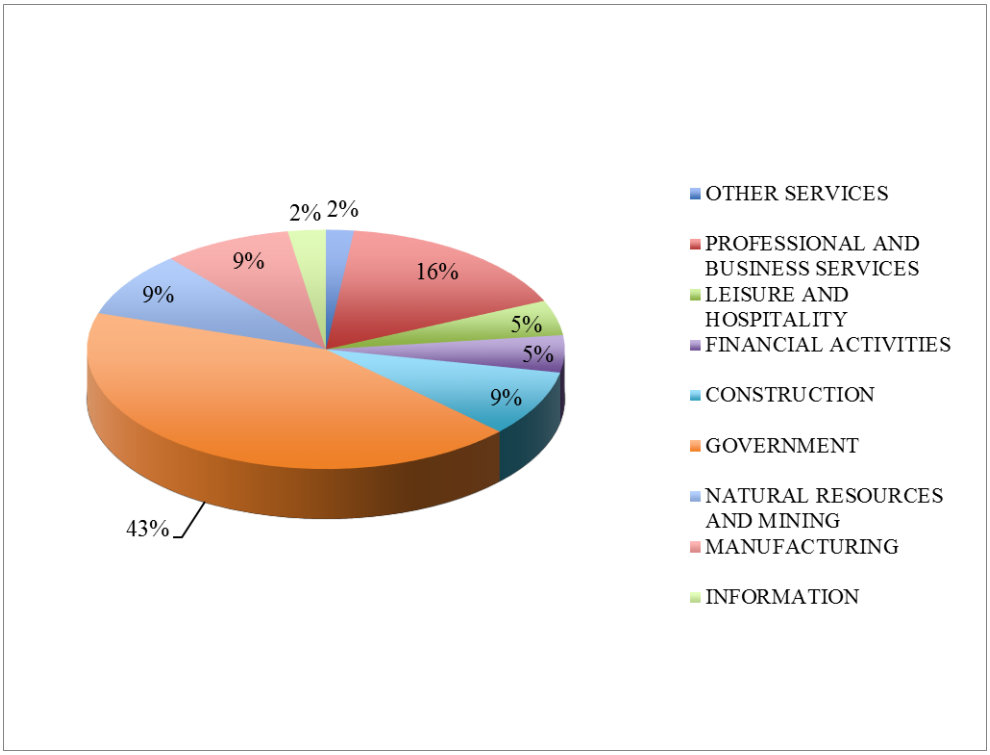


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

**Wages and Income**

Harrison County's wage contributors vary widely in the level of contribution. The highest, Government, is because of the sheer size of the sector in the County (Figure 7). Professional and Business Services is second. As with employment, wages in other sectors in Harrison County make up much smaller portions.

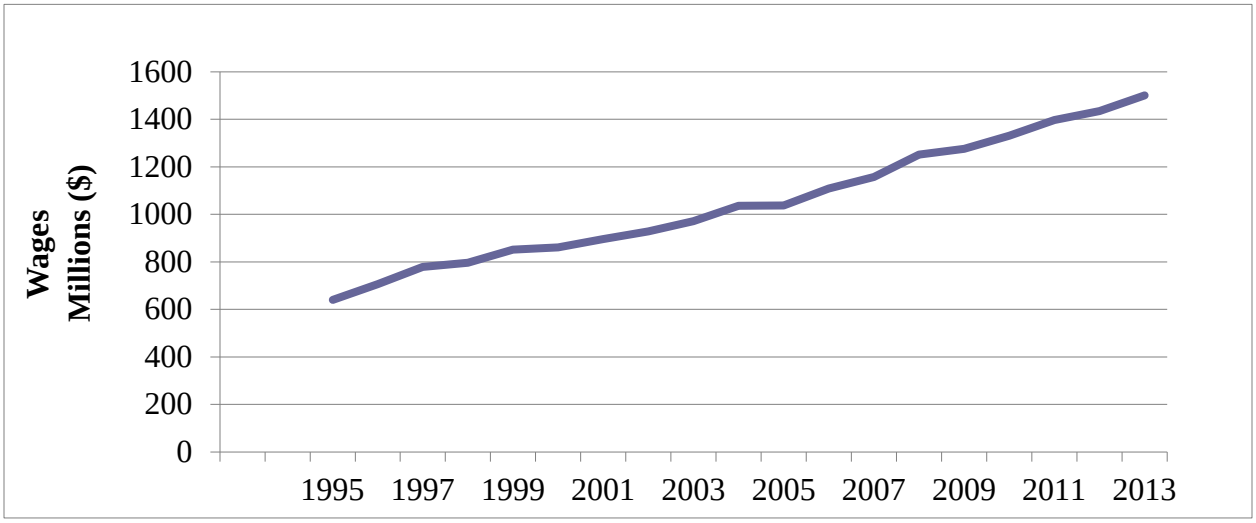
**Figure 7: 2013 Harrison County Total Wages**




Source: Workforce West Virginia

Historically, wages for Harrison County have shown a steady tendency to rise. Harrison 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 Harrison County, which have consistently experienced increase in the early 2000s.

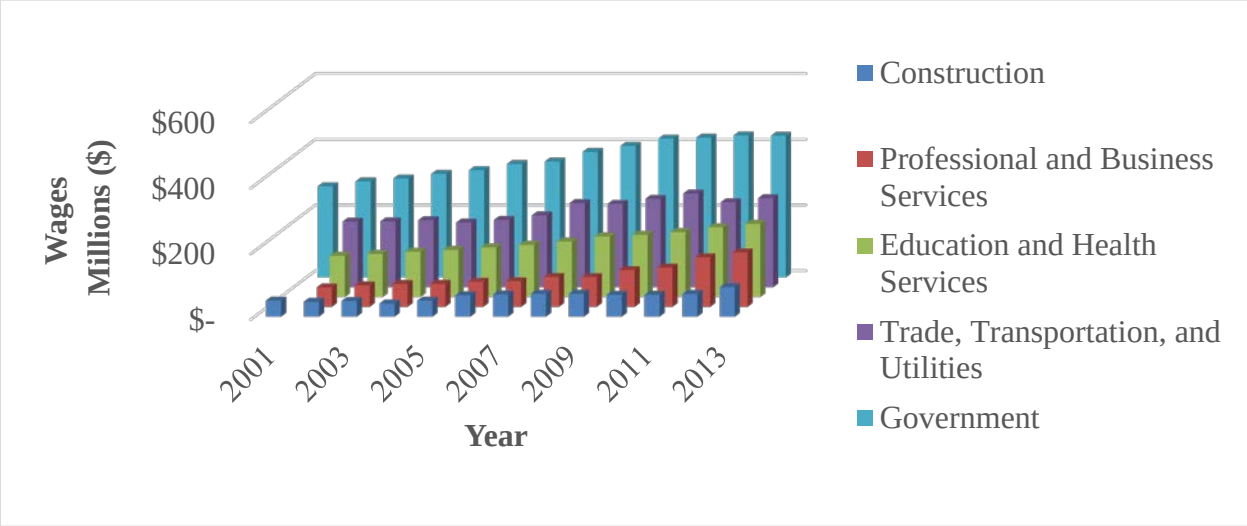
**Figure 8: Harrison County Total Wages 1995-2013**




Source: Workforce West Virginia

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 some volatility, particularly around the time of the recession in 2008-2009. Wages in the Government and Professional and Business Services sectors experienced relatively steady growth during this time period.

**Figure 9: Harrison County Total Wages by 5 Sectors 2001-2012**

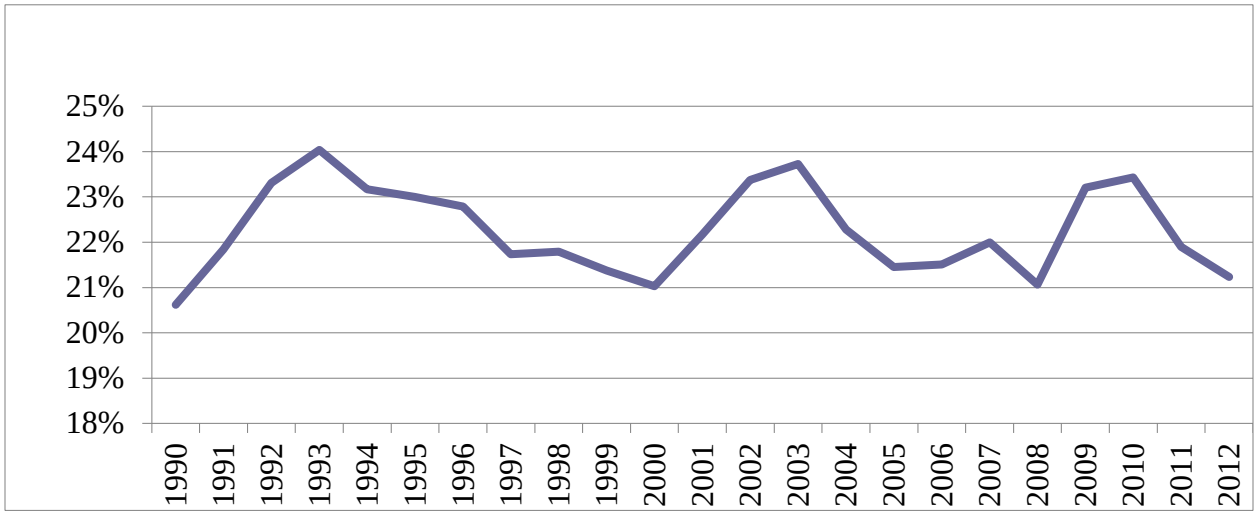



Source: Workforce West Virginia

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 Harrison County, wages for all employment exceeded

$1.5 billion.[4] By comparison, income for the County was larger, exceeding $2.9 billion in 2013.[5] Though there are many components to income other than work earnings, 21 percent of total Harrison County income is derived from government transfers. Government transfers accounted for about 98 percent of total transfers in Harrison County, dwarfing transfers from private institutions such as charities. Government transfers have consistently contributed between 19 and 24 percent of income over the past 20 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 Harrison County**




Source: U.S. Bureau of Economic Analysis

The total personal income of Harrison County is therefore made up of 21 percent government transfers. Compared to the State, Harrison County has a below average ratio of government transfers to personal income. According to the BEA, per capita income was $38,175 for Harrison County in 2013. Annual net earnings, or income from work, is displayed in Map 5, and Harrison is ranked among the lower tier in earned income in West Virginia.

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. Harrison County appears in the second tier 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.

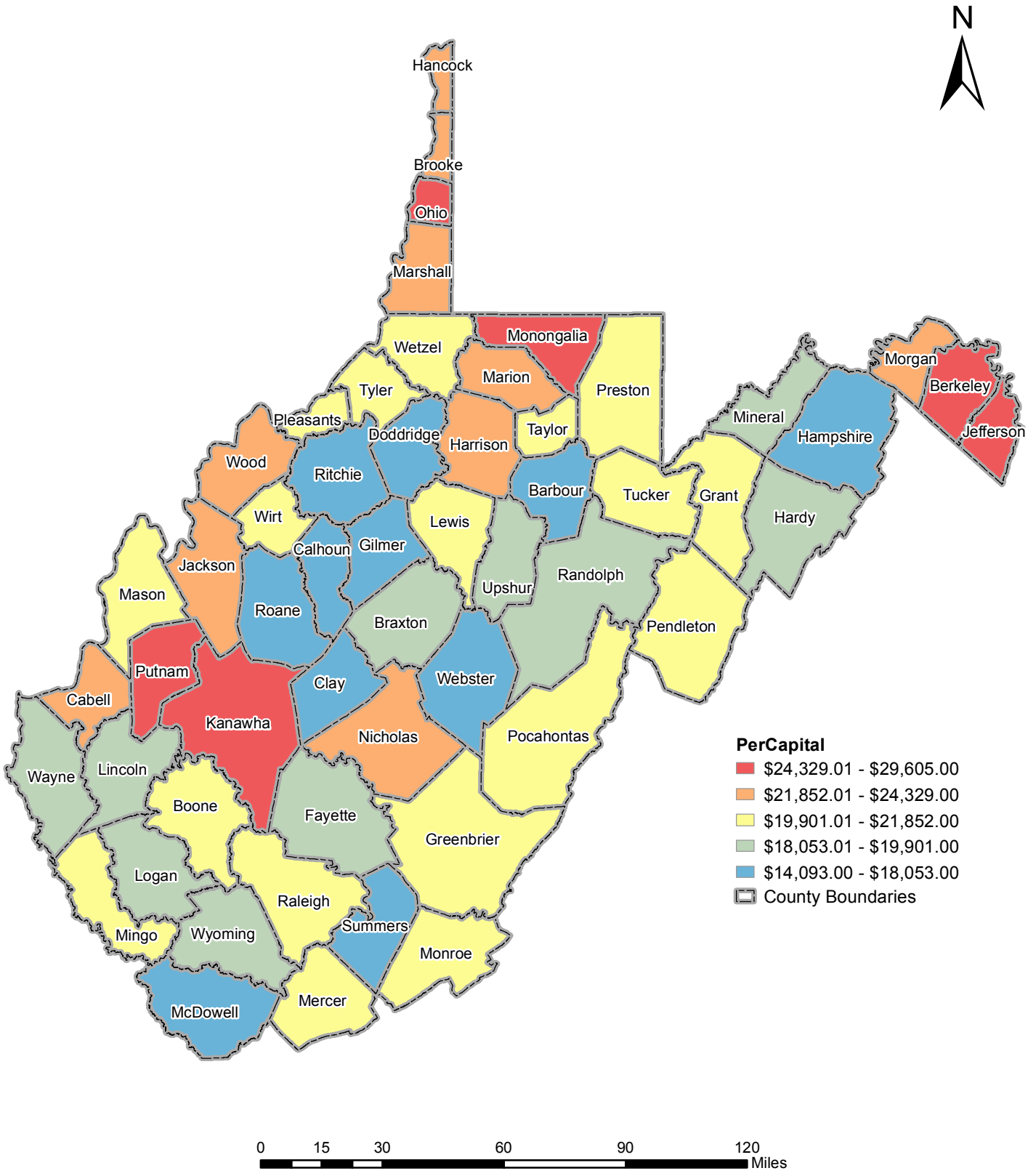
[4] "Employment and Wages – 2013, Harrison County," Workforce West Virginia, Accessed January 18, 2015, http://www.workforcewv.org/lmi/EW2011/ew11x059.htm

[5] "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.

Map 5

# Demographic

## Per Capita Annual Net Earning




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

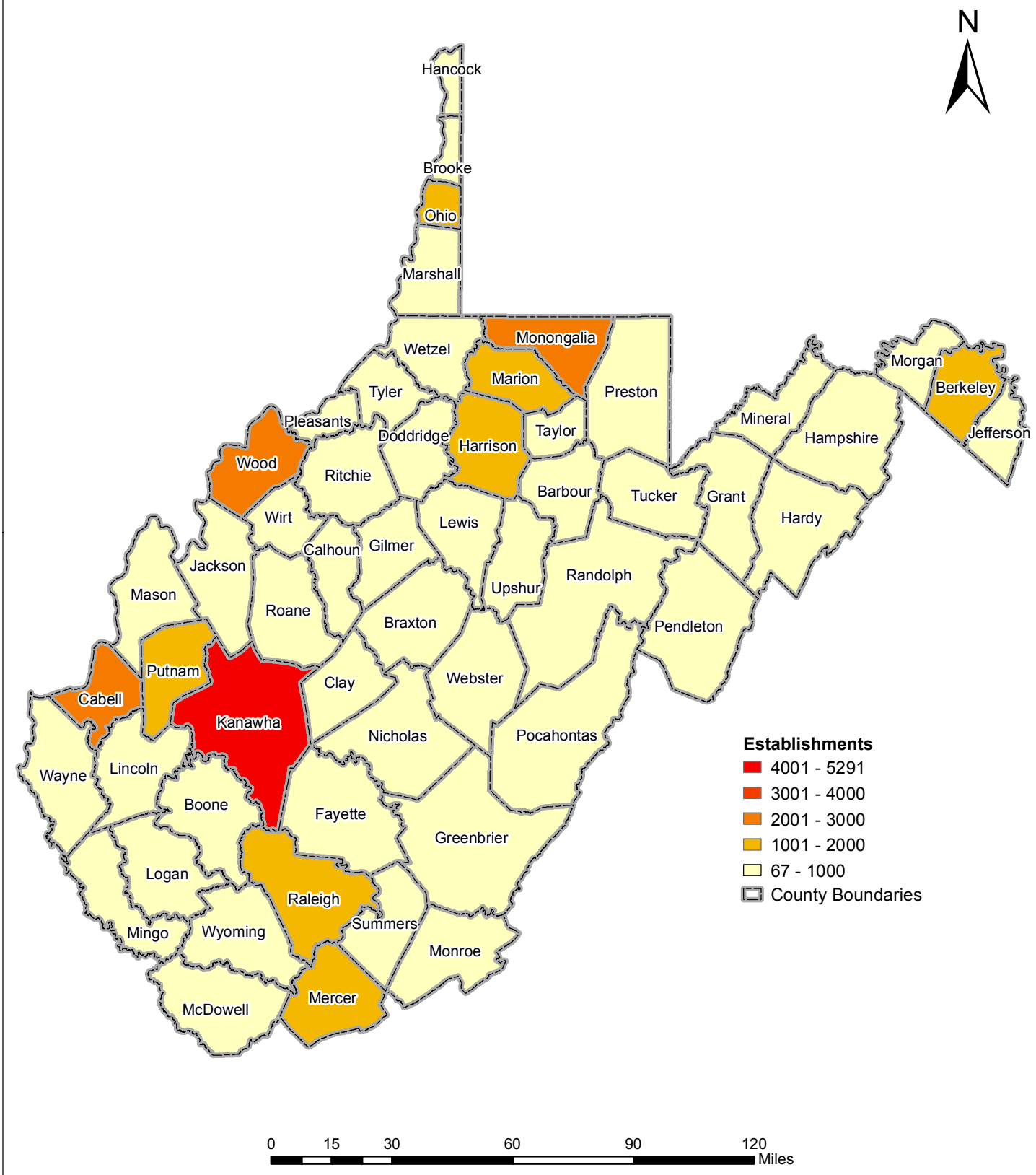


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

Map 6

# Demographic

## Number of Establishments




Source: U.S. Census Bureau, 2011

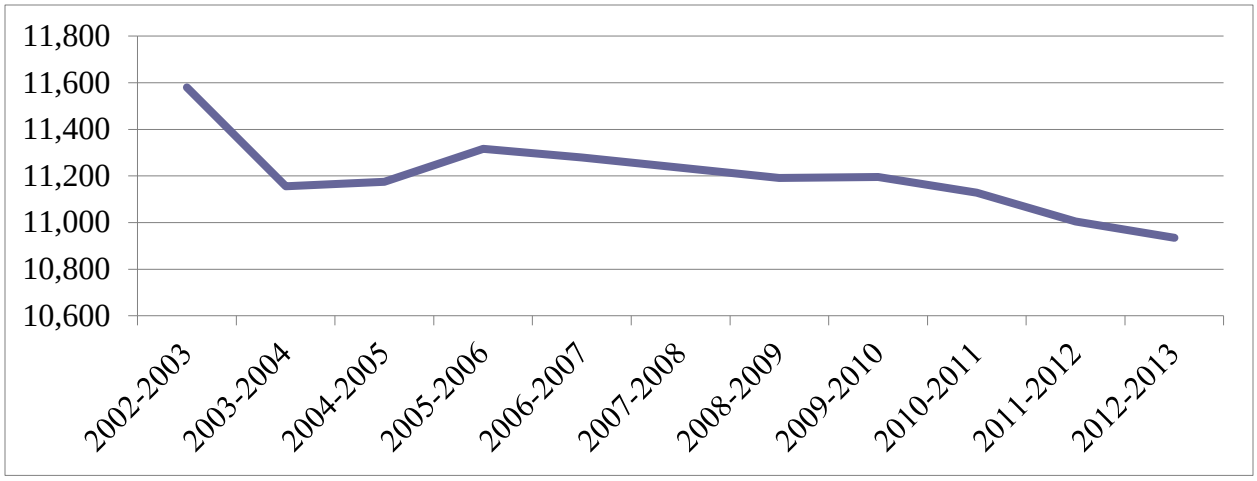


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

**Education**

Harrison County has five high schools, five middle schools, twelve elementary schools, one alternative school and one technical center as of the 2013-2014 school year.[6] Harrison County 2nd month school enrollment exhibited an overall decline from in the early 2000s, experiencing periods of volatility. Harrison County's 2nd month enrollment is above average for the State (Map 7).

**Figure 11: Harrison County School Enrollment**

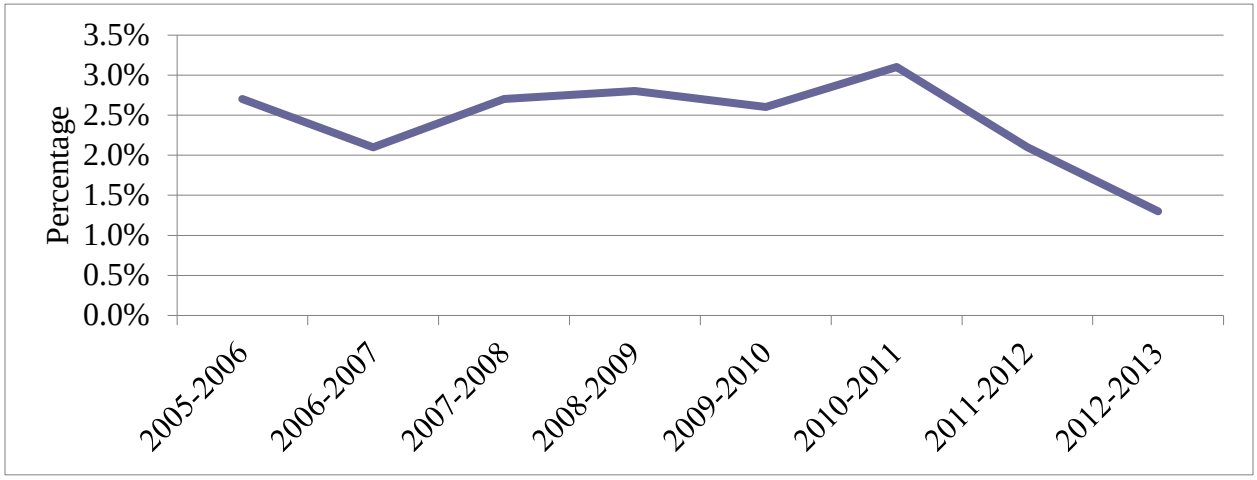



Source: WVEIS

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 7th grade as well. Dropout rates experienced volatility until the 2010-2011 school year, when dropouts fell consistently for the two subsequent time periods (Figure 12).

[6] "School Profiles," West Virginia Education Information System, West Virginia Department of Education, Accessed March 9, 2015, http://wveis.k12.wv.us/nclb/profiles/.

**Figure 12: Harrison County Dropout Rate**

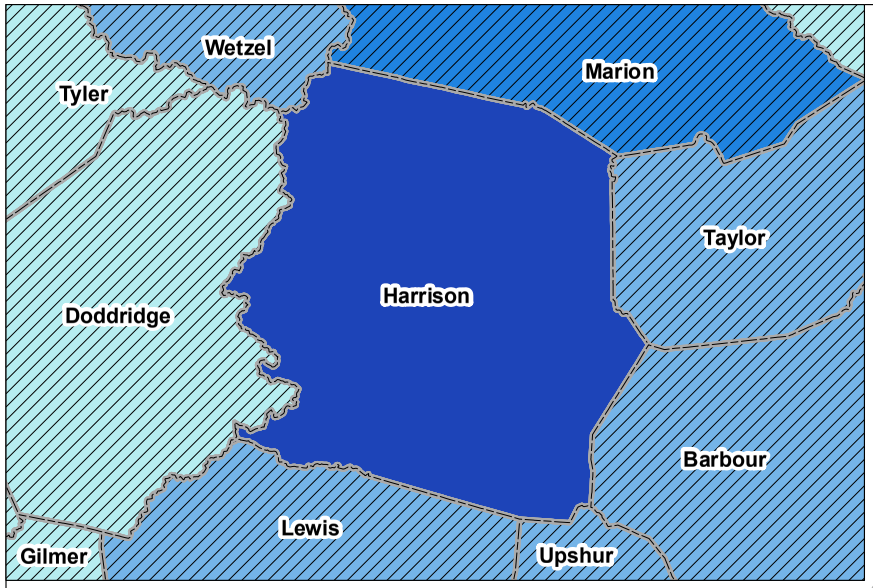



Source: WVEIS

Map 8 shows each county's dropout rate. Harrison County currently has an average dropout rate. Maps 9 and 10 show the total graduates and the graduation rate by county. In Harrison, total graduates are above average for the State, while graduation rates are below average. Harrison County's twenty-four 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 Robert C. Byrd High School. The significance of the locations of these schools is the access to major transportation routes. The schools appear to be built in order for parents and students to maintain steady access, which is important to discourage dropping out and to maintain attendance levels.

# NCLB - Second Month Enrollment

## Harrison County







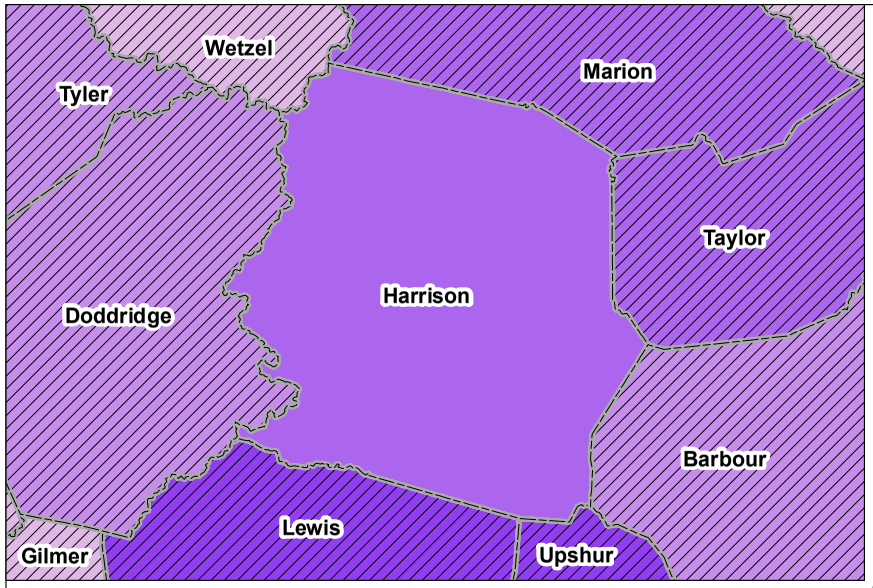
Source: West Virginia Department of Education 2015



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

# NCLB - Dropout Rate

## Harrison County







Source: West Virginia Department of Education 2015

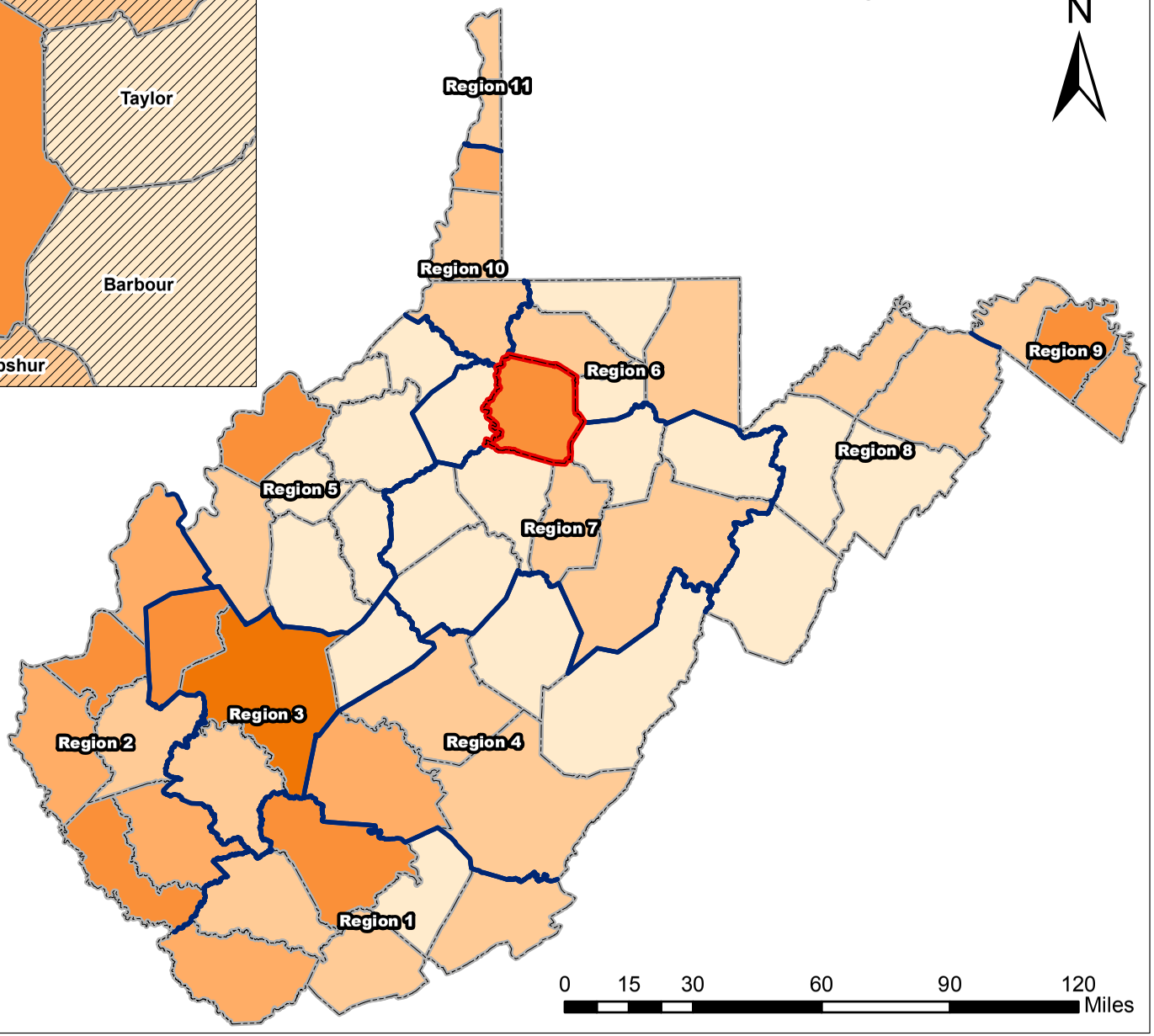


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# NCLB - Total Graduates

## Harrison County


N

Planning Regions Line
53 - 151
152 - 312
313 - 514
515 - 931
932 - 1361
County Boundaries

0 15 30 60 90 120
Miles

Source: West Virginia Department of Education 2014



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# NCLB - Graduates Rate

## Harrison County





Source: West Virginia Department of Education 2015



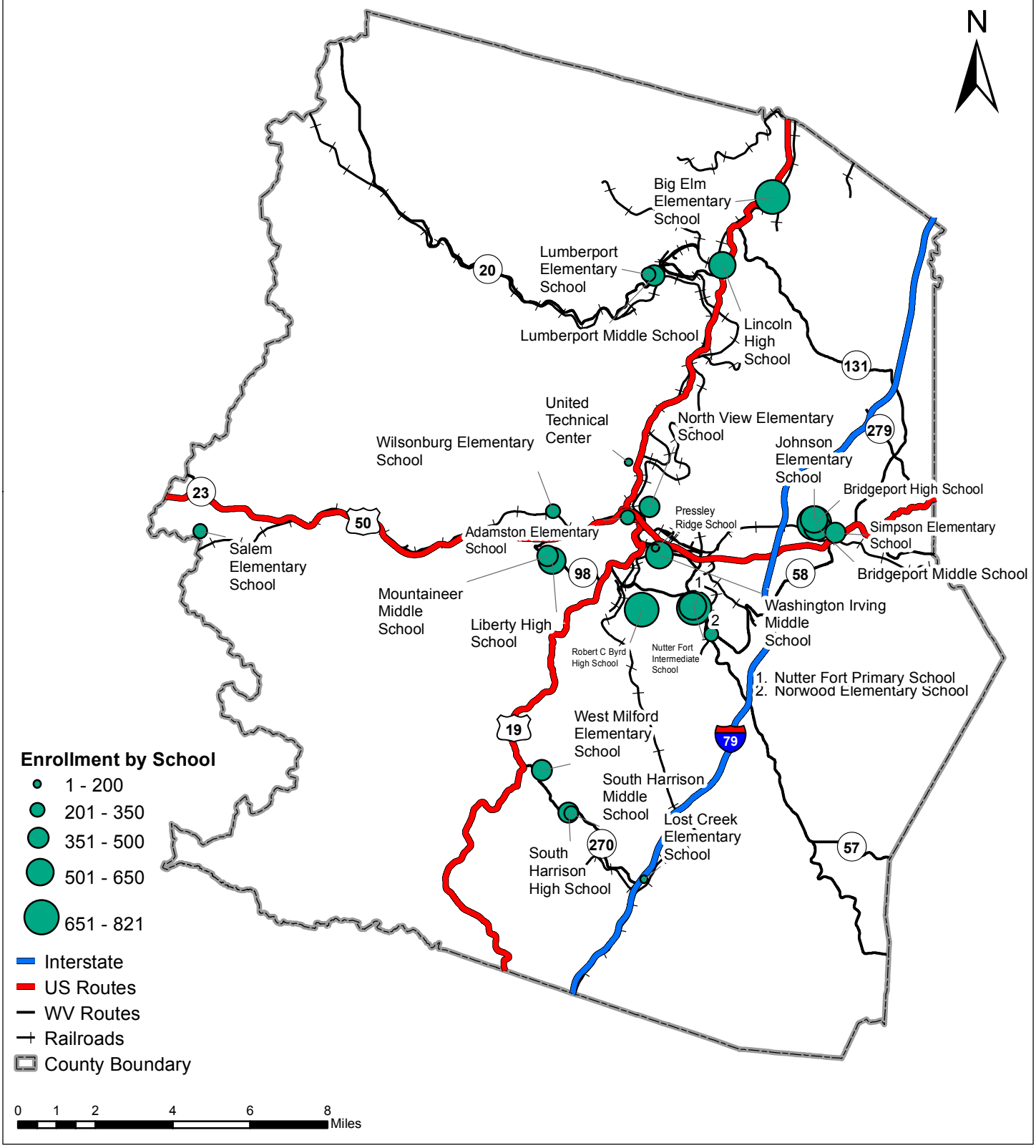
RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

Map 11

# Total Attendance by School - 2015

## Harrison County




Source: West Virginia Department of Education 2015

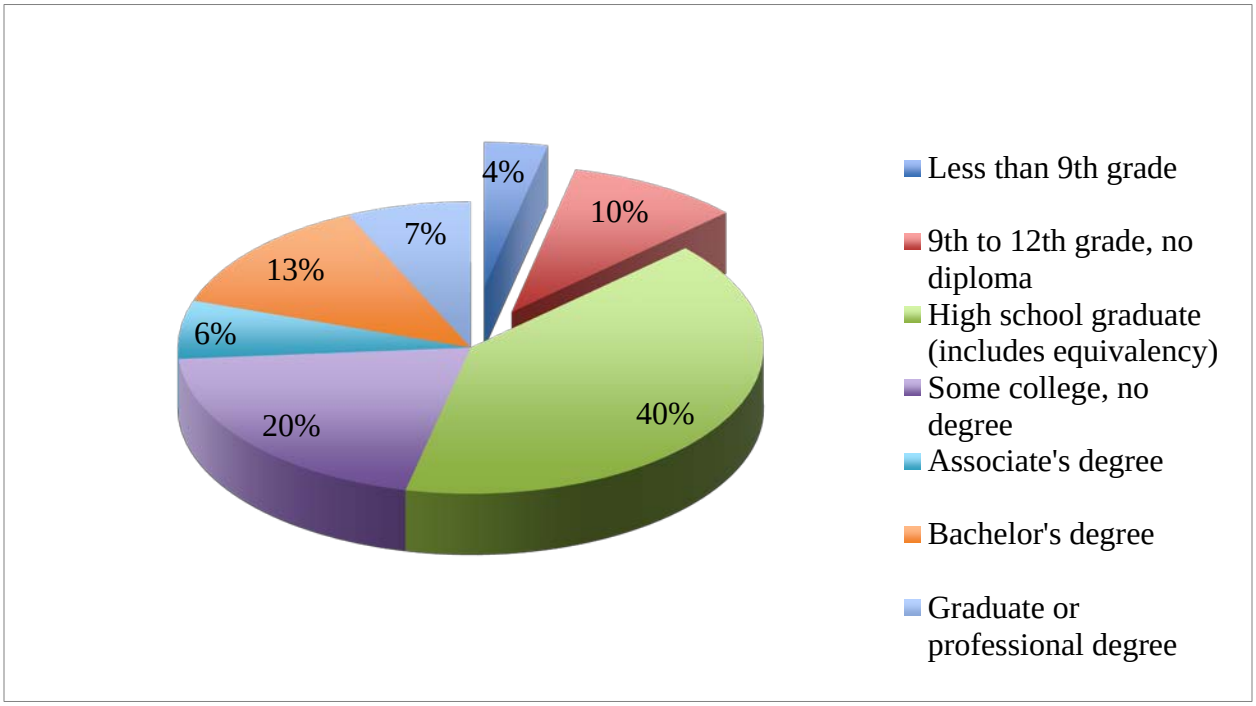


RTI RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

The ACS also maintains data on the educational attainment of the population that is 25 years and over. In Harrison County, 40 percent of these residents have a high school diploma or equivalent. Approximately 14 percent have less than a high school diploma. This is particularly concerning when the relationship between education and jobs is considered.

**Figure 13: Harrison County Educational Attainment**




Source: 2013 American Community Survey 5-Year Estimates

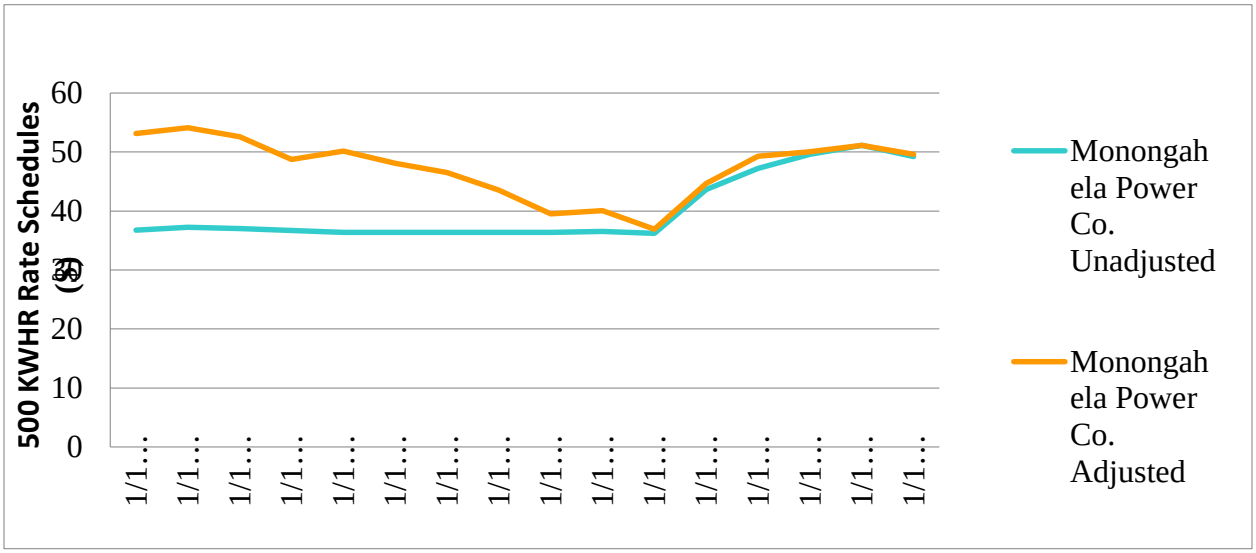
**Utilities and Infrastructure**

Harrison County has 53 utility companies according to the West Virginia Public Service Commission (PSC). Economic development depends on infrastructure, and Harrison County has several providers of water and sewer, two major providers of electricity (Monongahela Power Company and Harrison Rural Electrification Association, Inc.), and one electric wholesaler (American Bituminous Power Partners, L.P.).

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: West Virginia Public Service Commission and U.S. 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 Harrison 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. Harrison County has 17 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 in Harrison County.

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

| | |
|---|---|
| **Bingamon Public Service District** | |
| **Water Rates** | |
| First 3,000 gallons used per month | $ 10.06 per 1,000 gallons |
| Next 3,000 gallons used per month | $ 9.73 per 1,000 gallons |
| Next 4,000 gallons used per month | $ 7.40 per 1,000 gallons |
| All over 10,000 gallons used per month | $ 6.53 per 1,000 gallons |
| **Century Volga Public Service District** | |
| **Water Rates** | |
| First 3,000 gallons used per month | $12.9 1 per 1,000 gallons |
| Next 3,000 gallons used per month | $12.26 per 1,000 gallons |
| Next 4,000 gallons used per month | $11.58 per 1,000 gallons |
| Next 10,000 gallons used per month | $10.89 per 1,000 gallons |
| All over 20,000 gallons used per month | $10.27 per 1,000 gallons |
| **Coon's Run Public Service District** | |
| **Water Rates** | |
| First 3,000 gallons used per month | $9.53 per 1,000 gallons |
| Next 3,000 gallons used per month | $9.41 per 1,000 gallons |
| Next 4,000 gallons used per month | $8.91 per 1,000 gallons |
| All over 10,000 gallons used per month | $8.50 per 1,000 gallons |
| **East View Public Service District** | |
| **Water Rates** | |
| Service Charge | $9.67 per month per customer |
| Usage Charge | $4.69 per 1,000 gallons used per month |
| **Enlarged Hepzibah Public Service District** | |
| **Water Rates** | |
| First 400 cubic feet used per month | $6.27 per 100 cubic feet |
| Next 1,100 cubic feet used per month | $5.61 per 100 cubic feet |
| Next 2,000 cubic feet used per month | $5.1 1 per 100 cubic feet |
| Next 3,500 cubic feet used per month | $4.78 per 100 cubic feet |
| Next 13,000 cubic feet used per month | $4.54 per 100 cubic feet |
| Next 180,000 cubic feet used per month | $4.06 per 100 cubic feet |
| Over 200,000 cubic feet used per month | $3.89 per 100 cubic feet |
| | |
| First 3,000 gallons used per month | $8.35 per 1,000 gallons |
| Next 8,200 gallons used per month | $7.50 per 1,000 gallons |
| Next 15,000 gallons used per month | $6.84 per 1,000 gallons |

| **Enlarged Hepzibah Public Service District** | **Enlarged Hepzibah Public Service District** |
|---|---|
| **Water Rates** | **Water Rates** |
| Next 26,000 gallons used per month | $6.40 per 1,000 gallons |
| Next 97,000 gallons used per month | $6.07 per 1,000 gallons |
| Next 1,346,000 gallons used per month | $5.44 per 1,000 gallons |
| Over 1,495,200 gallons used per month | $5.21 per 1,000 gallons |
| **Greater Harrison County Public Service District** | |
| **Water Rates** | |
| First 3,000 gallons used per month | $9.21 per 1,000 gallons |
| Next 3,000 gallons used per month | $8.79 per 1,000 gallons |
| Next 4,000 gallons used per month | $8.35 per 1,000 gallons |
| Next 15,000 gallons used per month | $7.95 per 1,000 gallons |
| All Over 25,000 gallons used per month | $6.67 per 1,000 gallons |
| **Short Line Public Service District** | |
| **Water Rates** | |
| First 3,000 gallons used per month | $9.21 per 1,000 gallons |
| Next 3,000 gallons used per month | $8.79 per 1,000 gallons |
| Next 4,000 gallons used per month | $8.35 per 1,000 gallons |
| Next 15,000 gallons used per month | $7.95 per 1,000 gallons |
| All Over 25,000 gallons used per month | $6.67 per 1,000 gallons |
| **Summit Park Public Service District** | |
| **Water Rates** | |
| First 3,000 gallons used per month | $9.68 per 1,000 gallons |
| Next 7,000 gallons used per month | $9.50 per 1,000 gallons |
| Next 15,000 gallons used per month | $9.07 per 1,000 gallons |
| Next 25,000 gallons used per month | $8.58 per 1,000 gallons |
| All Over 250,000 gallons used per month | $8.35 per 1,000 gallons |
| **Sun Valley Public Service District** | |
| **Water Rates** | |
| First 3,000 gallons used per month | $10.33 per 1,000 gallons |
| Next 3,000 gallons used per month | $ 9.65 per 1,000 gallons |
| Next 3,000 gallons used per month | $ 9.28 per 1,000 gallons |
| Next 6,000 gallons used per month | $ 8.97 per 1,000 gallons |
| Next 22,500 gallons used per month | $ 7.59 per 1,000 gallons |
| Over 37,500 gallons used per month | $ 6.84 per 1,000 gallons |

| | |
|---|---|
| **Clarksburg Water Board** | |
| **Water Rates** | |
| *CCF Metered* | |
| First 2,000 cu ft. used per month | $5.170 per 100 cu ft. |
| Next 28,000 cu ft. used per month | $3.460 per 100 cu ft. |
| All over 30,000 cu ft. used per month | $2.420 per 100 cu ft. |
| *Gallons Metered* | |
| First 15,000 gallons used per month | $6.960 per 1,000 gallons |
| Next 210,000 gallons used per month | $4.670 per 1,000 gallons |
| All over 225,000 gallons used per month | $3.270 per 1,000 gallons |
| **Lumberport Municipal Water Works** | |
| **Water Rates** | |
| First 2,000 gallons used per month | $10.34 per 1,000 gallons |
| Next 8,000 gallons used per month | $10.04 per 1,000 gallons |
| Next 25,000 gallons used per month | $9.48 per 1,000 gallons |
| Next 25,000 gallons used per month | $8.92 per 1,000 gallons |
| All over 60,000 gallons used per month | $8.63 per 1,000 gallons |
| **Town of Monongah** | |
| **Water Rates** | |
| First 2,000 gallons used per month | $ 11.42 per 1,000 gallons |
| Next 13,000 gallons used per month | $ 8.01 per 1,000 gallons |
| Next 35,000 gallons used per month | $ 5.24 per 1,000 gallons |
| All Over 50,000 gallons used per month | $ 3.35 per 1,000 gallons |
| **Nutter Fort Municipal Water Department** | |
| **Water Rates** | |
| First 2,000 gallons used per month | $ 11.06 per 1,000 gallons |
| Next 3,000 gallons used per month | $ 10.33 per 1,000 gallons |
| Next 15,000 gallons used per month | $ 7.57 per 1,000 gallons |
| All over 20,000 gallons used per month | $ 6.64 per 1,000 gallons |
| **City of Salem** | |
| **Water Rates** | |
| *Minimum Bill and Usage* | In addition to the Minimum Use fee, |
| Residential <2,000 gallons - $21.21 | water will be charged at the rate of $7.44 per |
| Commercial <2,000 gallons - $21.21 | thousand gallons for all uses above the |
| Institutional <2,000 gallons - $21.21 | minimum charge of 2,000 gallons |

| | |
|---|---|
| **City of Stonewood** | |
| **Water Rates** | |
| First 2,000 gallons used per month | $ 10.28 per 1,000 gallons |
| Next 2,000 gallons used per month | $ 8.78 per 1,000 gallons |
| Next 6,000 gallons used per month | $ 6.77 per 1,000 gallons |
| Next 40,000 gallons used per month | $ 4.47 per 1,000 gallons |
| Next 50,000 gallons used per month | $ 4.26 per 1,000 gallons |
| All over 100,000 gallons used per month | $ 4.14 per 1,000 gallons |
| **West Milford Municipal Water Department** | |
| **Water Rates** | |
| First 2,000 gallons used per month | $19.54 per 2,000 gallons |
| All Over 2,000 gallons used per month | $8.99 per 1,000 gallons |
| **West Virginia-American Water Company** | |
| **Water Rates** | |
| First 1,500 gallons used per month | At the minimum charge per meter size |
| Next 28,500 gallons used per month | $10.2911 per 1,000 gallons |
| Next 870,000 gallons used per month | $6.7770 per 1,000 gallons |
| Next 8,100,000 gallons used per month | $4.9308 per 1,000 gallons |
| All over 9,000,000 gallons used per month | $3.2074 per 1,000 gallons |
| **Town of Anmoore Water Department** | |
| **Water Rates** | |
| First 2,000 gallons used per month | $8.50 per 1,000 gallons |
| Next 3,000 gallons used per month | $7.14 per 1,000 gallons |
| Next 8,000 gallons used per month | $6.52 per 1,000 gallons |
| All Over 13,000 gallons used per month | $5.70 per 1,000 gallons |
| **Bridgeport Utility Board** | |
| **Water Rates** | Phased increase: These rates are effective after March 31, 2015 |
| First 3,000 gallons used per month | $9.12 per thousand gallons |
| Next 4,000 gallons used per month | $8.18 per thousand gallons |
| Next 18,000 gallons used per month | $7.79 per thousand gallons |
| Next 75,000 gallons used per month | $5.96 per thousand gallons |
| All over 100,000 gallons used per month | $4.57 per thousand gallons |

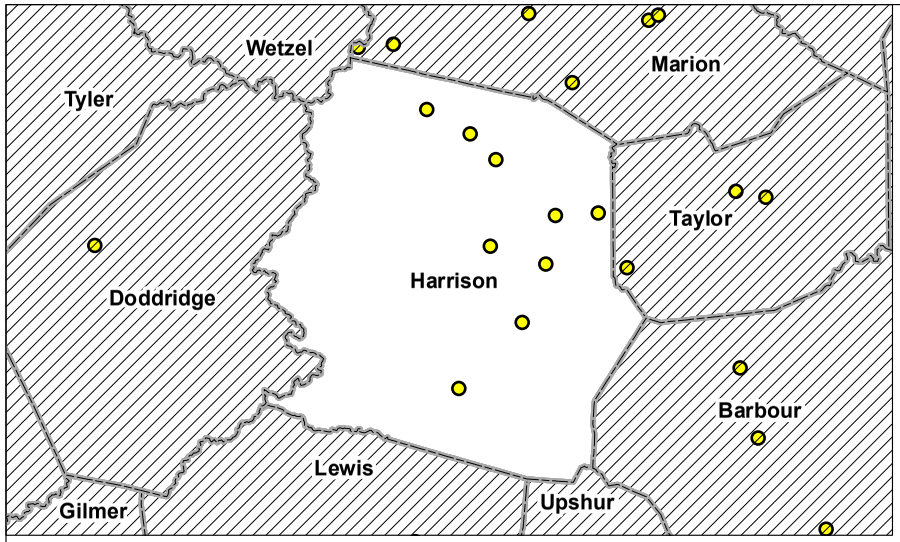
| | |
|---|---|
| **City of Clarksburg Sanitary Board** | |
| **Sewer Rates** | Phased increase: These rates are effective after March 31, 2015 |
| First 4,000 cubic feet per month, or | |
| 8,000 cubic feet used bi-monthly at - | $6.48 per 100 cubic feet |
| Next 16,000 cubic feet per month, or | |
| 32,000 cubic feet used bi-monthly at - | $4.77 per 100 cubic feet |
| All over 20,000 cubic feet per month, or | |
| 40,000 cubic feet used bi-monthly at - | $4.15 per 100 cubic feet |
| **City of Salem** | |
| **Sewer Rates** | |
| *Minimum Bill and Usage* | In addition to the Minimum Use fee, |
| Residential <2,000 gallons - $35.20 | water will be charged at the rate of $14.05 per |
| Commercial <2,000 gallons - $35.20 | thousand gallons for all uses above the |
| Institutional <2,000 gallons - $35.20 | minimum charge of 2,000 gallons |
| **City of Shinnston** | |
| **Water Rates** | |
| First 2,000 gallons used per month | $18.58 (minimum charge) |
| Next 3,000 gallons used per month | $7.68 per 1,000 gallons |
| Next 5,000 gallons used per month | $6.08 per 1,000 gallons |
| Next 90,000 gallons used per month | $4.46 per 1,000 gallons |
| Over 100,000 gallons used per month | $4.14 per 1,000 gallons) |
| **City of Shinnston** | |
| **Sewer Rates** | |
| First 2,000 gallons used per month | $16.10 per 1,000 gallons |
| Next 5,000 gallons used per month | $13.32 per 1,000 gallons |
| Over 7,000 gallons used per month | $12.60 per 1,000 gallons |
| **City of Stonewood** | |
| **Sewage Rates** | |
| First 2,000 gallons | $9.04 per 1,000 gallons |
| Next 2,000 gallons | 8.84 per 1,000 gallons |
| Next 6,000 gallons | 8.74 per 1,000 gallons |
| Next 40,000 gallons | 6.52 per 1,000 gallons |
| Next 50,000 gallons | 6.09 per 1,000 gallons |
| Over 100,000 gallons | 5.72 per 1,000 gallons |

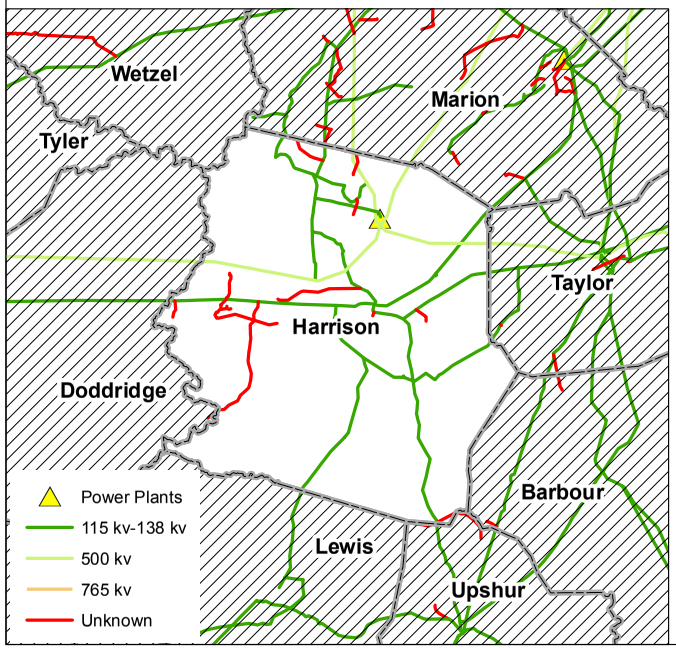
| | |
|---|---|
| **Town of Nutter Fort Sewer System** | |
| **Sewer Rates** | |
| First 2,000 gallons used per month | $17.72 per 1,000 gallons |
| Next 3,000 gallons used per month | $16.91 per 1,000 gallons |
| Next 5,000 gallons used per month | $16.21 per 1,000 gallons |
| Next 10,000 gallons used per month | $16.21 per 1,000 gallons |
| Next 25,000 gallons used per month | $15.53 per 1,000 gallons |
| Next 45,000 gallons used per month | $14.34 per 1,000 gallons |
| **Bridgeport Utility Board** | |
| **Sewer Rates** | Phased increase: These rates are effective on any and all billings from June 1, 2008- May 31, 2009 |
| First 3,000 gallons used per month | $8.334 per thousand gallons |
| Next 4,000 gallons used per month | $7.35 per thousand gallons |
| Next 18,000 gallons used per month | $6.15 per thousand gallons |
| Next 75,000 gallons used per month | $5.00 per thousand gallons |
| All over 100,000 gallons used per month | $4.00 per thousand gallons |
| **Town of Anmoore** | |
| **Sewer Rates** | |
| *Tariff not available* | |
| **Summit Park Public Service District** | |
| **Sewer Rates** | |
| $8.79 per 1,000 gallons of water used per month | |
| **Sun Valley Public Service District** | |
| **Sewer Rates** | |
| $15.25 per thousand gallons of water used per month | |
| **East View Public Service District** | |
| **Sewer Rates** | |
| Service Charge | $27.96 per month per customer |
| Usage Charge | $0.95 per 1,000 gallons per month |
| **Enlarged Hepzibah Public Service District** | |
| **Sewer Rates** | |
| $10.48 per 1,000 gallons used per month | |
| $ 7.86 per hundred cubic feet used per month | |
| **Greater Harrison County Public Service District** | |

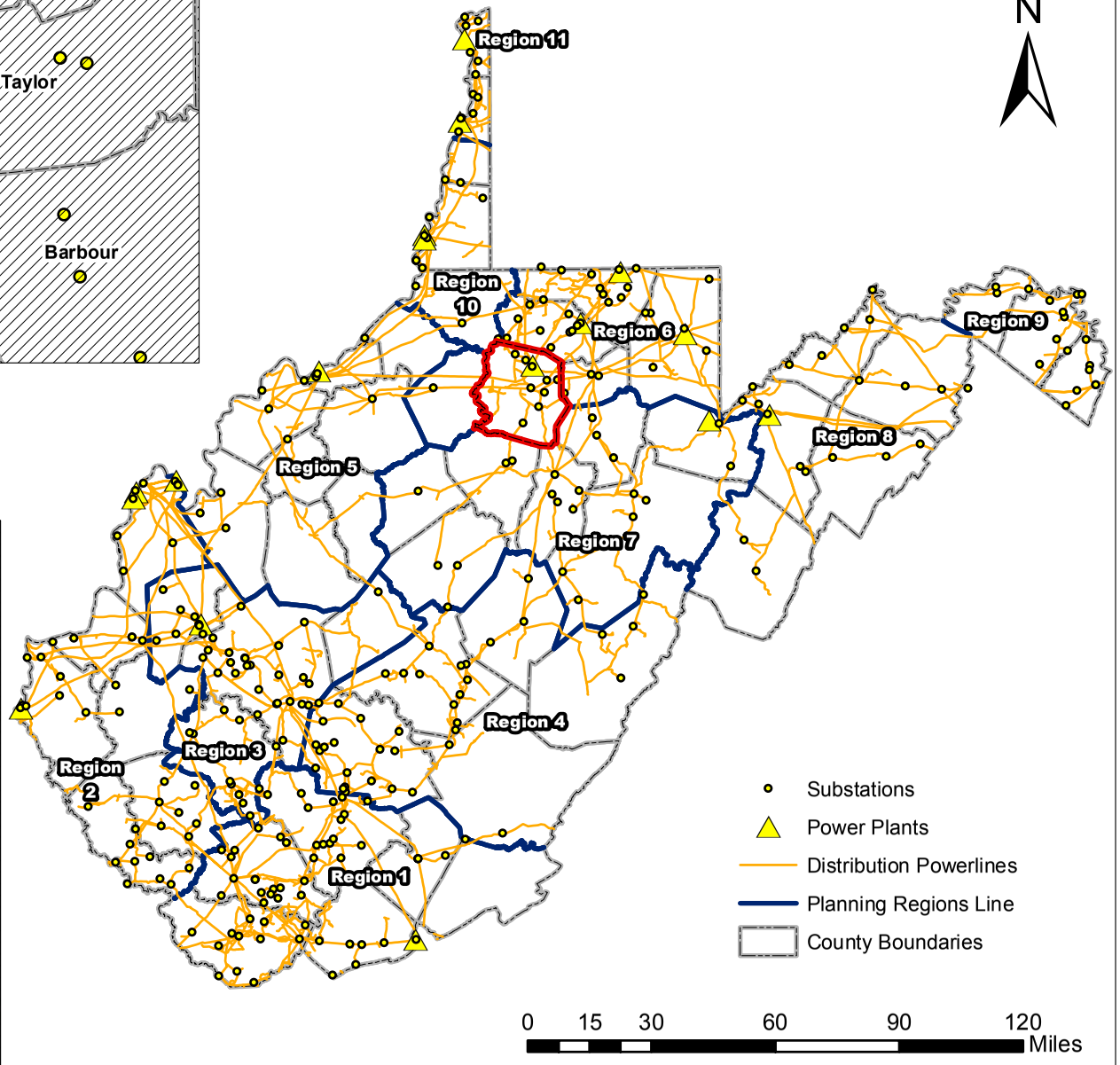
| | |
|---|---|
| **Sewer Rates** | |
| Customer Charge | Per customer $13.41 per month |
| Commodity Charge | $11.90 per 1,000 gallons |
| Landfill Surcharge | In addition to the above charges, $14.73 per 1,000 gallons |
| Unmetered and well users | Flat rate (5,000 gallons) - $72.91 per month |
| **Jane Lew Public Service District** | |
| **Sewer Rates** | |
| First 2,000 gallons used per month | $13.68 per 1,000 gallons |
| Next 3,000 gallons used per month | $11.79 per 1,000 gallons |
| Next 4,000 gallons used per month | $10.26 per 1,000 gallons |
| Next 6,000 gallons used per month | $8.75 per 1,000 gallons |
| All Over 15,000 gallons used per month | $7.96 per 1,000 gallons |
| **Lake Floyd Public Service District** | |
| **Sewer Rates** | |
| Flat Rate | $32.97 per month for all customers |
| **Tri-County Water Association (WAA)** | |
| **Water Rates** | |
| First 2,000 gallons used per month | $8.91 per 1,000 gallons |
| All Over 2,000 gallons used per month | $6.85 per 1,000 gallons |
| **Circle Drive Estates Association (SP)** | |
| **Sewer Rates** | |
| Flat rate | $23.15 per month per customer |
| **Town of Lumberport** | |
| **Sewer Rates** | |
| Flat Rate | $33.81 per month per customer |
| First 2,000 gallons used per month | $25.36 per month per customer |
| All over 2,000 gallons used per month | $8.45 per 1,000 gallons |

# Utilities - Electricity

## Harrison County




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

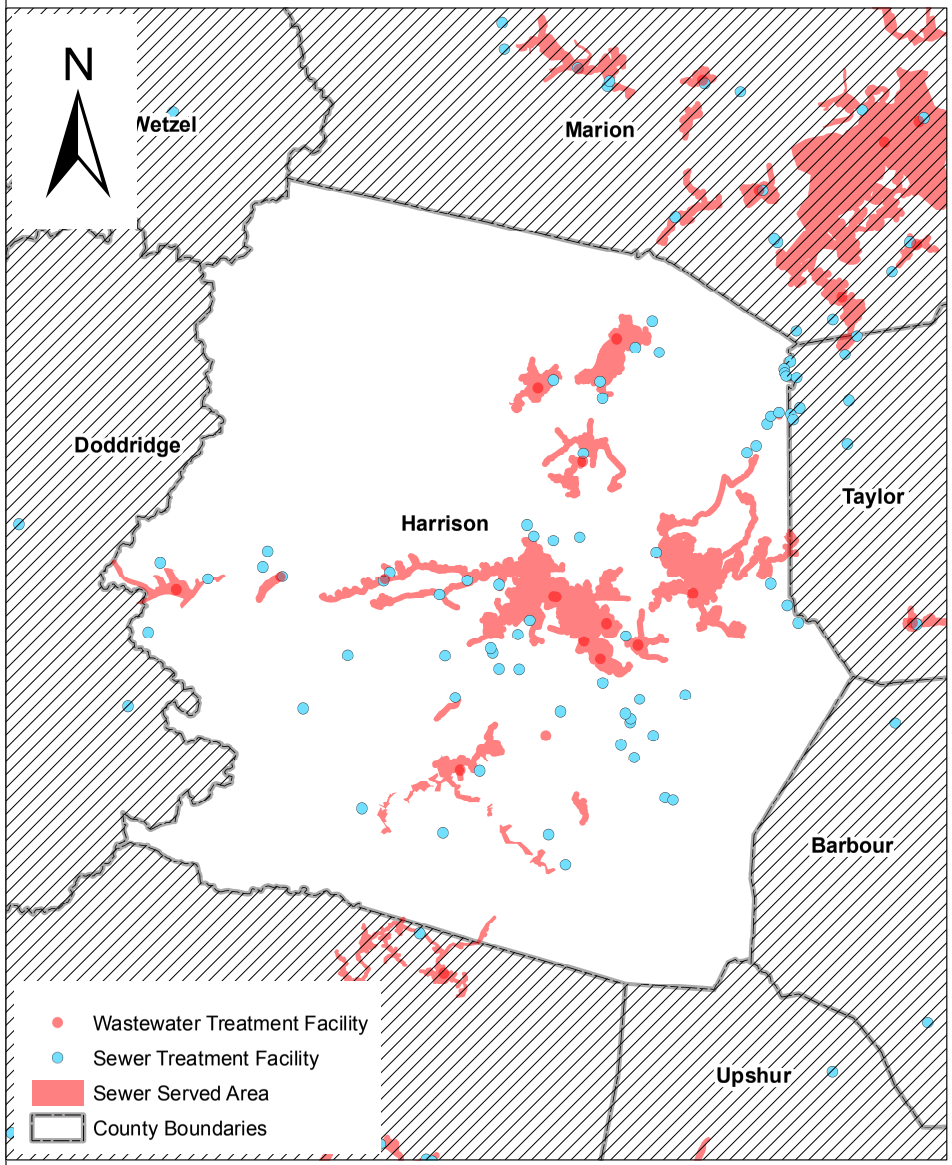


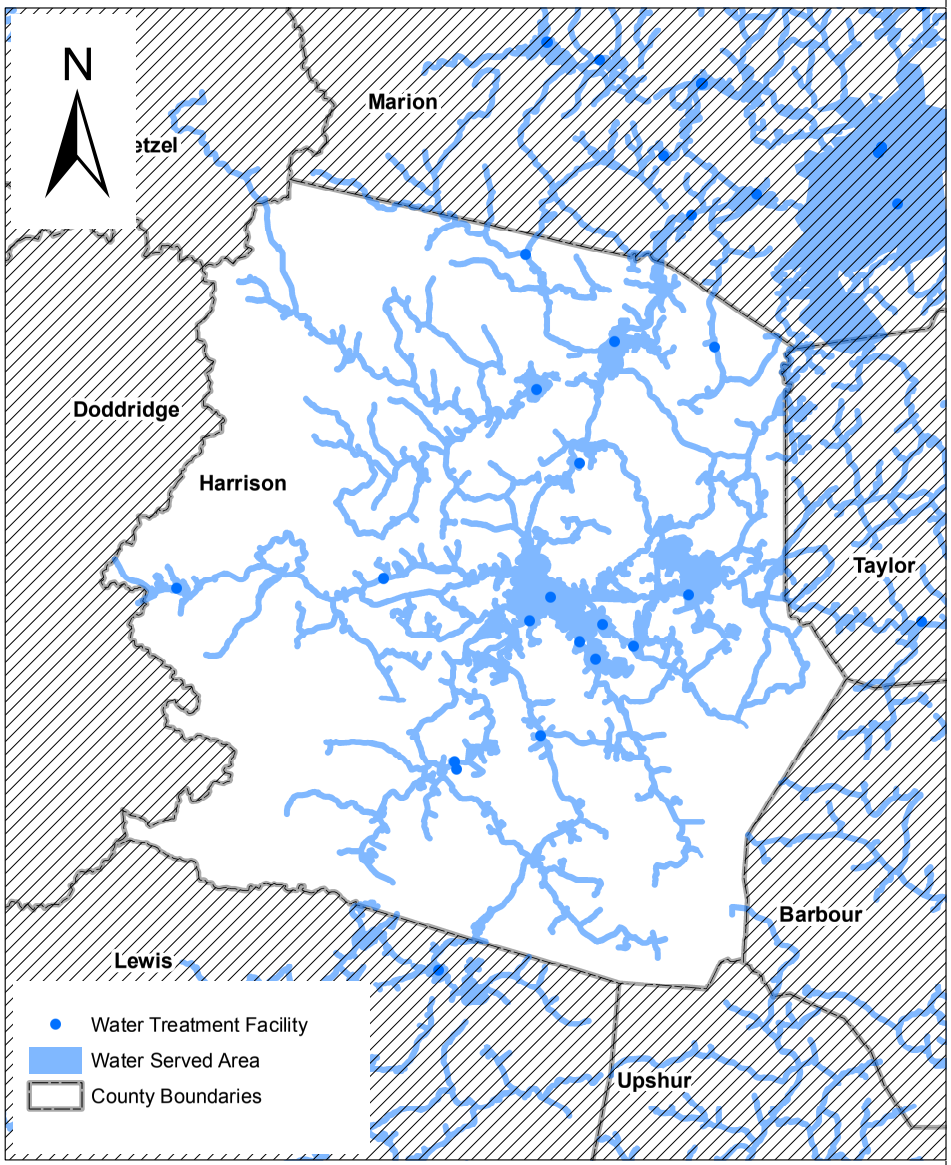
RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Utilities - Water and Sewer

## Harrison County




0 15 30 60 90 120
Miles

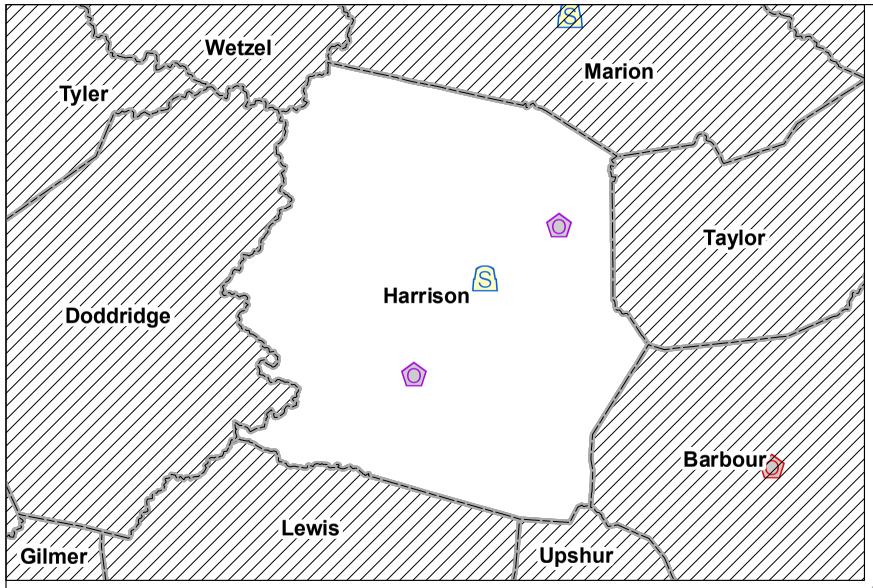
Source: West Virginia Infrastructure and Jobs Development Council N.A.

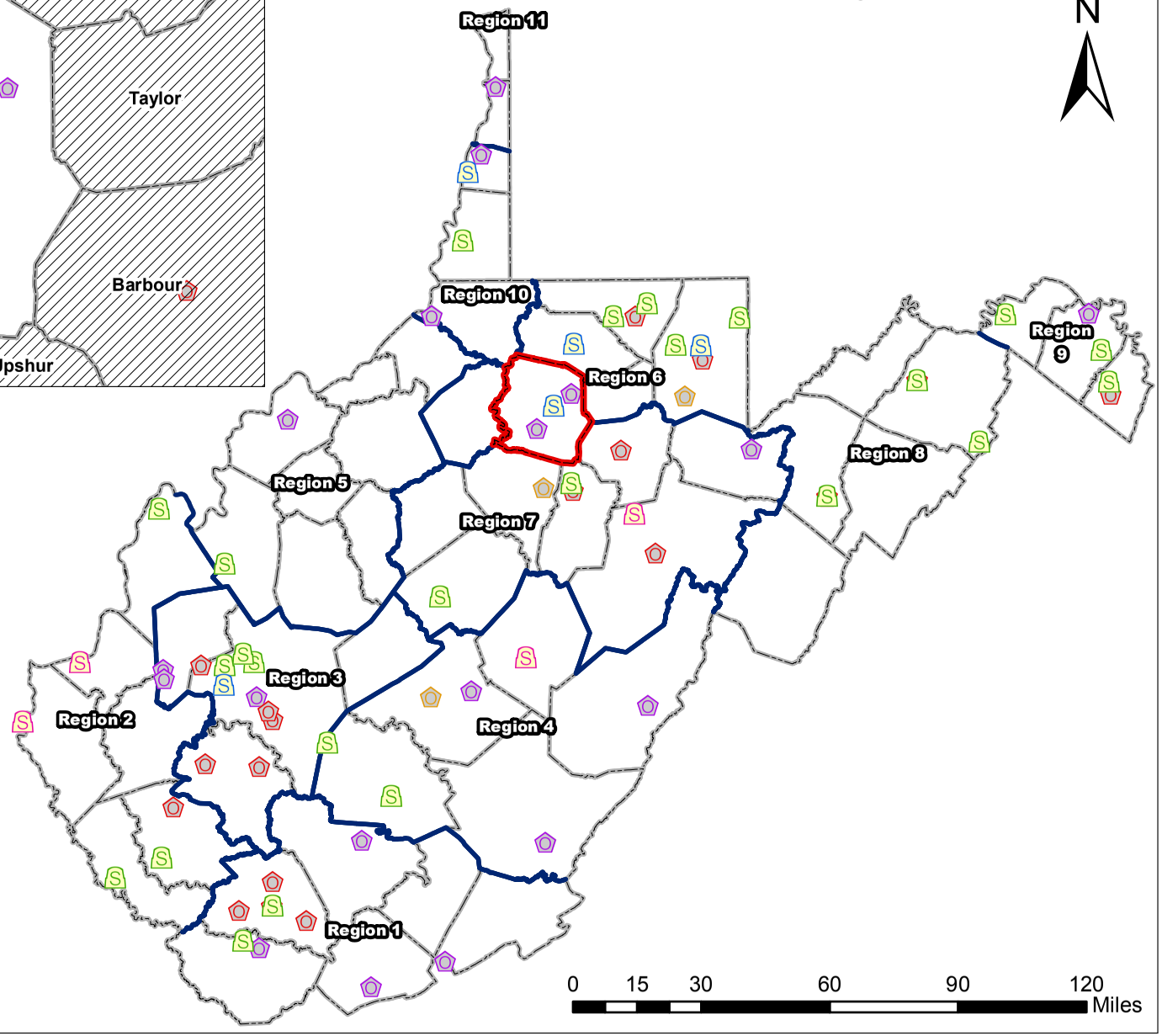


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

# Utility - Solid Waste Facility

## Harrison County




N

**Non Operational Facility**

- Post-closure status
- Closure status
- A non LCAP** facility

**Operational Facility**

- Operational landfill
- Solid waste transfer station
- Operational tire monofill
- Planning Regions Line
- County Boundaries

** Landfill Closure Assistance Program

0 15 30 60 90 120 Miles

Source: West Virginia Solid Waste Management Board 2012



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

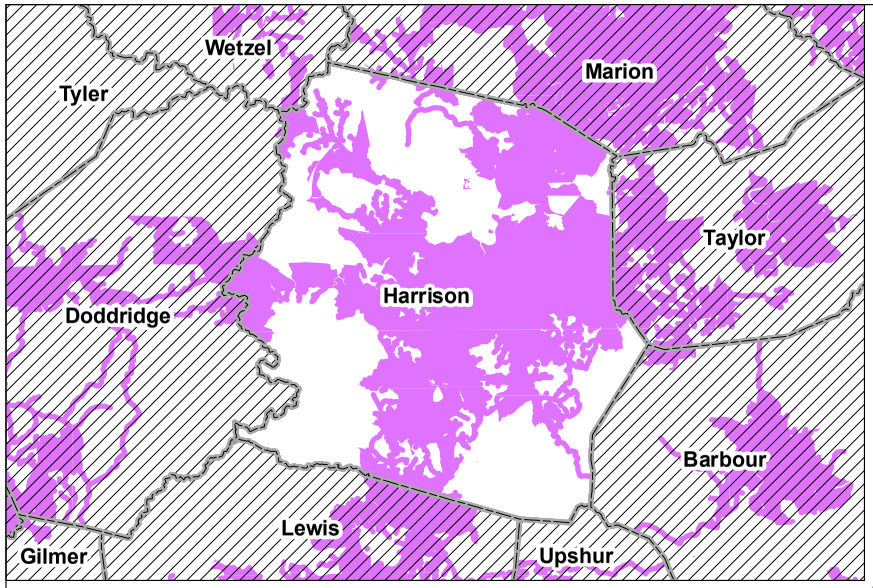
One essential modern convenience, now widely understood as an essential utility in a globalized world, is broadband access. The following 11 maps demonstrate Harrison County's broadband infrastructure in relation to the State's. The largest number of providers in Harrison County is five, which are most densely concentrated in the center of the County. Harrison County broadband infrastructure closely resembles neighboring counties of Taylor and Marion. Of particular note is the abundance of fixed wireless, 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 the same pattern in Harrison 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.

# Broadband - Internet Cable and FTTP Coverage

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

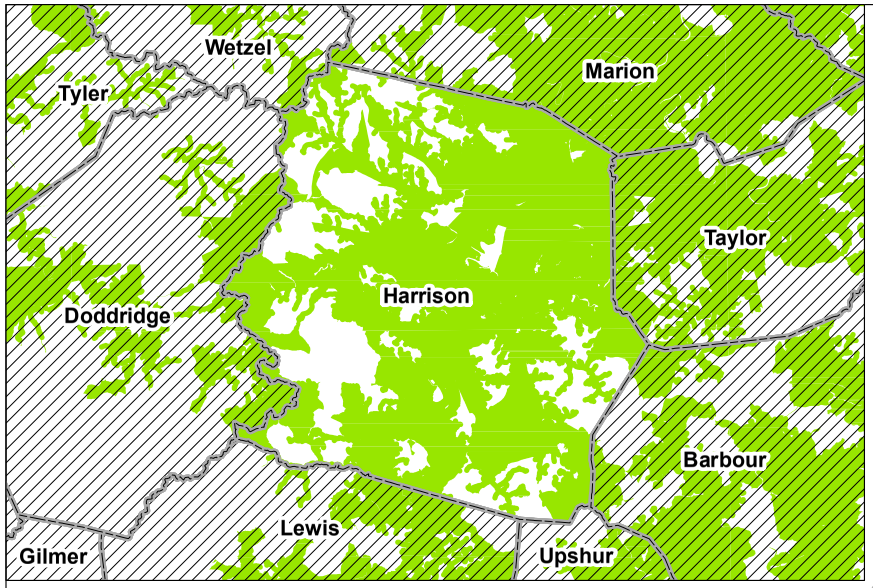


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet DSL, BPL, Other Copper

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

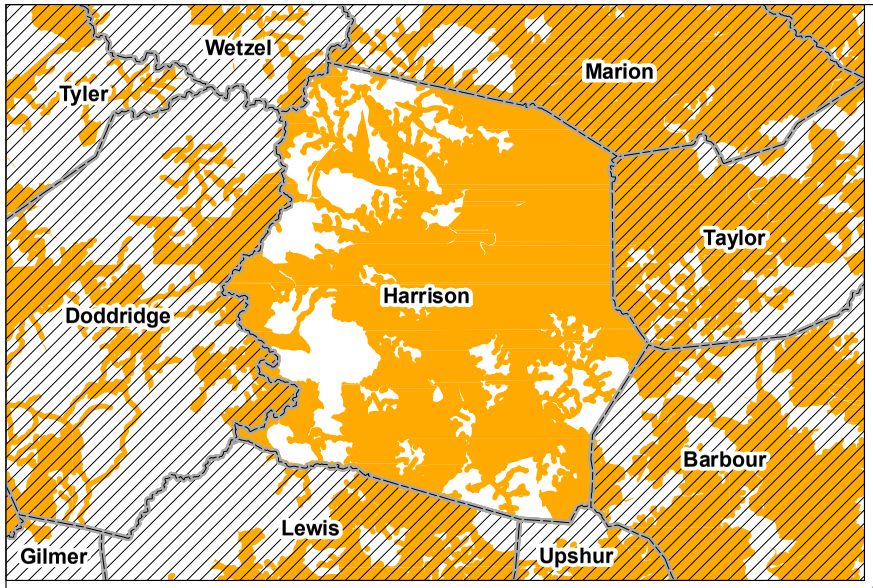


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet Wireline Coverage

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

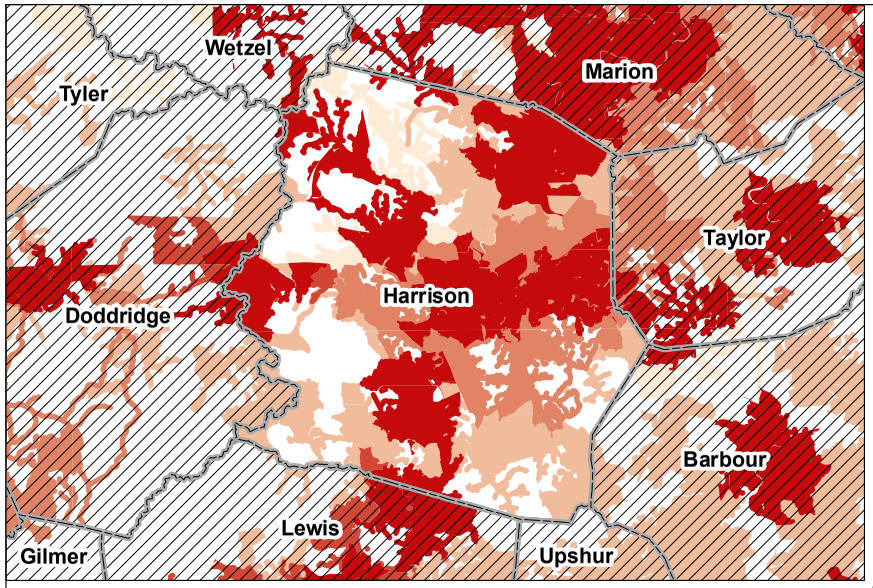


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet MaxUp Speed Wireline

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

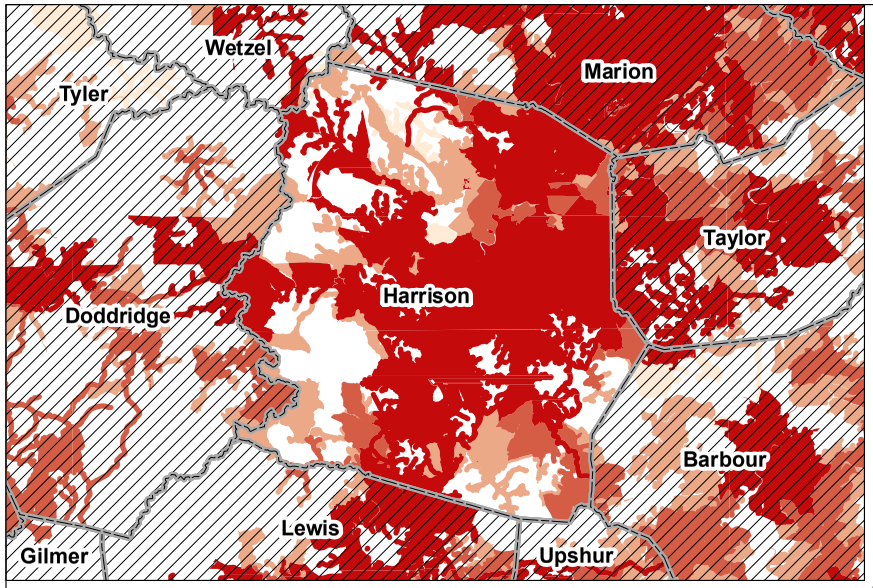


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet MaxDown Speed Wireline

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

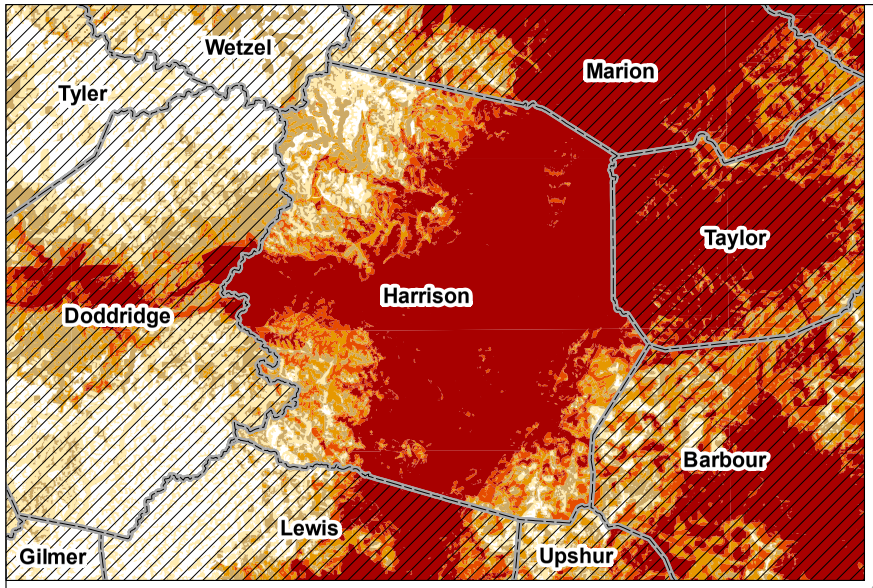


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet Total Number of Providers

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

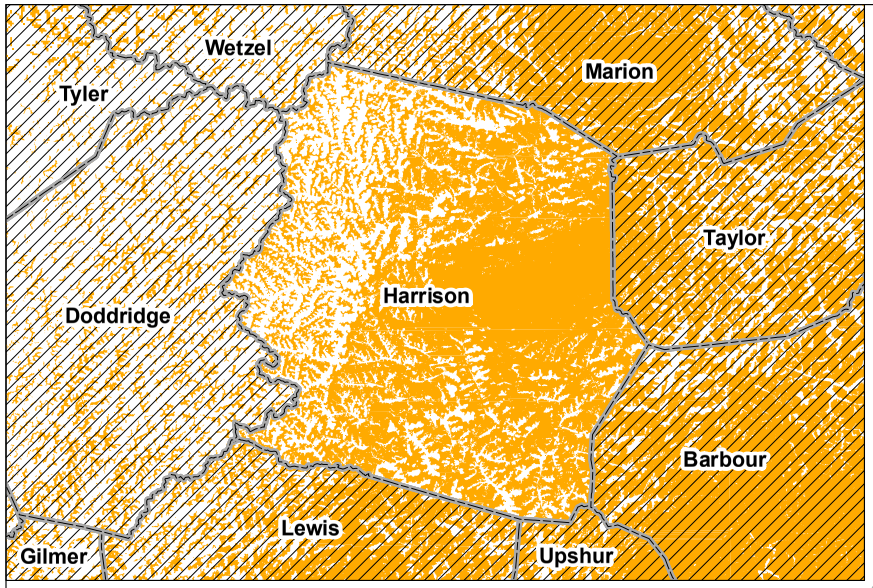


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet Fixed Wireless Coverage

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

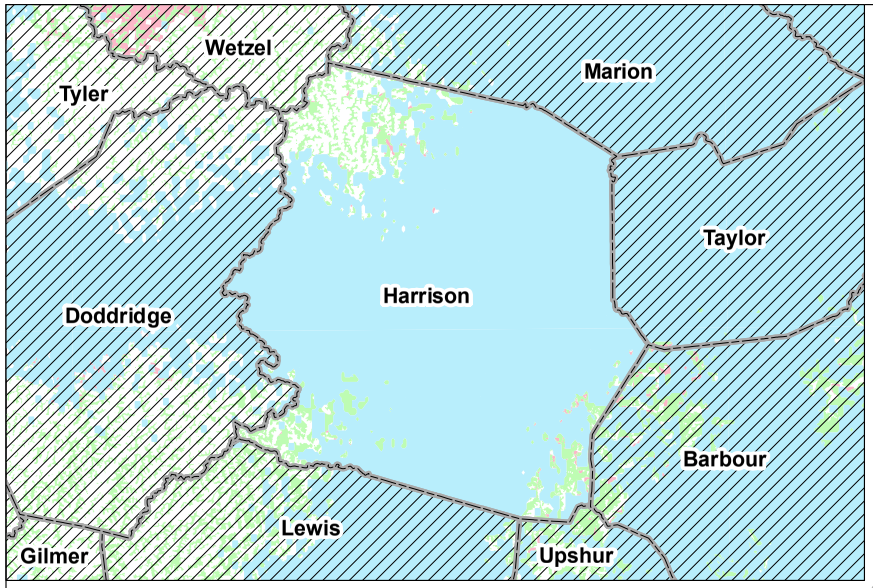


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet MaxDown Speed Wireless

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

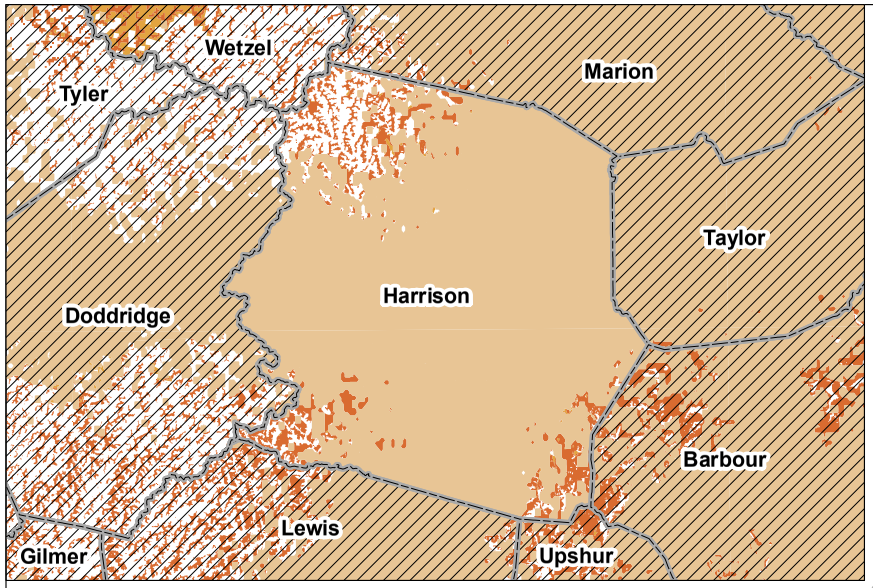


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet MaxUp Speed Wireless

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

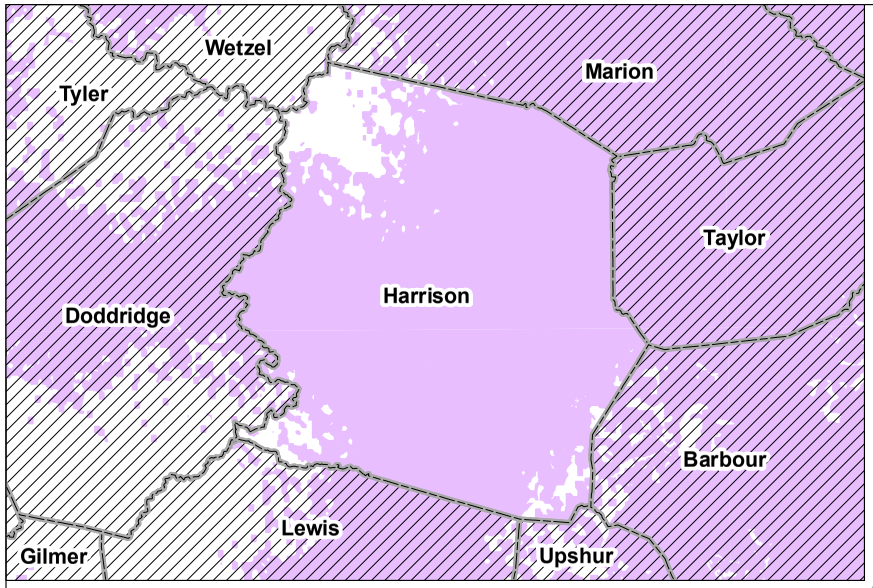


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - Internet Mobile Wireless Coverage

## Harrison County







Source: West Virginia Broadband Mapping Program 2014

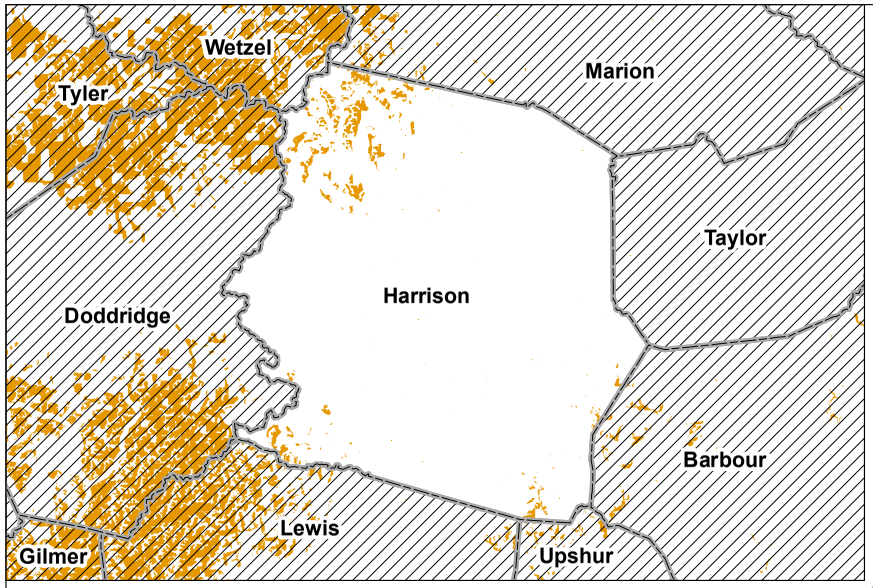


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Broadband - No Broadband Coverage

## Harrison County







Source: West Virginia Broadband Mapping Program 2014



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

**Transportation**

*Highways*

Harrison County one interstate – I 79, two U.S. routes – Route 50 and Route 19, and State Routes 20, 23, 57, 76, 98, 131, and 270 (Map 26).

*Rail*

Harrison County has rail systems present throughout the County.

*Air*

Harrison County has two airports – Wade F Maley Field, a grass landing strip in the northern area of the county and the North Central West Virginia Airport. The North Central West Virginia Airport is a public airport owned and operated by the Benedum Airport Authority. Located in Bridgeport, West Virginia the airport proudly serves the communities of Clarksburg, Fairmont, Morgantown, Weston, and the surrounding region. The airport is currently served by two commercial airlines, with one carrier subsidized by the Essential Air Service program. It encompasses approximately 665 acres and is home to the longest commercial service runway in West Virginia at 7,800 feet. With a full ILS to Runway 21 and an Aircraft Rescue and Firefighting Index B, the airport is fully capable of handling any and all aviation needs. The North Central West Virginia Airport is conveniently situated in the middle of the I-79 High Tech Corridor, providing easy access between Charleston, WV, Morgantown, WV, and Pittsburgh, PA. With daily flights to Washington-Dulles International Airport (IAD) on United Airlines and less than daily opportunities to Orlando/Sanford International Airport (SFB) and Myrtle Beach International Airport (MYR) on Allegiant, passenger numbers continue to grow.[7]

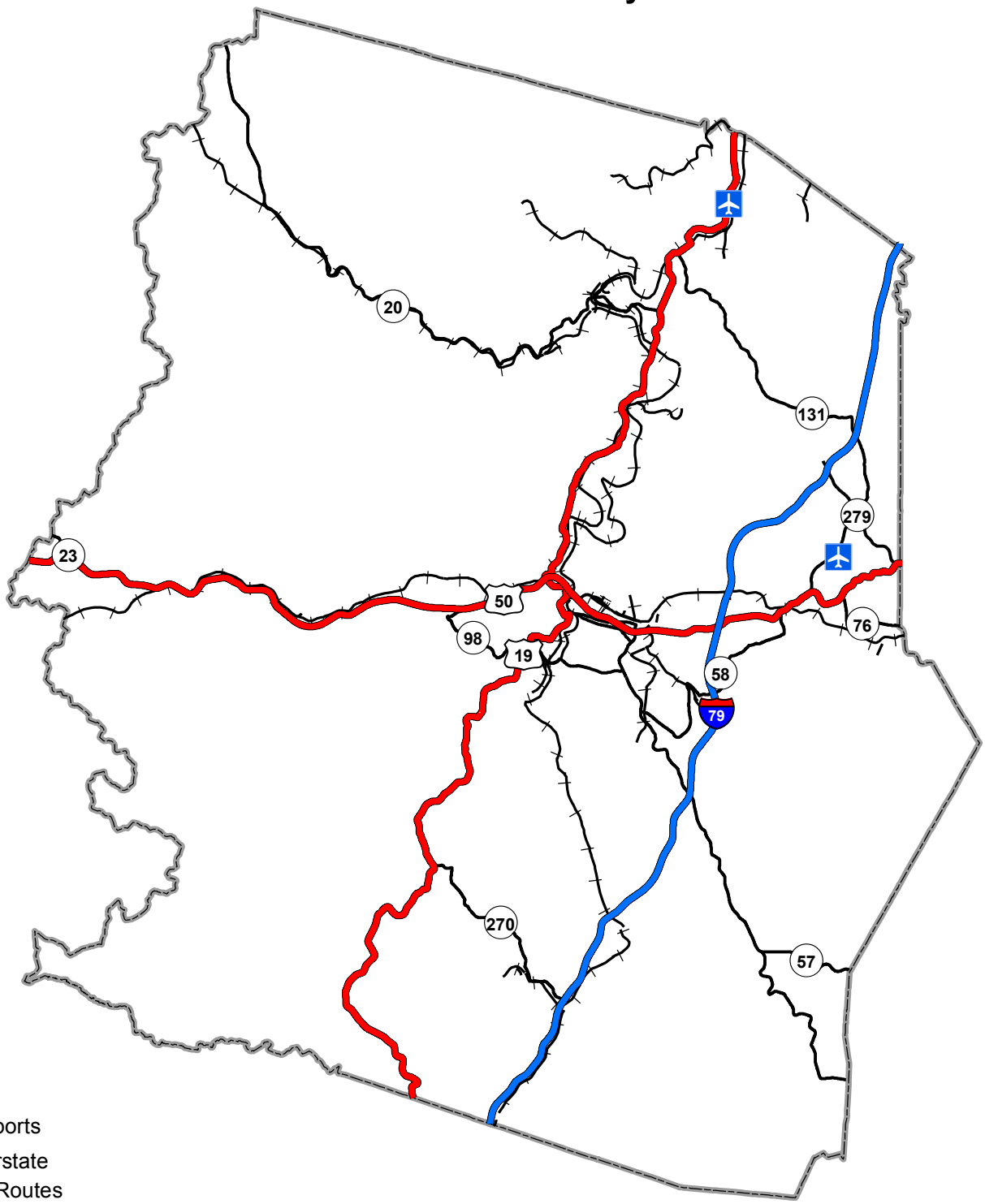
An economic impact study completed in 2014 found the Airport generates a total annual economic impact of $1.05 billion dollars, creates over 3,400 jobs directly and indirectly, and brings nearly 3,000 annual visitors a year to the region. The Airport is also credited for generating $23 million in state and local tax revenue as well as $42 million in federal tax revenues on an annual basis. Tourism also benefits from the Airport to the tune of an estimated $1.5 million dollars. That is how much visitors to region contribute to the economy annually by utilizing lodging establishments, dining out and participating in recreational events.[8]

[7] "About Us". North Central West Virginia Airport. Accessed November 24, 2015. http://www.flyckb.com/about-us/.
[8] *Ibid*

Map 26

# Transportation

## Harrison 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



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

**Current Post-Mine Economic Development Sites**

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

Pete Dye Golf Course

Widely regarded as one of the finest layouts in the world, The Pete Dye Golf Club is an 18-hole golf course built on a former coal surface mine. Opened for play in 1994 the private course has been the recipient of many golf accolades and was named by *Golf Magazine* as one of the Top 100 courses in the United States in 1999.[9]

FBI Center

The FBI Center in Clarksburg, WV is home to the Criminal Justice Information Services, the largest division of the FBI. The center is located on 986 acres of land and houses a 500,000-square foot main office which contains a 600-seat cafeteria, 500-seat auditorium, atria for visitors and employees, and a 100,000 square-foot computer center.[10]

Charles Pointe

Charles Pointe is a $1.4 billion, 1,700 acre master-planned community in Bridgeport, WV. It combines commercial, residential, and recreational opportunities for a mixed use community that benefits job creation, housing, tourism, and recreation for WV.[11]

Meadowbrook Mall

Meadowbrook Mall is a one-floor, 849,206 square-foot regional shopping mall in Bridgeport, WV owned by Cafaro Company. It contains 109 stores, including Elder-Beerman, J.C. Penny, Sears, and Target Corporation.[12]

Eastpointe Shopping Center/New Pointe Shopping Center

Eastpointe/New Pointe Shopping Center is the largest strip mall in WV. It is adjacent to Interstate I-79. It is home to 38 stores, including A.C. Moore, Kohl's, Sam's Club, Super K-Mart, and Wal-Mart.[13]

---

[9] "A Course to Dye For", Huntington Quarterly, Accessed September 29, 2015. http://www.huntingtonquarterly.com/articles/issue41/golf.html

[10] "Criminal Justice Information Services", The Federal Bureau of Investigation, Accessed September 29, 2015. https://www.fbi.gov/about-us/cjis/overview

[11] Charles Pointe, Accessed September 29, 2015. http://www.charlespointe.com/AboutUs.aspx#

[12] "Meadowbrook Mall", Accessed September 29, 2015. https://en.wikipedia.org/wiki/Meadowbrook_Mall

[13] Clarksburg Convention & Visitors Bureau, Accessed September 29, 2015. http://www.clarksburgvisitorswv.com/shoppingcvb.aspx

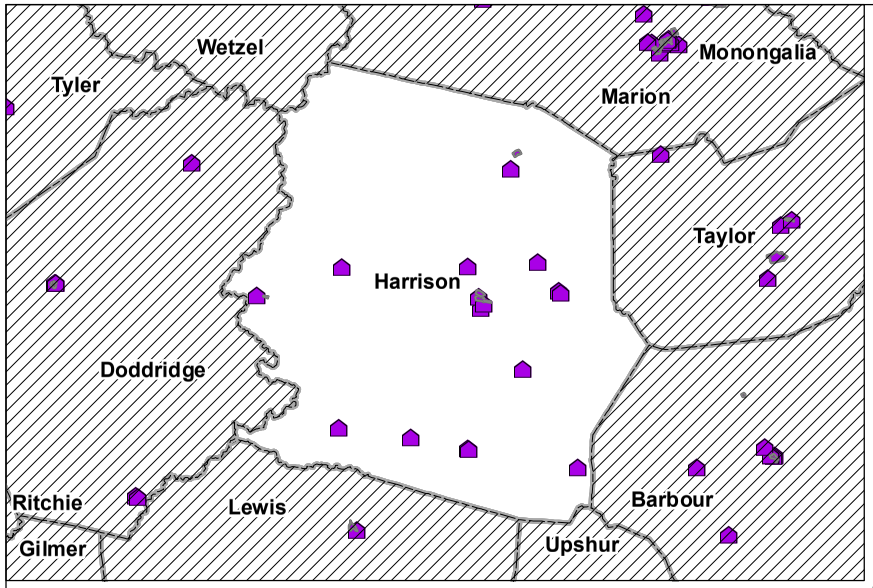
**Historic Preservation**

Historic preservation will be essential in a county steeped in coal mining history. Harrison County has 21 listings in the National Register of Historic Places (Map 27).[14] Other historic areas have been designated by West Virginia. Map 28 gives a spatial position to each designated State historic piece of architecture.

[14] NPS Focus Digital Asset Search. National Park Service National Register of Historic Places. http://focus.nps.gov/nrhp/.

# National Register of Historic Place

## Harrison County







Source: West Virginia State Historic Preservation Office 2015

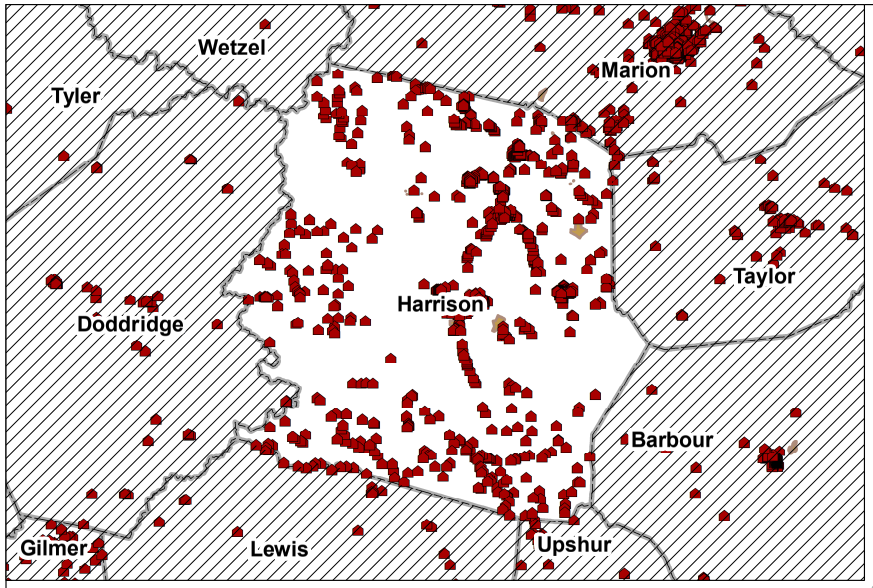


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# State Historic Architecture

## Harrison County







Source: West Virginia State Historic Preservation Office 2012



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

**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. Harrison 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. Harrison's wetland inventory is clustered and sporadic throughout the County (Map 29).

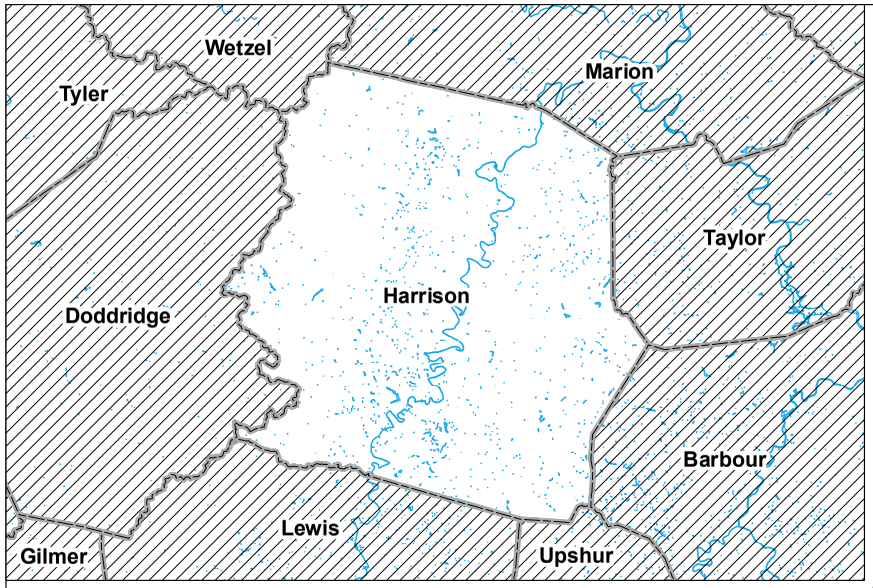
The State also possesses a respectable amount of park and forest land. Most of this land is located in the eastern portion of the State, the area that contains the main part of the Appalachian Mountain range. Harrison County contains a few small areas of state parks and wildlife management areas (Map 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."[15] There are six 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; Harrison County is not among them (Map 31).

[15] "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

## Harrison County







Source: United States Fish and Wildlife Service 1996

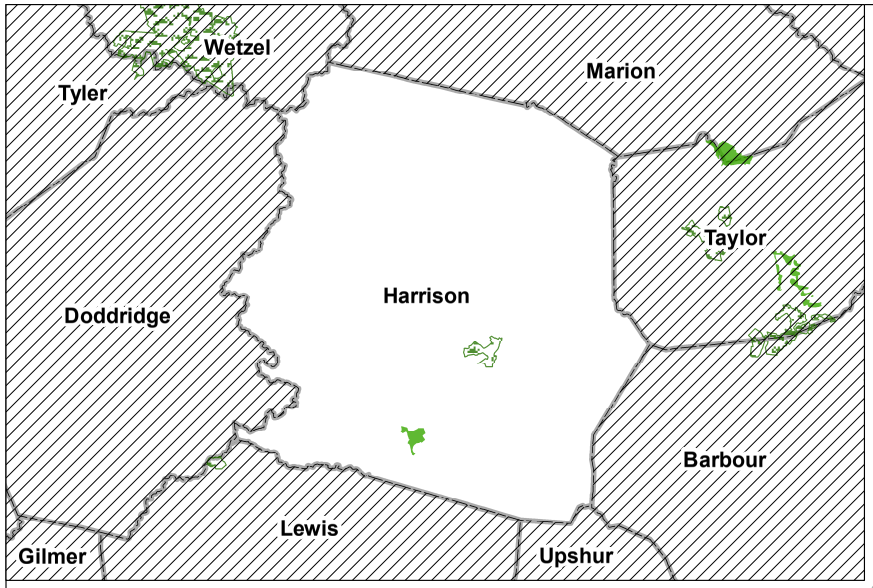


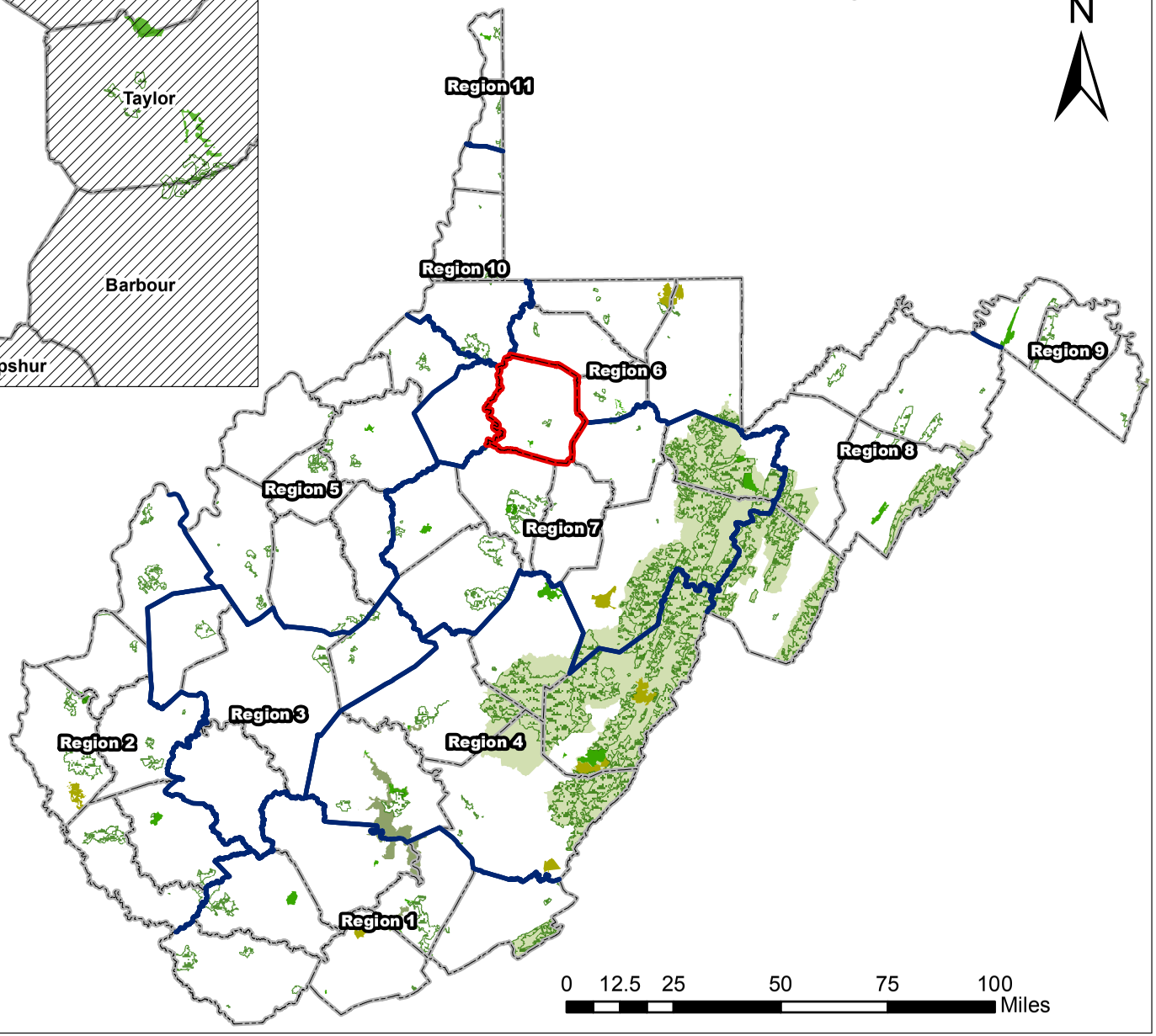
RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Public Land - Parks and Forests

## Harrison County




N

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

0 12.5 25 50 75 100 Miles

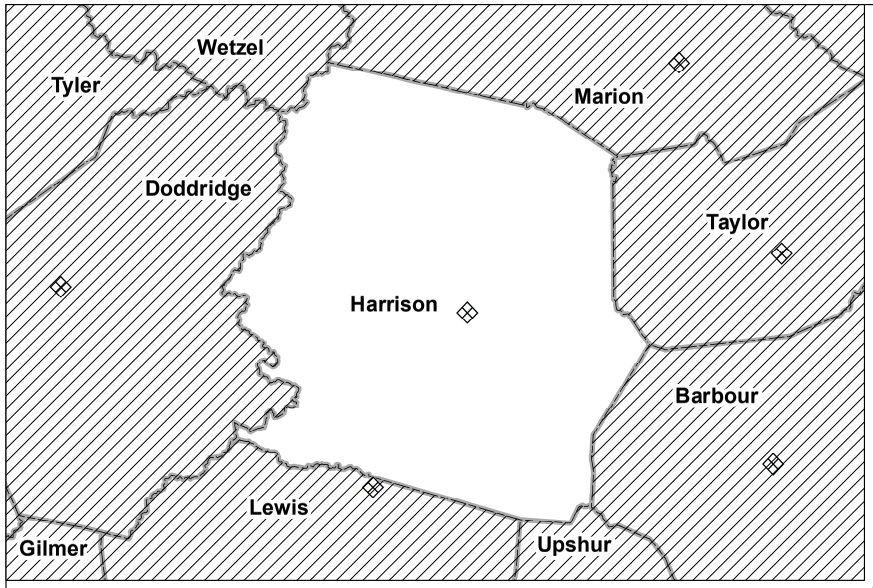
Source: Wildlife Management Areas; West Virginia Division of Natural Resources 2002; State Forest; West Virginia Division of Forestry 2004; State Park; West Virginia Division of Natural Resources, Natural Resource Analysis Center 2000 National Forest; United States Forest Service 2005; National Park;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



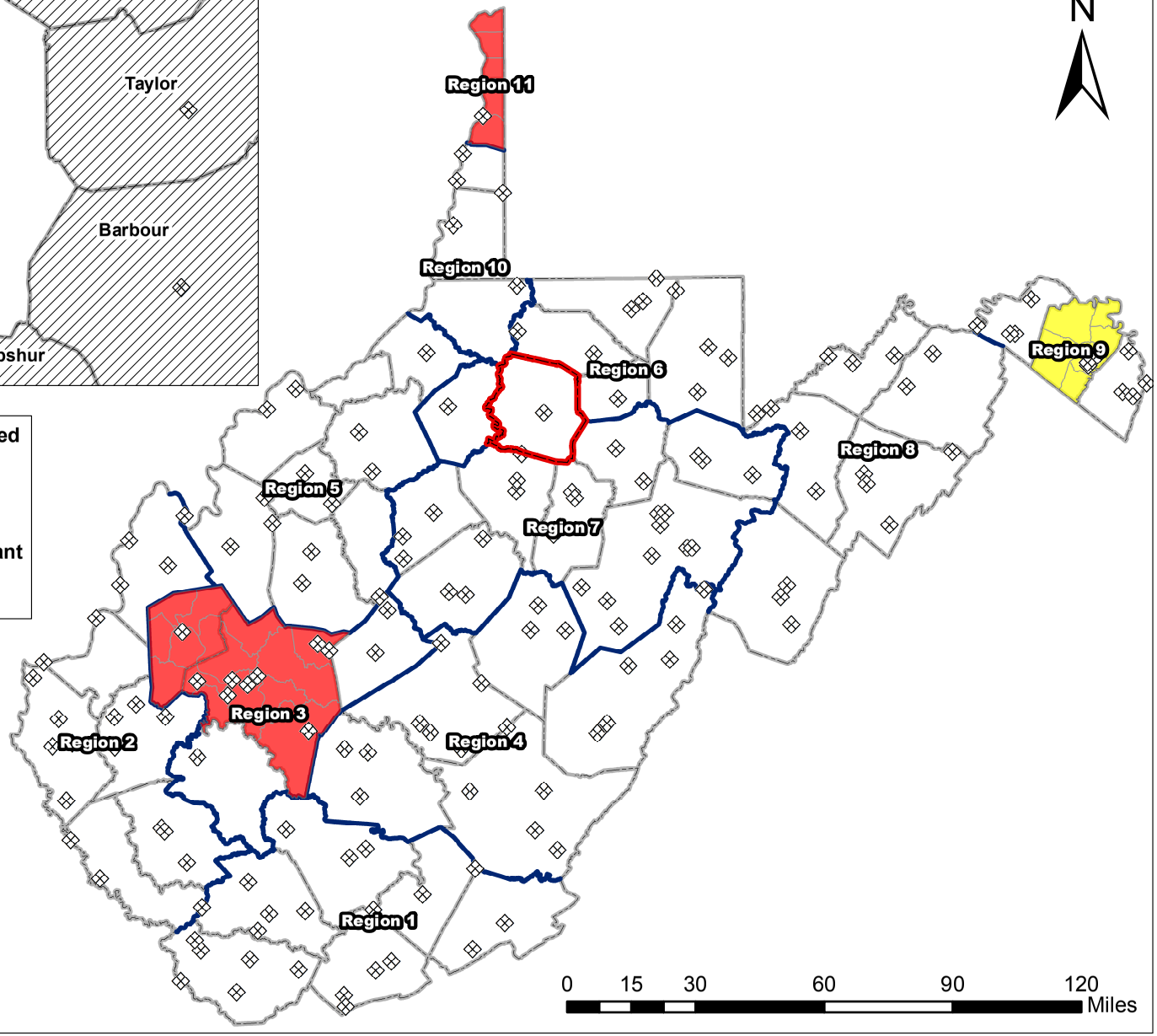
RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

# Environment - Monitoring

## Harrison 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



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

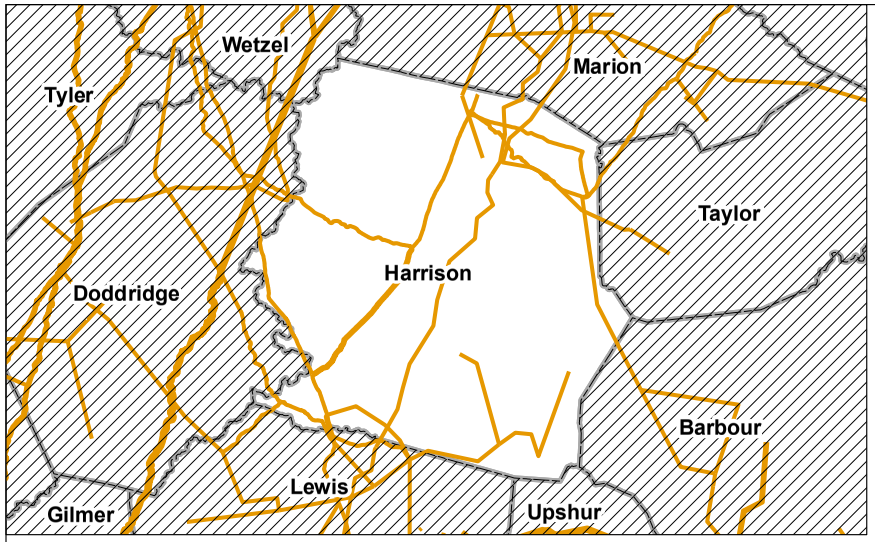
West Virginia's past and most likely its future are defined by energy. Besides coal, other options for energy have been investigated in the State. Gas and oil are of course the main energy staples in the nation, and West Virginia has access to this energy in a number of ways. Harrison County has gas pipelines that run through the County, but no oil or oil pipeline presence (Map 32). Harrison County does have play in the Marcellus shale, with a large number of completed and even 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.

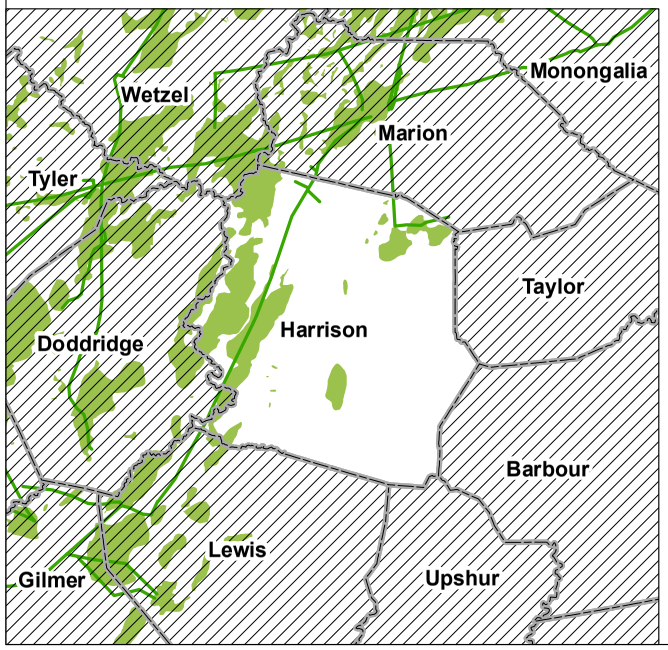
Potential renewable energy sources were also examined. Wood by-products are a potential energy source classified as biomass energy. Naturally it is most useful in areas with a great deal of wood products. West Virginia is one of the most forested States in the country. Harrison County appears to be among the least forested counties in West Virginia (Map 34), possibly explaining why the County has very little activity in the production of wood by-products (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.[16] 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, however Harrison appears to have a less favorable potential for enhanced geothermal systems throughout most of the county. The potential for wind and solar development in the County is less favorable. 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.[17]

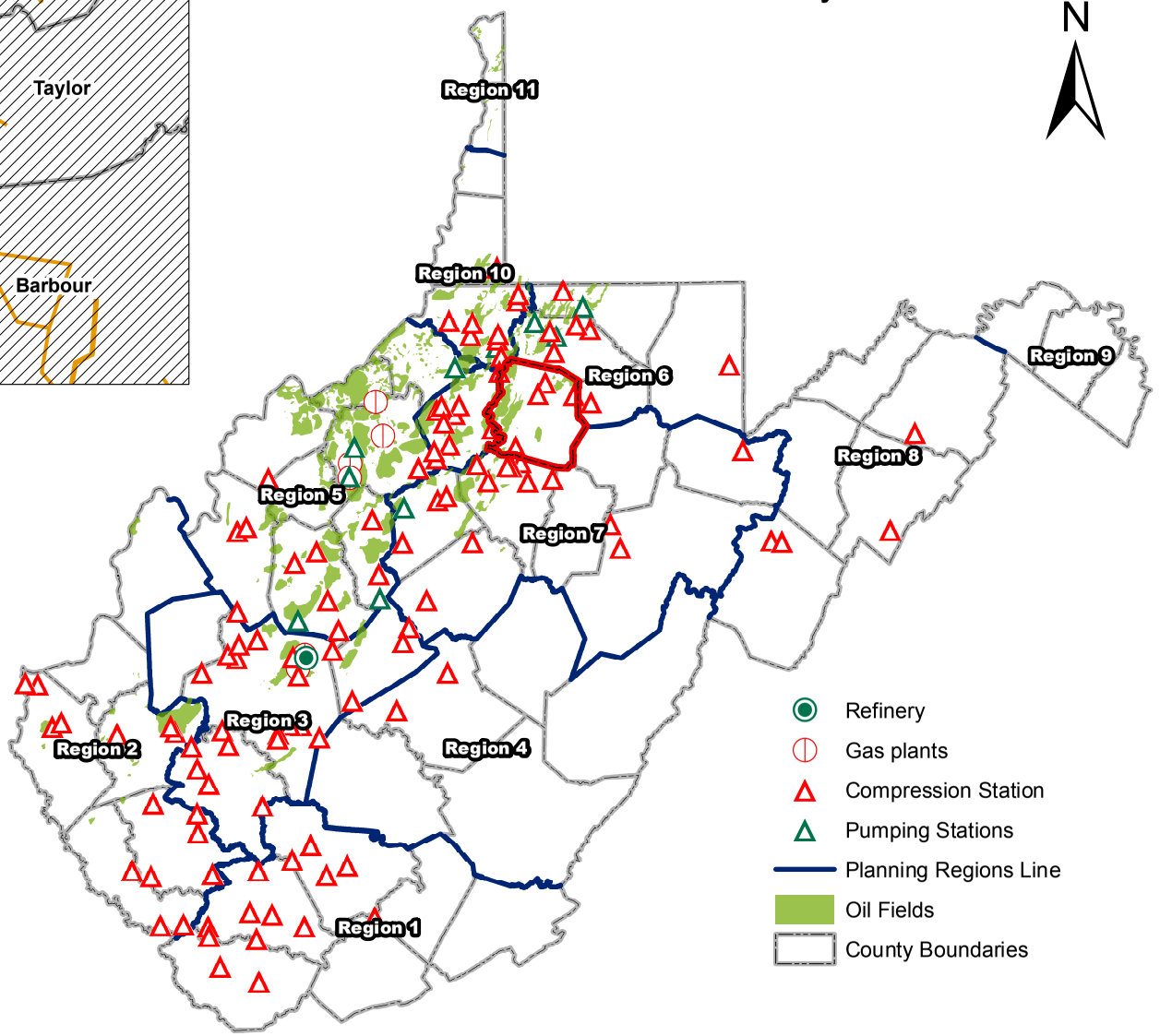
[16] Kent, Calvin, Risch, Christine, and Pardue, Elizabeth. *Renewable Energy Policy: Opportunities for West Virginia.* Center for Business and Economic Research, Huntington, WV (2012).
[17] *Ibid*.

# Energy - Gas and Oil

## Harrison County




Source: West Virginia Geological and Economic Survey 2007

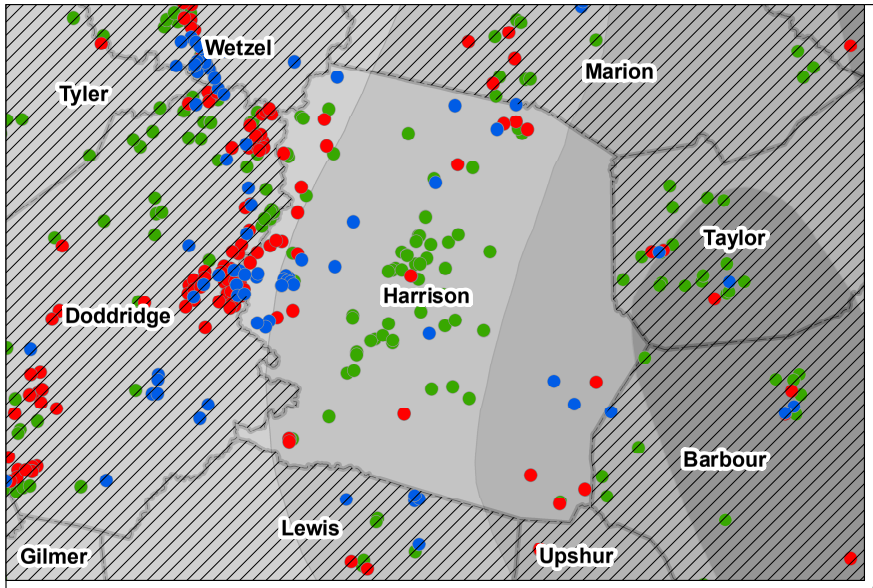


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Energy - Marcellus Wells

## Harrison County




N

Region 11
Region 10
Region 9
Region 6
Region 8
Region 5
Region 7
Region 3
Region 2
Region 4
Region 1

- Cancelled Marcellus Wells
- Completed Marcellus Wells
- Permitted Marcellus Wells
- Planning Regions Line
- 0 ft. - 20 ft.
- 21 ft. - 40 ft.
- 41 ft. - 60 ft.
- 61 ft. - 80 ft.
- 81 ft. - 100 ft.
- Over 100 ft.
- Possible/Uncertain Marcellus
- Uncertain thickness
- Marcellus assumed to be absent
- County Boundaries

0 15 30 60 90 120
Miles

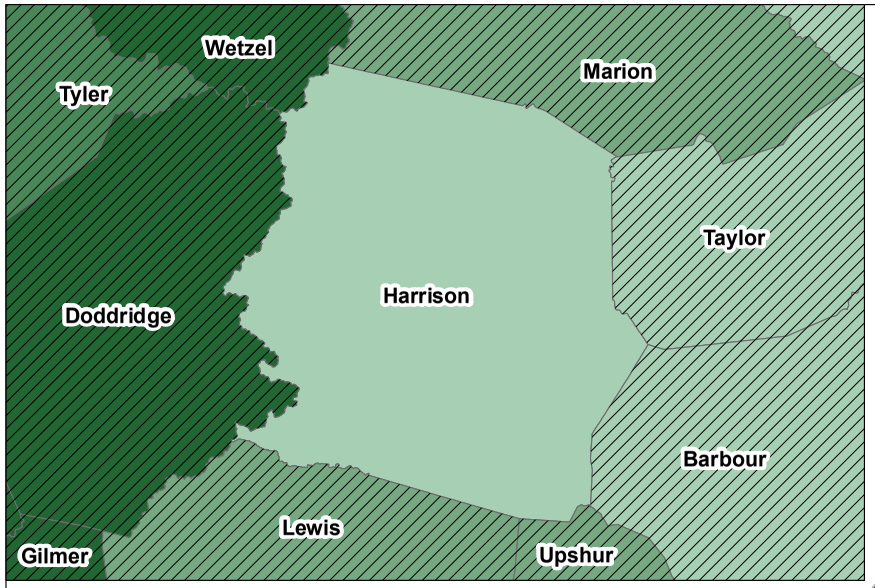
Source: West Virginia Geological and Economic Survey 2014



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

# Energy - Percent Forest Coverage

## Harrison County







Source: Rahall Transportation Institute 2013



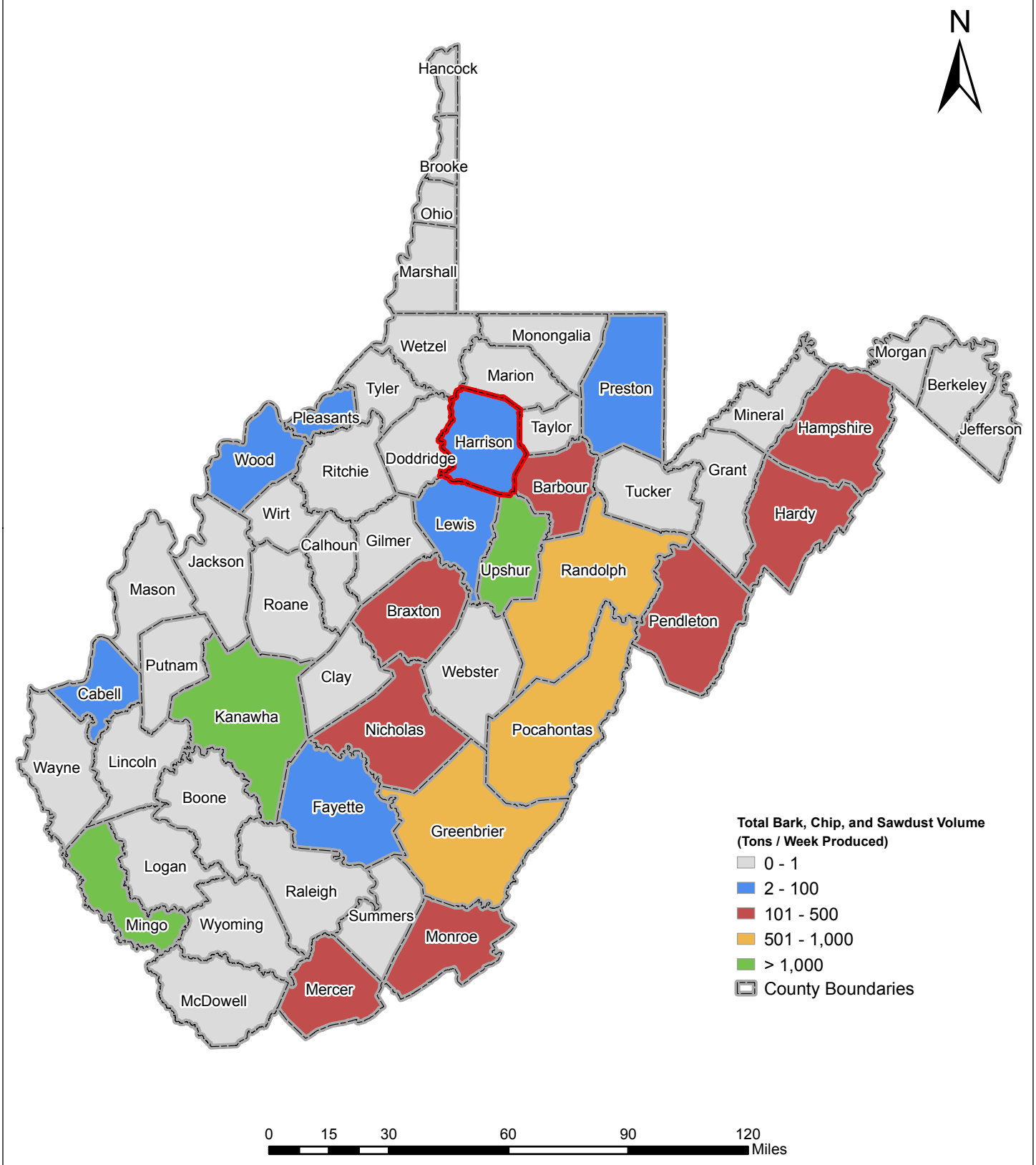
RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

Map 35

# Renewable Energy - Wood By Products

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



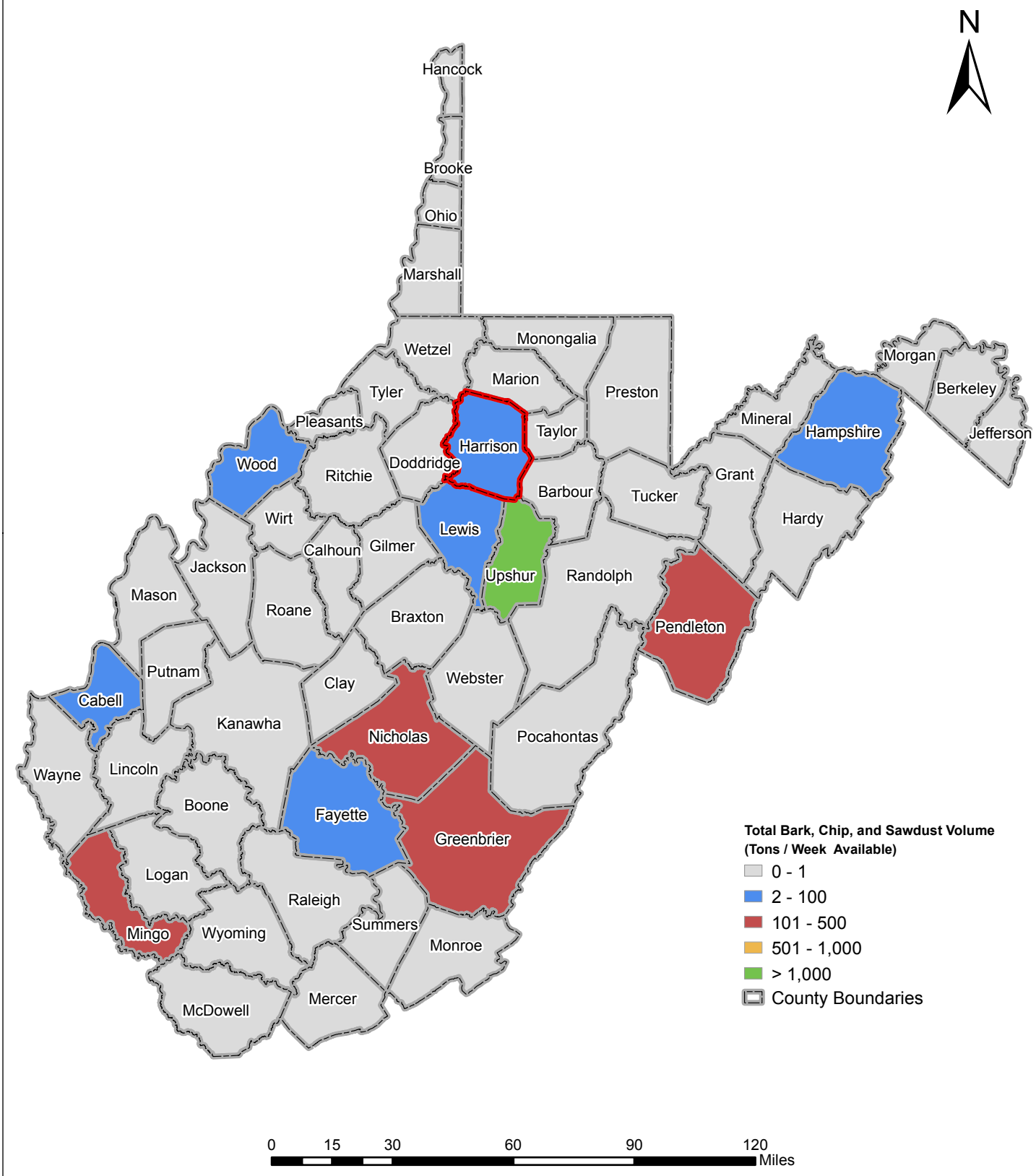

Source: West Virginia Division of Forestry 2014



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

# Renewable Energy - Wood By Products

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



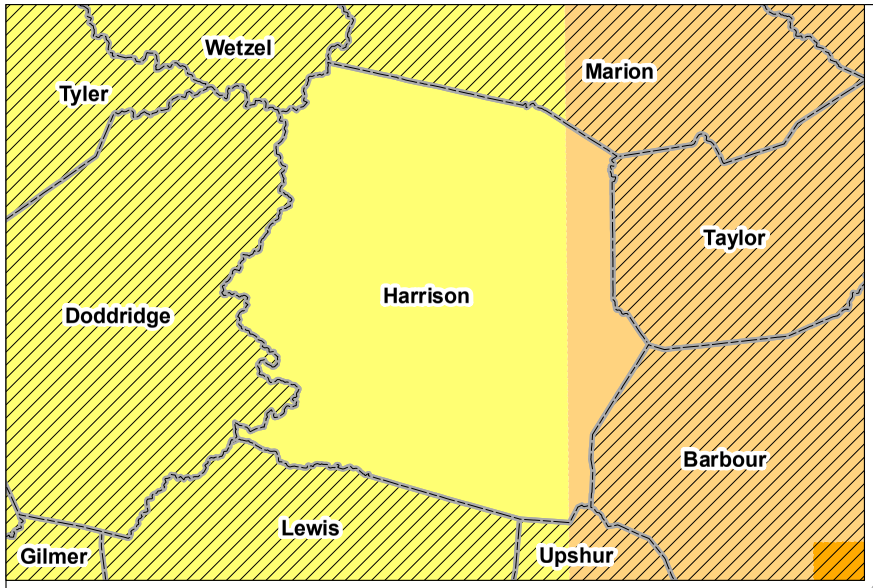

Source: West Virginia Division of Forestry 2014



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

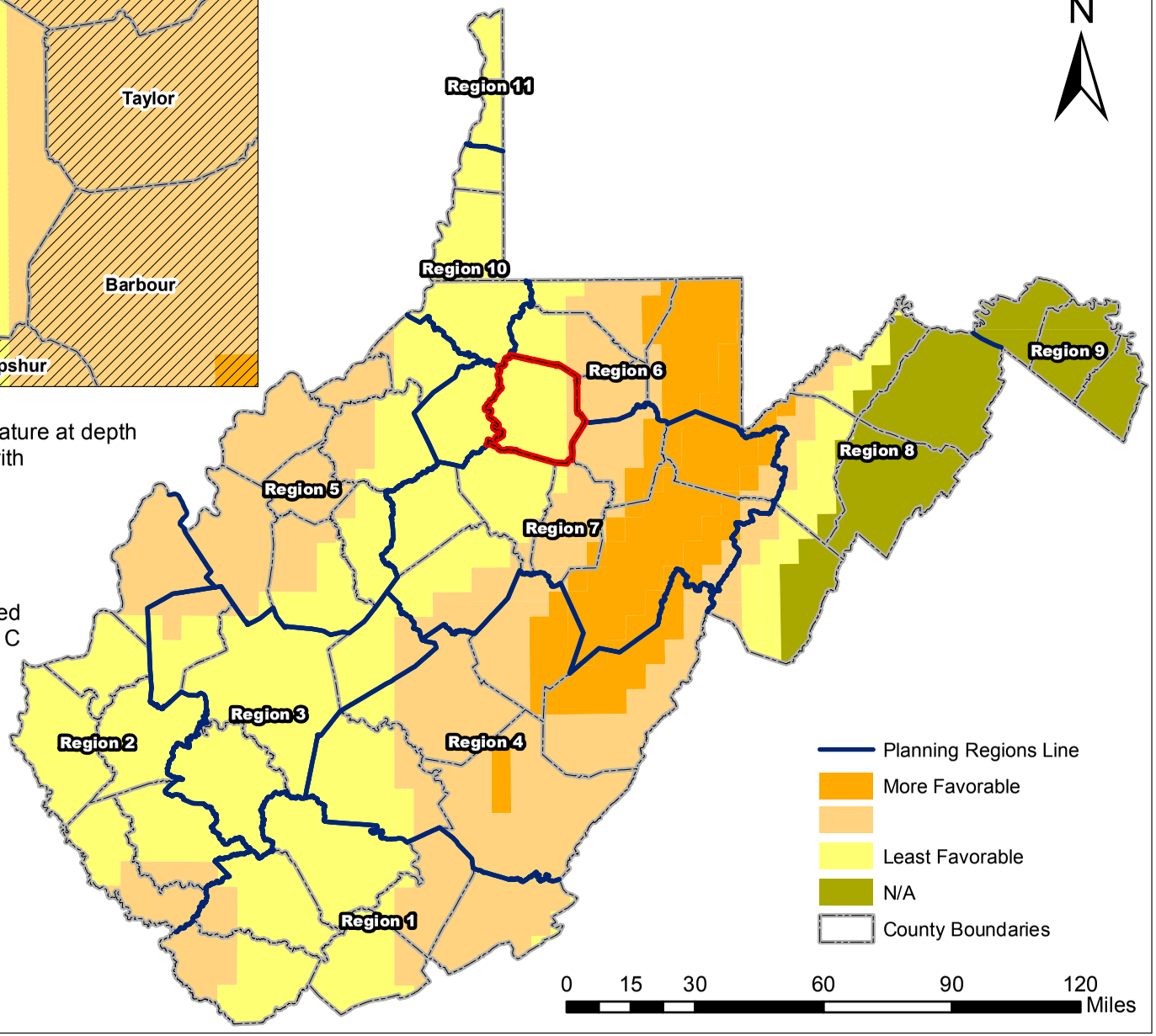
# Energy - Geothermal Resource of Harrison County

## Favorability of Deep Enhanced Geothermal Systems




_ Source data for deep EGS includes temperature at depth from 3 to10 km and analyses (for regions with temperatures >= 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.



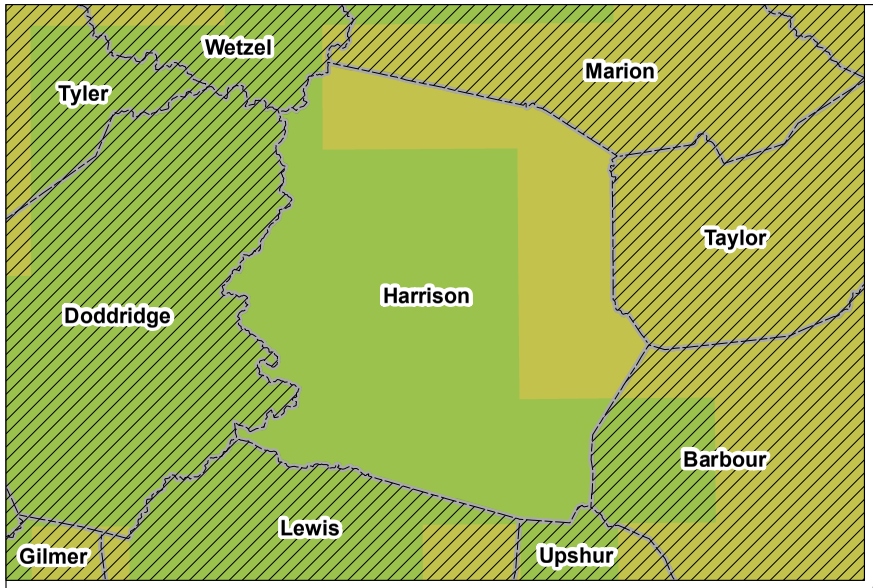

Source: National Renewable Energy Laboratory 2009

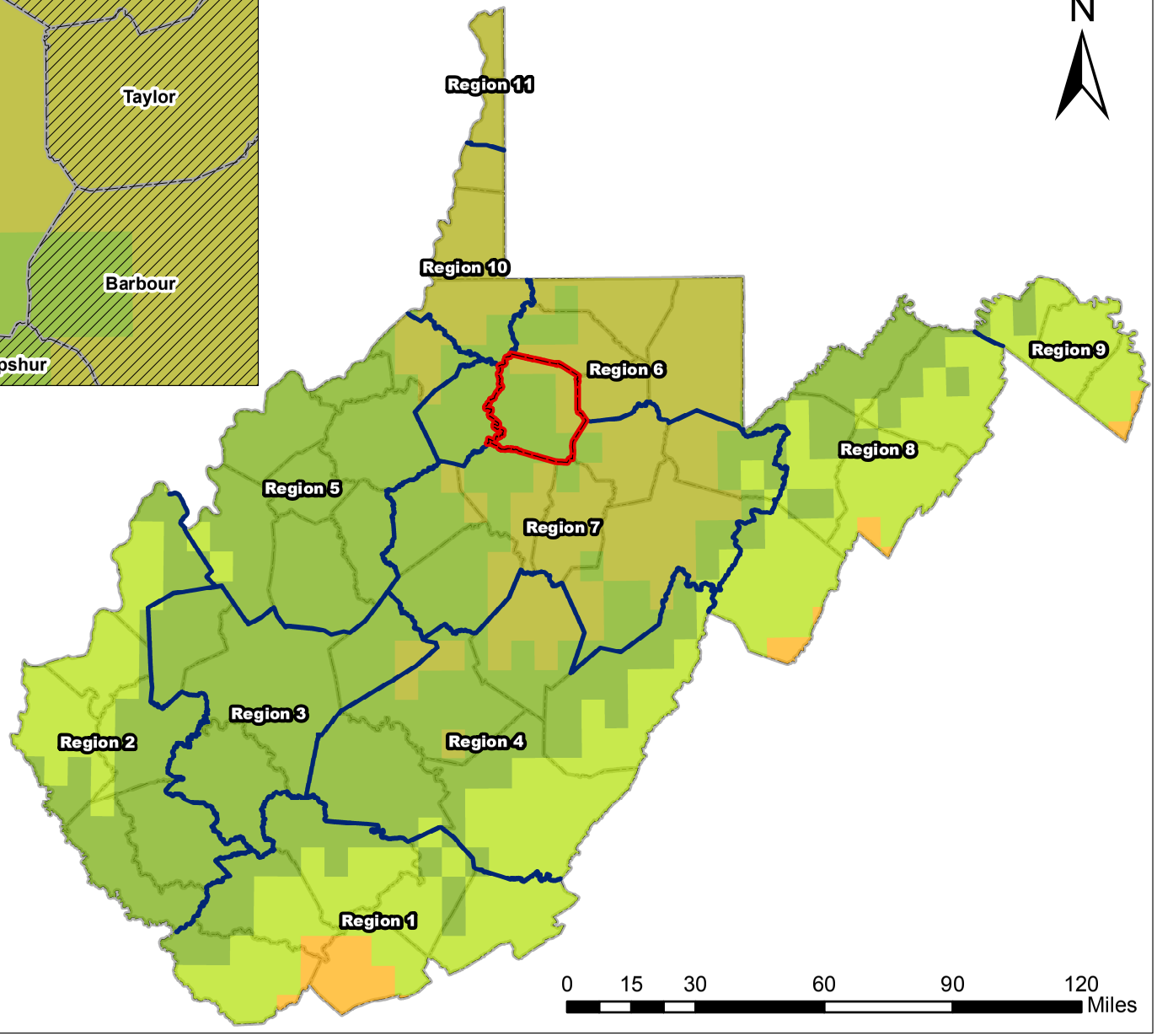


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

# Solar - Renewable Energy

## Harrison County




N

Planning Regions Line

**(kWh/m2/day)**

- 4.2 - 4.4
- 3.9 - 4.1
- 3.7 - 3.8
- 3.4 - 3.6

County Boundaries

0 15 30 60 90 120 Miles

Source: National Renewable Energy Laboratory 2012

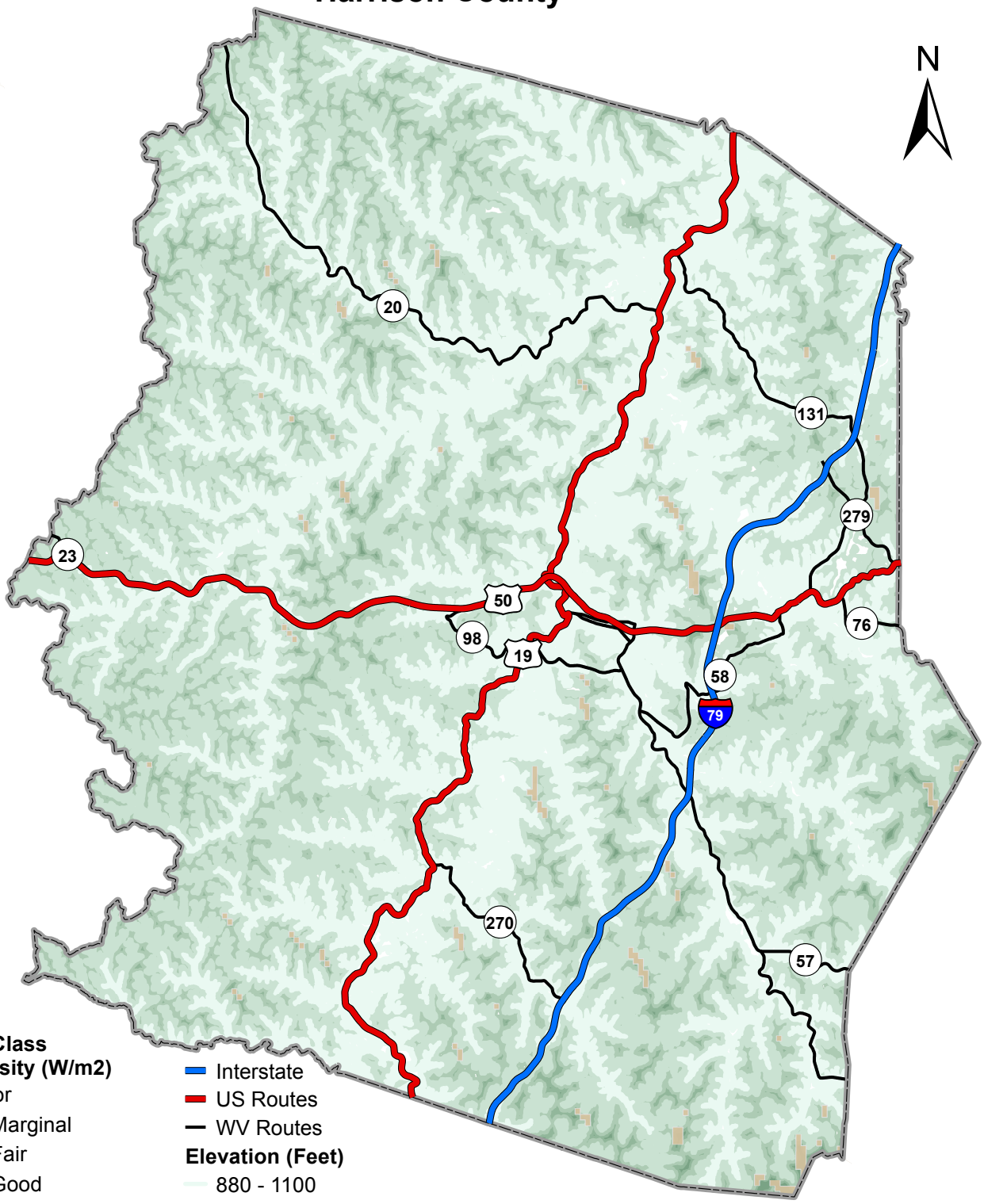


RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE

www.njrati.org

# Renewable Energy-Wind

## Harrison County




**Wind Power Class**
**Potential Density (W/m2)**
- 0 - 200 Poor
- 200 - 300 Marginal
- 300 - 400 Fair
- 400 - 500 Good
- 500 - 600 Excellent
- 600 - 800 Outstanding
- > 800 Superb
- County Boundary

- Interstate
- US Routes
- WV Routes

**Elevation (Feet)**
- 880 - 1100
- 1101 - 1260
- 1261 - 1380
- 1381 - 1480
- 1481 - 1840

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



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

## IV. Land Use Smart Planning

The research team constructed a smart planning criterion that would apply to each mine site in Harrison. 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**

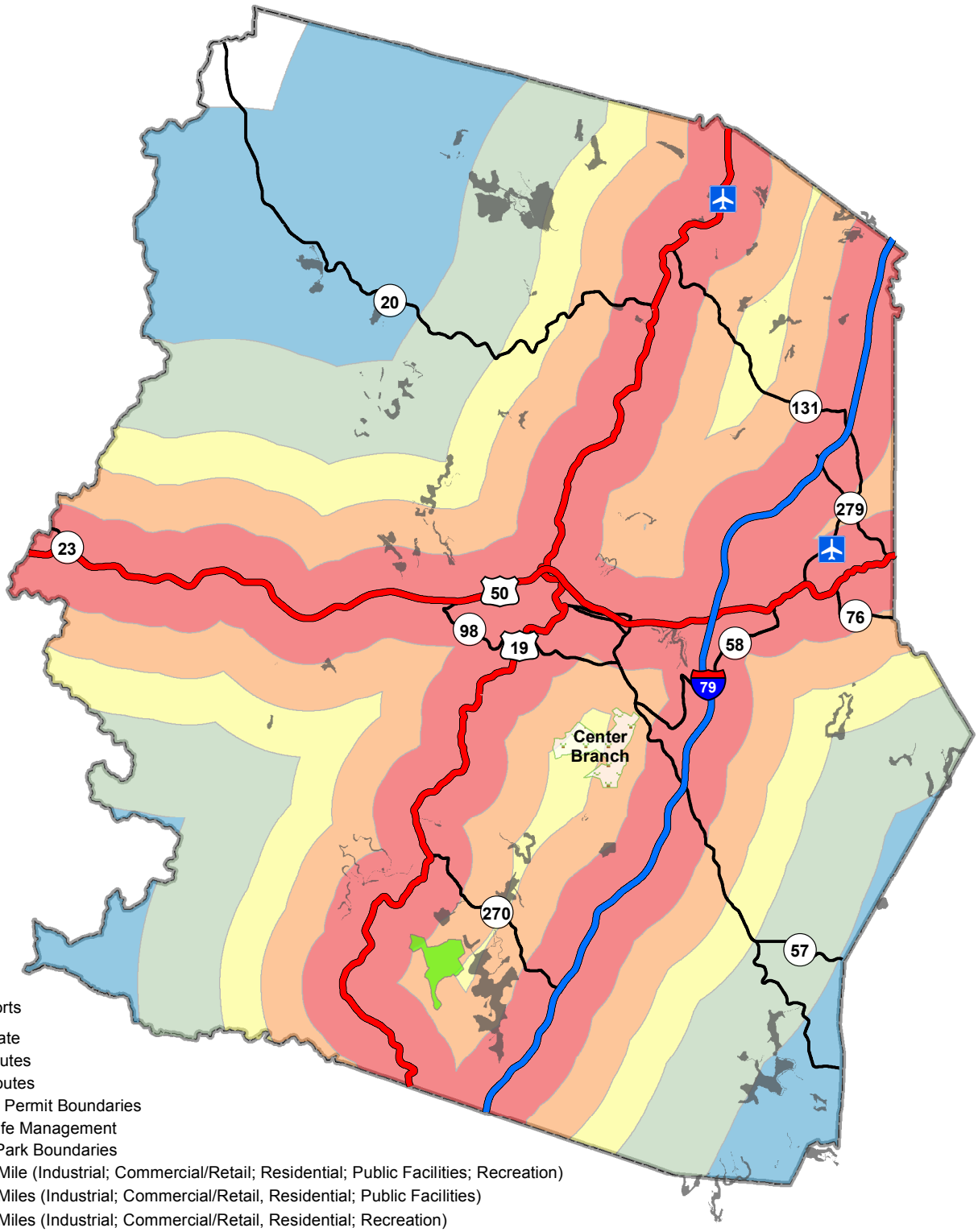
| Name | Smart Planning Criteria |
|---|---|
| Utilization Area 0-1 mile | Industrial, Commercial/Retail, Residential, Public Facility, Recreational |
| Utilization Area 1-2 miles | Industrial, Commercial/Retail, Residential, Public Facilities |
| Utilization Area 2-3 miles | Industrial, Commercial/Retail, 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.

Map 40

# Landuse Criteria

## Harrison County




Source: Rahall Transportation Institute 2015



RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

## 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 Harrison 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 135 sites for analysis. All of the sites and their distance attributes are listed below.

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

| Site No | Permitee | Permit ID | Facility Name | Acres | Issue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 1 | TEN-A-COAL COMPANY | S100795 | WOLF PEN RUN #1 | 58 | 12/18/1996 | 12/18/2011 |
| 2 | B & B COAL CO INC | S011380 | NA | 0 | 11/6/1980 | 11/6/1985 |
| 3 | TEN-A-COAL COMPANY | S000783 | NA | 74.9 | 1/17/1983 | 1/17/2003 |
| 4 | BRIDGEPORT HILLS DEV CORP | S003078 | NA | 0 | 8/11/1978 | 8/11/1988 |
| 5 | GREEN RIVER MINING CORP | S002385 | NA | 0 | 3/27/1985 | 3/27/1990 |
| 6 | MON-GO MINING, INC | C000785 | NA | 0 | 11/25/1985 | 11/25/1990 |
| 7 | GREEN RIVER MINING CORP | S005680 | NA | 16.8 | 6/23/1980 | 6/23/1985 |
| 8 | TEN-A-COAL COMPANY | S003279 | NA | 15 | 3/21/1983 | 3/21/1993 |
| 9 | UNITED COALS, INC. | S003485 | NA | 20 | 4/12/1985 | 4/12/1990 |
| 10 | UNION GRANT COAL & STONE INC | S000682 | NA | 0 | 8/5/1983 | 8/5/1988 |
| 11 | FRESA CONSTRUCTION CO INC | S102787 | NA | 10 | 8/13/1987 | 8/13/1992 |
| 12 | BELL MINING COMPANY | S103787 | NA | 26.7 | 12/4/1987 | 12/4/1992 |
| 13 | KING KNOB COAL CO INC | S025176 | NA | 0 | 7/29/1976 | 7/29/1987 |
| 14 | UNITED COALS, INC. | S008782 | NA | 115 | 9/27/1982 | 9/27/1997 |
| 15 | GOLD RESOURCES, LLC | S100586 | NA | 69 | 2/28/1986 | 2/28/2011 |
| 16 | OHIO MINING CO. | S009178 | NA | 0 | 5/9/1978 | 5/9/1983 |

| Site No | Permitee | Permit ID | Facility Name | Acres | Issue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 17 | FLEX DEVELOPMENT CORP | S101391 | WEST FORK MINE # 1 | 83 | 6/25/1991 | 6/25/1996 |
| 18 | UNITED COALS, INC. | S100396 | NA | 5.88 | 7/30/1996 | 7/30/2001 |
| 19 | UNITED COALS, INC. | S100395 | NA | 60.9 | 7/11/1996 | 7/11/2001 |
| 20 | RED ROCK COAL CO | Z003981 | NA | 5 | 1/18/1981 | 1/18/1986 |
| 21 | PATRIOT MINING COMPANY INC | S004284 | NA | 68 | 7/13/1984 | 7/13/1994 |
| 22 | PETITTO BROTHERS INC | Z003881 | NA | 0 | 1/18/1981 | 1/18/1986 |
| 23 | BELL MINING COMPANY | S003179 | NA | 0 | 3/13/1979 | 3/13/1984 |
| 24 | PETITTO BROTHERS INC | S022375 | NA | 0 | 10/2/1975 | 10/2/1980 |
| 25 | THOMPSON COAL & CONST INC | S021976 | NA | 76.8 | 9/15/1976 | 9/15/1993 |
| 26 | UNITED COALS, INC. | S014475 | NA | 20 | 6/17/1975 | 6/17/1992 |
| 27 | PITCARIN PROPERTIES, INC | S008577 | NA | 6 | 6/6/1977 | 6/4/1982 |
| 28 | CLAYPOOL CONSTRUCTION CO | S006479 | NA | 2.5 | 5/11/1979 | 5/11/1984 |
| 29 | GRAFTON COAL COMPANY | Z001281 | NA | 0 | 5/26/1981 | 5/26/1992 |
| 30 | CLUB COAL INC | S100294 | FLAG RUN | 51 | 11/28/1994 | 11/28/2014 |
| 31 | KING KNOB COAL CO INC | S019177 | NA | 0 | 11/23/1977 | 11/23/1982 |
| 32 | LAROSA FUEL COMPANY INC | S002181 | NA | 129 | 8/5/1983 | 8/5/1988 |
| 33 | PETITTO BROTHERS INC | S000583 | NA | 0 | 1/7/1983 | 1/7/1992 |

| Site No | Permitee | Permit ID | Facility Name | Acres | Issue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 34 | BRIDGEPORT HILLS DEV CORP | C000778 | NA | 0 | 2/27/1978 | 7/27/1983 |
| 35 | GRAFTON MINING CO | S002185 | NA | 0 | 3/25/1985 | 3/25/1990 |
| 36 | FRUSH ENTERPRISES INC | S100889 | NA | 454 | 8/18/1989 | 8/18/1994 |
| 37 | L & G ASSOCIATES | S020577 | NA | 0 | 12/15/1977 | 12/15/1982 |
| 38 | L & G ASSOCIATES | S024576 | NA | 0 | 11/15/1976 | 11/15/1981 |
| 39 | FRUSH ENTERPRISES INC | S105286 | NA | 0 | 5/27/1986 | 5/27/1991 |
| 40 | PETITTO BROTHERS INC | S002582 | NA | 6.6 | 2/12/1982 | 2/12/1992 |
| 41 | GRAFTON COAL COMPANY | S009472 | NA | 8 | 5/12/1972 | 5/12/1977 |
| 42 | JAMES ROBINSON EXCAVATING CO INC | Z004581 | NA | 0 | 1/18/1981 | 1/18/1986 |
| 43 | LAROSA FUEL COMPANY INC | S104087 | NA | 67.9 | 1/7/1988 | 1/7/1993 |
| 44 | JANE LEW TRUCKING COMPANY | S104991 | NA | 53.5 | 12/12/1991 | 12/12/1996 |
| 45 | BRIDGEPORT HILLS DEV CORP | C000881 | NA | 0 | 10/14/1981 | 10/14/1986 |
| 46 | USE COAL, INC | C000882 | NA | 0 | 6/3/1982 | 6/3/1987 |
| 47 | COALEX INC | S200305 | Loss-Riggs Surface Mine | 63.6 | 8/2/2005 | 8/2/2010 |
| 48 | NADA COAL CO., INC | S016676 | NA | 0 | 7/26/1976 | 7/26/1981 |
| 49 | TEN-A-COAL COMPANY | S004082 | NA | 33 | 4/22/1982 | 4/22/1997 |
| 50 | TEN-A-COAL COMPANY | S012379 | NA | 0 | 3/21/1983 | 3/21/1998 |

| Site No | Permitee | Permit ID | Facility Name | Acres | Issue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 51 | LECCO, INC | S001777 | NA | 19.6 | 9/16/1977 | 9/16/1987 |
| 52 | TEN-A-COAL COMPANY | S200511 | Chiefton Mine #1 | 13.7 | 10/3/2012 | 10/3/2017 |
| 53 | GRAFTON MINING CO | S004682 | NA | 0 | 5/4/1982 | 5/4/1992 |
| 54 | GOLD RESOURCES, LLC | S100397 | RIDER PERMIT | 522 | 8/21/1997 | 8/21/2012 |
| 55 | COMMUNITY COAL CO | S100588 | NA | 54.7 | 4/15/1988 | 4/15/1998 |
| 56 | BELL MINING COMPANY | S009583 | NA | 25.6 | 11/21/1983 | 11/21/1993 |
| 57 | KELLEY COAL CO | S013780 | NA | 0 | 2/7/1980 | 2/7/1992 |
| 58 | GRACE ENTERPRISES INC | S200701 | PURDYS RUN MINE | 37 | 12/17/2001 | 12/17/2006 |
| 59 | C & M COAL CONTRACTING INC | S002085 | NA | 13.5 | 3/25/1985 | 3/25/1990 |
| 60 | KELLEY COAL CO | S003281 | NA | 0 | 3/10/1981 | 3/10/1992 |
| 61 | KELLEY COAL CO | S007679 | NA | 0 | 6/7/1982 | 6/7/1987 |
| 62 | JAMES ROBINSON EXCAVATING CO INC | C000385 | NA | 0 | 7/9/1985 | 7/9/1990 |
| 63 | JAMES ROBINSON EXCAVATING CO INC | S100186 | NA | 0 | 2/10/1986 | 2/10/1991 |
| 64 | LECCO, INC | S002478 | NA | 4.52 | 9/16/1982 | 9/16/1987 |
| 65 | COMMUNITY COAL CO | S102291 | NA | 0 | 4/10/1992 | 4/10/1997 |
| 66 | J & B COAL COMPANY | S104486 | NA | 0 | 1/26/1987 | 1/26/1992 |
| 67 | KING KNOB COAL CO INC | S012880 | NA | 0 | 4/3/1980 | 4/3/1992 |
| 68 | LAROSA FUEL COMPANY INC | S103388 | NA | 17.9 | 1/13/1989 | 1/13/1994 |
| 69 | BELL MINING COMPANY | S106091 | NA | 61.5 | 3/20/1992 | 3/20/1997 |

| Site No | Permitee | Permit ID | Facility Name | Acres | Issue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 70 | SALERNO, INC. | S007584 | NA | 53 | 10/9/1984 | 10/9/1999 |
| 71 | TEN-A-COAL COMPANY | S024275 | NA | 17.8 | 11/24/1975 | 11/24/1980 |
| 72 | MARION DOCKS, INC. | I074800 | NA | 5 | 3/9/1983 | 3/9/2013 |
| 73 | BRIDGEPORT HILLS DEV CORP | C001281 | NA | 0 | 12/16/1981 | 12/16/1986 |
| 74 | AMERIKOHL MINING INC | S104887 | NA | 0 | 2/8/1988 | 2/8/1993 |
| 75 | FRESA CONSTRUCTION CO INC | S103688 | NA | 14 | 3/6/1989 | 3/6/1994 |
| 76 | UNITED COALS, INC. | S201106 | S. Harrison Highwall Mining Op | 86.6 | 10/27/2006 | 10/27/2011 |
| 77 | MARION DOCKS, INC. | S100498 | MUDLICK SURFACE MINE | 17.9 | 12/2/1998 | 12/2/2003 |
| 78 | APPALANTIC CORP | S038769 | NA | 0 | 12/9/1969 | 12/9/1974 |
| 79 | TEN-A COAL CO., INC. | S100997 | LAUREL RUN #1 SURFACE MINE | 14.9 | 10/1/1998 | 10/1/2018 |
| 80 | FRESA CONSTRUCTION CO INC | S000284 | NA | 20 | 1/17/1984 | 1/17/1989 |
| 81 | FARMERS CONSTRUCTION CO., INC | S005080 | NA | 12.5 | 6/2/1980 | 1/5/2003 |
| 82 | TEN-A COAL CO., INC. | S101197 | AKERS MINE | 29.4 | 8/11/1998 | 8/11/2003 |
| 83 | SCOTT COAL CO | S013379 | NA | 0 | 11/7/1979 | 11/7/1984 |
| 84 | UNITED COALS, INC. | S017570 | NA | 0 | 5/22/1970 | 5/22/1975 |
| 85 | KEN-LAN ENERGY CO., INC | C000583 | NA | 0 | 8/26/1983 | 8/26/1988 |
| 86 | SHANNON COAL CO | C000585 | NA | 0 | 8/1/1985 | 8/1/1990 |

| Site No | Permitee | Permit ID | Facility Name | Acres | Issue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 87 | RICHARD A STUTLER INC | S014275 | NA | 19.1 | 6/25/1975 | 6/25/1980 |
| 88 | SHANNON COAL CO | I108386 | NA | 0 | 12/3/1986 | 12/3/1991 |
| 89 | PATRIOT MINING COMPANY INC | S200210 | Johnstown Surface Mine | 423 | 9/22/2011 | 9/22/2016 |
| 90 | CONSOLIDATION COAL COMPANY | S008878 | NA | 0 | 5/9/1978 | 5/9/1983 |
| 91 | LECCO, INC | S041170 | NA | 2.5 | 9/29/1970 | 9/29/1975 |
| 92 | COALEX INC | S200606 | Riggs Surface mine | 20.3 | 11/1/2006 | 11/1/2011 |
| 93 | GRACE ENTERPRISES INC | C000185 | NA | 0 | 3/6/1985 | 3/8/1990 |
| 94 | FRESA CONSTRUCTION CO INC | S104389 | NA | 49.7 | 4/2/1990 | 4/2/1995 |
| 95 | SALERNO, INC. | S008384 | NA | 3.25 | 10/25/1984 | 10/25/1989 |
| 96 | B & B COAL CO INC | S011782 | NA | 0 | 11/17/1982 | 11/17/1992 |
| 97 | DP SOUTHBOUND COAL CO LLC | S201412 | Raikes/McMillion Surface Mine Operation | 24.6 | 11/19/2013 | 11/19/2018 |
| 98 | KWD CONSTRUCTION CO., INC | S025875 | NA | 0 | 12/19/1975 | 12/19/1980 |
| 99 | TANSTAAFL INC | S015077 | NA | 0 | 9/20/1977 | 9/20/1982 |
| 100 | J. & J. GUZZI ENTERPRISES, INC. | S106286 | NA | 9.96 | 9/9/1986 | 9/9/1991 |
| 101 | GERALD ANN COAL CO, INC | C000282 | NA | 0 | 2/5/1982 | 2/5/1987 |
| 102 | Y'NR COAL CO | S010978 | NA | 0 | 9/14/1982 | 9/14/1987 |
| 103 | UNITED COALS, INC. | S100287 | NA | 79.5 | 4/1/1987 | 4/1/1992 |
| 104 | GALLO COAL CO | S004178 | NA | 0 | 1/27/1978 | 1/27/1988 |

| Site No | Permitee | Permit ID | Facility Name | Acres | Issue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 105 | KELLEY COAL CO | S003681 | NA | 0 | 8/20/1981 | 8/20/1992 |
| 106 | GRAFTON MINING CO | S101486 | NA | 0 | 1/13/1986 | 1/13/1991 |
| 107 | UNITED COALS, INC. | S100695 | STENGER/BOND SURFACE MINE | 89.7 | 9/27/1995 | 9/27/2005 |
| 108 | MARK A SOUTHERN GEN CONTRACTOR | S100692 | NA | 19 | 1/7/1994 | 1/7/1999 |
| 109 | GRAFTON MINING CO | S007683 | NA | 0 | 9/23/1983 | 9/23/1993 |
| 110 | KING KNOB COAL CO INC | S005382 | NA | 16 | 4/7/1982 | 4/7/1992 |
| 111 | TEN-A-COAL COMPANY | Z006681 | NA | 24 | 8/5/1983 | 8/5/2003 |
| 112 | MYERS COAL CO | S104586 | NA | 0 | 7/1/1986 | 7/1/1996 |
| 113 | PETITTO BROTHERS INC | Z001381 | NA | 0 | 1/18/1981 | 1/18/1986 |
| 114 | GRAFTON COAL COMPANY | Z000381 | NA | 0 | 7/15/1982 | 7/15/1987 |
| 115 | TEN-A-COAL COMPANY | S102588 | NA | 0 | 1/20/1989 | 1/20/1994 |
| 116 | COMMUNITY COAL CO | S101589 | NA | 10 | 8/14/1989 | 8/14/1994 |
| 117 | B & H EXCAVATING | S008484 | NA | 0 | 10/30/1984 | 10/30/1989 |
| 118 | NADA COAL CO., INC | S016877 | NA | 0 | 10/13/1977 | 10/13/1982 |
| 119 | NESCO, INC. | S100592 | NA | 0 | 8/14/1992 | 8/14/1997 |
| 120 | B & B COAL CO INC | S010985 | NA | 0 | 11/12/1985 | 11/12/1990 |
| 121 | AMERICOAL INC | S009285 | NA | 0 | 9/17/1985 | 9/17/1995 |
| 122 | KELLEY COAL CO | S006882 | NA | 0 | 7/8/1982 | 7/8/1992 |
| 123 | C & M COAL CONTRACTING INC | S100199 | WILLARD SURFACE MINE | 37.6 | 3/27/2000 | 3/27/2005 |

| Site No | Permitee | Permit ID | Facility Name | Acres | Issue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 124 | E & S COAL CO INC | S003185 | NA | 0 | 4/8/1985 | 4/8/1990 |
| 125 | PAUL HARROLD, INC | S011579 | NA | 0 | 6/7/1979 | 6/7/1992 |
| 126 | JACK RUN DEVELOPMENT INC | Z003381 | NA | 0 | 1/18/1981 | 1/18/1986 |
| 127 | TEN-A-COAL COMPANY | S001583 | NA | 0 | 2/10/1983 | 2/10/1993 |
| 128 | B.R.J. INC | I074000 | NA | 0 | 1/6/1993 | 1/6/1998 |
| 129 | FRESA CONSTRUCTION CO INC | C000682 | NA | 0 | 2/12/1982 | 2/12/1987 |
| 130 | BYRON CONST CO INC | S108186 | NA | 6.58 | 2/3/1987 | 2/3/1992 |
| 131 | BELL MINING COMPANY | S005181 | NA | 0 | 3/21/1983 | 3/21/1988 |
| 132 | RIMCO SALES CO | C000485 | NA | 0 | 7/30/1985 | 7/30/1990 |
| 133 | BELL MINING COMPANY | S100388 | NA | 8.2 | 5/19/1988 | 5/19/2003 |
| 134 | LECCO, INC | S023674 | NA | 0 | 11/26/1974 | 11/26/1979 |
| 135 | BRUSHY FORK LLC | S200110 | Brushy Fork Surface Mine | 184 | 8/9/2011 | 8/9/2016 |

**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 major airports (Yeager)
    - Distance to Intermodal Terminal Facility, 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 | S100795 | 10.16 | I79 | 1.31 | C9 | 0.01 | |
| 2 | S011380 | 5.73 | I79 | 3.28 | S20 | 0.01 | Post Lane |
| 3 | S000783 | 6.99 | I79 | 1.30 | C9 | 0.01 | |
| 4 | S003078 | 0.43 | I79 | 0.29 | U50 | 0.12 | Emily Drive |
| 5 | S002385 | 1.43 | I79 | 0.36 | C13 | 0.20 | F.B.I. Access Road |
| 6 | C000785 | 6.12 | I79 | 0.04 | U19 | 0.04 | US 19 |
| 7 | S005680 | 3.97 | I79 | 1.26 | C13 | 0.32 | Branch of Saltwell Road |
| 8 | S003279 | 4.76 | I79 | 0.17 | U19 | 0.02 | |
| 9 | S003485 | 5.00 | I79 | 2.38 | S20 | 0.43 | Johnstown Road |
| 10 | S000682 | 3.88 | I79 | 0.58 | U19 | 0.12 | Mill Street |
| 11 | S102787 | 2.15 | I79 | 1.46 | U50 | 0.12 | |
| 12 | S103787 | 9.12 | I79 | 4.31 | U19 | 0.06 | Branch off Route 3 to 8/2 |
| 13 | S025176 | 7.38 | I79 | 2.23 | U19 | 0.72 | Isaac Creek Road |
| 14 | S008782 | 0.65 | I79 | 0.65 | I79 | 0.13 | Mount Clare - Lost Creek - Co 44 |
| 15 | S100586 | 0.70 | I79 | 0.70 | I79 | 0.22 | Long Run |
| 16 | S009178 | 11.62 | I79 | 0.36 | S20 | 0.06 | WV 20 |
| 17 | S101391 | 3.73 | I79 | 2.87 | U19 | 0.27 | Morrison |
| 18 | S100396 | 8.38 | I79 | 0.73 | S20 | 0.04 | Jack Run |
| 19 | S100395 | 1.62 | I79 | 1.62 | I79 | 0.21 | Duck Creek to Rider |
| 20 | Z003981 | 8.89 | I79 | 2.28 | U50 | 0.01 | |
| 21 | S004284 | 4.50 | I79 | 1.68 | U19 | 0.40 | Duck Creek Road |
| 22 | Z003881 | 6.90 | I79 | 2.00 | S20 | 0.15 | Gnatty Creek |
| 23 | S003179 | 2.87 | I79 | 2.06 | C13 | 0.03 | Right Fork of CR12 to Willard |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name |
|---|---|---|---|---|---|---|---|
| 24 | S022375 | 8.04 | I79 | 1.62 | S20 | 0.23 | Charity Fork |
| 25 | S021976 | 2.08 | I79 | 1.84 | S20 | 0.05 | Hastings Run |
| 26 | S014475 | 2.19 | I79 | 2.19 | I79 | 0.19 | McWhorter - Rockford Road |
| 27 | S008577 | 3.71 | I79 | 1.11 | S20 | 0.09 | WV 98 |
| 28 | S006479 | 2.81 | I79 | 0.88 | U50 | 0.22 | Ohio Avenue |
| 29 | Z001281 | 5.55 | I79 | 0.04 | U19 | 0.04 | US 19 |
| 30 | S100294 | 10.34 | I79 | 2.26 | C9 | 0.08 | Tenmile Creek, Sardis Road |
| 31 | S019177 | 10.65 | I79 | 2.98 | S20 | 0.42 | Robinson Run, Nolans Run |
| 32 | S002181 | 5.75 | I79 | 1.62 | S20 | 0.80 | Rooting Creek |
| 33 | S000583 | 7.87 | I79 | 2.56 | S20 | 0.28 | Peck's Run |
| 34 | C000778 | 0.43 | I79 | 0.29 | U50 | 0.12 | Emily Drive |
| 35 | S002185 | 6.47 | I79 | 2.08 | U19 | 0.07 | Buffalo Creek Road |
| 36 | S100889 | 5.33 | I79 | 3.25 | U50 | 0.22 | Coplin Run, Douglas Run, Moss Run |
| 37 | S020577 | 2.47 | I79 | 0.76 | S20 | 0.12 | Turkey Run |
| 38 | S024576 | 2.47 | I79 | 0.76 | S20 | 0.12 | Turkey Run |
| 39 | S105286 | 7.66 | I79 | 0.70 | C9 | 0.02 | Old Katy Lick Road |
| 40 | S002582 | 6.87 | I79 | 1.97 | S20 | 0.11 | Gnatty Creek |
| 41 | S009472 | 2.44 | I79 | 1.37 | C13 | 0.24 | Saltwell - Adamsville Road |
| 42 | Z004581 | 11.58 | I79 | 2.47 | S20 | 0.36 | Jones Run |
| 43 | S104087 | 7.57 | I79 | 1.44 | U50 | 0.05 | Sardis - Katy Lick Road |
| 44 | S104991 | 11.20 | I79 | 5.81 | U119 | 0.31 | |
| 45 | C000881 | 0.26 | I79 | 0.12 | U50 | 0.06 | Emily Drive |
| 46 | C000882 | 6.56 | I79 | 1.40 | U19 | 0.35 | Isaac Creek Road |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name |
|---|---|---|---|---|---|---|---|
| 47 | S200305 | 2.37 | I79 | 1.07 | C13 | 0.05 | Saltwell - Adamsville Road |
| 48 | S016676 | 6.70 | I79 | 0.33 | S20 | 0.33 | WV 20 |
| 49 | S004082 | 7.21 | I79 | 0.30 | U50 | 0.12 | |
| 50 | S012379 | 7.31 | I79 | 1.62 | C9 | 0.24 | |
| 51 | S001777 | 1.75 | I79 | 1.75 | I79 | 0.02 | Branch Road to Stone Pot |
| 52 | S200511 | 7.63 | I79 | 1.49 | U50 | 0.08 | Route 7 to Old Katy Lick Road 9/5 |
| 53 | S004682 | 6.60 | I79 | 3.42 | U19 | 0.21 | Kincheloe Road |
| 54 | S100397 | 2.77 | I79 | 2.77 | I79 | 0.07 | Duck Creek to Rider |
| 55 | S100588 | 6.31 | I79 | 3.70 | S20 | 0.50 | Davis Lane |
| 56 | S009583 | 7.52 | I79 | 2.65 | U19 | 0.23 | Bice Run |
| 57 | S013780 | 7.83 | I79 | 0.32 | C9 | 0.02 | Southern Road |
| 58 | S200701 | 1.18 | I79 | 1.18 | I79 | 0.09 | Jarvis Run |
| 59 | S002085 | 11.78 | I79 | 0.73 | S20 | 0.18 | Little Laurel Run |
| 60 | S003281 | 8.63 | I79 | 0.31 | C9 | 0.27 | Linch Road |
| 61 | S007679 | 8.78 | I79 | 1.82 | C9 | 0.02 | Sardis - Katy Lick Road |
| 62 | C000385 | 9.07 | I79 | 3.64 | U19 | 0.04 | Cunningham - Peora - Pine Bluff Road |
| 63 | S100186 | 7.07 | I79 | 2.68 | U19 | 0.02 | Buffalo Creek Road |
| 64 | S002478 | 1.75 | I79 | 1.75 | I79 | 0.02 | Branch Road to Stone Pot |
| 65 | S102291 | 1.77 | I79 | 1.77 | I79 | 0.05 | Mount Clare - Lost Creek - Co 44 |
| 66 | S104486 | 5.29 | I79 | 0.49 | U19 | 0.18 | St. James, Brighton Drive & Brighton Circle |
| 67 | S012880 | 8.26 | I79 | 2.47 | S20 | 0.02 | Prospect Valley |
| 68 | S103388 | 9.85 | I79 | 0.94 | C9 | 0.02 | Branch of Isaac Creek |
| 69 | S106091 | 1.68 | I79 | 0.06 | C13 | 0.07 | WV 131 |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name |
|---|---|---|---|---|---|---|---|
| 70 | S007584 | 8.66 | I79 | 3.24 | U19 | 0.06 | Cunningham - Peora - Pine Bluff Road |
| 71 | S024275 | 5.98 | I79 | 3.52 | S20 | 0.20 | Johnstown Road |
| 72 | I074800 | 5.10 | I79 | 0.62 | U19 | 0.13 | Kilarm Road |
| 73 | C001281 | 0.16 | I79 | 0.02 | U50 | 0.01 | Emily Drive |
| 74 | S104887 | 1.10 | I79 | 1.10 | I79 | 0.10 | Jarvis Run |
| 75 | S103688 | 6.80 | I79 | 0.17 | S20 | 0.14 | WV 20 |
| 76 | S201106 | 6.41 | I79 | 1.26 | U19 | 0.54 | Post School Meadow Road |
| 77 | S100498 | 4.08 | I79 | 1.61 | U19 | 0.01 | Anderson Hollow |
| 78 | S038769 | 10.79 | I79 | 3.08 | U50 | 0.30 | |
| 79 | S100997 | 4.29 | I79 | 0.93 | U19 | 0.01 | Laurel Run at Enterprise |
| 80 | S000284 | 2.24 | I79 | 0.52 | U50 | 0.01 | |
| 81 | S005080 | 8.66 | I79 | 3.24 | U19 | 0.06 | Cunningham - Peora - Pine Bluff Road |
| 82 | S101197 | 4.48 | I79 | 1.13 | U19 | 0.03 | Laurel Run at Enterprise |
| 83 | S013379 | 4.11 | I79 | 3.37 | U50 | 0.14 | Lower Jack Run Road |
| 84 | S017570 | 2.62 | I79 | 0.32 | U19 | 0.09 | Vens Run |
| 85 | C000583 | 3.30 | I79 | 2.00 | C13 | 0.15 | Right Fork of Smith Run |
| 86 | C000585 | 7.83 | I79 | 1.11 | U50 | 0.15 | Sunset Drive |
| 87 | S014275 | 3.38 | I79 | 3.06 | U19 | 0.07 | Coon's Run |
| 88 | I108386 | 7.83 | I79 | 1.11 | U50 | 0.15 | Sunset Drive |
| 89 | S200210 | 7.64 | I79 | 1.07 | S20 | 0.62 | Johnstown Road |
| 90 | S008878 | 10.12 | I79 | 2.44 | S20 | 0.04 | Robinson Run, Nolans Run |
| 91 | S041170 | 7.39 | I79 | 0.82 | S20 | 0.37 | Johnstown Road |
| 92 | S200606 | 3.82 | I79 | 1.11 | C13 | 0.16 | Branch of Saltwell Road |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name |
|---|---|---|---|---|---|---|---|
| 93 | C000185 | 3.24 | I79 | 0.59 | C13 | 0.01 | Smith Run |
| 94 | S104389 | 2.68 | I79 | 0.70 | U50 | 0.06 | Ohio Avenue |
| 95 | S008384 | 8.22 | I79 | 2.80 | U19 | 0.20 | Cunningham - Peora - Pine Bluff Road |
| 96 | S011782 | 3.00 | I79 | 3.00 | I79 | 0.18 | Stone Pot |
| 97 | S201412 | 0.18 | I79 | 0.18 | I79 | 0.09 | I 79 |
| 98 | S025875 | 5.50 | I79 | 1.93 | U19 | 0.09 | Custer Hollow |
| 99 | S015077 | 3.45 | I79 | 2.61 | U19 | 0.31 | Mount Clare - Lost Creek - Co 44 |
| 100 | S106286 | 0.98 | I79 | 0.98 | I79 | 0.07 | Mount Clare - Lost Creek - Co 44 |
| 101 | C000282 | 7.31 | I79 | 2.16 | U19 | 0.01 | Isaac Creek Road |
| 102 | S010978 | 1.04 | I79 | 1.04 | I79 | 0.29 | McWhorter - Rockford Road |
| 103 | S100287 | 7.47 | I79 | 0.91 | S20 | 0.45 | Johnstown Road |
| 104 | S004178 | 8.24 | I79 | 1.31 | U50 | 0.05 | Gladys Hollow |
| 105 | S003681 | 11.18 | I79 | 3.08 | S20 | 0.08 | Winemiller Lane |
| 106 | S101486 | 2.65 | I79 | 2.31 | U19 | 0.37 | WV 270 |
| 107 | S100695 | 2.65 | I79 | 2.31 | U19 | 0.37 | WV 270 |
| 108 | S100692 | 4.16 | I79 | 0.81 | U19 | 0.10 | Enterprise - Bethlehem Road |
| 109 | S007683 | 8.94 | I79 | 2.97 | U19 | 0.31 | |
| 110 | S005382 | 8.82 | I79 | 3.23 | U19 | 0.37 | Robinson - Wyatt Run |
| 111 | Z006681 | 5.11 | I79 | 0.55 | U19 | 0.10 | Kilarm Road |
| 112 | S104586 | 7.61 | I79 | 1.27 | C9 | 0.07 | Lamberts Run Road |
| 113 | Z001381 | 7.43 | I79 | 1.70 | S20 | 0.13 | Peeltree Run |
| 114 | Z000381 | 6.58 | I79 | 3.40 | U19 | 0.03 | Kincheloe Road |
| 115 | S102588 | 9.01 | I79 | 0.08 | S20 | 0.01 | WV 20 |

| Site No | Permit ID | Interstate (IS) | Sign - IS | Existing Highway (EH) | Sign - EH | Paved Road | Paved Road Name |
|---|---|---|---|---|---|---|---|
| 116 | S101589 | 2.61 | I79 | 2.61 | I79 | 0.21 | Stone Pot |
| 117 | S008484 | 6.40 | I79 | 1.57 | U19 | 0.03 | Lumberport Road |
| 118 | S016877 | 6.33 | I79 | 0.74 | U50 | 0.02 | WV 98 |
| 119 | S100592 | 7.71 | I79 | 1.14 | S20 | 0.69 | Johnstown Road |
| 120 | S010985 | 9.82 | I79 | 1.98 | C9 | 0.11 | Branch of Lick Run |
| 121 | S009285 | 2.86 | I79 | 1.57 | C13 | 0.14 | Right Fork of Smith Run |
| 122 | S006882 | 7.35 | I79 | 0.40 | C9 | 0.11 | Old Katy Lick Road |
| 123 | S100199 | 3.53 | I79 | 0.90 | C13 | 0.01 | Right Fork fo CO 12/4 on Mudlick Run |
| 124 | S003185 | 6.55 | I79 | 0.96 | U19 | 0.08 | Robinson - Wyatt Run |
| 125 | S011579 | 9.52 | I79 | 2.42 | U50 | 0.29 | |
| 126 | Z003381 | 4.23 | I79 | 3.49 | U50 | 0.26 | Lower Jack Run Road |
| 127 | S001583 | 6.53 | I79 | 1.11 | U19 | 0.19 | Lamberts Run Road |
| 128 | I074000 | 3.21 | I79 | 2.55 | U19 | 0.16 | Mount Clare - Lost Creek - Co 44 |
| 129 | C000682 | 2.62 | I79 | 2.62 | I79 | 0.01 | Glenn Falls Road |
| 130 | S108186 | 7.37 | I79 | 1.65 | S20 | 0.20 | Peeltree Run |
| 131 | S005181 | 4.23 | I79 | 1.34 | U19 | 0.01 | Kilarm Road |
| 132 | C000485 | 10.50 | I79 | 5.01 | U19 | 0.12 | Cunningham - Peora - Pine Bluff Road |
| 133 | S100388 | 7.20 | I79 | 1.83 | U19 | 0.01 | Cunningham - Peora - Pine Bluff Road |
| 134 | S023674 | 1.50 | I79 | 1.50 | I79 | 0.09 | Meadow Lane |
| 135 | S200110 | 7.75 | I79 | 6.02 | S20 | 0.42 | Bear Mountain Road |

**Table 5: Shortest Distances from Sites to Airports**

| Site No | Permit ID | Yeager Airport |
|---|---|---|
| 1 | S100795 | 115.55 |
| 2 | S011380 | 104.05 |
| 3 | S000783 | 112.05 |
| 4 | S003078 | 111.41 |
| 5 | S002385 | 114.09 |
| 6 | C000785 | 117.52 |
| 7 | S005680 | 116.24 |
| 8 | S003279 | 120.08 |
| 9 | S003485 | 104.60 |
| 10 | S000682 | 103.61 |
| 11 | S102787 | 110.98 |
| 12 | S103787 | 121.48 |
| 13 | S025176 | 103.84 |
| 14 | S008782 | 99.78 |
| 15 | S100586 | 99.84 |
| 16 | S009178 | 117.85 |
| 17 | S101391 | 105.79 |
| 18 | S100396 | 117.30 |
| 19 | S100395 | 101.92 |
| 20 | Z003981 | 108.63 |
| 21 | S004284 | 103.07 |
| 22 | Z003881 | 105.93 |
| 23 | S003179 | 117.50 |

| Site No | Permit ID | Yeager Airport |
|---|---|---|
| 24 | S022375 | 107.07 |
| 25 | S021976 | 103.90 |
| 26 | S014475 | 100.36 |
| 27 | S008577 | 109.09 |
| 28 | S006479 | 110.72 |
| 29 | Z001281 | 102.01 |
| 30 | S100294 | 115.15 |
| 31 | S019177 | 119.53 |
| 32 | S002181 | 105.84 |
| 33 | S000583 | 106.89 |
| 34 | C000778 | 109.41 |
| 35 | S002185 | 105.91 |
| 36 | S100889 | 111.47 |
| 37 | S020577 | 108.24 |
| 38 | S024576 | 108.24 |
| 39 | S105286 | 113.44 |
| 40 | S002582 | 105.90 |
| 41 | S009472 | 116.81 |
| 42 | Z004581 | 119.99 |
| 43 | S104087 | 112.06 |
| 44 | S104991 | 104.57 |
| 45 | C000881 | 109.36 |
| 46 | C000882 | 103.02 |
| 47 | S200305 | 116.51 |

| Site No | Permit ID | Yeager Airport |
|---|---|---|
| 48 | S016676 | 107.26 |
| 49 | S004082 | 110.86 |
| 50 | S012379 | 112.38 |
| 51 | S001777 | 102.05 |
| 52 | S200511 | 112.11 |
| 53 | S004682 | 99.17 |
| 54 | S100397 | 101.92 |
| 55 | S100588 | 105.44 |
| 56 | S009583 | 121.01 |
| 57 | S013780 | 114.57 |
| 58 | S200701 | 118.47 |
| 59 | S002085 | 118.02 |
| 60 | S003281 | 115.60 |
| 61 | S007679 | 113.60 |
| 62 | C000385 | 120.81 |
| 63 | S100186 | 105.87 |
| 64 | S002478 | 102.05 |
| 65 | S102291 | 104.63 |
| 66 | S104486 | 108.15 |
| 67 | S012880 | 119.03 |
| 68 | S103388 | 115.77 |
| 69 | S106091 | 114.42 |
| 70 | S007584 | 121.24 |
| 71 | S024275 | 103.70 |

| Site No | Permit ID | Yeager Airport |
|---|---|---|
| 72 | I074800 | 118.29 |
| 73 | C001281 | 109.25 |
| 74 | S104887 | 118.40 |
| 75 | S103688 | 117.66 |
| 76 | S201106 | 102.87 |
| 77 | S100498 | 117.81 |
| 78 | S038769 | 107.59 |
| 79 | S100997 | 120.14 |
| 80 | S000284 | 110.16 |
| 81 | S005080 | 121.24 |
| 82 | S101197 | 120.34 |
| 83 | S013379 | 113.49 |
| 84 | S017570 | 98.65 |
| 85 | C000583 | 114.15 |
| 86 | C000585 | 111.24 |
| 87 | S014275 | 119.10 |
| 88 | I108386 | 111.24 |
| 89 | S200210 | 106.67 |
| 90 | S008878 | 118.99 |
| 91 | S041170 | 106.41 |
| 92 | S200606 | 116.09 |
| 93 | C000185 | 114.36 |
| 94 | S104389 | 110.59 |
| 95 | S008384 | 121.15 |

| Site No | Permit ID | Yeager Airport |
|---|---|---|
| 96 | S011782 | 103.82 |
| 97 | S201412 | 115.78 |
| 98 | S025875 | 108.62 |
| 99 | S015077 | 106.30 |
| 100 | S106286 | 103.84 |
| 101 | C000282 | 103.40 |
| 102 | S010978 | 99.21 |
| 103 | S100287 | 106.51 |
| 104 | S004178 | 111.82 |
| 105 | S003681 | 120.05 |
| 106 | S101486 | 102.95 |
| 107 | S100695 | 102.95 |
| 108 | S100692 | 119.65 |
| 109 | S007683 | 107.61 |
| 110 | S005382 | 120.09 |
| 111 | Z006681 | 118.31 |
| 112 | S104586 | 114.66 |
| 113 | Z001381 | 106.45 |
| 114 | Z000381 | 98.82 |
| 115 | S102588 | 117.65 |
| 116 | S101589 | 104.26 |
| 117 | S008484 | 114.89 |
| 118 | S016877 | 110.82 |
| 119 | S100592 | 106.73 |

| Site No | Permit ID | Yeager Airport |
|---|---|---|
| 120 | S010985 | 114.64 |
| 121 | S009285 | 113.72 |
| 122 | S006882 | 113.91 |
| 123 | S100199 | 116.35 |
| 124 | S003185 | 119.28 |
| 125 | S011579 | 109.55 |
| 126 | Z003381 | 113.61 |
| 127 | S001583 | 114.25 |
| 128 | I074000 | 106.07 |
| 129 | C000682 | 112.44 |
| 130 | S108186 | 106.40 |
| 131 | S005181 | 117.53 |
| 132 | C000485 | 121.87 |
| 133 | S100388 | 120.19 |
| 134 | S023674 | 101.80 |
| 135 | S200110 | 112.06 |

**Table 6: Shortest Distances from Sites to Other Transportation Methods**

| Site No | Permit ID | Railroad | IF | Intermodal Facility (IF) Name | NW | National Waterway (NW) Name |
|---|---|---|---|---|---|---|
| 1 | S100795 | 1.31 | 7.65 | CSXT Clarksburg Bulk TransFlo | 20.16 | MONONGAHELA RIVER |
| 2 | S011380 | 4.41 | 13.09 | CSXT Clarksburg Bulk TransFlo | 26.45 | MONONGAHELA RIVER |
| 3 | S000783 | 3.02 | 4.49 | CSXT Clarksburg Bulk TransFlo | 21.34 | MONONGAHELA RIVER |
| 4 | S003078 | 0.89 | 3.27 | CSXT Clarksburg Bulk TransFlo | 15.05 | MONONGAHELA RIVER |
| 5 | S002385 | 3.91 | 7.29 | CSXT Clarksburg Bulk TransFlo | 10.88 | MONONGAHELA RIVER |
| 6 | C000785 | 1.51 | 8.51 | CSXT Clarksburg Bulk TransFlo | 11.97 | MONONGAHELA RIVER |
| 7 | S005680 | 3.34 | 9.11 | CSXT Clarksburg Bulk TransFlo | 12.18 | MONONGAHELA RIVER |
| 8 | S003279 | 3.76 | 11.08 | CSXT Clarksburg Bulk TransFlo | 9.66 | MONONGAHELA RIVER |
| 9 | S003485 | 5.11 | 11.45 | CSXT Clarksburg Bulk TransFlo | 24.81 | MONONGAHELA RIVER |
| 10 | S000682 | 4.01 | 8.22 | CSXT Clarksburg Bulk TransFlo | 24.62 | MONONGAHELA RIVER |
| 11 | S102787 | 0.48 | 2.40 | CSXT Clarksburg Bulk TransFlo | 15.63 | MONONGAHELA RIVER |
| 12 | S103787 | 3.65 | 12.00 | CSXT Clarksburg Bulk TransFlo | 13.33 | MONONGAHELA RIVER |
| 13 | S025176 | 6.13 | 12.20 | CSXT Clarksburg Bulk TransFlo | 28.97 | MONONGAHELA RIVER |
| 14 | S008782 | 7.62 | 10.68 | CSXT Clarksburg Bulk TransFlo | 24.35 | MONONGAHELA RIVER |
| 15 | S100586 | 7.30 | 11.65 | CSXT Clarksburg Bulk TransFlo | 25.32 | MONONGAHELA RIVER |
| 16 | S009178 | 0.06 | 9.12 | CSXT Clarksburg Bulk TransFlo | 19.99 | MONONGAHELA RIVER |
| 17 | S101391 | 3.00 | 7.33 | CSXT Clarksburg Bulk TransFlo | 23.00 | MONONGAHELA RIVER |
| 18 | S100396 | 0.91 | 7.82 | CSXT Clarksburg Bulk TransFlo | 15.53 | MONONGAHELA RIVER |
| 19 | S100395 | 5.34 | 10.12 | CSXT Clarksburg Bulk TransFlo | 24.39 | MONONGAHELA RIVER |
| 20 | Z003981 | 4.42 | 8.82 | CSXT Clarksburg Bulk TransFlo | 25.58 | MONONGAHELA RIVER |
| 21 | S004284 | 4.90 | 9.33 | CSXT Clarksburg Bulk TransFlo | 25.58 | MONONGAHELA RIVER |
| 22 | Z003881 | 3.20 | 13.48 | CSXT Clarksburg Bulk TransFlo | 26.84 | MONONGAHELA RIVER |
| 23 | S003179 | 3.12 | 10.36 | CSXT Clarksburg Bulk TransFlo | 10.06 | MONONGAHELA RIVER |

| Site No | Permit ID | Railroad | IF | Intermodal Facility (IF) Name | NW | National Waterway (NW) Name |
|---|---|---|---|---|---|---|
| 24 | S022375 | 2.29 | 14.62 | CSXT Clarksburg Bulk TransFlo | 27.99 | MONONGAHELA RIVER |
| 25 | S021976 | 6.24 | 8.71 | CSXT Clarksburg Bulk TransFlo | 22.08 | MONONGAHELA RIVER |
| 26 | S014475 | 8.16 | 12.59 | CSXT Clarksburg Bulk TransFlo | 26.26 | MONONGAHELA RIVER |
| 27 | S008577 | 0.49 | 1.86 | CSXT Clarksburg Bulk TransFlo | 18.29 | MONONGAHELA RIVER |
| 28 | S006479 | 0.12 | 1.52 | CSXT Clarksburg Bulk TransFlo | 17.19 | MONONGAHELA RIVER |
| 29 | Z001281 | 5.84 | 9.69 | CSXT Clarksburg Bulk TransFlo | 26.46 | MONONGAHELA RIVER |
| 30 | S100294 | 1.98 | 7.83 | CSXT Clarksburg Bulk TransFlo | 21.11 | MONONGAHELA RIVER |
| 31 | S019177 | 2.94 | 10.05 | CSXT Clarksburg Bulk TransFlo | 17.87 | MONONGAHELA RIVER |
| 32 | S002181 | 4.51 | 10.68 | CSXT Clarksburg Bulk TransFlo | 24.05 | MONONGAHELA RIVER |
| 33 | S000583 | 3.17 | 14.45 | CSXT Clarksburg Bulk TransFlo | 27.81 | MONONGAHELA RIVER |
| 34 | C000778 | 0.89 | 3.27 | CSXT Clarksburg Bulk TransFlo | 15.05 | MONONGAHELA RIVER |
| 35 | S002185 | 5.05 | 9.92 | CSXT Clarksburg Bulk TransFlo | 26.68 | MONONGAHELA RIVER |
| 36 | S100889 | 1.45 | 8.27 | CSXT Clarksburg Bulk TransFlo | 17.07 | MONONGAHELA RIVER |
| 37 | S020577 | 2.39 | 3.79 | CSXT Clarksburg Bulk TransFlo | 19.17 | MONONGAHELA RIVER |
| 38 | S024576 | 2.39 | 3.79 | CSXT Clarksburg Bulk TransFlo | 19.17 | MONONGAHELA RIVER |
| 39 | S105286 | 3.04 | 5.15 | CSXT Clarksburg Bulk TransFlo | 20.27 | MONONGAHELA RIVER |
| 40 | S002582 | 3.16 | 13.45 | CSXT Clarksburg Bulk TransFlo | 26.81 | MONONGAHELA RIVER |
| 41 | S009472 | 3.58 | 9.67 | CSXT Clarksburg Bulk TransFlo | 9.64 | MONONGAHELA RIVER |
| 42 | Z004581 | 2.28 | 10.96 | CSXT Clarksburg Bulk TransFlo | 18.78 | MONONGAHELA RIVER |
| 43 | S104087 | 3.71 | 5.07 | CSXT Clarksburg Bulk TransFlo | 21.93 | MONONGAHELA RIVER |
| 44 | S104991 | 4.37 | 21.20 | CSXT Clarksburg Bulk TransFlo | 34.56 | MONONGAHELA RIVER |
| 45 | C000881 | 0.66 | 3.10 | CSXT Clarksburg Bulk TransFlo | 14.78 | MONONGAHELA RIVER |
| 46 | C000882 | 6.92 | 11.38 | CSXT Clarksburg Bulk TransFlo | 28.15 | MONONGAHELA RIVER |
| 47 | S200305 | 3.51 | 9.38 | CSXT Clarksburg Bulk TransFlo | 9.56 | MONONGAHELA RIVER |

| Site No | Permit ID | Railroad | IF | Intermodal Facility (IF) Name | NW | National Waterway (NW) Name |
|---|---|---|---|---|---|---|
| 48 | S016676 | 3.73 | 11.39 | CSXT Clarksburg Bulk TransFlo | 24.76 | MONONGAHELA RIVER |
| 49 | S004082 | 3.49 | 4.71 | CSXT Clarksburg Bulk TransFlo | 21.64 | MONONGAHELA RIVER |
| 50 | S012379 | 3.08 | 4.81 | CSXT Clarksburg Bulk TransFlo | 21.67 | MONONGAHELA RIVER |
| 51 | S001777 | 4.91 | 10.05 | CSXT Clarksburg Bulk TransFlo | 24.52 | MONONGAHELA RIVER |
| 52 | S200511 | 3.46 | 5.12 | CSXT Clarksburg Bulk TransFlo | 21.65 | MONONGAHELA RIVER |
| 53 | S004682 | 9.50 | 15.76 | CSXT Clarksburg Bulk TransFlo | 32.54 | MONONGAHELA RIVER |
| 54 | S100397 | 5.92 | 11.80 | CSXT Clarksburg Bulk TransFlo | 27.40 | MONONGAHELA RIVER |
| 55 | S100588 | 4.43 | 12.76 | CSXT Clarksburg Bulk TransFlo | 26.13 | MONONGAHELA RIVER |
| 56 | S009583 | 3.30 | 12.00 | CSXT Clarksburg Bulk TransFlo | 12.11 | MONONGAHELA RIVER |
| 57 | S013780 | 2.78 | 5.32 | CSXT Clarksburg Bulk TransFlo | 19.32 | MONONGAHELA RIVER |
| 58 | S200701 | 3.48 | 11.90 | CSXT Clarksburg Bulk TransFlo | 7.73 | MONONGAHELA RIVER |
| 59 | S002085 | 0.59 | 9.28 | CSXT Clarksburg Bulk TransFlo | 19.57 | MONONGAHELA RIVER |
| 60 | S003281 | 2.05 | 6.12 | CSXT Clarksburg Bulk TransFlo | 19.15 | MONONGAHELA RIVER |
| 61 | S007679 | 2.97 | 6.27 | CSXT Clarksburg Bulk TransFlo | 21.24 | MONONGAHELA RIVER |
| 62 | C000385 | 3.08 | 11.34 | CSXT Clarksburg Bulk TransFlo | 13.66 | MONONGAHELA RIVER |
| 63 | S100186 | 5.72 | 10.52 | CSXT Clarksburg Bulk TransFlo | 27.28 | MONONGAHELA RIVER |
| 64 | S002478 | 4.91 | 10.05 | CSXT Clarksburg Bulk TransFlo | 24.52 | MONONGAHELA RIVER |
| 65 | S102291 | 2.69 | 5.63 | CSXT Clarksburg Bulk TransFlo | 21.27 | MONONGAHELA RIVER |
| 66 | S104486 | 0.58 | 3.98 | CSXT Clarksburg Bulk TransFlo | 20.76 | MONONGAHELA RIVER |
| 67 | S012880 | 1.79 | 9.55 | CSXT Clarksburg Bulk TransFlo | 13.75 | MONONGAHELA RIVER |
| 68 | S103388 | 0.91 | 7.35 | CSXT Clarksburg Bulk TransFlo | 19.57 | MONONGAHELA RIVER |
| 69 | S106091 | 3.75 | 7.62 | CSXT Clarksburg Bulk TransFlo | 10.91 | MONONGAHELA RIVER |
| 70 | S007584 | 2.98 | 11.76 | CSXT Clarksburg Bulk TransFlo | 13.25 | MONONGAHELA RIVER |
| 71 | S024275 | 5.09 | 13.33 | CSXT Clarksburg Bulk TransFlo | 26.69 | MONONGAHELA RIVER |

| Site No | Permit ID | Railroad | IF | Intermodal Facility (IF) Name | NW | National Waterway (NW) Name |
|---|---|---|---|---|---|---|
| 72 | I074800 | 2.32 | 9.73 | CSXT Clarksburg Bulk TransFlo | 11.03 | MONONGAHELA RIVER |
| 73 | C001281 | 0.60 | 3.00 | CSXT Clarksburg Bulk TransFlo | 0.03 | |
| 74 | S104887 | 3.39 | 11.83 | CSXT Clarksburg Bulk TransFlo | 14.75 | MONONGAHELA RIVER |
| 75 | S103688 | 0.01 | 8.22 | CSXT Clarksburg Bulk TransFlo | 7.65 | MONONGAHELA RIVER |
| 76 | S201106 | 5.83 | 11.23 | CSXT Clarksburg Bulk TransFlo | 14.02 | MONONGAHELA RIVER |
| 77 | S100498 | 3.20 | 10.67 | CSXT Clarksburg Bulk TransFlo | 28.00 | MONONGAHELA RIVER |
| 78 | S038769 | 6.84 | 9.63 | CSXT Clarksburg Bulk TransFlo | 10.52 | MONONGAHELA RIVER |
| 79 | S100997 | 4.11 | 12.14 | CSXT Clarksburg Bulk TransFlo | 26.55 | MONONGAHELA RIVER |
| 80 | S000284 | 0.02 | 1.20 | CSXT Clarksburg Bulk TransFlo | 9.18 | MONONGAHELA RIVER |
| 81 | S005080 | 2.98 | 11.76 | CSXT Clarksburg Bulk TransFlo | 16.36 | MONONGAHELA RIVER |
| 82 | S101197 | 4.18 | 12.34 | CSXT Clarksburg Bulk TransFlo | 13.25 | MONONGAHELA RIVER |
| 83 | S013379 | 0.47 | 4.02 | CSXT Clarksburg Bulk TransFlo | 9.38 | MONONGAHELA RIVER |
| 84 | S017570 | 8.45 | 14.01 | CSXT Clarksburg Bulk TransFlo | 17.08 | MONONGAHELA RIVER |
| 85 | C000583 | 3.13 | 7.01 | CSXT Clarksburg Bulk TransFlo | 27.70 | MONONGAHELA RIVER |
| 86 | C000585 | 3.92 | 5.33 | CSXT Clarksburg Bulk TransFlo | 13.04 | MONONGAHELA RIVER |
| 87 | S014275 | 4.52 | 12.01 | CSXT Clarksburg Bulk TransFlo | 22.26 | MONONGAHELA RIVER |
| 88 | I108386 | 3.92 | 5.33 | CSXT Clarksburg Bulk TransFlo | 8.80 | MONONGAHELA RIVER |
| 89 | S200210 | 4.15 | 12.55 | CSXT Clarksburg Bulk TransFlo | 22.26 | MONONGAHELA RIVER |
| 90 | S008878 | 2.51 | 9.51 | CSXT Clarksburg Bulk TransFlo | 25.92 | MONONGAHELA RIVER |
| 91 | S041170 | 3.82 | 12.30 | CSXT Clarksburg Bulk TransFlo | 17.34 | MONONGAHELA RIVER |
| 92 | S200606 | 3.60 | 8.95 | CSXT Clarksburg Bulk TransFlo | 25.67 | MONONGAHELA RIVER |
| 93 | C000185 | 2.48 | 7.22 | CSXT Clarksburg Bulk TransFlo | 12.02 | MONONGAHELA RIVER |
| 94 | S104389 | 0.02 | 1.34 | CSXT Clarksburg Bulk TransFlo | 11.64 | MONONGAHELA RIVER |
| 95 | S008384 | 3.19 | 12.15 | CSXT Clarksburg Bulk TransFlo | 17.06 | MONONGAHELA RIVER |

| Site No | Permit ID | Railroad | IF | Intermodal Facility (IF) Name | NW | National Waterway (NW) Name |
|---|---|---|---|---|---|---|
| 96 | S011782 | 3.57 | 7.68 | CSXT Clarksburg Bulk TransFlo | 12.82 | MONONGAHELA RIVER |
| 97 | S201412 | 5.09 | 9.20 | CSXT Clarksburg Bulk TransFlo | 23.32 | MONONGAHELA RIVER |
| 98 | S025875 | 0.61 | 3.20 | CSXT Clarksburg Bulk TransFlo | 8.25 | MONONGAHELA RIVER |
| 99 | S015077 | 1.36 | 4.47 | CSXT Clarksburg Bulk TransFlo | 19.97 | MONONGAHELA RIVER |
| 100 | S106286 | 3.64 | 6.44 | CSXT Clarksburg Bulk TransFlo | 21.25 | MONONGAHELA RIVER |
| 101 | C000282 | 7.32 | 12.13 | CSXT Clarksburg Bulk TransFlo | 21.91 | MONONGAHELA RIVER |
| 102 | S010978 | 8.43 | 12.66 | CSXT Clarksburg Bulk TransFlo | 28.90 | MONONGAHELA RIVER |
| 103 | S100287 | 3.96 | 12.39 | CSXT Clarksburg Bulk TransFlo | 26.33 | MONONGAHELA RIVER |
| 104 | S004178 | 4.35 | 5.74 | CSXT Clarksburg Bulk TransFlo | 25.75 | MONONGAHELA RIVER |
| 105 | S003681 | 2.40 | 10.57 | CSXT Clarksburg Bulk TransFlo | 22.67 | MONONGAHELA RIVER |
| 106 | S101486 | 4.05 | 9.77 | CSXT Clarksburg Bulk TransFlo | 18.40 | MONONGAHELA RIVER |
| 107 | S100695 | 4.05 | 9.77 | CSXT Clarksburg Bulk TransFlo | 25.41 | MONONGAHELA RIVER |
| 108 | S100692 | 3.95 | 11.65 | CSXT Clarksburg Bulk TransFlo | 25.41 | MONONGAHELA RIVER |
| 109 | S007683 | 4.79 | 8.87 | CSXT Clarksburg Bulk TransFlo | 9.06 | MONONGAHELA RIVER |
| 110 | S005382 | 2.35 | 10.62 | CSXT Clarksburg Bulk TransFlo | 25.63 | MONONGAHELA RIVER |
| 111 | Z006681 | 2.29 | 9.65 | CSXT Clarksburg Bulk TransFlo | 14.31 | MONONGAHELA RIVER |
| 112 | S104586 | 1.18 | 5.18 | CSXT Clarksburg Bulk TransFlo | 11.05 | MONONGAHELA RIVER |
| 113 | Z001381 | 2.57 | 13.18 | CSXT Clarksburg Bulk TransFlo | 17.35 | MONONGAHELA RIVER |
| 114 | Z000381 | 9.76 | 15.74 | CSXT Clarksburg Bulk TransFlo | 26.55 | MONONGAHELA RIVER |
| 115 | S102588 | 0.11 | 8.17 | CSXT Clarksburg Bulk TransFlo | 32.51 | MONONGAHELA RIVER |
| 116 | S101589 | 4.06 | 7.30 | CSXT Clarksburg Bulk TransFlo | 16.23 | MONONGAHELA RIVER |
| 117 | S008484 | 0.85 | 5.41 | CSXT Clarksburg Bulk TransFlo | 22.94 | MONONGAHELA RIVER |
| 118 | S016877 | 1.99 | 4.01 | CSXT Clarksburg Bulk TransFlo | 16.14 | MONONGAHELA RIVER |
| 119 | S100592 | 4.15 | 12.62 | CSXT Clarksburg Bulk TransFlo | 20.80 | MONONGAHELA RIVER |

| Site No | Permit ID | Railroad | IF | Intermodal Facility (IF) Name | NW | National Waterway (NW) Name |
|---|---|---|---|---|---|---|
| 120 | S010985 | 2.45 | 7.32 | CSXT Clarksburg Bulk TransFlo | 25.98 | MONONGAHELA RIVER |
| 121 | S009285 | 2.81 | 6.58 | CSXT Clarksburg Bulk TransFlo | 20.84 | MONONGAHELA RIVER |
| 122 | S006882 | 2.91 | 4.85 | CSXT Clarksburg Bulk TransFlo | 12.61 | MONONGAHELA RIVER |
| 123 | S100199 | 2.68 | 9.21 | CSXT Clarksburg Bulk TransFlo | 19.97 | MONONGAHELA RIVER |
| 124 | S003185 | 1.40 | 10.27 | CSXT Clarksburg Bulk TransFlo | 10.73 | MONONGAHELA RIVER |
| 125 | S011579 | 3.78 | 7.87 | CSXT Clarksburg Bulk TransFlo | 12.04 | MONONGAHELA RIVER |
| 126 | Z003381 | 0.53 | 4.14 | CSXT Clarksburg Bulk TransFlo | 24.64 | MONONGAHELA RIVER |
| 127 | S001583 | 0.49 | 4.77 | CSXT Clarksburg Bulk TransFlo | 17.19 | MONONGAHELA RIVER |
| 128 | I074000 | 1.15 | 4.41 | CSXT Clarksburg Bulk TransFlo | 16.27 | MONONGAHELA RIVER |
| 129 | C000682 | 1.51 | 3.86 | CSXT Clarksburg Bulk TransFlo | 21.18 | MONONGAHELA RIVER |
| 130 | S108186 | 2.87 | 13.13 | CSXT Clarksburg Bulk TransFlo | 15.58 | MONONGAHELA RIVER |
| 131 | S005181 | 2.90 | 10.40 | CSXT Clarksburg Bulk TransFlo | 26.50 | MONONGAHELA RIVER |
| 132 | C000485 | 3.52 | 12.40 | CSXT Clarksburg Bulk TransFlo | 10.67 | MONONGAHELA RIVER |
| 133 | S100388 | 3.00 | 11.18 | CSXT Clarksburg Bulk TransFlo | 15.09 | MONONGAHELA RIVER |
| 134 | S023674 | 5.26 | 9.85 | CSXT Clarksburg Bulk TransFlo | 11.80 | MONONGAHELA RIVER |
| 135 | S200110 | 3.13 | 11.28 | CSXT Clarksburg Bulk TransFlo | 24.27 | MONONGAHELA RIVER |

**Table 7: Shortest Distances from Sites to Sewer Lines (SL) and Water Lines (WL)**

| Site No | Permit ID | Dist - SL | Utility (SL) | Dist - WL | Utility (WL) |
|---|---|---|---|---|---|
| 1 | S100795 | 3.46 | Lumberport Area Public Service District | 0.27 | Short Line Public Service District |
| 2 | S011380 | 5.10 | Greater Harrison County Public Service District | 0.23 | Greater Harrison County Public Service District |
| 3 | S000783 | 0.30 | Sun Valley Public Service District | 0.01 | Sun Valley Public Service District |
| 4 | S003078 | 0.02 | City of Bridgeport | 0.03 | Bridgeport Municipal Water Works |
| 5 | S002385 | 0.55 | City of Bridgeport | 0.22 | Clarksburg Water Board |
| 6 | C000785 | 0.04 | City of Shinnston | 0.04 | City of Shinnston |
| 7 | S005680 | 2.23 | City of Bridgeport | 0.03 | Coon's Run Public Service District |
| 8 | S003279 | 1.09 | City of Shinnston | 0.13 | City of Shinnston |
| 9 | S003485 | 3.71 | Greater Harrison County Public Service District | 0.60 | Greater Harrison County Public Service District |
| 10 | S000682 | 0.09 | Greater Harrison County Public Service District | 0.13 | Greater Harrison County Public Service District |
| 11 | S102787 | 0.21 | Summit Park Public Service District | 0.18 | Summit Park Public Service District |
| 12 | S103787 | 2.94 | City of Shinnston | 0.13 | Bingamon Public Service District |
| 13 | S025176 | 2.80 | Greater Harrison County Public Service District | 0.79 | Greater Harrison County Public Service District |
| 14 | S008782 | 0.73 | Jane Lew Public Service District Wastewater Division | 0.16 | Greater Harrison County Public Service District |
| 15 | S100586 | 0.74 | Jane Lew Public Service District Wastewater Division | 0.54 | Greater Harrison County Public Service District |
| 16 | S009178 | 3.57 | Lumberport Area Public Service District | 0.07 | Short Line Public Service District |
| 17 | S101391 | 0.27 | Greater Harrison County Public Service District | 0.29 | Greater Harrison County Public Service District |
| 18 | S100396 | 0.04 | Lumberport Area Public Service District | 0.06 | Lumberport Municipal Water Works |

| Site No | Permit ID | Dist - SL | Utility (SL) | Dist - WL | Utility (WL) |
|---|---|---|---|---|---|
| 19 | S100395 | 1.86 | Greater Harrison County Public Service District | 0.23 | Greater Harrison County Public Service District |
| 20 | Z003981 | 1.98 | Sun Valley Public Service District | 0.68 | Sun Valley Public Service District |
| 21 | S004284 | 0.91 | Greater Harrison County Public Service District | 0.38 | Greater Harrison County Public Service District |
| 22 | Z003881 | 5.73 | Greater Harrison County Public Service District | 1.26 | Hodgesville Public Service District |
| 23 | S003179 | 1.82 | City of Shinnston | 0.48 | Coon's Run Public Service District |
| 24 | S022375 | 6.58 | Greater Harrison County Public Service District | 1.35 | Hodgesville Public Service District |
| 25 | S021976 | 1.05 | Greater Harrison County Public Service District | 0.24 | Greater Harrison County Public Service District |
| 26 | S014475 | 1.03 | Jane Lew Public Service District Wastewater Division | 0.90 | Greater Harrison County Public Service District |
| 27 | S008577 | 0.11 | City of Clarksburg Sanitary Board | 0.16 | Clarksburg Water Board |
| 28 | S006479 | 0.14 | City of Clarksburg Sanitary Board | 0.13 | Clarksburg Water Board |
| 29 | Z001281 | 1.96 | Greater Harrison County Public Service District | 0.05 | Greater Harrison County Public Service District |
| 30 | S100294 | 3.00 | Sun Valley Public Service District | 0.09 | Short Line Public Service District |
| 31 | S019177 | 2.06 | Lumberport Area Public Service District | 0.55 | Short Line Public Service District |
| 32 | S002181 | 4.32 | Greater Harrison County Public Service District | 1.14 | Greater Harrison County Public Service District |
| 33 | S000583 | 6.27 | Greater Harrison County Public Service District | 1.09 | Hodgesville Public Service District |
| 34 | C000778 | 0.02 | City of Bridgeport | 0.03 | Bridgeport Municipal Water Works |
| 35 | S002185 | 2.37 | Greater Harrison County Public Service District | 0.08 | Greater Harrison County Public Service District |

| Site No | Permit ID | Dist - SL | Utility (SL) | Dist - WL | Utility (WL) |
|---|---|---|---|---|---|
| 36 | S100889 | 0.86 | City of Bridgeport | 0.26 | Greater Harrison County Public Service District |
| 37 | S020577 | 0.82 | City of Stonewood Sewer System | 0.46 | Greater Harrison County Public Service District |
| 38 | S024576 | 0.82 | City of Stonewood Sewer System | 0.46 | Greater Harrison County Public Service District |
| 39 | S105286 | 1.08 | Sun Valley Public Service District | 0.35 | Short Line Public Service District |
| 40 | S002582 | 5.80 | Greater Harrison County Public Service District | 1.34 | Hodgesville Public Service District |
| 41 | S009472 | 2.22 | Greater Harrison County Public Service District | 0.21 | Coon's Run Public Service District |
| 42 | Z004581 | 3.08 | Lumberport Area Public Service District | 0.43 | Short Line Public Service District |
| 43 | S104087 | 0.43 | Sun Valley Public Service District | 0.14 | Sun Valley Public Service District |
| 44 | S104991 | 5.58 | Greater Harrison County Public Service District | 0.64 | Greater Harrison County Public Service District |
| 45 | C000881 | 0.04 | City of Bridgeport | 0.03 | Bridgeport Municipal Water Works |
| 46 | C000882 | 3.14 | Greater Harrison County Public Service District | 0.40 | Greater Harrison County Public Service District |
| 47 | S200305 | 2.32 | City of Shinnston | 0.06 | Coon's Run Public Service District |
| 48 | S016676 | 5.40 | Greater Harrison County Public Service District | 0.44 | Hodgesville Public Service District |
| 49 | S004082 | 0.23 | Sun Valley Public Service District | 0.24 | Sun Valley Public Service District |
| 50 | S012379 | 0.61 | Sun Valley Public Service District | 0.19 | Sun Valley Public Service District |
| 51 | S001777 | 1.89 | Greater Harrison County Public Service District | 0.36 | Greater Harrison County Public Service District |
| 52 | S200511 | 0.45 | Sun Valley Public Service District | 0.34 | Sun Valley Public Service District |
| 53 | S004682 | 2.56 | Jane Lew Public Service District Wastewater Division | 1.70 | Greater Harrison County Public Service District |

| Site No | Permit ID | Dist - SL | Utility (SL) | Dist - WL | Utility (WL) |
|---|---|---|---|---|---|
| 54 | S100397 | 2.18 | Jane Lew Public Service District Wastewater Division | 0.71 | Greater Harrison County Public Service District |
| 55 | S100588 | 4.43 | Greater Harrison County Public Service District | 0.83 | Greater Harrison County Public Service District |
| 56 | S009583 | 1.73 | City of Shinnston | 0.26 | Bingamon Public Service District |
| 57 | S013780 | 1.86 | Sun Valley Public Service District | 0.23 | Short Line Public Service District |
| 58 | S200701 | 1.81 | Whitehall Public Service District | 0.40 | Coon's Run Public Service District |
| 59 | S002085 | 2.35 | Lumberport Area Public Service District | 0.21 | Short Line Public Service District |
| 60 | S003281 | 2.61 | Sun Valley Public Service District | 0.31 | Short Line Public Service District |
| 61 | S007679 | 1.81 | Sun Valley Public Service District | 0.02 | Short Line Public Service District |
| 62 | C000385 | 2.43 | Lumberport Area Public Service District | 0.04 | Bingamon Public Service District |
| 63 | S100186 | 3.07 | Greater Harrison County Public Service District | 0.02 | Greater Harrison County Public Service District |
| 64 | S002478 | 1.89 | Greater Harrison County Public Service District | 0.36 | Greater Harrison County Public Service District |
| 65 | S102291 | 1.51 | Greater Harrison County Public Service District | 0.06 | Greater Harrison County Public Service District |
| 66 | S104486 | 0.19 | City of Clarksburg Sanitary Board | 0.21 | Greater Harrison County Public Service District |
| 67 | S012880 | 1.08 | Lumberport Area Public Service District | 0.30 | Bingamon Public Service District |
| 68 | S103388 | 2.94 | Lumberport Area Public Service District | 0.28 | Short Line Public Service District |
| 69 | S106091 | 0.99 | City of Bridgeport | 0.07 | City of Shinnston |
| 70 | S007584 | 2.34 | City of Shinnston | 0.07 | Bingamon Public Service District |
| 71 | S024275 | 4.72 | Greater Harrison County Public Service District | 0.45 | Greater Harrison County Public Service District |
| 72 | I074800 | 0.10 | City of Shinnston | 0.07 | City of Shinnston |

| Site No | Permit ID | Dist - SL | Utility (SL) | Dist - WL | Utility (WL) |
|---|---|---|---|---|---|
| 73 | C001281 | 0.07 | City of Bridgeport | 0.01 | Bridgeport Municipal Water Works |
| 74 | S104887 | 1.73 | Whitehall Public Service District | 0.31 | Coon's Run Public Service District |
| 75 | S103688 | 0.41 | Lumberport Area Public Service District | 0.19 | City of Shinnston |
| 76 | S201106 | 2.21 | Greater Harrison County Public Service District | 0.64 | Greater Harrison County Public Service District |
| 77 | S100498 | 0.85 | City of Shinnston | 0.00 | City of Shinnston |
| 78 | S038769 | 2.07 | Lake Floyd Public Service District | 0.76 | Sun Valley Public Service District |
| 79 | S100997 | 1.37 | City of Shinnston | 0.02 | City of Shinnston |
| 80 | S000284 | 0.04 | Summit Park Public Service District | 0.06 | Summit Park Public Service District |
| 81 | S005080 | 2.34 | City of Shinnston | 0.07 | Bingamon Public Service District |
| 82 | S101197 | 1.46 | City of Shinnston | 0.04 | City of Shinnston |
| 83 | S013379 | 0.44 | Enlarged Hepzibah Public Service District | 0.29 | Clarksburg Water Board |
| 84 | S017570 | 0.35 | Jane Lew Public Service District Wastewater Division | 0.76 | West Virginia-American Water Company |
| 85 | C000583 | 1.38 | City of Bridgeport | 0.60 | City of Shinnston |
| 86 | C000585 | 0.15 | Sun Valley Public Service District | 0.27 | Sun Valley Public Service District |
| 87 | S014275 | 1.91 | City of Shinnston | 0.21 | Coon's Run Public Service District |
| 88 | I108386 | 0.15 | Sun Valley Public Service District | 0.27 | Sun Valley Public Service District |
| 89 | S200210 | 4.68 | Greater Harrison County Public Service District | 1.02 | Hodgesville Public Service District |
| 90 | S008878 | 1.74 | Lumberport Area Public Service District | 0.05 | Short Line Public Service District |
| 91 | S041170 | 5.01 | Greater Harrison County Public Service District | 0.87 | Hodgesville Public Service District |
| 92 | S200606 | 2.05 | City of Bridgeport | 0.21 | Coon's Run Public Service District |

| Site No | Permit ID | Dist - SL | Utility (SL) | Dist - WL | Utility (WL) |
|---|---|---|---|---|---|
| 93 | C000185 | 1.60 | Enlarged Hepzibah Public Service District | 0.54 | City of Shinnston |
| 94 | S104389 | 0.00 | City of Clarksburg Sanitary Board | 0.01 | Clarksburg Water Board |
| 95 | S008384 | 1.72 | City of Shinnston | 0.23 | Bingamon Public Service District |
| 96 | S011782 | 1.15 | Greater Harrison County Public Service District | 0.67 | Greater Harrison County Public Service District |
| 97 | S201412 | 0.51 | Greater Harrison County Public Service District | 0.44 | Tri-County Water Association |
| 98 | S025875 | 0.17 | City of Clarksburg Sanitary Board | 0.16 | Clarksburg Water Board |
| 99 | S015077 | 1.48 | City of Clarksburg Sanitary Board | 0.35 | Greater Harrison County Public Service District |
| 100 | S106286 | 1.04 | Greater Harrison County Public Service District | 0.07 | Greater Harrison County Public Service District |
| 101 | C000282 | 3.96 | Greater Harrison County Public Service District | 0.01 | Greater Harrison County Public Service District |
| 102 | S010978 | 0.43 | Jane Lew Public Service District Wastewater Division | 0.43 | Greater Harrison County Public Service District |
| 103 | S100287 | 4.87 | Greater Harrison County Public Service District | 0.87 | Hodgesville Public Service District |
| 104 | S004178 | 0.18 | Sun Valley Public Service District | 0.00 | Sun Valley Public Service District |
| 105 | S003681 | 2.52 | Lumberport Area Public Service District | 0.55 | Short Line Public Service District |
| 106 | S101486 | 0.84 | Greater Harrison County Public Service District | 0.44 | Greater Harrison County Public Service District |
| 107 | S100695 | 0.84 | Greater Harrison County Public Service District | 0.44 | Greater Harrison County Public Service District |
| 108 | S100692 | 1.23 | City of Shinnston | 0.13 | City of Shinnston |
| 109 | S007683 | 2.39 | Greater Harrison County Public Service District | 0.80 | Greater Harrison County Public Service District |

| Site No | Permit ID | Dist - SL | Utility (SL) | Dist - WL | Utility (WL) |
|---|---|---|---|---|---|
| 110 | S005382 | 1.61 | Lumberport Area Public Service District | 0.41 | Bingamon Public Service District |
| 111 | Z006681 | 0.05 | City of Shinnston | 0.00 | City of Shinnston |
| 112 | S104586 | 1.65 | Enlarged Hepzibah Public Service District | 0.09 | Short Line Public Service District |
| 113 | Z001381 | 6.25 | Greater Harrison County Public Service District | 0.85 | Hodgesville Public Service District |
| 114 | Z000381 | 2.45 | Jane Lew Public Service District Wastewater Division | 1.93 | Greater Harrison County Public Service District |
| 115 | S102588 | 0.19 | Lumberport Area Public Service District | 0.01 | Short Line Public Service District |
| 116 | S101589 | 0.94 | Greater Harrison County Public Service District | 0.38 | Greater Harrison County Public Service District |
| 117 | S008484 | 0.85 | Enlarged Hepzibah Public Service District | 0.77 | Enlarged Hepzibah Public Service District |
| 118 | S016877 | 0.02 | Sun Valley Public Service District | 0.03 | Sun Valley Public Service District |
| 119 | S100592 | 4.68 | Greater Harrison County Public Service District | 1.20 | Hodgesville Public Service District |
| 120 | S010985 | 2.35 | Sun Valley Public Service District | 0.19 | Short Line Public Service District |
| 121 | S009285 | 1.35 | City of Bridgeport | 0.89 | Enlarged Hepzibah Public Service District |
| 122 | S006882 | 1.29 | Sun Valley Public Service District | 0.35 | Short Line Public Service District |
| 123 | S100199 | 1.50 | City of Shinnston | 0.61 | City of Shinnston |
| 124 | S003185 | 0.23 | City of Shinnston | 0.09 | Bingamon Public Service District |
| 125 | S011579 | 0.58 | Sun Valley Public Service District | 0.52 | Sun Valley Public Service District |
| 126 | Z003381 | 0.29 | Enlarged Hepzibah Public Service District | 0.43 | Clarksburg Water Board |
| 127 | S001583 | 0.81 | Enlarged Hepzibah Public Service District | 0.21 | Short Line Public Service District |

| Site No | Permit ID | Dist - SL | Utility (SL) | Dist - WL | Utility (WL) |
|---|---|---|---|---|---|
| 128 | I074000 | 1.24 | Greater Harrison County Public Service District | 0.19 | Greater Harrison County Public Service District |
| 129 | C000682 | 1.20 | Enlarged Hepzibah Public Service District | 0.01 | Clarksburg Water Board |
| 130 | S108186 | 5.95 | Greater Harrison County Public Service District | 0.60 | Hodgesville Public Service District |
| 131 | S005181 | 0.66 | City of Shinnston | 0.01 | City of Shinnston |
| 132 | C000485 | 2.67 | Lumberport Area Public Service District | 0.15 | Bingamon Public Service District |
| 133 | S100388 | 1.12 | City of Shinnston | 0.01 | Bingamon Public Service District |
| 134 | S023674 | 2.20 | Greater Harrison County Public Service District | 0.17 | Greater Harrison County Public Service District |
| 135 | S200110 | 3.53 | City of Bridgeport | 0.91 | Southwestern Water District |

**Table 8: Shortest Distances from Sites to Broadband (BB) and Power Lines (PL)**

| Site No | Permit ID | Dist - BB | Provider (BB) | Dist - PL | Type (PL) | Size_kV |
|---|---|---|---|---|---|---|
| 1 | S100795 | 0.01 | Citizens Telecommunications Company of West Virginia | 0.67 | Transmission | 115-138 |
| 2 | S011380 | 2.17 | Frontier West Virginia, Inc. | 0.02 | Transmission | 115-138 |
| 3 | S000783 | 0.41 | TIME WARNER CABLE LLC | 0.35 | Transmission | 115-138 |
| 4 | S003078 | 0.42 | Cequel III Communications II | 0.87 | Transmission | 115-138 |
| 5 | S002385 | 3.01 | Cequel III Communications II | 0.73 | Transmission | 115-138 |
| 6 | C000785 | 0.27 | Cequel III Communications II | 0.84 | Transmission | 500 |
| 7 | S005680 | 3.13 | Cequel III Communications II | 0.13 | Transmission | 500 |
| 8 | S003279 | 1.14 | Cequel III Communications II | 1.37 | Transmission | 500 |
| 9 | S003485 | 2.26 | Cequel III Communications II | 0.44 | Transmission | 115-138 |
| 10 | S000682 | 0.25 | Cequel III Communications II | 2.19 | Transmission | 115-138 |
| 11 | S102787 | 1.27 | Cequel III Communications II | 0.19 | Transmission | 115-138 |
| 12 | S103787 | 0.19 | Frontier West Virginia, Inc. | 0.56 | Transmission | 500 |
| 13 | S025176 | 0.27 | Frontier West Virginia, Inc. | 2.53 | Sub-Transmission | Unknown |
| 14 | S008782 | 0.00 | Frontier West Virginia, Inc. | 2.40 | Transmission | 115-138 |
| 15 | S100586 | 0.02 | Cequel III Communications II | 1.52 | Transmission | 115-138 |
| 16 | S009178 | 0.09 | Citizens Telecommunications Company of West Virginia | 0.75 | Transmission | 115-138 |
| 17 | S101391 | 0.76 | Cequel III Communications II | 0.24 | Transmission | 115-138 |
| 18 | S100396 | 0.04 | Cequel III Communications II | 0.51 | Transmission | 115-138 |
| 19 | S100395 | 0.04 | Cequel III Communications II | 0.23 | Transmission | 115-138 |
| 20 | Z003981 | 0.68 | TIME WARNER CABLE LLC | 1.79 | Sub-Transmission | Unknown |
| 21 | S004284 | 0.11 | Cequel III Communications II | 1.24 | Transmission | 115-138 |

| Site No | Permit ID | Dist - BB | Provider (BB) | Dist - PL | Type (PL) | Size_kV |
|---|---|---|---|---|---|---|
| 22 | Z003881 | 2.38 | Frontier West Virginia, Inc. | 0.59 | Sub-Transmission | Unknown |
| 23 | S003179 | 2.56 | Cequel III Communications II | 0.93 | Transmission | 500 |
| 24 | S022375 | 2.19 | Frontier West Virginia, Inc. | 0.25 | Sub-Transmission | Unknown |
| 25 | S021976 | 1.68 | TIME WARNER CABLE LLC | 1.06 | Transmission | 115-138 |
| 26 | S014475 | 0.25 | Frontier West Virginia, Inc. | 3.11 | Transmission | 115-138 |
| 27 | S008577 | 1.41 | Cequel III Communications II | 0.56 | Transmission | 115-138 |
| 28 | S006479 | 1.73 | Cequel III Communications II | 0.62 | Sub-Transmission | Unknown |
| 29 | Z001281 | 0.06 | Frontier West Virginia, Inc. | 2.63 | Transmission | 115-138 |
| 30 | S100294 | 0.08 | Citizens Telecommunications Company of West Virginia | 0.77 | Transmission | 500 |
| 31 | S019177 | 0.00 | Cequel III Communications II | 0.07 | Transmission | 115-138 |
| 32 | S002181 | 2.43 | Cequel III Communications II | 1.08 | Transmission | 115-138 |
| 33 | S000583 | 1.39 | Frontier West Virginia, Inc. | 0.14 | Sub-Transmission | Unknown |
| 34 | C000778 | 0.42 | Cequel III Communications II | 0.87 | Transmission | 115-138 |
| 35 | S002185 | 0.77 | Frontier West Virginia, Inc. | 2.23 | Sub-Transmission | Unknown |
| 36 | S100889 | 0.25 | TIME WARNER CABLE LLC | 0.53 | Transmission | 115-138 |
| 37 | S020577 | 0.14 | Frontier West Virginia, Inc. | 0.16 | Transmission | 115-138 |
| 38 | S024576 | 0.14 | Frontier West Virginia, Inc. | 0.16 | Transmission | 115-138 |
| 39 | S105286 | 1.08 | TIME WARNER CABLE LLC | 0.35 | Sub-Transmission | Unknown |
| 40 | S002582 | 2.28 | Frontier West Virginia, Inc. | 0.51 | Sub-Transmission | Unknown |
| 41 | S009472 | 3.03 | Cequel III Communications II | 0.34 | Transmission | 500 |

| Site No | Permit ID | Dist - BB | Provider (BB) | Dist - PL | Type (PL) | Size_kV |
|---|---|---|---|---|---|---|
| 42 | Z004581 | 0.08 | Citizens Telecommunications Company of West Virginia | 0.22 | Transmission | 115-138 |
| 43 | S104087 | 0.06 | TIME WARNER CABLE LLC | 0.23 | Transmission | 115-138 |
| 44 | S104991 | 1.68 | Frontier West Virginia, Inc. | 0.36 | Transmission | 115-138 |
| 45 | C000881 | 0.56 | Cequel III Communications II | 0.76 | Sub-Transmission | Unknown |
| 46 | C000882 | 0.45 | Frontier West Virginia, Inc. | 3.29 | Transmission | 115-138 |
| 47 | S200305 | 2.71 | Cequel III Communications II | 0.69 | Transmission | 500 |
| 48 | S016676 | 2.60 | Cequel III Communications II | 2.26 | Sub-Transmission | Unknown |
| 49 | S004082 | 0.34 | TIME WARNER CABLE LLC | 1.51 | Sub-Transmission | Unknown |
| 50 | S012379 | 0.65 | TIME WARNER CABLE LLC | 0.03 | Transmission | 115-138 |
| 51 | S001777 | 0.03 | Frontier West Virginia, Inc. | 0.66 | Transmission | 115-138 |
| 52 | S200511 | 0.34 | TIME WARNER CABLE LLC | 0.04 | Transmission | 115-138 |
| 53 | S004682 | 1.06 | Frontier West Virginia, Inc. | 3.78 | Transmission | 115-138 |
| 54 | S100397 | 0.00 | Cequel III Communications II | 0.45 | Transmission | 115-138 |
| 55 | S100588 | 3.01 | Cequel III Communications II | 0.91 | Transmission | 115-138 |
| 56 | S009583 | 0.35 | Cequel III Communications II | 0.78 | Transmission | 500 |
| 57 | S013780 | 0.96 | Citizens Telecommunications Company of West Virginia | 0.33 | Transmission | 500 |
| 58 | S200701 | 0.46 | Cequel III Communications II | 1.06 | Transmission | 115-138 |
| 59 | S002085 | 0.21 | Citizens Telecommunications Company of West Virginia | 0.26 | Transmission | 115-138 |
| 60 | S003281 | 0.32 | Citizens Telecommunications Company of West Virginia | 0.25 | Transmission | 115-138 |
| 61 | S007679 | 0.98 | Citizens Telecommunications Company of West Virginia | 0.30 | Transmission | 500 |
| 62 | C000385 | 0.08 | Frontier West Virginia, Inc. | 0.32 | Transmission | 500 |
| 63 | S100186 | 1.11 | Frontier West Virginia, Inc. | 1.62 | Sub-Transmission | Unknown |

| Site No | Permit ID | Dist - BB | Provider (BB) | Dist - PL | Type (PL) | Size_kV |
|---|---|---|---|---|---|---|
| 64 | S002478 | 0.03 | Frontier West Virginia, Inc. | 0.66 | Transmission | 115-138 |
| 65 | S102291 | 0.00 | TIME WARNER CABLE LLC | 0.81 | Transmission | 115-138 |
| 66 | S104486 | 0.74 | TIME WARNER CABLE LLC | 0.94 | Transmission | 115-138 |
| 67 | S012880 | 0.01 | Frontier West Virginia, Inc. | 0.49 | Transmission | 500 |
| 68 | S103388 | 0.02 | Citizens Telecommunications Company of West Virginia | 0.17 | Transmission | 115-138 |
| 69 | S106091 | 2.68 | Cequel III Communications II | 0.14 | Transmission | 115-138 |
| 70 | S007584 | 0.31 | Frontier West Virginia, Inc. | 0.48 | Transmission | 500 |
| 71 | S024275 | 2.43 | Frontier West Virginia, Inc. | 0.62 | Transmission | 115-138 |
| 72 | I074800 | 0.87 | Cequel III Communications II | 1.73 | Transmission | 500 |
| 73 | C001281 | 0.64 | Cequel III Communications II | 0.72 | Sub-Transmission | Unknown |
| 74 | S104887 | 0.46 | Cequel III Communications II | 1.00 | Transmission | 115-138 |
| 75 | S103688 | 0.83 | Cequel III Communications II | 0.01 | Transmission | 500 |
| 76 | S201106 | 0.30 | Frontier West Virginia, Inc. | 3.23 | Sub-Transmission | Unknown |
| 77 | S100498 | 1.76 | Cequel III Communications II | 2.07 | Transmission | 500 |
| 78 | S038769 | 1.36 | Frontier West Virginia, Inc. | 0.53 | Sub-Transmission | Unknown |
| 79 | S100997 | 1.05 | Cequel III Communications II | 2.15 | Sub-Transmission | Unknown |
| 80 | S000284 | 1.90 | Cequel III Communications II | 0.96 | Transmission | 115-138 |
| 81 | S005080 | 0.31 | Frontier West Virginia, Inc. | 0.48 | Transmission | 500 |
| 82 | S101197 | 0.87 | Cequel III Communications II | 2.11 | Sub-Transmission | Unknown |
| 83 | S013379 | 0.08 | Cequel III Communications II | 0.75 | Transmission | 115-138 |
| 84 | S017570 | 1.10 | Frontier West Virginia, Inc. | 0.44 | Transmission | 115-138 |

| Site No | Permit ID | Dist - BB | Provider (BB) | Dist - PL | Type (PL) | Size_kV |
|---|---|---|---|---|---|---|
| 85 | C000583 | 1.88 | Cequel III Communications II | 0.24 | Transmission | 115-138 |
| 86 | C000585 | 0.44 | TIME WARNER CABLE LLC | 1.10 | Sub-Transmission | Unknown |
| 87 | S014275 | 0.40 | Cequel III Communications II | 2.13 | Sub-Transmission | Unknown |
| 88 | I108386 | 0.44 | TIME WARNER CABLE LLC | 1.10 | Sub-Transmission | Unknown |
| 89 | S200210 | 2.69 | Cequel III Communications II | 1.40 | Transmission | 115-138 |
| 90 | S008878 | 0.04 | Cequel III Communications II | 0.18 | Transmission | 115-138 |
| 91 | S041170 | 3.05 | Cequel III Communications II | 1.52 | Sub-Transmission | Unknown |
| 92 | S200606 | 3.28 | Cequel III Communications II | 0.05 | Transmission | 500 |
| 93 | C000185 | 1.86 | Cequel III Communications II | 0.94 | Transmission | 500 |
| 94 | S104389 | 1.89 | Cequel III Communications II | 0.63 | Sub-Transmission | Unknown |
| 95 | S008384 | 0.23 | Cequel III Communications II | 0.79 | Transmission | 500 |
| 96 | S011782 | 0.21 | Cequel III Communications II | 0.61 | Transmission | 115-138 |
| 97 | S201412 | 2.74 | Cequel III Communications II | 0.33 | Transmission | 500 |
| 98 | S025875 | 1.00 | Cequel III Communications II | 0.02 | Transmission | 115-138 |
| 99 | S015077 | 0.18 | Frontier West Virginia, Inc. | 0.18 | Transmission | 115-138 |
| 100 | S106286 | 0.01 | TIME WARNER CABLE LLC | 1.39 | Transmission | 115-138 |
| 101 | C000282 | 1.30 | Frontier West Virginia, Inc. | 2.10 | Sub-Transmission | Unknown |
| 102 | S010978 | 0.33 | Frontier West Virginia, Inc. | 2.55 | Transmission | 115-138 |
| 103 | S100287 | 2.81 | Cequel III Communications II | 1.58 | Transmission | 115-138 |
| 104 | S004178 | 0.06 | Frontier West Virginia, Inc. | 0.73 | Transmission | 115-138 |

| Site No | Permit ID | Dist - BB | Provider (BB) | Dist - PL | Type (PL) | Size_kV |
|---|---|---|---|---|---|---|
| 105 | S003681 | 0.08 | Cequel III Communications II | 0.13 | Transmission | 115-138 |
| 106 | S101486 | 0.47 | Cequel III Communications II | 0.47 | Transmission | 115-138 |
| 107 | S100695 | 0.47 | Cequel III Communications II | 0.47 | Transmission | 115-138 |
| 108 | S100692 | 1.43 | Cequel III Communications II | 1.84 | Transmission | 500 |
| 109 | S007683 | 1.30 | TIME WARNER CABLE LLC | 1.92 | Sub-Transmission | Unknown |
| 110 | S005382 | 0.05 | Frontier West Virginia, Inc. | 0.31 | Transmission | 115-138 |
| 111 | Z006681 | 0.80 | Cequel III Communications II | 1.66 | Transmission | 500 |
| 112 | S104586 | 0.25 | Frontier West Virginia, Inc. | 0.05 | Transmission | 115-138 |
| 113 | Z001381 | 2.68 | Frontier West Virginia, Inc. | 0.77 | Sub-Transmission | Unknown |
| 114 | Z000381 | 1.30 | Frontier West Virginia, Inc. | 3.82 | Transmission | 115-138 |
| 115 | S102588 | 0.18 | Frontier West Virginia, Inc. | 0.78 | Transmission | 115-138 |
| 116 | S101589 | 0.25 | Cequel III Communications II | 1.19 | Transmission | 115-138 |
| 117 | S008484 | 0.15 | Frontier West Virginia, Inc. | 0.06 | Transmission | 500 |
| 118 | S016877 | 0.03 | TIME WARNER CABLE LLC | 0.86 | Transmission | 115-138 |
| 119 | S100592 | 2.91 | Cequel III Communications II | 1.29 | Transmission | 115-138 |
| 120 | S010985 | 0.45 | Citizens Telecommunications Company of West Virginia | 0.22 | Transmission | 500 |
| 121 | S009285 | 1.25 | Cequel III Communications II | 0.37 | Transmission | 115-138 |
| 122 | S006882 | 1.31 | TIME WARNER CABLE LLC | 0.20 | Sub-Transmission | Unknown |
| 123 | S100199 | 2.41 | Cequel III Communications II | 0.96 | Transmission | 500 |
| 124 | S003185 | 0.00 | Cequel III Communications II | 0.39 | Transmission | 500 |
| 125 | S011579 | 0.82 | TIME WARNER CABLE LLC | 1.65 | Sub-Transmission | Unknown |
| 126 | Z003381 | 0.00 | Cequel III Communications II | 0.81 | Transmission | 115-138 |

| Site No | Permit ID | Dist - BB | Provider (BB) | Dist - PL | Type (PL) | Size_kV |
|---|---|---|---|---|---|---|
| 127 | S001583 | 1.02 | Cequel III Communications II | 0.51 | Transmission | 115-138 |
| 128 | I074000 | 0.19 | Cequel III Communications II | 0.22 | Transmission | 115-138 |
| 129 | C000682 | 0.01 | Cequel III Communications II | 0.01 | Transmission | 115-138 |
| 130 | S108186 | 2.98 | Frontier West Virginia, Inc. | 1.00 | Sub-Transmission | Unknown |
| 131 | S005181 | 1.63 | Cequel III Communications II | 1.84 | Transmission | 500 |
| 132 | C000485 | 0.13 | Frontier West Virginia, Inc. | 0.21 | Sub-Transmission | Unknown |
| 133 | S100388 | 0.02 | Cequel III Communications II | 0.19 | Transmission | 500 |
| 134 | S023674 | 0.07 | Frontier West Virginia, Inc. | 0.71 | Transmission | 115-138 |
| 135 | S200110 | 1.64 | Citizens Telecommunications Company of West Virginia | 2.43 | Transmission | 115-138 |

**Table 9: Shortest Distances from Sites to Sewer (SW) and Solid Waste (SD) Treatment Facilities**

| Site No | Permit ID | Dist - SW | Facility (SW) | Dist - SD | Facility (SD) |
|---|---|---|---|---|---|
| 1 | S100795 | 5.11 | Whispering Pines MHP | 7.54 | Clarksburg, City of |
| 2 | S011380 | 5.67 | THE OVERLOOK | 9.40 | Buckhannon, City of |
| 3 | S000783 | 1.62 | Whispering Pines MHP | 4.38 | Clarksburg, City of |
| 4 | S003078 | 1.61 | BRIDGEPORT CITY OF | 4.04 | Clarksburg, City of |
| 5 | S002385 | 1.15 | GRANDE MEADOWS, INC. | 3.73 | Meadowfill |
| 6 | C000785 | 1.05 | SHINNSTON CITY OF | 5.65 | Meadowfill |
| 7 | S005680 | 3.48 | GRANDE MEADOWS, INC. | 3.34 | Meadowfill |
| 8 | S003279 | 0.90 | MALEY MOBILE HOMES, INC. | 7.14 | Marion Co. Landfill |
| 9 | S003485 | 4.03 | THE OVERLOOK | 10.74 | S&S Landfill |
| 10 | S000682 | 1.29 | WEST MILFORD PROJECT | 2.11 | S&S Landfill |
| 11 | S102787 | 3.19 | Abraham Business Complex | 3.06 | Clarksburg, City of |
| 12 | S103787 | 4.87 | SHINNSTON CITY OF | 10.03 | Meadowfill |
| 13 | S025176 | 1.63 | SUBDIVISION | 6.09 | S&S Landfill |
| 14 | S008782 | 2.30 | LOST CK I-79 MAINTENANCE | 7.32 | S&S Landfill |
| 15 | S100586 | 3.27 | LOST CK I-79 MAINTENANCE | 6.63 | S&S Landfill |
| 16 | S009178 | 5.72 | LUMBERPORT AREA PSD | 9.01 | Clarksburg, City of |
| 17 | S101391 | 1.84 | WEST MILFORD PROJECT | 4.08 | S&S Landfill |
| 18 | S100396 | 1.31 | LUMBERPORT AREA PSD | 7.71 | Clarksburg, City of |
| 19 | S100395 | 2.33 | LOST CK I-79 MAINTENANCE | 5.03 | S&S Landfill |
| 20 | Z003981 | 0.61 | THE WILDERNESS WATER PARK | 3.15 | S&S Landfill |
| 21 | S004284 | 2.18 | WATTERS SMITH STATE PARK | 3.21 | S&S Landfill |
| 22 | Z003881 | 5.48 | Hodgesville Elementary | 8.81 | Buckhannon, City of |

| Site No | Permit ID | Dist - SW | Facility (SW) | Dist - SD | Facility (SD) |
|---|---|---|---|---|---|
| 23 | S003179 | 1.49 | COLONIAL ACRES | 4.60 | Meadowfill |
| 24 | S022375 | 4.63 | Hodgesville Elementary | 7.96 | Buckhannon, City of |
| 25 | S021976 | 2.20 | STEWART APTS. | 8.68 | S&S Landfill |
| 26 | S014475 | 3.86 | WOODSTOCK HEIGHTS | 9.22 | S&S Landfill |
| 27 | S008577 | 0.41 | Clarksburg Water Board West Fork River Treatment Plant | 2.34 | Clarksburg, City of |
| 28 | S006479 | 2.18 | Country Acres Ltd. L Co. | 1.20 | Clarksburg, City of |
| 29 | Z001281 | 0.99 | SUBDIVISION | 3.57 | S&S Landfill |
| 30 | S100294 | 4.72 | Whispering Pines MHP | 7.72 | Clarksburg, City of |
| 31 | S019177 | 3.59 | LUMBERPORT AREA PSD | 9.94 | Clarksburg, City of |
| 32 | S002181 | 3.26 | THE OVERLOOK | 11.49 | S&S Landfill |
| 33 | S000583 | 4.75 | Hodgesville Elementary | 8.08 | Buckhannon, City of |
| 34 | C000778 | 1.61 | BRIDGEPORT CITY OF | 4.04 | Clarksburg, City of |
| 35 | S002185 | 2.29 | MATTHEY RESIDENCE | 3.80 | S&S Landfill |
| 36 | S100889 | 1.97 | AUBURN VILLAGE | 9.04 | Clarksburg, City of |
| 37 | S020577 | 1.30 | WILLOW BEACH MOBILE HOME PARK | 4.64 | Clarksburg, City of |
| 38 | S024576 | 1.30 | WILLOW BEACH MOBILE HOME PARK | 4.64 | Clarksburg, City of |
| 39 | S105286 | 2.39 | Precision Coil, Inc. | 5.04 | Clarksburg, City of |
| 40 | S002582 | 5.45 | Hodgesville Elementary | 8.78 | Buckhannon, City of |
| 41 | S009472 | 2.67 | MOUNTAIN STATE AUTO AUCTION | 3.91 | Meadowfill |
| 42 | Z004581 | 4.51 | LUMBERPORT AREA PSD | 10.85 | Clarksburg, City of |
| 43 | S104087 | 1.62 | Whispering Pines MHP | 4.96 | Clarksburg, City of |
| 44 | S104991 | 6.95 | Hodgesville Elementary | 6.59 | Buckhannon, City of |

| Site No | Permit ID | Dist - SW | Facility (SW) | Dist - SD | Facility (SD) |
|---|---|---|---|---|---|
| 45 | C000881 | 1.34 | BRIDGEPORT CITY OF | 3.87 | Clarksburg, City of |
| 46 | C000882 | 0.80 | SUBDIVISION | 5.26 | S&S Landfill |
| 47 | S200305 | 2.42 | COLONIAL ACRES | 3.61 | Meadowfill |
| 48 | S016676 | 3.97 | THE OVERLOOK | 10.84 | Buckhannon, City of |
| 49 | S004082 | 1.12 | Whispering Pines MHP | 4.60 | Clarksburg, City of |
| 50 | S012379 | 1.94 | Whispering Pines MHP | 4.70 | Clarksburg, City of |
| 51 | S001777 | 2.47 | LOST CK I-79 MAINTENANCE | 4.97 | S&S Landfill |
| 52 | S200511 | 1.68 | Whispering Pines MHP | 5.01 | Clarksburg, City of |
| 53 | S004682 | 4.75 | OLDE MILL DINER | 9.65 | S&S Landfill |
| 54 | S100397 | 1.57 | WATTERS SMITH STATE PARK | 5.68 | S&S Landfill |
| 55 | S100588 | 5.34 | THE OVERLOOK | 11.13 | Buckhannon, City of |
| 56 | S009583 | 3.21 | SHINNSTON CITY OF | 8.37 | Meadowfill |
| 57 | S013780 | 2.56 | Precision Coil, Inc. | 5.21 | Clarksburg, City of |
| 58 | S200701 | 2.11 | JRM ENTERPRISES APTS. | 6.50 | Meadowfill |
| 59 | S002085 | 5.30 | LUMBERPORT AREA PSD | 9.17 | Clarksburg, City of |
| 60 | S003281 | 3.74 | CLARKSBURG SANITARY BD | 6.01 | Clarksburg, City of |
| 61 | S007679 | 3.16 | Whispering Pines MHP | 6.16 | Clarksburg, City of |
| 62 | C000385 | 4.20 | SHINNSTON CITY OF | 9.36 | Meadowfill |
| 63 | S100186 | 1.58 | MATTHEY RESIDENCE | 4.40 | S&S Landfill |
| 64 | S002478 | 2.47 | LOST CK I-79 MAINTENANCE | 4.97 | S&S Landfill |
| 65 | S102291 | 1.66 | PRESSLEY RIDGE SCHOOL | 4.95 | S&S Landfill |
| 66 | S104486 | 0.68 | Windsor Hills Homeowners Association, Inc. | 2.90 | S&S Landfill |
| 67 | S012880 | 3.05 | LUMBERPORT AREA PSD | 8.35 | Meadowfill |

| Site No | Permit ID | Dist - SW | Facility (SW) | Dist - SD | Facility (SD) |
|---|---|---|---|---|---|
| 68 | S103388 | 4.97 | CLARKSBURG SANITARY BD | 7.24 | Clarksburg, City of |
| 69 | S106091 | 1.19 | GRANDE MEADOWS, INC. | 3.13 | Meadowfill |
| 70 | S007584 | 3.80 | SHINNSTON CITY OF | 8.96 | Meadowfill |
| 71 | S024275 | 5.91 | THE OVERLOOK | 9.05 | Buckhannon, City of |
| 72 | I074800 | 0.50 | SHINNSTON CITY OF | 5.39 | Meadowfill |
| 73 | C001281 | 0.03 | | 3.77 | Clarksburg, City of |
| 74 | S104887 | 1.31 | BRIDGEPORT CITY OF | 6.63 | Meadowfill |
| 75 | S103688 | 2.04 | JRM ENTERPRISES APTS. | 6.28 | Meadowfill |
| 76 | S201106 | 0.58 | LUMBERPORT AREA PSD | 5.12 | S&S Landfill |
| 77 | S100498 | 0.63 | SUBDIVISION | 4.90 | Meadowfill |
| 78 | S038769 | 0.48 | COLONIAL ACRES | 6.47 | S&S Landfill |
| 79 | S100997 | 2.16 | MATTHEY RESIDENCE | 7.25 | Meadowfill |
| 80 | S000284 | 2.08 | MALEY MOBILE HOMES, INC. | 1.84 | Clarksburg, City of |
| 81 | S005080 | 2.14 | Clarksburg Water Board West Fork River Treatment Plant | 8.96 | Meadowfill |
| 82 | S101197 | 3.80 | SHINNSTON CITY OF | 7.44 | Meadowfill |
| 83 | S013379 | 2.28 | MALEY MOBILE HOMES, INC. | 3.75 | Clarksburg, City of |
| 84 | S017570 | 1.21 | GLEN FALLS MHP | 7.89 | S&S Landfill |
| 85 | C000583 | 0.71 | JANE LEW WATER COMM | 0.23 | Meadowfill |
| 86 | C000585 | 3.68 | ENLARGED HEPZIBAH PSD | 5.22 | Clarksburg, City of |
| 87 | S014275 | 1.73 | LIBERTY HIGH SCHOOL | 6.24 | Meadowfill |
| 88 | I108386 | 2.60 | COLONIAL ACRES | 5.22 | Clarksburg, City of |
| 89 | S200210 | 1.73 | LIBERTY HIGH SCHOOL | 10.64 | Buckhannon, City of |
| 90 | S008878 | 5.13 | THE OVERLOOK | 9.40 | Clarksburg, City of |

| Site No | Permit ID | Dist - SW | Facility (SW) | Dist - SD | Facility (SD) |
|---|---|---|---|---|---|
| 91 | S041170 | 3.05 | LUMBERPORT AREA PSD | 10.40 | Buckhannon, City of |
| 92 | S200606 | 4.88 | THE OVERLOOK | 3.19 | Meadowfill |
| 93 | C000185 | 3.33 | GRANDE MEADOWS, INC. | 1.46 | Meadowfill |
| 94 | S104389 | 2.76 | GRANDE MEADOWS, INC. | 1.02 | Clarksburg, City of |
| 95 | S008384 | 2.00 | Country Acres Ltd. L Co. | 8.52 | Meadowfill |
| 96 | S011782 | 3.36 | SHINNSTON CITY OF | 5.55 | S&S Landfill |
| 97 | S201412 | 3.72 | PRESSLEY RIDGE SCHOOL | 5.86 | Meadowfill |
| 98 | S025875 | 1.02 | MOUNTAIN STATE AUTO AUCTION | 3.68 | Clarksburg, City of |
| 99 | S015077 | 1.08 | SHAFFER DISTRIBUTING | 3.78 | S&S Landfill |
| 100 | S106286 | 1.01 | Clarksburg Country Club | 5.76 | S&S Landfill |
| 101 | C000282 | 2.10 | LOST CK I-79 MAINTENANCE | 6.02 | S&S Landfill |
| 102 | S010978 | 1.56 | SUBDIVISION | 8.53 | PKC (C&D and monofill) |
| 103 | S100287 | 2.96 | JANE LEW WATER COMM | 10.49 | Buckhannon, City of |
| 104 | S004178 | 4.97 | THE OVERLOOK | 5.63 | Clarksburg, City of |
| 105 | S003681 | 0.49 | Whispering Pines MHP | 10.46 | Clarksburg, City of |
| 106 | S101486 | 4.12 | LUMBERPORT AREA PSD | 3.84 | S&S Landfill |
| 107 | S100695 | 2.88 | WEST MILFORD PROJECT | 3.84 | S&S Landfill |
| 108 | S100692 | 2.88 | WEST MILFORD PROJECT | 6.75 | Meadowfill |
| 109 | S007683 | 1.96 | MALEY MOBILE HOMES, INC. | 3.20 | S&S Landfill |
| 110 | S005382 | 2.19 | MATTHEY RESIDENCE | 8.91 | Meadowfill |
| 111 | Z006681 | 3.75 | SHINNSTON CITY OF | 5.40 | Meadowfill |
| 112 | S104586 | 0.42 | SHINNSTON CITY OF | 5.07 | Clarksburg, City of |
| 113 | Z001381 | 2.80 | CLARKSBURG SANITARY BD | 10.44 | Buckhannon, City of |

| Site No | Permit ID | Dist - SW | Facility (SW) | Dist - SD | Facility (SD) |
|---|---|---|---|---|---|
| 114 | Z000381 | 5.76 | THE OVERLOOK | 9.63 | S&S Landfill |
| 115 | S102588 | 4.40 | OLDE MILL DINER | 8.06 | Clarksburg, City of |
| 116 | S101589 | 1.95 | LUMBERPORT AREA PSD | 5.99 | S&S Landfill |
| 117 | S008484 | 3.33 | PRESSLEY RIDGE SCHOOL | 5.30 | Clarksburg, City of |
| 118 | S016877 | 2.30 | LUMBERPORT AREA PSD | 3.90 | Clarksburg, City of |
| 119 | S100592 | 0.36 | LIBERTY HIGH SCHOOL | 10.71 | Buckhannon, City of |
| 120 | S010985 | 5.20 | THE OVERLOOK | 7.21 | Clarksburg, City of |
| 121 | S009285 | 4.20 | Whispering Pines MHP | 0.74 | Meadowfill |
| 122 | S006882 | 3.25 | ENLARGED HEPZIBAH PSD | 4.74 | Clarksburg, City of |
| 123 | S100199 | 2.08 | Precision Coil, Inc. | 3.44 | Meadowfill |
| 124 | S003185 | 1.17 | COLONIAL ACRES | 6.64 | Meadowfill |
| 125 | S011579 | 1.48 | SHINNSTON CITY OF | 4.07 | S&S Landfill |
| 126 | Z003381 | 2.69 | THE WILDERNESS WATER PARK | 3.87 | Clarksburg, City of |
| 127 | S001583 | 1.33 | GLEN FALLS MHP | 4.66 | Clarksburg, City of |
| 128 | I074000 | 2.39 | CLARKSBURG SANITARY BD | 3.72 | S&S Landfill |
| 129 | C000682 | 0.95 | Clarksburg Country Club | 3.60 | Clarksburg, City of |
| 130 | S108186 | 1.07 | GLEN FALLS MHP | 10.39 | Buckhannon, City of |
| 131 | S005181 | 5.71 | THE OVERLOOK | 4.63 | Meadowfill |
| 132 | C000485 | 0.21 | COLONIAL ACRES | 10.70 | Meadowfill |
| 133 | S100388 | 5.53 | SHINNSTON CITY OF | 7.55 | Meadowfill |
| 134 | S023674 | 2.39 | SHINNSTON CITY OF | 4.76 | S&S Landfill |
| 135 | S200110 | 2.22 | LOST CK I-79 MAINTENANCE | 12.13 | Clarksburg, City of |

**Table 10: Shortest Distances from Sites to Gas Pipe (GP) and Oil Pipe (OP)**

| Site No | Permit ID | Dist - GP | Company Gas Pipe | Dist - OP | Company Oil Pipeline |
|---|---|---|---|---|---|
| 1 | S100795 | 1.86 | Dominion Transmission Inc. | 0.71 | E |
| 2 | S011380 | 0.54 | Dominion Transmission Inc. | 0.51 | CN |
| 3 | S000783 | 0.02 | Dominion Transmission Inc. | 0.06 | CN |
| 4 | S003078 | 3.73 | Dominion Transmission Inc. | 0.66 | CN |
| 5 | S002385 | 0.42 | Equitrans, LP | 0.77 | E |
| 6 | C000785 | 0.04 | Equitrans, LP | 0.20 | E |
| 7 | S005680 | 0.13 | Dominion Transmission Inc. | 0.11 | E |
| 8 | S003279 | 0.17 | Equitrans, LP | 0.53 | E |
| 9 | S003485 | 0.34 | Dominion Transmission Inc. | 1.89 | CN |
| 10 | S000682 | 0.44 | Equitrans, LP | 0.17 | CR |
| 11 | S102787 | 2.08 | Equitrans, LP | 0.21 | CN |
| 12 | S103787 | 0.21 | Dominion Transmission Inc. | 0.09 | E |
| 13 | S025176 | 2.06 | Dominion Transmission Inc. | 0.39 | E |
| 14 | S008782 | 1.13 | Dominion Transmission Inc. | 0.36 | CN |
| 15 | S100586 | 1.29 | Dominion Transmission Inc. | 0.53 | Unknown |
| 16 | S009178 | 2.77 | Dominion Transmission Inc. | 0.36 | CN |
| 17 | S101391 | 0.56 | Dominion Transmission Inc. | 0.10 | CN |
| 18 | S100396 | 0.66 | Dominion Transmission Inc. | 0.11 | CN |
| 19 | S100395 | 2.41 | Equitrans, LP | 0.53 | CN |
| 20 | Z003981 | 0.08 | Dominion Transmission Inc. | 0.15 | CN |
| 21 | S004284 | 0.96 | Equitrans, LP | 0.03 | CR |
| 22 | Z003881 | 1.37 | Dominion Transmission Inc. | 0.47 | CN |
| 23 | S003179 | 0.56 | Equitrans, LP | 0.57 | E |

| Site No | Permit ID | Dist - GP | Company Gas Pipe | Dist - OP | Company Oil Pipeline |
|---|---|---|---|---|---|
| 24 | S022375 | 2.27 | Dominion Transmission Inc. | 0.12 | CN |
| 25 | S021976 | 1.37 | Dominion Transmission Inc. | 0.73 | CN |
| 26 | S014475 | 0.48 | Dominion Transmission Inc. | 0.57 | CN |
| 27 | S008577 | 1.71 | Equitrans, LP | 0.17 | Unknown |
| 28 | S006479 | 1.54 | Equitrans, LP | 0.64 | CN |
| 29 | Z001281 | 0.78 | Equitrans, LP | 0.07 | CN |
| 30 | S100294 | 1.89 | Dominion Transmission Inc. | 0.08 | E |
| 31 | S019177 | 1.07 | Dominion Transmission Inc. | 0.33 | CN |
| 32 | S002181 | 0.30 | Dominion Transmission Inc. | 2.10 | CN |
| 33 | S000583 | 1.62 | Dominion Transmission Inc. | 0.35 | CN |
| 34 | C000778 | 3.73 | Dominion Transmission Inc. | 0.66 | CN |
| 35 | S002185 | 1.84 | Dominion Transmission Inc. | 0.19 | E |
| 36 | S100889 | 0.93 | Dominion Transmission Inc. | 0.68 | Unknown |
| 37 | S020577 | 2.58 | Dominion Transmission Inc. | 0.30 | E |
| 38 | S024576 | 2.58 | Dominion Transmission Inc. | 0.30 | E |
| 39 | S105286 | 0.40 | Dominion Transmission Inc. | 0.15 | E |
| 40 | S002582 | 1.40 | Dominion Transmission Inc. | 0.38 | CN |
| 41 | S009472 | 0.43 | Dominion Transmission Inc. | 0.41 | E |
| 42 | Z004581 | 2.36 | Dominion Transmission Inc. | 0.29 | E |
| 43 | S104087 | 0.41 | Dominion Transmission Inc. | 0.41 | E |
| 44 | S104991 | 1.14 | Dominion Transmission Inc. | 0.06 | CN |
| 45 | C000881 | 3.72 | Dominion Transmission Inc. | 0.62 | CN |
| 46 | C000882 | 1.16 | Dominion Transmission Inc. | 0.04 | CN |
| 47 | S200305 | 0.61 | Equitrans, LP | 0.66 | E |

| Site No | Permit ID | Dist - GP | Company Gas Pipe | Dist - OP | Company Oil Pipeline |
|---|---|---|---|---|---|
| 48 | S016676 | 1.50 | Dominion Transmission Inc. | 1.30 | CN |
| 49 | S004082 | 0.26 | Dominion Transmission Inc. | 0.27 | E |
| 50 | S012379 | 0.04 | Dominion Transmission Inc. | 0.04 | CN |
| 51 | S001777 | 1.56 | Dominion Transmission Inc. | 0.48 | CN |
| 52 | S200511 | 0.17 | Dominion Transmission Inc. | 0.17 | CN |
| 53 | S004682 | 0.69 | Dominion Transmission Inc. | 0.39 | Unknown |
| 54 | S100397 | 2.32 | Equitrans, LP | 1.05 | CN |
| 55 | S100588 | 0.20 | Dominion Transmission Inc. | 1.65 | CN |
| 56 | S009583 | 0.64 | Dominion Transmission Inc. | 0.21 | E |
| 57 | S013780 | 0.43 | Dominion Transmission Inc. | 0.08 | CR |
| 58 | S200701 | 0.80 | Dominion Transmission Inc. | 0.79 | E |
| 59 | S002085 | 1.67 | Dominion Transmission Inc. | 0.08 | CR |
| 60 | S003281 | 0.51 | Dominion Transmission Inc. | 0.04 | CR |
| 61 | S007679 | 1.08 | Dominion Transmission Inc. | 0.39 | Unknown |
| 62 | C000385 | 0.03 | Dominion Transmission Inc. | 0.02 | Unknown |
| 63 | S100186 | 1.35 | Dominion Transmission Inc. | 0.47 | CN |
| 64 | S002478 | 1.56 | Dominion Transmission Inc. | 0.48 | CN |
| 65 | S102291 | 0.64 | Dominion Transmission Inc. | 0.36 | CN |
| 66 | S104486 | 0.13 | Equitrans, LP | 0.09 | E |
| 67 | S012880 | 0.38 | Hope Gas, Inc. | 0.24 | CN |
| 68 | S103388 | 1.50 | Dominion Transmission Inc. | 0.51 | CR |
| 69 | S106091 | 0.59 | Equitrans, LP | 0.68 | E |
| 70 | S007584 | 0.06 | Dominion Transmission Inc. | 0.01 | CN |
| 71 | S024275 | 0.87 | Dominion Transmission Inc. | 0.69 | CN |

| Site No | Permit ID | Dist - GP | Company Gas Pipe | Dist - OP | Company Oil Pipeline |
|---|---|---|---|---|---|
| 72 | I074800 | 0.70 | Dominion Transmission Inc. | 0.66 | E |
| 73 | C001281 | 3.77 | Dominion Transmission Inc. | 0.54 | CN |
| 74 | S104887 | 0.86 | Dominion Transmission Inc. | 0.85 | E |
| 75 | S103688 | 0.48 | Hope Gas, Inc. | 1.13 | Unknown |
| 76 | S201106 | 1.52 | Equitrans, LP | 0.25 | CN |
| 77 | S100498 | 0.52 | Dominion Transmission Inc. | 0.31 | CN |
| 78 | S038769 | 1.62 | Dominion Transmission Inc. | 1.45 | CN |
| 79 | S100997 | 0.66 | Equitrans, LP | 0.84 | E |
| 80 | S000284 | 2.27 | Equitrans, LP | 0.64 | CN |
| 81 | S005080 | 0.06 | Dominion Transmission Inc. | 0.01 | CN |
| 82 | S101197 | 0.83 | Dominion Transmission Inc. | 0.81 | E |
| 83 | S013379 | 0.53 | Equitrans, LP | 0.21 | CN |
| 84 | S017570 | 0.38 | Dominion Transmission Inc. | 0.19 | CN |
| 85 | C000583 | 1.35 | Equitrans, LP | 1.14 | CN |
| 86 | C000585 | 0.58 | Dominion Transmission Inc. | 0.61 | CN |
| 87 | S014275 | 0.78 | Dominion Transmission Inc. | 0.77 | E |
| 88 | I108386 | 0.58 | Dominion Transmission Inc. | 0.61 | CN |
| 89 | S200210 | 0.64 | Dominion Transmission Inc. | 1.78 | CN |
| 90 | S008878 | 0.97 | Dominion Transmission Inc. | 0.12 | E |
| 91 | S041170 | 0.90 | Dominion Transmission Inc. | 1.40 | CN |
| 92 | S200606 | 0.24 | Dominion Transmission Inc. | 0.20 | E |
| 93 | C000185 | 1.24 | Dominion Transmission Inc. | 0.53 | CN |
| 94 | S104389 | 1.53 | Equitrans, LP | 0.48 | CN |
| 95 | S008384 | 0.53 | Dominion Transmission Inc. | 0.21 | E |

| Site No | Permit ID | Dist - GP | Company Gas Pipe | Dist - OP | Company Oil Pipeline |
|---|---|---|---|---|---|
| 96 | S011782 | 0.59 | Dominion Transmission Inc. | 0.77 | CN |
| 97 | S201412 | 0.26 | Dominion Transmission Inc. | 0.22 | CN |
| 98 | S025875 | 1.69 | Equitrans, LP | 0.13 | Unknown |
| 99 | S015077 | 1.81 | Dominion Transmission Inc. | 0.47 | CN |
| 100 | S106286 | 0.16 | Dominion Transmission Inc. | 0.87 | CN |
| 101 | C000282 | 1.50 | Dominion Transmission Inc. | 0.13 | CN |
| 102 | S010978 | 0.21 | Dominion Transmission Inc. | 0.26 | CN |
| 103 | S100287 | 0.82 | Dominion Transmission Inc. | 1.63 | CN |
| 104 | S004178 | 1.00 | Dominion Transmission Inc. | 0.97 | E |
| 105 | S003681 | 1.80 | Dominion Transmission Inc. | 0.13 | CR |
| 106 | S101486 | 1.68 | Dominion Transmission Inc. | 0.28 | CN |
| 107 | S100695 | 1.68 | Dominion Transmission Inc. | 0.28 | CN |
| 108 | S100692 | 0.28 | Equitrans, LP | 0.82 | E |
| 109 | S007683 | 1.25 | Dominion Transmission Inc. | 0.46 | E |
| 110 | S005382 | 0.16 | Dominion Transmission Inc. | 0.12 | CN |
| 111 | Z006681 | 0.66 | Dominion Transmission Inc. | 0.63 | E |
| 112 | S104586 | 0.80 | Dominion Transmission Inc. | 0.06 | CN |
| 113 | Z001381 | 2.10 | Dominion Transmission Inc. | 0.37 | CN |
| 114 | Z000381 | 0.50 | Dominion Transmission Inc. | 0.45 | Unknown |
| 115 | S102588 | 0.59 | Dominion Transmission Inc. | 0.03 | Unknown |
| 116 | S101589 | 0.37 | Dominion Transmission Inc. | 1.37 | CN |
| 117 | S008484 | 1.35 | Equitrans, LP | 0.44 | CN |
| 118 | S016877 | 1.14 | Dominion Transmission Inc. | 0.04 | CN |
| 119 | S100592 | 0.55 | Dominion Transmission Inc. | 1.63 | CN |

| Site No | Permit ID | Dist - GP | Company Gas Pipe | Dist - OP | Company Oil Pipeline |
|---|---|---|---|---|---|
| 120 | S010985 | 1.31 | Dominion Transmission Inc. | 0.55 | E |
| 121 | S009285 | 1.97 | Equitrans, LP | 1.30 | CN |
| 122 | S006882 | 0.35 | Dominion Transmission Inc. | 0.21 | CR |
| 123 | S100199 | 0.36 | Dominion Transmission Inc. | 0.18 | CN |
| 124 | S003185 | 0.24 | Equitrans, LP | 0.28 | Unknown |
| 125 | S011579 | 0.09 | Dominion Transmission Inc. | 0.12 | CN |
| 126 | Z003381 | 0.48 | Equitrans, LP | 0.06 | CN |
| 127 | S001583 | 0.81 | Equitrans, LP | 0.06 | CN |
| 128 | I074000 | 1.58 | Dominion Transmission Inc. | 0.82 | E |
| 129 | C000682 | 1.72 | Equitrans, LP | 0.35 | CN |
| 130 | S108186 | 1.83 | Dominion Transmission Inc. | 0.67 | CN |
| 131 | S005181 | 0.77 | Dominion Transmission Inc. | 0.07 | CN |
| 132 | C000485 | 0.91 | Hope Gas, Inc. | 0.44 | CN |
| 133 | S100388 | 0.35 | Dominion Transmission Inc. | 0.34 | E |
| 134 | S023674 | 1.88 | Dominion Transmission Inc. | 0.08 | CN |
| 135 | S200110 | 0.07 | Dominion Transmission Inc. | 0.71 | CN |

**Suitability Model**

The suitability model for Harrison 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 Harrison County and expert advice about important factors to site development.[18] 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 13 (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:

$$\textbf{Total score of site A} = \sum \textbf{(absolute score x relative score x weight)}_{ci} \textbf{ / 10} \qquad \textbf{(ci: criteria i)}$$

[18] Joseph, M. *A Decision-Support Model of Land Suitability Analysis for the Ohio Lake Erie Balanced Growth Program*. EcoCity Cleveland. (2006).

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

Table 11 prioritizes post-mining land-use criteria for surface coal mining site selection in Harrison 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 11: Weighting Sites Selection Criteria**

| No | Criteria | Weight |
|---|---|---|
| 1 | Broadband | 9 |
| 2 | Gas Pipes | 6 |
| 3 | National Waterway Network | 4 |
| 4 | Oil Pipelines | 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 |
| 14 | Yeager Airport | 3 |

## 2. Scoring

*2.1 Absolute Scores:*

The shorter the distance to a feature from a site, the higher absolute score the site receives. Table 12 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 12: Absolute Scoring System**

| **Absolute Score** | | **10** | **7** | **5** | **3** | **1** |
|---|---|---|---|---|---|---|
| **Criteria** (Miles) | 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 |
| | Oil Pipelines | 0 - 0.25 | 0.25 - 0.5 | 0.5 - 0.75 | 0.75 - 1 | > 1 |
| | Power Lines | 0 - 0.5 | 0.5 - 1.5 | 1.5 - 2 | 2 - 2.5 | > 2.5 |
| | 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 |
| | Existing Highway | 0 - 5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 |
| | Intermodal Terminal Facilities | 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 |
| | Yeager Airport | 0 - 30 | 30 - 50 | 50 - 70 | 70 - 90 | > 90 |

*2.2 Relative Scores:*

Table 13 shows four statistical groups and their relative scores in the Harrison 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 13: 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 | 0.00 | 0.14 | 0.47 | 1.53 | 3.28 |
| 2 | Gas Pipes | 0.02 | 0.42 | 0.80 | 1.55 | 3.77 |
| 3 | National Waterway Network | 0.03 | 13.88 | 19.99 | 25.07 | 34.56 |
| 4 | Oil Pipelines | 0.01 | 0.16 | 0.38 | 0.66 | 2.10 |
| 5 | Power Lines | 0.01 | 0.31 | 0.69 | 1.27 | 3.82 |
| 6 | Railroads | 0.01 | 2.29 | 3.19 | 4.16 | 9.76 |
| 7 | Sewer Lines | 0.00 | 0.57 | 1.50 | 2.41 | 6.58 |
| 8 | Water Lines | 0.00 | 0.08 | 0.26 | 0.53 | 1.93 |
| 9 | Existing Highway | 0.02 | 0.78 | 1.50 | 2.45 | 6.02 |
| 10 | Intermodal Terminal Facilities | 1.20 | 5.93 | 9.51 | 11.65 | 21.20 |
| 11 | Interstate | 0.16 | 2.83 | 6.12 | 7.73 | 11.78 |
| 12 | Sewer Treatment Facilities | 0.03 | 1.41 | 2.29 | 3.73 | 6.95 |
| 13 | Solid Waste Treatment Facilities | 0.23 | 4.04 | 5.65 | 8.45 | 12.13 |
| 14 | Yeager Airport | 98.65 | 105.88 | 111.24 | 116.66 | 121.87 |

### 3. Harrison County's Suitability Model:

Table 13 shows the total scores of all studied sites in Harrison County. Site 66 (Permit ID = S104486) has the highest score of 727.75. The sites with higher total scores suggest better opportunities for development. Results in Table 14 are also plotted in the bar chart (Figure 15) for better visualization. Among 135 analyzed potential development sites of Harrison 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 Harrison is supported by demographic data as well as two additional analyses, which are workforce analysis and retail location density (shown on Table 15 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 14: Total Score of Mine Sites in Harrison County**

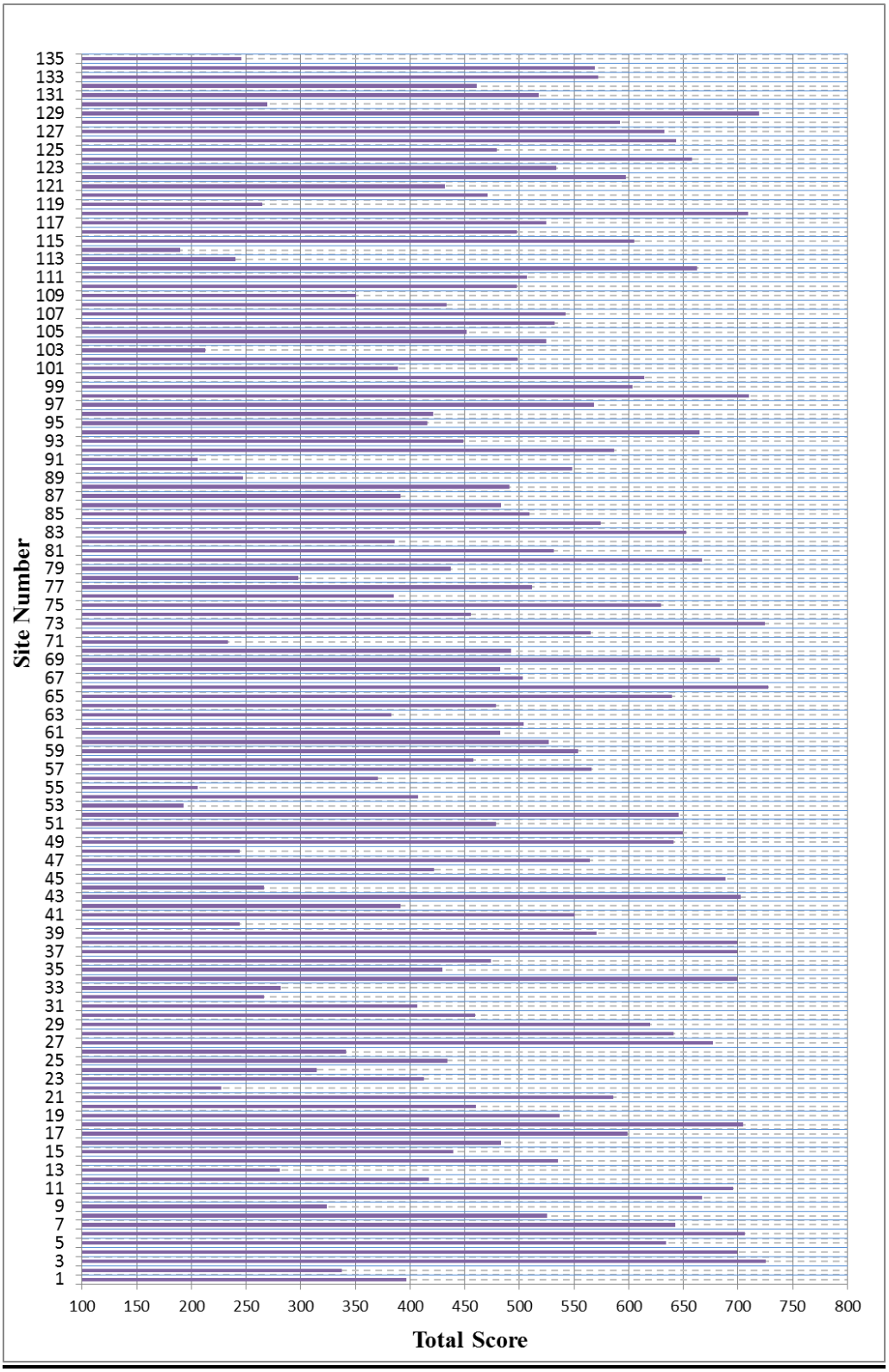
| Site No | Permitee | PermitID | Score |
|---|---|---|---|
| 1 | TEN-A-COAL COMPANY | S100795 | 396.75 |
| 2 | B & B COAL CO INC | S011380 | 337.75 |
| 3 | TEN-A-COAL COMPANY | S000783 | 725.25 |
| 4 | BRIDGEPORT HILLS DEV CORP | S003078 | 699.25 |
| 5 | GREEN RIVER MINING CORP | S002385 | 634.25 |
| 6 | MON-GO MINING, INC | C000785 | 706.25 |
| 7 | GREEN RIVER MINING CORP | S005680 | 642.25 |
| 8 | TEN-A-COAL COMPANY | S003279 | 525.25 |
| 9 | UNITED COALS, INC. | S003485 | 323.75 |
| 10 | UNION GRANT COAL & STONE INC | S000682 | 667.5 |
| 11 | FRESA CONSTRUCTION CO INC | S102787 | 695.75 |
| 12 | BELL MINING COMPANY | S103787 | 417 |
| 13 | KING KNOB COAL CO INC | S025176 | 281.25 |
| 14 | UNITED COALS, INC. | S008782 | 535.25 |
| 15 | GOLD RESOURCES, LLC | S100586 | 439.25 |
| 16 | OHIO MINING CO. | S009178 | 483.5 |
| 17 | FLEX DEVELOPMENT CORP | S101391 | 599.25 |
| 18 | UNITED COALS, INC. | S100396 | 704.75 |
| 19 | UNITED COALS, INC. | S100395 | 536.75 |
| 20 | RED ROCK COAL CO | Z003981 | 460.5 |
| 21 | PATRIOT MINING COMPANY INC | S004284 | 586.25 |
| 22 | PETITTO BROTHERS INC | Z003881 | 227.25 |
| 23 | BELL MINING COMPANY | S003179 | 412.75 |
| 24 | PETITTO BROTHERS INC | S022375 | 314.5 |
| 25 | THOMPSON COAL & CONST INC | S021976 | 434 |
| 26 | UNITED COALS, INC. | S014475 | 341.5 |
| 27 | PITCARIN PROPERTIES, INC | S008577 | 676.75 |
| 28 | CLAYPOOL CONSTRUCTION CO | S006479 | 641 |
| 29 | GRAFTON COAL COMPANY | Z001281 | 619.25 |
| 30 | CLUB COAL INC | S100294 | 459.25 |
| 31 | KING KNOB COAL CO INC | S019177 | 406.5 |
| 32 | LAROSA FUEL COMPANY INC | S002181 | 266.5 |
| 33 | PETITTO BROTHERS INC | S000583 | 281.75 |

| Site No | Permitee | PermitID | Score |
|---|---|---|---|
| 34 | BRIDGEPORT HILLS DEV CORP | C000778 | 699.25 |
| 35 | GRAFTON MINING CO | S002185 | 429.5 |
| 36 | FRUSH ENTERPRISES INC | S100889 | 474 |
| 37 | L & G ASSOCIATES | S020577 | 699.5 |
| 38 | L & G ASSOCIATES | S024576 | 699.5 |
| 39 | FRUSH ENTERPRISES INC | S105286 | 570.75 |
| 40 | PETITTO BROTHERS INC | S002582 | 244 |
| 41 | GRAFTON COAL COMPANY | S009472 | 550.5 |
| 42 | JAMES ROBINSON EXCAVATING CO INC | Z004581 | 391 |
| 43 | LAROSA FUEL COMPANY INC | S104087 | 702.5 |
| 44 | JANE LEW TRUCKING COMPANY | S104991 | 266.25 |
| 45 | BRIDGEPORT HILLS DEV CORP | C000881 | 688.25 |
| 46 | USE COAL, INC | C000882 | 422.25 |
| 47 | COALEX  INC | S200305 | 564.25 |
| 48 | NADA COAL CO., INC | S016676 | 244.25 |
| 49 | TEN-A-COAL COMPANY | S004082 | 641.25 |
| 50 | TEN-A-COAL COMPANY | S012379 | 649.25 |
| 51 | LECCO, INC | S001777 | 478.75 |
| 52 | TEN-A-COAL COMPANY | S200511 | 646 |
| 53 | GRAFTON MINING CO | S004682 | 193 |
| 54 | GOLD RESOURCES, LLC | S100397 | 407.75 |
| 55 | COMMUNITY COAL CO | S100588 | 205.75 |
| 56 | BELL MINING COMPANY | S009583 | 370.25 |
| 57 | KELLEY COAL CO | S013780 | 565.75 |
| 58 | GRACE ENTERPRISES INC | S200701 | 457.75 |
| 59 | C & M COAL CONTRACTING INC | S002085 | 553.5 |
| 60 | KELLEY COAL CO | S003281 | 526.75 |
| 61 | KELLEY COAL CO | S007679 | 482.75 |
| 62 | JAMES ROBINSON EXCAVATING CO INC | C000385 | 503.75 |
| 63 | JAMES ROBINSON EXCAVATING CO INC | S100186 | 382.75 |
| 64 | LECCO, INC | S002478 | 478.75 |
| 65 | COMMUNITY COAL CO | S102291 | 639.75 |
| 66 | J & B COAL COMPANY | S104486 | 727.75 |
| 67 | KING KNOB COAL CO INC | S012880 | 503.25 |
| 68 | LAROSA FUEL COMPANY INC | S103388 | 482.75 |
| 69 | BELL MINING COMPANY | S106091 | 683.25 |
| 70 | SALERNO, INC. | S007584 | 492.25 |
| 71 | TEN-A-COAL COMPANY | S024275 | 233.75 |
| 72 | MARION DOCKS, INC. | I074800 | 565.5 |
| 73 | BRIDGEPORT HILLS DEV CORP | C001281 | 724.5 |
| 74 | AMERIKOHL MINING INC | S104887 | 455.75 |

| Site No | Permitee | PermitID | Score |
|---|---|---|---|
| 75 | FRESA CONSTRUCTION CO INC | S103688 | 629.25 |
| 76 | UNITED COALS, INC. | S201106 | 385.25 |
| 77 | MARION DOCKS, INC. | S100498 | 511.5 |
| 78 | APPALANTIC CORP | S038769 | 298 |
| 79 | TEN-A COAL CO., INC. | S100997 | 437.25 |
| 80 | FRESA CONSTRUCTION CO INC | S000284 | 667 |
| 81 | FARMERS CONSTRUCTION CO., INC | S005080 | 531.5 |
| 82 | TEN-A COAL CO., INC. | S101197 | 385.75 |
| 83 | SCOTT COAL CO | S013379 | 652.5 |
| 84 | UNITED COALS, INC. | S017570 | 574.75 |
| 85 | KEN-LAN ENERGY CO., INC | C000583 | 509 |
| 86 | SHANNON COAL CO | C000585 | 483.25 |
| 87 | RICHARD A STUTLER INC | S014275 | 391.5 |
| 88 | SHANNON COAL CO | I108386 | 491.25 |
| 89 | PATRIOT MINING COMPANY INC | S200210 | 247 |
| 90 | CONSOLIDATION COAL COMPANY | S008878 | 548.75 |
| 91 | LECCO, INC | S041170 | 206 |
| 92 | COALEX  INC | S200606 | 587 |
| 93 | GRACE ENTERPRISES INC | C000185 | 448.5 |
| 94 | FRESA CONSTRUCTION CO INC | S104389 | 665 |
| 95 | SALERNO, INC. | S008384 | 415.5 |
| 96 | B & B COAL CO INC | S011782 | 421.5 |
| 97 | DP SOUTHBOUND COAL CO LLC | S201412 | 568.5 |
| 98 | KWD CONSTRUCTION CO., INC | S025875 | 710.25 |
| 99 | TANSTAAFL INC | S015077 | 603.25 |
| 100 | J. & J. GUZZI ENTERPRISES, INC. | S106286 | 614.5 |
| 101 | GERALD ANN COAL CO, INC | C000282 | 389.25 |
| 102 | Y'NR COAL CO | S010978 | 498.75 |
| 103 | UNITED COALS, INC. | S100287 | 212.5 |
| 104 | GALLO COAL CO | S004178 | 525 |
| 105 | KELLEY COAL CO | S003681 | 452 |
| 106 | GRAFTON MINING CO | S101486 | 532.25 |
| 107 | UNITED COALS, INC. | S100695 | 542.5 |
| 108 | MARK A SOUTHERN GEN CONTRACTOR | S100692 | 433.25 |
| 109 | GRAFTON MINING CO | S007683 | 351 |
| 110 | KING KNOB COAL CO INC | S005382 | 497.5 |
| 111 | TEN-A-COAL COMPANY | Z006681 | 506.75 |
| 112 | MYERS COAL CO | S104586 | 662.5 |
| 113 | PETITTO BROTHERS INC | Z001381 | 240.25 |
| 114 | GRAFTON COAL COMPANY | Z000381 | 189.5 |
| 115 | TEN-A-COAL COMPANY | S102588 | 605 |

| Site No | Permitee | PermitID | Score |
|---|---|---|---|
| 116 | COMMUNITY COAL CO | S101589 | 498 |
| 117 | B & H EXCAVATING | S008484 | 525 |
| 118 | NADA COAL CO., INC | S016877 | 709.25 |
| 119 | NESCO, INC. | S100592 | 264.5 |
| 120 | B & B COAL CO INC | S010985 | 471 |
| 121 | AMERICOAL INC | S009285 | 432 |
| 122 | KELLEY COAL CO | S006882 | 597.75 |
| 123 | C & M COAL CONTRACTING INC | S100199 | 534 |
| 124 | E & S COAL CO INC | S003185 | 658.25 |
| 125 | PAUL HARROLD, INC | S011579 | 479.25 |
| 126 | JACK RUN DEVELOPMENT INC | Z003381 | 643 |
| 127 | TEN-A-COAL COMPANY | S001583 | 632.5 |
| 128 | B.R.J. INC | I074000 | 591.75 |
| 129 | FRESA CONSTRUCTION CO INC | C000682 | 719.5 |
| 130 | BYRON CONST CO INC | S108186 | 269.75 |
| 131 | BELL MINING COMPANY | S005181 | 517.5 |
| 132 | RIMCO SALES CO | C000485 | 460.75 |
| 133 | BELL MINING COMPANY | S100388 | 571.75 |
| 134 | LECCO, INC | S023674 | 568.75 |
| 135 | BRUSHY FORK LLC | S200110 | 246 |

**Figure 15: Harrison 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.[19] 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 15: 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 | S100795 | 3,189 | 245 | 20,441 | 1,736 | 28,654 | 2,257 |
| 2 | S011380 | 973 | 47 | 5,424 | 451 | 21,998 | 1,651 |
| 3 | S000783 | 9,463 | 812 | 23,990 | 2,006 | 29,530 | 2,304 |
| 4 | S003078 | 14,010 | 1,038 | 24,521 | 1,939 | 28,576 | 2,218 |
| 5 | S002385 | 7,113 | 440 | 20,623 | 1,620 | 26,473 | 2,056 |
| 6 | C000785 | 3,708 | 381 | 19,388 | 1,499 | 26,161 | 2,029 |
| 7 | S005680 | 6,389 | 448 | 19,825 | 1,552 | 26,128 | 2,028 |
| 8 | S003279 | 2,826 | 284 | 13,150 | 1,029 | 24,507 | 1,908 |
| 9 | S003485 | 1,468 | 76 | 11,285 | 884 | 23,548 | 1,753 |
| 10 | S000682 | 5,498 | 501 | 18,971 | 1,572 | 28,034 | 2,203 |
| 11 | S102787 | 14,552 | 1,129 | 25,472 | 2,003 | 29,463 | 2,294 |
| 12 | S103787 | 2,926 | 332 | 10,221 | 859 | 24,455 | 1,900 |
| 13 | S025176 | 3,258 | 266 | 16,972 | 1,432 | 25,347 | 1,970 |
| 14 | S008782 | 2,175 | 200 | 12,859 | 1,067 | 24,416 | 1,850 |
| 15 | S100586 | 2,253 | 213 | 13,518 | 1,116 | 24,593 | 1,869 |
| 16 | S009178 | 2,204 | 196 | 16,780 | 1,457 | 27,438 | 2,159 |
| 17 | S101391 | 8,210 | 735 | 21,686 | 1,678 | 28,671 | 2,257 |

[19] 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 |
|---|---|---|---|---|---|---|---|
| 18 | S100396 | 3,881 | 435 | 20,415 | 1,591 | 27,399 | 2,146 |
| 19 | S100395 | 3,773 | 356 | 17,489 | 1,441 | 26,457 | 2,011 |
| 20 | Z003981 | 5,235 | 387 | 18,917 | 1,642 | 29,265 | 2,293 |
| 21 | S004284 | 4,509 | 423 | 17,865 | 1,478 | 26,833 | 2,058 |
| 22 | Z003881 | 799 | 27 | 5,200 | 424 | 21,827 | 1,637 |
| 23 | S003179 | 5,167 | 396 | 19,188 | 1,497 | 25,881 | 2,009 |
| 24 | S022375 | 608 | 15 | 4,110 | 321 | 20,846 | 1,583 |
| 25 | S021976 | 3,441 | 274 | 19,668 | 1,533 | 25,891 | 1,970 |
| 26 | S014475 | 1,796 | 162 | 9,996 | 821 | 23,455 | 1,783 |
| 27 | S008577 | 13,739 | 1,199 | 26,035 | 2,068 | 29,587 | 2,303 |
| 28 | S006479 | 14,175 | 1,167 | 25,906 | 2,038 | 29,597 | 2,304 |
| 29 | Z001281 | 3,505 | 309 | 17,333 | 1,450 | 25,741 | 1,974 |
| 30 | S100294 | 3,603 | 270 | 20,892 | 1,788 | 28,869 | 2,275 |
| 31 | S019177 | 3,201 | 371 | 14,510 | 1,205 | 26,256 | 2,059 |
| 32 | S002181 | 1,225 | 53 | 9,518 | 734 | 23,204 | 1,729 |
| 33 | S000583 | 655 | 20 | 4,040 | 322 | 20,493 | 1,569 |
| 34 | C000778 | 14,010 | 1,038 | 24,521 | 1,939 | 28,576 | 2,218 |
| 35 | S002185 | 4,453 | 365 | 18,206 | 1,544 | 27,579 | 2,155 |
| 36 | S100889 | 7,149 | 403 | 20,184 | 1,494 | 26,859 | 2,103 |
| 37 | S020577 | 12,700 | 1,112 | 24,311 | 1,839 | 29,344 | 2,287 |
| 38 | S024576 | 12,700 | 1,112 | 24,311 | 1,839 | 29,344 | 2,287 |
| 39 | S105286 | 8,543 | 756 | 24,210 | 2,002 | 29,455 | 2,302 |
| 40 | S002582 | 780 | 26 | 5,047 | 411 | 21,714 | 1,630 |
| 41 | S009472 | 6,011 | 423 | 19,372 | 1,514 | 25,925 | 2,013 |

| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---|---|---|---|---|---|---|---|
| 42 | Z004581 | 2,034 | 179 | 12,551 | 1,118 | 26,334 | 2,067 |
| 43 | S104087 | 7,534 | 640 | 22,542 | 1,923 | 29,467 | 2,302 |
| 44 | S104991 | 844 | 39 | 4,635 | 381 | 21,123 | 1,605 |
| 45 | C000881 | 14,046 | 1,037 | 24,537 | 1,940 | 28,591 | 2,220 |
| 46 | C000882 | 2,474 | 209 | 14,503 | 1,195 | 23,931 | 1,881 |
| 47 | S200305 | 5,505 | 401 | 19,082 | 1,489 | 25,818 | 2,005 |
| 48 | S016676 | 981 | 32 | 7,819 | 602 | 22,708 | 1,694 |
| 49 | S004082 | 8,526 | 713 | 22,207 | 1,862 | 29,583 | 2,305 |
| 50 | S012379 | 8,945 | 778 | 23,978 | 1,999 | 29,492 | 2,303 |
| 51 | S001777 | 4,168 | 388 | 19,005 | 1,522 | 26,924 | 2,067 |
| 52 | S200511 | 8,030 | 699 | 23,161 | 1,962 | 29,469 | 2,302 |
| 53 | S004682 | 1,177 | 96 | 7,405 | 641 | 19,312 | 1,601 |
| 54 | S100397 | 3,108 | 295 | 16,754 | 1,379 | 25,897 | 1,956 |
| 55 | S100588 | 1,167 | 54 | 7,703 | 624 | 22,963 | 1,712 |
| 56 | S009583 | 3,052 | 333 | 12,723 | 1,013 | 24,669 | 1,916 |
| 57 | S013780 | 7,742 | 712 | 24,435 | 1,991 | 29,386 | 2,300 |
| 58 | S200701 | 2,606 | 249 | 11,965 | 911 | 23,496 | 1,836 |
| 59 | S002085 | 2,645 | 234 | 19,183 | 1,583 | 27,726 | 2,180 |
| 60 | S003281 | 6,315 | 586 | 23,931 | 1,940 | 29,269 | 2,296 |
| 61 | S007679 | 6,163 | 541 | 23,177 | 1,939 | 29,314 | 2,298 |
| 62 | C000385 | 3,137 | 354 | 12,828 | 1,043 | 25,041 | 1,948 |
| 63 | S100186 | 3,664 | 287 | 17,660 | 1,500 | 26,482 | 2,069 |
| 64 | S002478 | 4,168 | 388 | 19,005 | 1,522 | 26,924 | 2,067 |
| 65 | S102291 | 10,335 | 910 | 23,138 | 1,748 | 29,036 | 2,272 |

| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---|---|---|---|---|---|---|---|
| 66 | S104486 | 13,277 | 1,153 | 25,117 | 1,959 | 29,610 | 2,305 |
| 67 | S012880 | 3,589 | 402 | 17,951 | 1,406 | 26,462 | 2,067 |
| 68 | S103388 | 3,319 | 267 | 20,936 | 1,743 | 28,603 | 2,251 |
| 69 | S106091 | 7,439 | 503 | 21,016 | 1,652 | 26,604 | 2,065 |
| 70 | S007584 | 3,176 | 355 | 13,505 | 1,086 | 25,076 | 1,951 |
| 71 | S024275 | 1,092 | 60 | 5,775 | 482 | 22,198 | 1,665 |
| 72 | I074800 | 3,447 | 342 | 18,487 | 1,427 | 25,717 | 1,993 |
| 73 | C001281 | 14,103 | 1,041 | 24,578 | 1,943 | 28,633 | 2,222 |
| 74 | S104887 | 2,539 | 244 | 11,734 | 887 | 23,378 | 1,829 |
| 75 | S103688 | 4,490 | 495 | 21,880 | 1,701 | 27,611 | 2,158 |
| 76 | S201106 | 3,556 | 303 | 17,438 | 1,466 | 25,841 | 1,997 |
| 77 | S100498 | 3,427 | 317 | 17,761 | 1,373 | 25,406 | 1,971 |
| 78 | S038769 | 3,276 | 243 | 15,371 | 1,313 | 25,723 | 2,093 |
| 79 | S100997 | 2,712 | 269 | 13,267 | 1,030 | 24,431 | 1,904 |
| 80 | S000284 | 14,575 | 1,168 | 25,689 | 2,027 | 29,550 | 2,300 |
| 81 | S005080 | 3,176 | 355 | 13,505 | 1,086 | 25,076 | 1,951 |
| 82 | S101197 | 2,693 | 267 | 13,390 | 1,038 | 24,431 | 1,905 |
| 83 | S013379 | 12,541 | 1,037 | 25,161 | 1,969 | 29,466 | 2,296 |
| 84 | S017570 | 1,585 | 156 | 8,676 | 722 | 22,373 | 1,760 |
| 85 | C000583 | 8,773 | 644 | 22,202 | 1,751 | 27,161 | 2,105 |
| 86 | C000585 | 7,199 | 570 | 21,146 | 1,791 | 29,565 | 2,304 |
| 87 | S014275 | 2,640 | 257 | 13,673 | 1,058 | 24,375 | 1,903 |
| 88 | I108386 | 7,199 | 570 | 21,146 | 1,791 | 29,565 | 2,304 |
| 89 | S200210 | 1,114 | 45 | 8,050 | 638 | 22,934 | 1,709 |

| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---|---|---|---|---|---|---|---|
| 90 | S008878 | 3,324 | 382 | 16,578 | 1,343 | 26,728 | 2,097 |
| 91 | S041170 | 1,010 | 38 | 6,923 | 559 | 22,657 | 1,690 |
| 92 | S200606 | 6,406 | 442 | 19,657 | 1,538 | 26,047 | 2,023 |
| 93 | C000185 | 8,494 | 647 | 22,153 | 1,742 | 27,172 | 2,107 |
| 94 | S104389 | 14,134 | 1,176 | 25,941 | 2,042 | 29,604 | 2,305 |
| 95 | S008384 | 3,094 | 337 | 13,128 | 1,044 | 24,776 | 1,923 |
| 96 | S011782 | 6,925 | 614 | 21,589 | 1,664 | 28,430 | 2,241 |
| 97 | S201412 | 4,556 | 280 | 17,252 | 1,353 | 24,991 | 1,952 |
| 98 | S025875 | 13,458 | 1,183 | 25,451 | 1,973 | 29,558 | 2,301 |
| 99 | S015077 | 13,075 | 1,154 | 24,266 | 1,826 | 29,426 | 2,293 |
| 100 | S106286 | 7,602 | 656 | 22,219 | 1,691 | 28,519 | 2,242 |
| 101 | C000282 | 2,208 | 170 | 13,100 | 1,092 | 23,091 | 1,849 |
| 102 | S010978 | 1,721 | 164 | 9,332 | 769 | 23,170 | 1,779 |
| 103 | S100287 | 1,058 | 40 | 7,510 | 600 | 22,801 | 1,701 |
| 104 | S004178 | 6,185 | 461 | 20,898 | 1,792 | 29,459 | 2,302 |
| 105 | S003681 | 2,596 | 269 | 14,362 | 1,222 | 26,555 | 2,087 |
| 106 | S101486 | 5,306 | 498 | 19,709 | 1,568 | 27,874 | 2,190 |
| 107 | S100695 | 5,306 | 498 | 19,709 | 1,568 | 27,874 | 2,190 |
| 108 | S100692 | 2,759 | 276 | 13,149 | 1,024 | 24,451 | 1,905 |
| 109 | S007683 | 4,695 | 376 | 18,428 | 1,573 | 28,381 | 2,244 |
| 110 | S005382 | 3,402 | 385 | 16,455 | 1,298 | 25,949 | 2,027 |
| 111 | Z006681 | 3,452 | 342 | 18,464 | 1,425 | 25,715 | 1,993 |
| 112 | S104586 | 7,228 | 713 | 24,584 | 1,919 | 29,154 | 2,287 |
| 113 | Z001381 | 689 | 18 | 4,881 | 384 | 21,529 | 1,619 |

| Site No | Permit ID | Emp_05 | Unemp_05 | Emp_10 | Unemp_10 | Emp_15 | Unemp_15 |
|---|---|---|---|---|---|---|---|
| 114 | Z000381 | 1,104 | 90 | 6,978 | 605 | 19,123 | 1,580 |
| 115 | S102588 | 5,425 | 591 | 23,128 | 1,803 | 28,381 | 2,226 |
| 116 | S101589 | 5,691 | 508 | 21,324 | 1,644 | 28,176 | 2,224 |
| 117 | S008484 | 6,946 | 735 | 23,934 | 1,866 | 28,755 | 2,255 |
| 118 | S016877 | 11,467 | 974 | 24,991 | 2,030 | 29,626 | 2,306 |
| 119 | S100592 | 1,103 | 46 | 7,554 | 609 | 22,868 | 1,706 |
| 120 | S010985 | 5,107 | 432 | 22,511 | 1,890 | 29,202 | 2,295 |
| 121 | S009285 | 10,306 | 789 | 22,999 | 1,815 | 27,659 | 2,144 |
| 122 | S006882 | 8,678 | 768 | 24,502 | 2,009 | 29,452 | 2,302 |
| 123 | S100199 | 5,111 | 406 | 19,546 | 1,523 | 26,028 | 2,018 |
| 124 | S003185 | 3,749 | 392 | 19,326 | 1,494 | 26,240 | 2,037 |
| 125 | S011579 | 6,510 | 487 | 20,354 | 1,735 | 29,585 | 2,305 |
| 126 | Z003381 | 12,337 | 1,031 | 25,088 | 1,963 | 29,442 | 2,295 |
| 127 | S001583 | 10,364 | 933 | 25,069 | 1,958 | 29,386 | 2,295 |
| 128 | I074000 | 12,968 | 1,135 | 24,147 | 1,823 | 29,440 | 2,294 |
| 129 | C000682 | 14,064 | 1,079 | 25,059 | 1,966 | 29,349 | 2,284 |
| 130 | S108186 | 763 | 22 | 5,453 | 432 | 21,899 | 1,640 |
| 131 | S005181 | 3,566 | 332 | 18,276 | 1,413 | 25,590 | 1,984 |
| 132 | C000485 | 3,011 | 352 | 10,451 | 914 | 25,185 | 1,965 |
| 133 | S100388 | 3,168 | 337 | 14,533 | 1,141 | 24,954 | 1,938 |
| 134 | S023674 | 3,791 | 354 | 18,122 | 1,474 | 26,561 | 2,023 |
| 135 | S200110 | 1,943 | 105 | 15,356 | 1,079 | 25,152 | 1,986 |

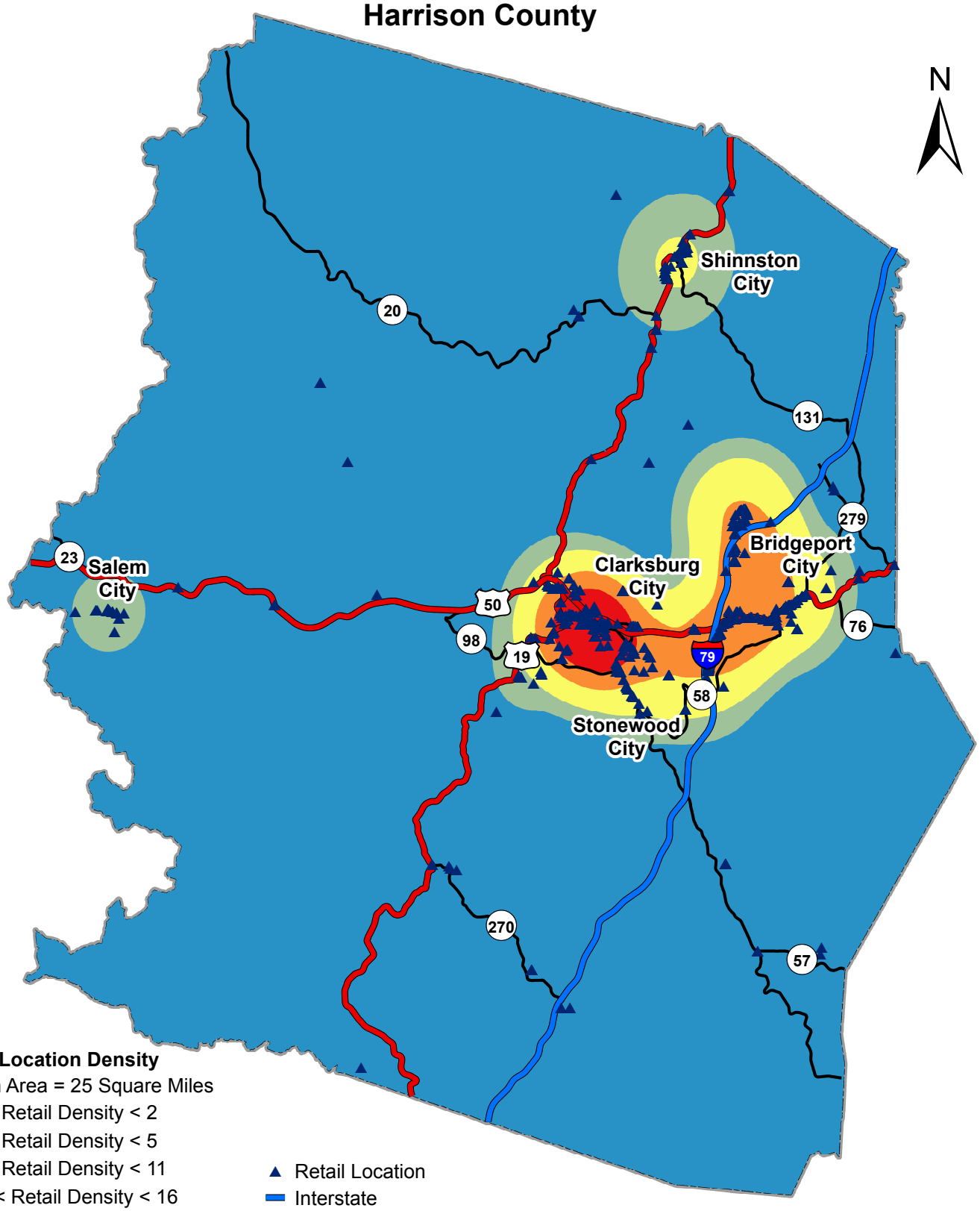
**Retail Location Analysis**

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.

Map 41

# Retail Location Density

## Harrison County






RTI
RAHALL APPALACHIAN TRANSPORTATION INSTITUTE
www.njrati.org

## VI. Conclusion

Although among the mid-sized but semi-rural counties in West Virginia, Harrison County is well-positioned for economic stability. Several sectors, including Government, have proven to be progressive for the County in recent years in terms of employment and wages. However, a large portion of Harrison County's total personal income is derived from government transfers. Coupled with limited diversification among its sectors and an aging population, attention is needed to ensure that the County will grow and thrive. This plan could be useful in that respect by assisting Harrison 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 Harrison County to thrive.

Through a site distance analysis and complete demographic calculation, this plan provides the most comprehensive understanding of the economic state of Harrison 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.