

2747 - Giles County Flood Preparedness and Resilience Plan

Application Details

Funding Opportunity:	2335-Virginia Community Flood Preparedness Fund - Capacity Building/Planning Grants - CY24 Round 5
Funding Opportunity Due Date:	Mar 28, 2025 11:59 PM
Program Area:	Virginia Community Flood Preparedness Fund
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Jan 24, 2025 4:00 PM
Initially Submitted By:	John Ross
Last Submit Date:	
Last Submitted By:	

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name*:	Mr. John D Ross Salutation First Name Middle Name Last Name
Title:	County Planner, Giles County, VA
Email*:	jross@gilescounty.org
Address*:	315 N. Main St. Narrows Virginia 24134 City State/Province Postal Code/Zip
Phone*:	540-921-2527 Ext. Phone ###-###-####
Fax:	540-921-1329 ###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	Giles County, VA
Organization Type*:	County Government
Tax ID*:	546001304
Unique Entity Identifier (UEI)*:	KUL1N8UJXE5
Organization Website:	https://virginiasmtnplayground.com/

Address*: 315 N. Main St.

Pearisburg Virginia 24134
City State/Province Postal Code/Zip

Phone*: 540-921-2527 Ext.
#####

Fax: 540-921-1329
#####

Benefactor:

Vendor ID:

Comments:

VCFPF Applicant Information

Project Description

Name of Local Government*: Giles County, Virginia

Your locality's CID number can be found at the following link: [Community Status Book Report](#)

NFIP/DCR Community Identification Number (CID)*: 510067

If a state or federally recognized Indian tribe,

Name of Tribe:

Authorized Individual*: John Ross
First Name Last Name

Mailing Address*: 315 N. Main St.
Address Line 1
Address Line 2

Pearisburg Virginia 24134
City State Zip Code

Telephone Number*: 540-921-2527

Cell Phone Number*: 540-922-3575

Email*: jross@gilescounty.org

Is the contact person different than the authorized individual?

Contact Person*: No

Enter a description of the project for which you are applying to this funding opportunity

Project Description*:

Giles County is seeking funding to create a county-wide resilience plan for flood preparedness. This plan will serve as a comprehensive guide for implementing flood resilience strategies. It involves conducting a detailed risk assessment to produce asset-level results, gathering input from stakeholders?particularly emphasizing underserved communities?and using the assessment findings to guide resilience projects.

Low-income geographic area means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service. A project of any size within a low-income geographic area will be considered.

Is the proposal in this application intended to benefit a low-income geographic area as defined above?

Benefit a low-income geographic area*: Yes

Information regarding your census block(s) can be found at census.gov

Census Block(s) Where Project will Occur*: Entire County (Census: 1000-4046)

Is Project Located in an NFIP Participating Community*: Yes

Is Project Located in a Special Flood Hazard Area?* :	Yes
Flood Zone(s) (if applicable):	(Zones A and AE)
Flood Insurance Rate Map Number(s) (if applicable):	Entire County

Eligibility - Round 4

Eligibility

Is the applicant a local government (including counties, cities, towns, municipal corporations, authorities, districts, commissions, or political subdivisions created by the General Assembly or pursuant to the Constitution or laws of the Commonwealth, or any combination of these)?

Local Government* :	Yes
	Yes - Eligible for consideration
	No - Not eligible for consideration

If the applicant is not a town, city, or county, are letters of support from all affected local governments included in this application?

Letters of Support* :	N/A
	Yes - Eligible for consideration
	No - Not eligible for consideration

Has this or any portion of this project been included in any application or program previously funded by the Department?

Previously Funded* :	No
	Yes - Not eligible for consideration
	No - Eligible for consideration

Has the applicant provided evidence of an ability to provide the required matching funds?

Evidence of Match Funds* :	Yes
	Yes - Eligible for consideration
	No - Not eligible for consideration
	N/A - Match not required

Scoring Criteria for Capacity Building & Planning - Round 4

Scoring

Eligible Capacity Building and Planning Activities (Select all that apply) ? Maximum 100 points. To make multiple selections, Hold CTRL and click the desired items.

Capacity Building and Planning* :	Resilience Plan Development
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Is the project area socially vulnerable? (based on [ADAPT Virginia's Social Vulnerability Index Score](#))

Social Vulnerability Scoring:

- Very High Social Vulnerability (More than 1.5)
- High Social Vulnerability (1.0 to 1.5)
- Moderate Social Vulnerability (0.0 to 1.0)
- Low Social Vulnerability (-1.0 to 0.0)
- Very Low Social Vulnerability (Less than -1.0)

Socially Vulnerable* :	Moderate Social Vulnerability (0.0 to 1.0)
-------------------------------	--

Is the proposed project part of an effort to join or remedy the community's probation or suspension from the NFIP?

NFIP* :	No
----------------	----

Is the proposed project in a low-income geographic area as defined below?

"Low-income geographic area" means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service. A project of any size within a low-income geographic area will be considered.

Low-Income Geographic Area* :	Yes
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Does this project provide ?community scale? benefits?

Community Scale Benefits* :	More than one census block
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Comments:

See attached documents for social vulnerability of each block group. Most recent reported median household income is \$61,984 (in 2022 dollars),

Scope of Work and Budget Narrative - Capacity Building and Planning - Round 4

Scope of Work - General Information

Upload your Scope of Work

Please refer to Part IV, Section B. of the grant manual for guidance on how to create your scope of work

Scope of Work Attachment*: [CFPF Scope of Work Attachment_Giles.docx](#)

Comments:

Budget Narrative

Budget Narrative Attachment*: [CFPF Budget Narrative_Giles.docx](#)

Comments:

Scope of Work Supporting Information - Capacity Building and Planning

Scope of Work Supporting Information

Describe identified resource needs including financial, human, technical assistance, and training needs

Resource need identification*:

The County requests financial assistance from DCR. Due to gaps in technical expertise and staffing within the County Administration, a consultant will be necessary to lead community engagement and conduct the risk assessment. Beyond educating stakeholders on the plan elements and tasks outlined in the implementation process, no additional training will be required.

Describe the plan for developing, increasing, or strengthening knowledge, skills and abilities of existing or new staff. This may include training of existing staff, hiring personnel, contracting consultants or advisors

Development of Existing or New Staff*:

Development of Existing or New Staff*: To strengthen the effectiveness and adaptability of this plan, the County intends to hire consultants to lead the planning process and develop the plan document. County Administration staff will be actively involved, and individuals in specific roles or departments will be informed about their responsibilities in implementing the identified strategies.

Where capacity is limited by funding, what strategies will be developed to increase resources in the local government? (This may include work with non-governmental organization, or applying for grants, loans, or other funding sources)

Resource Development Strategies*:

Other funding opportunities, such as available State grant programs, will be explored by the County.

Describe policy management and/or development plans

Policy management and/or development*:

Plan alignment is essential to building and amplifying resilience efforts across the County, Region, and Commonwealth. The Resilience Plan development is expected to support coordination across existing activities, plans, and policies while leading to resilience project recommendations. These recommendations, developed through the planning process, may include structural and nonstructural solutions, including local policies to support resilience. To promote alignment with the Resilience Plan and existing policies, plans, and activities the County will provide opportunities to engage with the localities within Giles County, New River Valley Planning PDC, engage with relevant regional and state agencies, and review existing efforts in the planning effort.

Describe plans for stakeholder identification, outreach, and education strategies

Stakeholder identification, outreach, and education strategies*:

Stakeholder identification and outreach are crucial components of this approach. The team will conduct a guided workshop with stakeholders to gather key inputs for plan development. This effort will follow the Community Resilience Building (CRB) process, a comprehensive, community-driven method designed to enhance resilience against various hazards and challenges. The CRB process promotes meaningful dialogue and information sharing, allowing participants to collaboratively develop strategies that address both immediate and long-term resilience needs. By involving community members early in the process, the CRB approach ensures that resilience goals are practical, achievable, and customized to the unique context of each community. The final plan will be made publicly available in an accessible format for stakeholders.

Budget

Budget Summary

Grant Matching Requirement*:

LOW INCOME - Planning and Capacity Building - Fund 90%/Match 10%

*Match requirements for Planning and Capacity Building in low-income geographic areas will not require match for applications requesting less than \$3,000.

Is a match waiver being requested?

Match Waiver Request No

Note: only low-income communities are eligible for a match waiver.

*:

I certify that my project is in a low-income geographic area: Yes**Total Project Amount (Request + Match)*:** \$66,000.00

**This amount should equal the sum of your request and match figures

REQUIRED Match Percentage Amount: \$6,600.00**BUDGET TOTALS****Before submitting your application be sure that you meet the match requirements for your project type.****Match Percentage:** 10.00%
Verify that your match percentage matches your required match percentage amount above.**Total Requested Fund Amount:** \$59,400.00**Total Match Amount:** \$6,600.00**TOTAL:** \$66,000.00**Personnel**

Description	Requested Fund Amount	Match Amount	Match Source
Labor and Volunteer Salary	\$0.00	\$5,800.00	
	\$0.00	\$5,800.00	

Fringe Benefits

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Travel

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Equipment

Description	Requested Fund Amount	Match Amount	Match Source
Space and Equipment	\$0.00	\$800.00	
	\$0.00	\$800.00	

Supplies

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Construction

Description	Requested Fund Amount	Match Amount	Match Source
-------------	-----------------------	--------------	--------------

No Data for Table

Contracts

Description	Requested Fund Amount	Match Amount	Match Source
-------------	-----------------------	--------------	--------------

Contract for Consultant	\$59,400.00	\$0.00	In-kind match.
	\$59,400.00	\$0.00	

Pre-Award and Startup Costs

Description	Requested Fund Amount	Match Amount	Match Source
-------------	-----------------------	--------------	--------------

No Data for Table

Other Direct Costs

Description	Requested Fun Amount	Match Amount	Match Source
-------------	----------------------	--------------	--------------

No Data for Table

Supporting Documentation - General

Supporting Documentation

Named Attachment	Required	Description	File Name	Type	Size	Upload Date
Detailed map of the project area(s) (Projects/Studies)		Project area is the entire SFHA of Giles County.	Hazard Areas.pdf	pdf	539 KB	01/24/2025 03:55 PM
FIRMette of the project area(s) (Projects/Studies)						
Historic flood damage data and/or images (Projects/Studies)						
A link to or a copy of the current floodplain ordinance		Floodplain Ordinance	Giles_County_Floodplain_Ordinance_2009.pdf	pdf	6 MB	01/24/2025 03:32 PM
Maintenance and management plan for project						
A link to or a copy of the current hazard mitigation plan		HMP	New River Valley HMP 2017.pdf	pdf	882 KB	01/24/2025 03:33 PM
A link to or a copy of the current comprehensive plan		Comp Plan	Giles_County_Comprehensive_Plan_Final_2018.pdf	pdf	6 MB	01/24/2025 03:32 PM
Social vulnerability index score(s) for the project area		social vuln.	GILES_MAP_SOCIAL_VULNERABILITY.pdf	pdf	687 KB	01/24/2025 03:33 PM
Authorization to request funding from the Fund from governing body or chief executive of the local government						
Signed pledge agreement from each contributing organization		Excerpt from BOS minutes.	DOC608.pdf	pdf	40 KB	01/24/2025 03:58 PM
Maintenance Plan						
Benefit-cost analysis must be submitted with project applications over \$2,000,000. in lieu of using the FEMA benefit-cost analysis tool, applicants may submit a narrative to describe in detail the cost benefits and value. The narrative must explicitly indicate the risk reduction benefits of a flood mitigation project and compares those benefits to its cost-effectiveness.						
Benefit Cost Analysis						
Other Relevant Attachments						

Letters of Support

Description	File Name	Type	Size	Upload Date
No files attached.				

GILES COUNTY
COMPREHENSIVE PLAN
2018 UPDATE

Adopted June 21, 2018
Giles County Board of Supervisors

Giles County
VIRGINIA'S MOUNTAIN PLAYGROUND™

Prepared by:
Giles County Planning Commission
with assistance from
New River Valley Regional Commission

Photo by Night Watchman Photography

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Acknowledgements

We are thankful to many staff and citizens of Giles County that provided valuable insights, direction and enthusiasm while developing this document.

Giles County Board of Supervisors

Mr. Jeffrey Morris, Chairman
Mr. Richard “Ricky” McCoy, Vice Chairman
Mr. Paul “Chappy” Baker
Mr. John Lawson
Mr. Larry “Jay” Williams

Giles County Planning Commission

Mr. Leon Law, Chairman, At-Large Member
Mr. Paul “Chappy” Baker, Vice-Chair, Board of Supervisors Representative
Mr. Jim Berckman, Eastern District
Mr. Bill Browning, Eastern District
Mr. Roger Browning, Western District
Mr. Fred Hackney, Western District
Mr. Ben Johnson, At-Large Member
Mr. Tom Pitzer, Central District
Mr. Steve Taylor, Central District

Giles County Staff

Mr. Chris McKlarney, County Administrator
Mr. John Ross, Planning and Zoning Administrator
Mr. Kevin Belcher, Public Service Authority Director
Mr. John Mills, Giles County Building Official
Dr. Terry E. Arbogast II, School Board Superintendent
Ms. Cora Gnegy, Tourism Director
Mr. Jeff Dinger, Special Projects
Mr. Jamie Snider, IT Director
Mr. Bryan Reed, GIS Coordinator
Anna Welch, Operations and Support, Building and Zoning Department

Giles County Constitutional Officers

Ms. Lisa J. Corell, Commissioner of the Revenue, and Staff
Sheriff W. Morgan Millirons, Giles County Sheriff, and Staff
Mr. Gerald Duncan, Giles County Treasurer, and Staff

New River Valley Regional Commission Staff

Kevin R. Byrd, Executive Director
Elijah Sharp, Deputy Director
Patrick O' Brien, Regional Planner II
Aphi Fancon, Regional Planner II
Zachary D. Swick, Data Systems Manager
Stephen Price, GIS Technician

Towns

J. Howard Spencer, Town Manager, Town of Glen Lyn
Susan Kidd, Director of Strategic Development, Town of Narrows
Todd Meredith, Town Manager, Town of Pearisburg
Mary Kay Fenton, Town Administrative Assistant, Town of Pembroke
Roger Jones, Town Manager, Town of Rich Creek

Special Thanks

Mr. David Martin, Night Watchman Photography
Alisa Moody
Phillip Vaught

We're grateful to the many citizens who completed the survey and provided input. We're also thankful to the Towns' leaders who provided valuable input.



Introduction

Giles County, befittingly known as Virginia's Mountain Playground, is endowed with spectacular natural beauty and surrounded by the Blue Ridge Mountains. Thirty-seven miles of the New River meanders through many scenic routes and historic towns of Giles County. Fifty miles of the Appalachian Trail runs across the northern section of the County, featuring many popular mountain scenery viewpoints. Within its boundary there are three beautiful waterfalls: Mill Creek, Dismal, and the Cascades. The Cascades Fall is considered one of the most scenic waterfalls in Virginia that attracts more than 100,000 visitors each year. There are vast areas of land within Giles County that are under conservation due to the presence of the Jefferson National Forest and the Mountain Lake conservancy.

Giles County is located in southwest portion of Virginia. It is bounded by Craig County to the east, to the south by Pulaski County and Montgomery County, to the west by Bland County and to the north by the State of West Virginia. Giles County has five incorporated towns: Glen Lyn, Narrows, Pearisburg, Pembroke and Rich Creek. The total area of Giles County is approximately 362 square miles of which 354 square miles is unincorporated area. The population of Giles County as per the 2010 census is 17,286.

The major roadway in Giles County is U.S 460, which runs from southeast to northwest, entering Giles County from Montgomery County in the southeastern part and exiting the County into West Virginia at Glen Lyn. It intersects with SR 42 at Newport and connects to SR 100 near Pearisburg.

Figure 1: Giles County Location



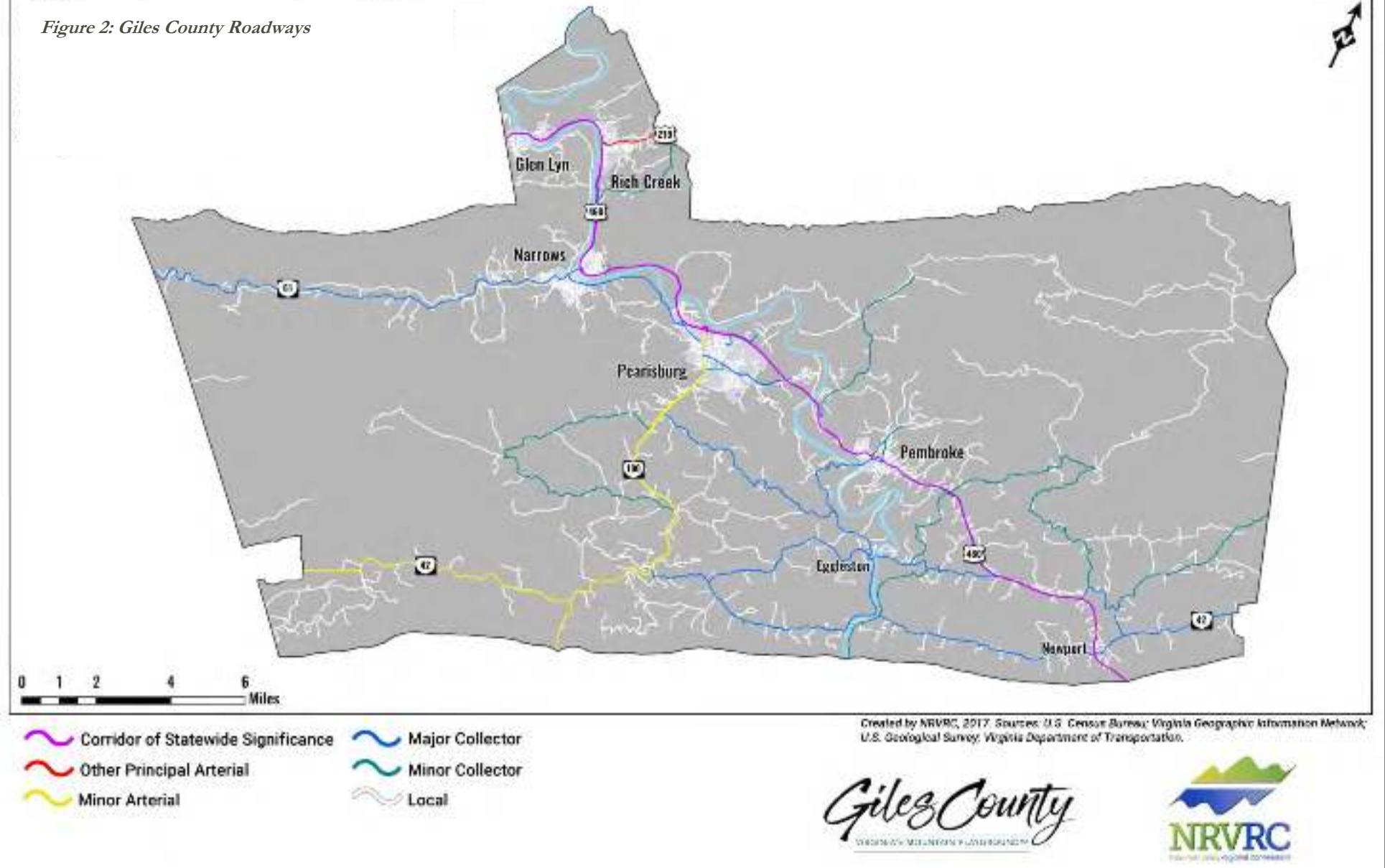
Created by NRVRC, 2017. Sources: U.S. Census Bureau, Virginia Geographic Information Network, Environmental Systems Research Institute.

 Interstate

Giles County
VIRGINIA'S MOUNTAIN PLAYGROUND™



Figure 2: Giles County Roadways



Giles County History

The first recorded expedition in the area of what is now Giles County dates back to the year 1671 when the explorers Batts and Fallan journeyed as far west to what is now known as Narrows. This was the only recorded expedition until 1749, when Doctor Thomas Walker and party, working for the Loyal Company (a land company), entered the area. Besides naming many of the geologic features that he encountered (e.g., Big and Little Walker Creeks), Dr. Walker's descriptions of the best land obtainable determined the sites for the earliest settlements and stimulated great interest in the region. Another expedition, headed by Christopher Gist, began in 1750. Gist was employed by the Ohio Company, another land development enterprise, to survey the area to prepare maps from which actual grants could be made.

The early settlers were principally of English, Scotch, Irish, and German descent. In the spring of 1749, Adam Harman and his two sons moved to the present site of Eggleston and established the first permanent settlement in what is now Giles County. Giles County was formally established on January 6, 1806, granted under an act of the Virginia General Assembly entitled, "An Act Forming a New County Out of Certain Parts of Montgomery, Monroe and Tazewell Counties". The new county was named after William B. Giles, a member of Congress and later Governor of Virginia. Giles County originally comprised a territory of about 100 miles in length and 30 miles in width, giving it an area of approximately 3,000 square miles. However, its boundary lines have been changed four times since then. The present land area is 362 square miles.



Phillip Vaught. I Remember When (A Celebration of Giles County, Virginia 1806-2006)

Purpose of the Comprehensive Plan

The Comprehensive Plan is a policy document that provides direction for an orderly and harmonious physical, social, environmental and economic development of an area that reflects the community's decisions to promote public health, safety and general welfare. It contains descriptions of existing conditions, identification of issues and future needs, and articulations of community values as goals, objectives and policies. These serve as guidelines for local government to implement regulations, develop new regulations, amend existing regulations, initiate new programs and continue existing services. The document has been organized such that the policies section is followed by the supporting documents, which contain the data and analysis so that it can be easy to use. It is also worth noting that the Comprehensive Plan is general in nature and is used as a policy document to guide local government and is not considered a regulation.

Statutory Requirements

Chapter 22 of the Virginia Code requires that each Virginia locality prepare a comprehensive plan and review it at least once every five years. It states that municipalities are vested with powers to plan for the future development of the community. The local planning commission is task with preparing and recommending the comprehensive plan for approval. In the preparation of the plan the planning commission is required to utilize comprehensive surveys and studies of existing conditions, trends of growth, and requirements of the probable future.

Giles County Government

The Giles County Board of Supervisors is comprised of five-member, elected from three districts, with two supervisors elected at large. They set the overall policies and appoints a county administrator who is given administrative powers to carry out the policies of the board and executing decisions. There are five elected Constitutional officers in Giles County: Circuit Court Clerk (or Clerk of Court), Commissioner of Revenue, Commonwealth's Attorney, Sheriff and Treasurer

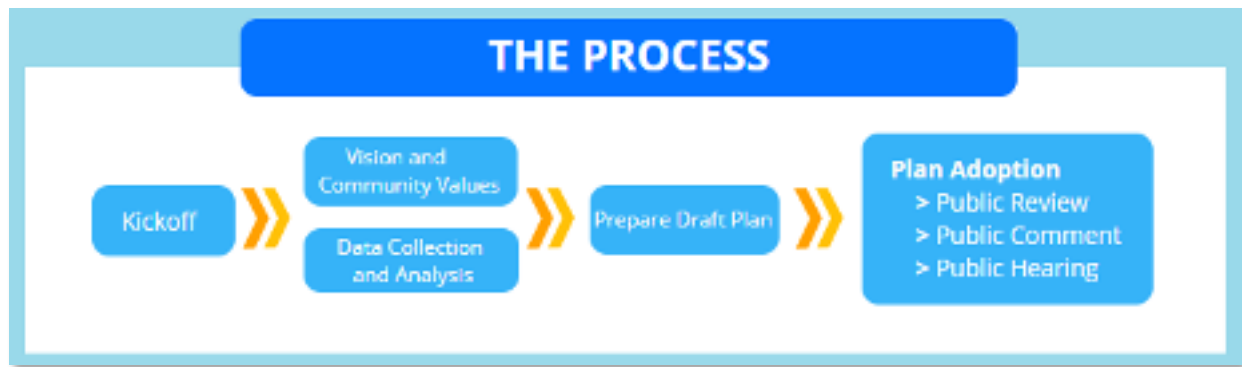
The Towns of Pearisburg, Pembroke, Narrows, Rich Creek, and Glen Lyn have mayor-council forms of government employing town managers as administrators of the towns' policies, who serve at the pleasure of their respective councils.

Giles County began preparing plans in 1979 under the guidelines of the State's Local Government Comprehensive Planning and Land Development Regulation Act of 1975. This Act was amended in 1985, which contained detailed requirements for the preparation of comprehensive plans. The Act also recognizes that planning is a continuous and ongoing process and local governments need to periodically evaluate their comprehensive plans.

Plan Process and Format

The Planning Commission through inputs at their regular monthly meetings prepared the Comprehensive Plan and recommended it to the Giles County Board of Supervisors for adoption.

Figure 2: Comprehensive Plan Process



A community-wide assessment was conducted by examining data, trends, development patterns and reviewing other existing documents. This helped in identifying issues and challenges, needs and opportunities, and highlighting areas that need special planning strategies. Some important issues were also identified by County Staff. The County encouraged public participation through surveys, open house and public hearings. To meet the objectives stated in the State Code the County divided their comprehensive plan into ten elements.

Figure 3: Comprehensive Plan Key Elements



The goals, objectives, policies and strategies (GOPS), for each element was developed to respond to the needs, address key issues and challenges and to reflect County's desires and local initiatives. The County strives to encourage economic growth, and to protect the natural and historic assets and other attractions to enhance the community's quality of life. The combination of the natural settings of Giles County, economic development opportunities, access to regional markets, and proximity to internationally renowned higher education institutions makes it one of the best places in southwest Virginia to live, work and play.

The Plan is organized into the following chapters:

- | | |
|-------------------|--|
| CHAPTER 1: | General Introduction - Sets the context and structure of the entire Plan. |
| CHAPTER 2: | Key Findings and Trends, and Key Priorities |
| CHAPTER 3: | Implementation and Evaluation |
| CHAPTER 4: | Goals, Objectives, Policies and Strategies (GOPS) |
| CHAPTER 5: | Supporting Data and Analysis - Complete data, specific information, maps, tables, figures and other background information used for the comprehensive planning process. |

Key Findings and Trends

Giles County Demographics and Population Changes

Giles County has seen slight fluctuation in population, both increase and decrease, since 1990. In 1990, the population as per the US Census was 16,366. In 2000 it increased slightly by 1.78% to 16,657. The population of Giles County in 2010 was 17,286, an increase of 3.78%.

2016 estimates provided by the Weldon Cooper Center (shown in Table 2) indicates that there has been a 1.5% decrease in population. The population projections by the Weldon Cooper Center are shown in Table 3. These projections also indicate that Giles County will see a 1.33% increase in 2020 and a 0.09% decrease in population in 2030.

Table 1: Giles County Population from 1960 to 2010

Giles County Population from 1960 to 2010						
Locality	1960	1970	1980	1990	2000	2010
Giles County	17,219	16,741	17,810	16,366	16,657	17,286
Percent Change		1960-1970	1970-1980	1980-1990	1990-2000	2000-2010
		-2.78 %	6.39 %	-8.11 %	1.78 %	3.78 %

Source: U.S. Census

Table 2: Giles County Population Estimate

Giles County Population Estimate				
Locality	April 1, 2010 Census	July 1, 2016 Estimate	Change since 2010 Census	
			Numeric Change	Percent Change
Giles County	17,286	17,024	-262	-1.5%

Source: Weldon Cooper Center

Table 3: Population Projection

Population Projection			
	2020	2030	2040
Giles County	17051	17277	17261
Percent Change		2020-2030	2030-2040
		1.33 %	-0.09 %

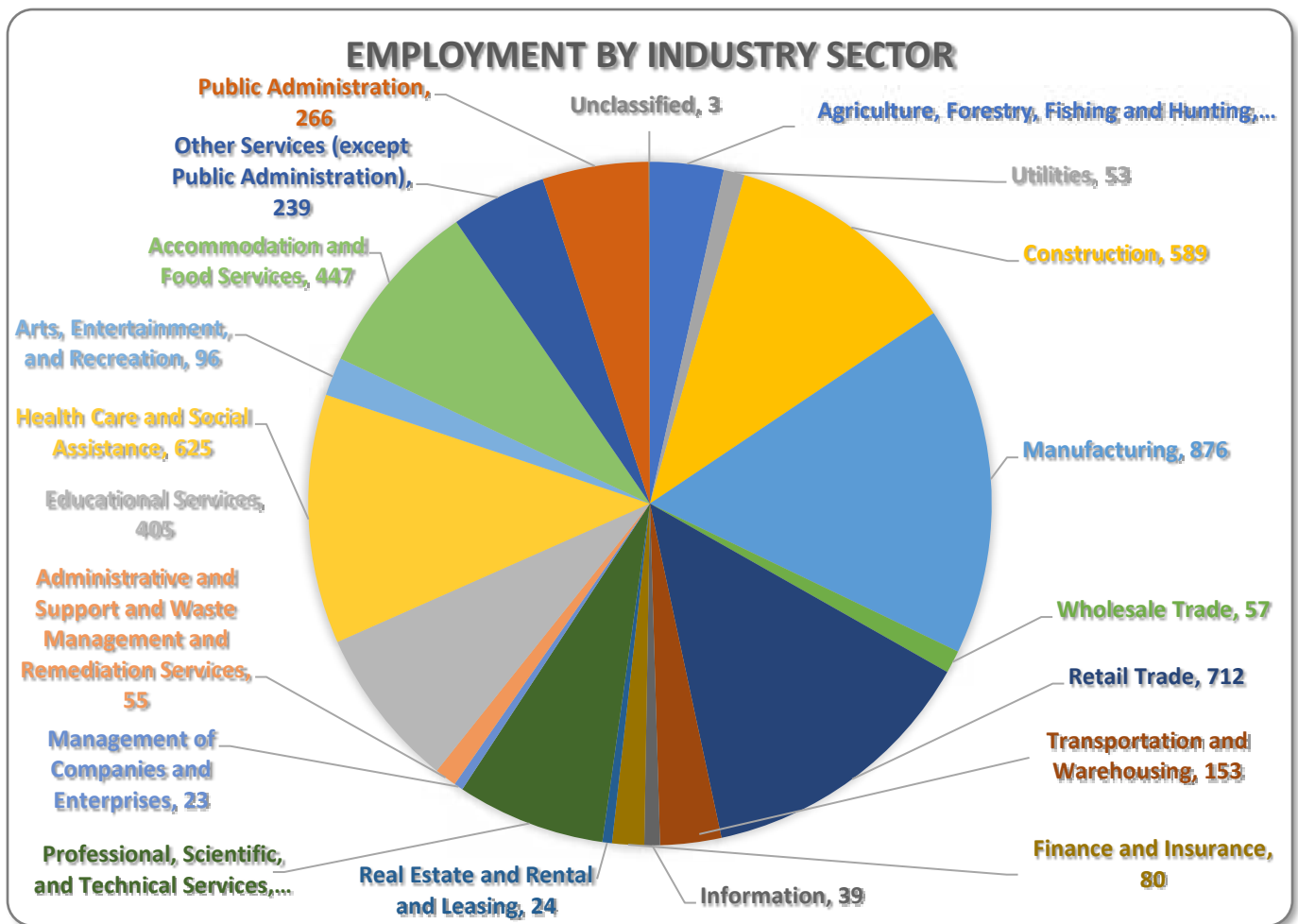
Source: Weldon Cooper Center

Economic development

Employment

Historically the economy of Giles County has been mostly tied to manufacturing, but losses in some major employment sectors has negatively impacted the County. The employment sectors that currently provide the highest number of county employment include manufacturing, retail, health and social services, and education. Figure 4 (below) identifies employment by industry sectors.

Figure 4: Employment by Industry Sector

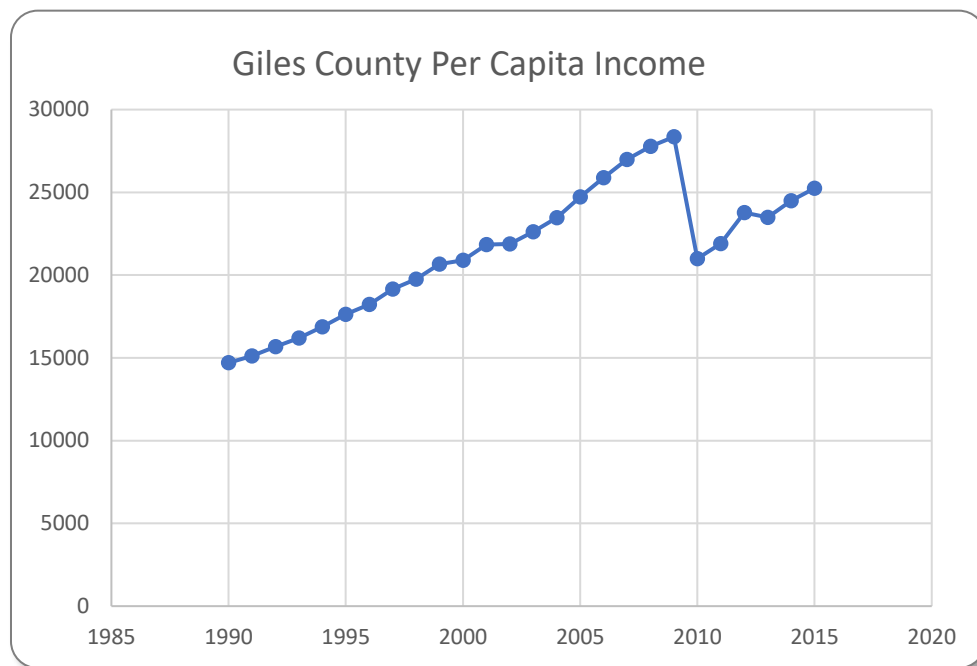


Source: U.S. Census 2011-2015 American Community Survey 5- Year Estimate

Income

Giles County saw a significant decrease in per capita income from \$28,350 in 2009 to \$20,985 in 2010, as shown in the following figures. There has been a steady increase since 2010, but the County has not recovered to the same income level of 2009.

Figure 5: Giles County Per Capita Income

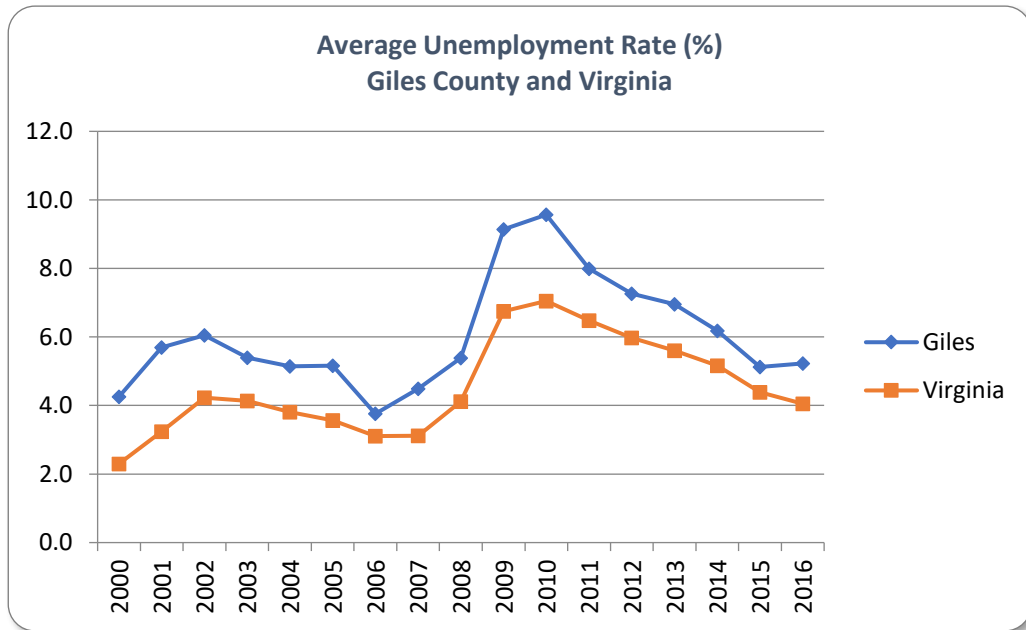


Source: U.S. Census

Unemployment

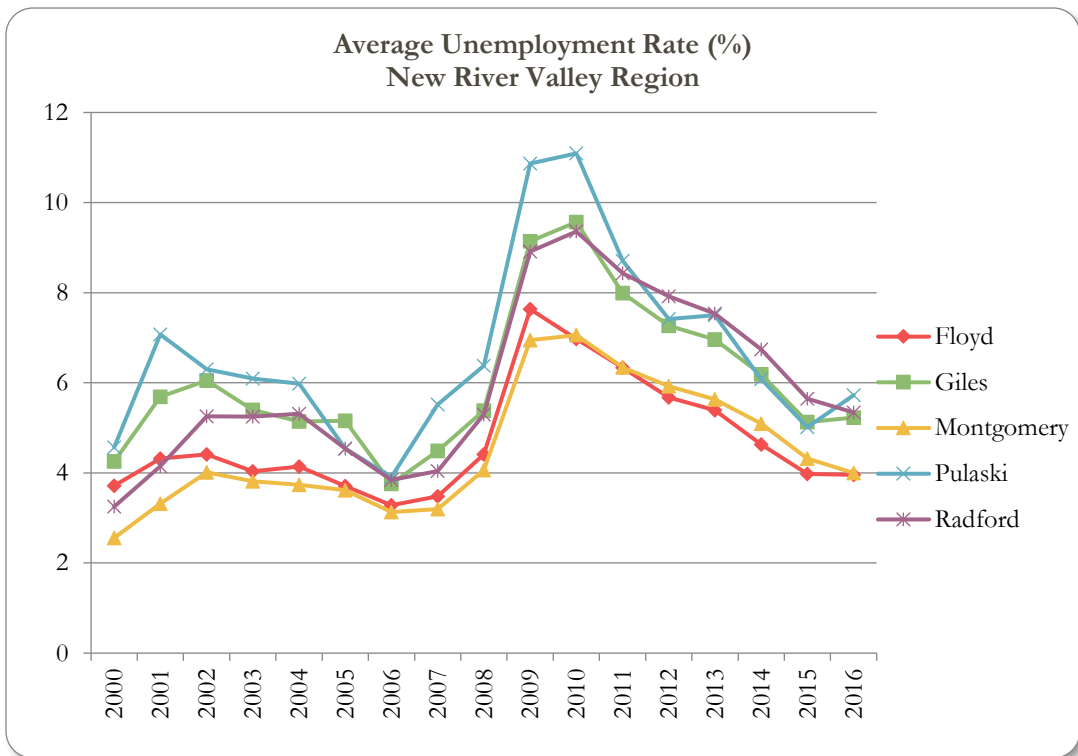
The average unemployment rate in Giles County significantly increased from 5.4% in 2008, to 9.1% in 2009. The unemployment rate change may have been largely attributed to the 2007-2009 recession. Similar increases were also experienced by the surrounding NRV localities and the state of Virginia, as shown in the unemployment charts below. Regional unemployment data (please refer to Economic Data Analysis in Page 70) also indicates that the rate has been slowly decreasing from 9.6% in 2010, to 5.1 % in 2015, as shown below in figures below.

Figure 6: Average Unemployment Rate in Giles County and Virginia



Source: U.S. Bureau of Labor Statistics

Figure 7: Average Unemployment Rate in New River Valley Region



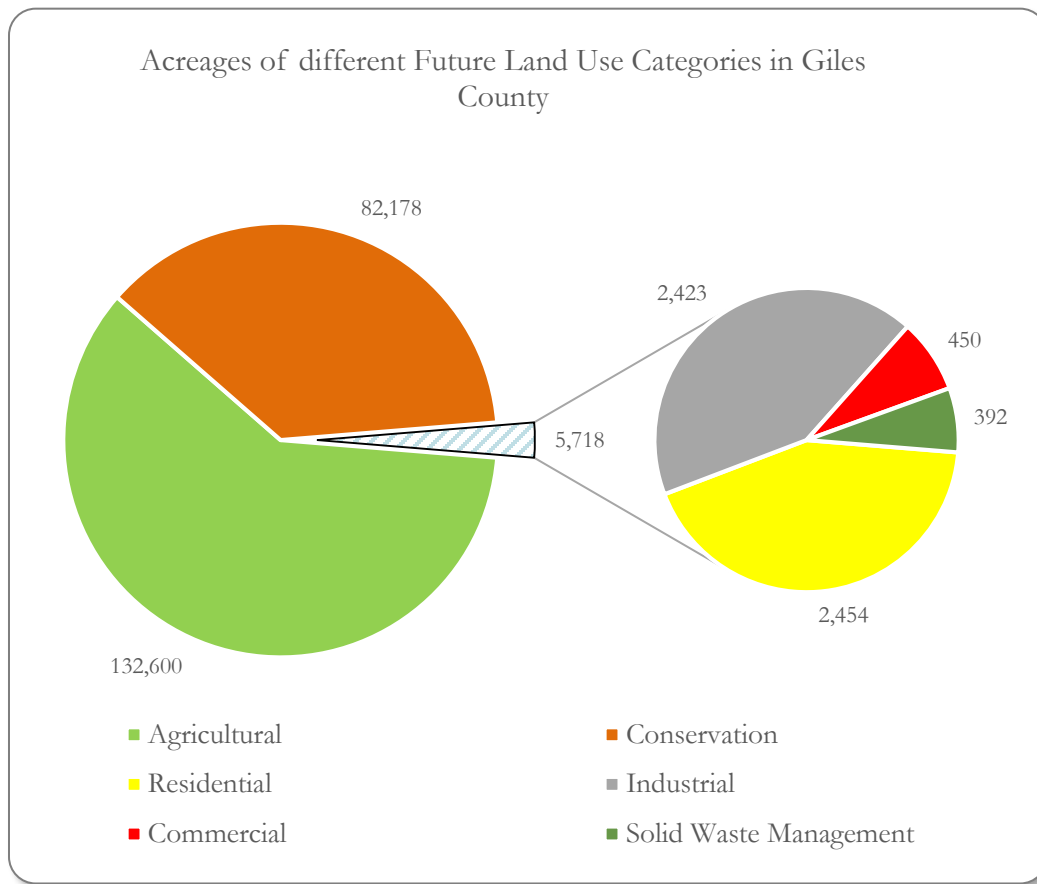
Future Land Uses

The future land uses in Giles County are classified into eight categories: agricultural, conservation, residential, business, industrial, historic preservation and transitional. The land use classifications are proposed land use patterns for the County which are summarized in Table 4 and shown in Figure 8. Agriculture has the highest acreage with 132,600.16 acres, which is approximately 60% of all lands in Giles County. The next largest land use designation is Conservation, which is approximately 82,177.71 acres. The Commercial use category is 450.28 acres, with approximately 0.20% of total area. The County designated 2,422.91 acres, about 1.10%, as Industrial, 2,453.67 acres as Residential and 391.63 acres as Solid Waste Management land use category. Historic Preservation areas are located throughout the County. This designation comes from the Virginia Department of Historic Resources (DHR) and allows for the conservation of significant historic structures, landmarks, and properties. Transitional Land Uses represent places in the County that contain a mix of uses and are located between two more defined districts. There are two general transitional districts located throughout the County: Commercial-Industrial and Commercial-Residential.

Table 4: Giles County Future Land Use

Giles County Future Land Use		
Future Land Use Categories	Acres	% of Total Area
Agricultural	132600.16	60.14%
Commercial	450.28	0.20%
Conservation	82177.71	37.27%
Industrial	2422.91	1.10%
Residential	2453.67	1.11%
Solid Waste Management	391.63	0.18%

Figure 8: Acreages of different Land Use in Giles County



Housing

In Giles County, the projected number of households in 2040 will decrease slightly due to decline in population. Between 2011 and 2015 the number of households in Giles County was 7,230. The number of future households will determine the number of units needed for these households. Based on these projections no additional units will be required in Giles County.

Table 5: Projected Housing Need

Projected Housing Need			
	2020	2030	2040
Giles County Population Projection	17,051	17,277	17,261
Average Household size	2.32	2.32	2.32
Number of Households	7,350	7,447	7,440
Total Housing Need	7,350	7,447	7,440

Source: U.S. Census and Weldon Cooper Center

Age of Housing

As shown in Table 6, 39 % of the County's housing stock was built before 1959. By 2020, 67% of the housing stock will be 50 years of age or older and by 2040, 90% of the existing housing stock will be more than 50 years old. Older housing units need to be adequately maintained to avoid severe problems and blight. Older housing stock which accounts for about 40 % of the housing in Giles are most likely to be high in energy consumption depending on the type of construction and its maintenance. It may be important to encourage and provide incentives to homeowners to make energy retrofit and updates to their homes for energy savings and improve energy efficiency

Though population projection does not warrant new housing units, the age of the housing stock may create a demand for new housing construction in the future.

Table 6. Age of Housing Units in Giles County

Age of Housing Units in Giles County								
Year Built	Housing Units	Cumulative Units	Age as of 2015	Age as of 2020	Age as of 2030	Age as of 2040	% Units Built	Cumulative %
Built 2010 to 2015	72	8327	5	10	20	30	1%	100%
Built 2000 to 2009	775	8255	15	20	30	40	9%	99%
Built 1990 to 1999	963	7480	25	30	40	50	12%	90%
Built 1980 to 1989	952	6517	35	40	50	60	11%	78%
Built 1970 to 1979	1212	5565	45	50	60	70	15%	67%
Built 1960 to 1969	1137	4353	55	60	70	80	14%	52%
Built 1950 to 1959	1004	3216	65	70	80	90	12%	39%
Built 1940 to 1949	1193	2212	75	80	90	100	14%	27%
Built 1939 or earlier	1019	1019	76	81	91	101	12%	12%

Source: 2010-2015 American Community Survey 5-Year Estimates

Figure 9: Percentage of Units Built

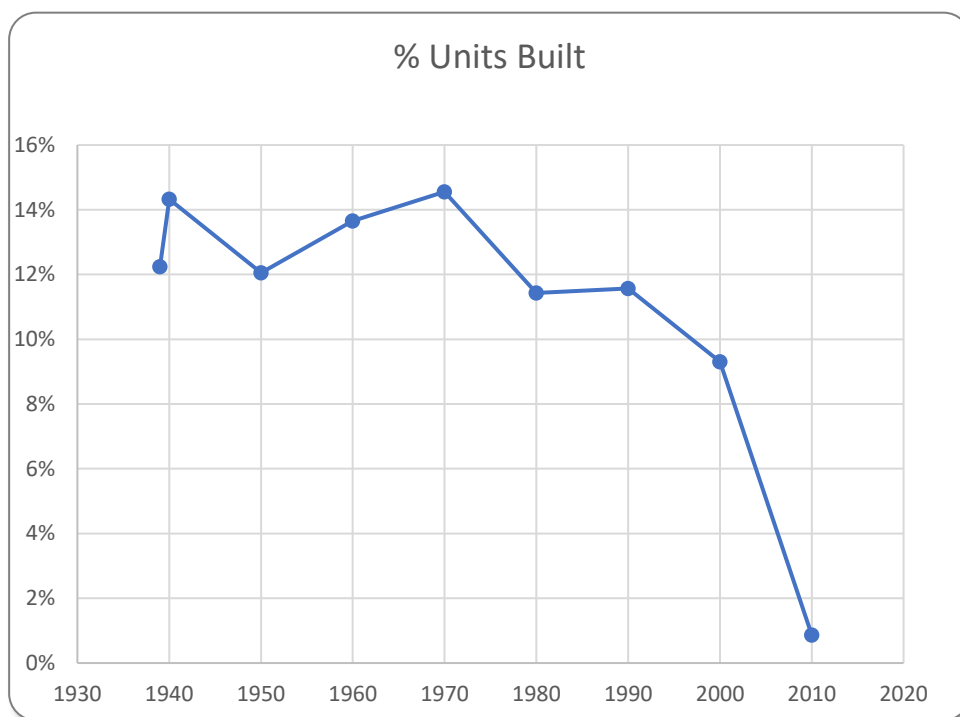
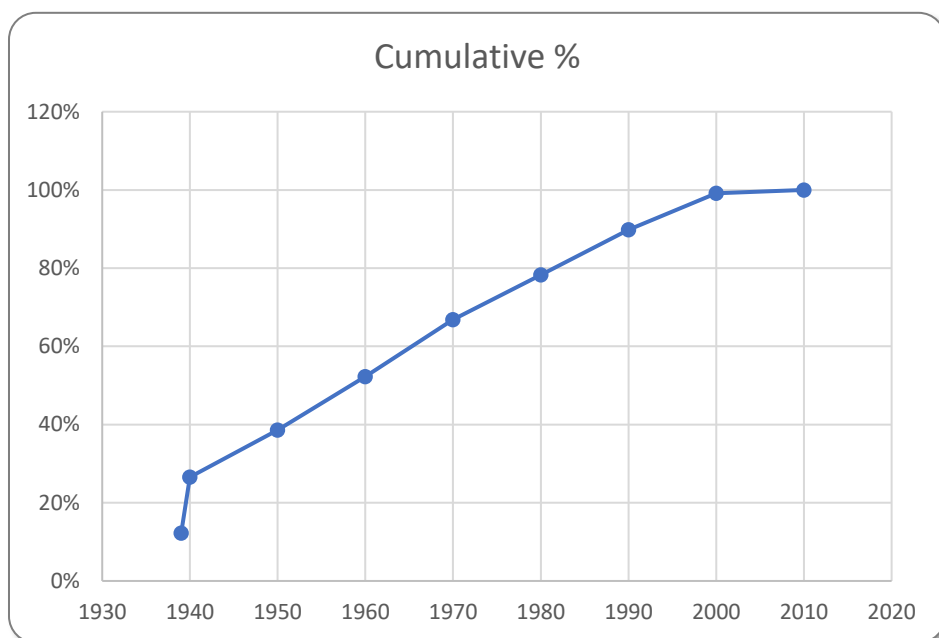


Figure 10: Cumulative Percentage of Units Built



Transportation

The New River Valley Long Range Transportation Plan has identified needs in Giles County. A list of recommendations was compiled based on input contributed by local officials, technical staff, and public input. A number of the improvement projects listed in the plan will address geometric deficiencies and safety concerns. However, two projects identified in the plan relate to higher classification roadways. These projects are capacity projects and they are listed below:

1. VA 100 (Wysor Hwy.) from Pulaski Co. Line to VA 692: Mid-term improve roadway to address safety issues; Long-term widen to four-lane roadway with median.
2. VA 100 from 8.2 Mi. S. of US 460 to Pulaski Co. Line: Mid-term improve roadway to address safety issues.

The Virginia Department of Transportation has identified in their Six Year Improvement Plan some significant transportation projects within Giles County. These projects are as follows:

1. UPC 89655 – Route 673 Bridge Replacement over Wolf Creek
2. UPC 90091 – Route 670 Bridge Replacement over Big Walker Creek (Str. ID 08471)
3. UPC 107051 – Route 100 Safety Improvements
4. UPC 110615 – Deck Overlay on Route 460 over New River (Str. ID 08376)

Key Priorities

Some of the major priorities that emerged during this update process are listed below:

- Preserve and enhance the quality of life of county citizens
- Encourage economic development in desired areas
- Continue to promote Giles County as a tourism destination as an economic strategy
- Develop a framework to allow for different land use concepts to be incorporated in the Future Land Use Map.
- Pursue partnerships to create opportunities for local youth
- Provide adequate protection to environmentally sensitive areas
- Promote safe and efficient transportation network to serve the residents, visitors and movement of goods
- Coordinate transportation planning with land use for economic development
- Ensure protection and preservation of natural and historic resources
- Strengthen partnerships and increase coordination with federal, state, regional and local entities

Implementation and Evaluation

The comprehensive plan must also identify implementation program, activities and regulations to advance the goals and objectives of the plan. A list of some of the ways to implement the comprehensive plan is provided below:

1. Regulations: The comprehensive plan forms the basis of establishing land use regulation, amendments to such regulations, and enforcement to meet its goals.
 - Zoning Ordinance
 - Zoning Map
 - Subdivision Ordinance
 - Building Codes
 - Small Area or Neighborhood Plans
 - Redevelopment and revitalization plan and programs
2. Financial mechanisms: The comprehensive plan help guide prioritization of capital projects and develop the Capital Improvements program
3. Grants and other Funding Programs
 - Pursue state and federal funding for community programs and transportation improvements
 - Community Service grant programs
4. Partnerships with private sector, institutions, public and non-profit entities
5. Public education outreach

Implementing this comprehensive plan will continue to keep Giles County on a desired path. This is a living document and amendments based on continuous evaluation, assessment of the achievement of objectives and incorporation of new initiatives will make the plan flexible and responsive to new information and changes to keep it current and adapt to changing situations.



GOALS, OBJECTIVES, POLICIES AND STRATEGIES

Giles County
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GILES COUNTY
COMPREHENSIVE PLAN
2018 UPDATE

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FUTURE LAND USE AND DEVELOPMENT PATTERNS

GILES COUNTY
COMPREHENSIVE PLAN



Future Land Use and Development Patterns

Goal: Giles County desires to direct its growth to suitable areas, in a manner compatible with preserving the natural environment, ensuring the provision of services, and protecting both natural and man-made elements.

Objective 1: The County will identify appropriate and adequate land for different types of uses to meet the physical, social, cultural, and economic needs of present and future residents, while maintaining, protecting and enhancing the quality of the natural and man-made environment.

Policy 1.1: Utilize applicable planning, legislative, and implementation tools to achieve desirable growth and to ensure protection of the environment.

Strategy 1.1.1: Continue to review and update the County Zoning Ordinance to maintain consistency with the Comprehensive Plan and adopt new techniques and best practices as appropriate or needed.

Policy 1.2: Encourage growth and development within existing or desired growth areas with access to public water and sewer.

Strategy 1.2.1: Maintain the designation of the Pembroke-Newport section of the County as growth area.

Strategy 1.2.2: The County will conduct studies for areas that are experiencing growth or that have a potential for growth, promote development and reuse, and to develop specific land use strategies such as the Pembroke – Big Stony Creek Road.

Strategy 1.2.3: Adjust the land use where current use is no longer appropriate due to changing conditions and demands.

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Strategy 1.2.3: Adjust the land use where current use is no longer appropriate due to changing conditions and demands.

Policy 1.3: The County will develop special area plans to guide regulation and land use decisions in areas with unique character and needs by utilizing planning techniques such as overlay and mixed-use zoning district to allow special districts such as village centers, neighborhood mixed use, commercial mixed use, light industrial mixed use and Tourism Development Zone Overlay districts.

Strategy 1.3.1: Amend the Future Land Use Map to identify specific areas, including but not limited to the areas listed below:

- 1. White Gate Village*
- 2. Newport Village*
- 3. Eggleston Village*
- 4. Newport-Pembroke Entrance Corridor: This area will encompass those properties abutting State Route 460 in Giles County, between the town boundary of Pembroke and the boundary of Montgomery County.*
- 5. Staffordsville- Pearisburg Entrance Corridor: This area will encompass those properties abutting State Route 100 in Giles County, from the town boundary of Pearisburg to the intersection of SR 100 and SR 811.*

Strategy 1.3.2 *New development within specific areas which abuts US 460, State Route 42 and State Route 100 will be evaluated to verify compliance with VDOT Access Management Regulations (24VAC30-73) and to ensure that development does not negatively impact safety, efficiency, or aesthetics of the major roadways it abuts.*

Policy 1.4: Encourage retention of open space and scenic vistas.

Strategy 1.4.1: *Protect ridgelines and other scenic vistas by supporting conservation easements in areas identified as conservation on the Future Land Use Map.*

Strategy 1.4.2: *The County will develop strategies and incentives to help preserve prime farmlands and active farms.*

Strategy 1.4.3: *Identify on the Giles County Future Land Use Map recommended conservation areas based on scenic vista criteria and encourage landowners within these areas to protect the scenic and environmental quality.*

Policy 1.5: Develop an open space and recreation plan in accordance with guidelines prepared by the Department of Conservation and Recreation.

Policy 1.6: The County will identify, inventory and define environmentally critical areas to be preserved by acquisition and/or regulation.

Strategy 1.6.1 *Develop a list of incompatible uses within such areas.*

Policy 1.7: Ensure that residential development densities are compatible with utility and road capacities and improvements plans for the County.

Strategy 1.7.1: *Maintain minimum lot size requirement of 1 acre in the zoning ordinance for areas not served by public water/sewer.*

Strategy 1.7.2: *Promote higher density residential uses in village centers, neighborhood mixed-use areas, and areas currently served by public utilities.*

Policy 1.8: Protect established residential neighborhoods from intrusion of incompatible uses.

Strategy 1.8.1: *Establish requirements for buffers and/or screening to provide for the separation of uses and minimize adverse impacts.*

Strategy 1.8.2: Rely on neighborhood-based organizations or groups as a means of encouraging existing property owners to define their own geographic areas. Revise zoning ordinance to recognize neighborhood character.

Policy 1.9: Ensure adequate lands are available for future commercial development.

Strategy 1.9.1: Designate commercial land use in the Future Land Use Map to areas suitable for commercial uses.

Strategy 1.9.2: Negative impacts of commercial land uses on environmentally sensitive areas will be minimized.

Policy 1.10: Preserve designated industrial lands for industrial uses, especially those near substantial public infrastructure (roadways, rail, water, sewer, broadband, etc.)

Policy 1.11: Guide and encourage development through the County's capital facilities program and service provision.

Policy 1.12: Continue to implement Section 3-10 of the Giles County Subdivision Ordinance which prohibits sinkhole dumps and sets forth requirements for uses and development in the vicinity of sinkhole and other karst features. The County will rely on the expertise of the Department of Conservation and Recreation's Division of Natural Heritage for the evaluation and identification of these areas when necessary.

Policy 1.13: Protect the quality of life of County citizens through proper and responsible siting of public facilities and prevent indiscriminate placement of waste management facilities.

Strategy 1.13.1: Maintain permit process for waste management facility placement. Also, continue enforcement of the zoning ordinance which guides the placement of waste management facilities (i.e. recycling, junk yards, and landfill facilities).

Strategy 1.13.2: Encourage the location of waste management facilities to areas where impacts may be sufficiently mitigated.

Policy 1.14: The County promotes the location of communication towers, facilities and supporting infrastructure to serve the community with the latest wireless broadband technology, while encouraging their location and construction to minimize visual impact on the area to the greatest extent possible. This may include strategies to use paint colors on towers which blend with the surroundings, appropriate tower heights and collocation of equipment on existing towers or utility infrastructure that accomplish both limited visual impact and improved quality wireless services.

Policy 1.15: Promote the redevelopment of downtown areas within the towns for economic revitalization.

Strategy 1.15.1: Support the towns' revitalization efforts to assure developments are attractive to economic development prospects.

Figure 11: Giles County Future Land Use

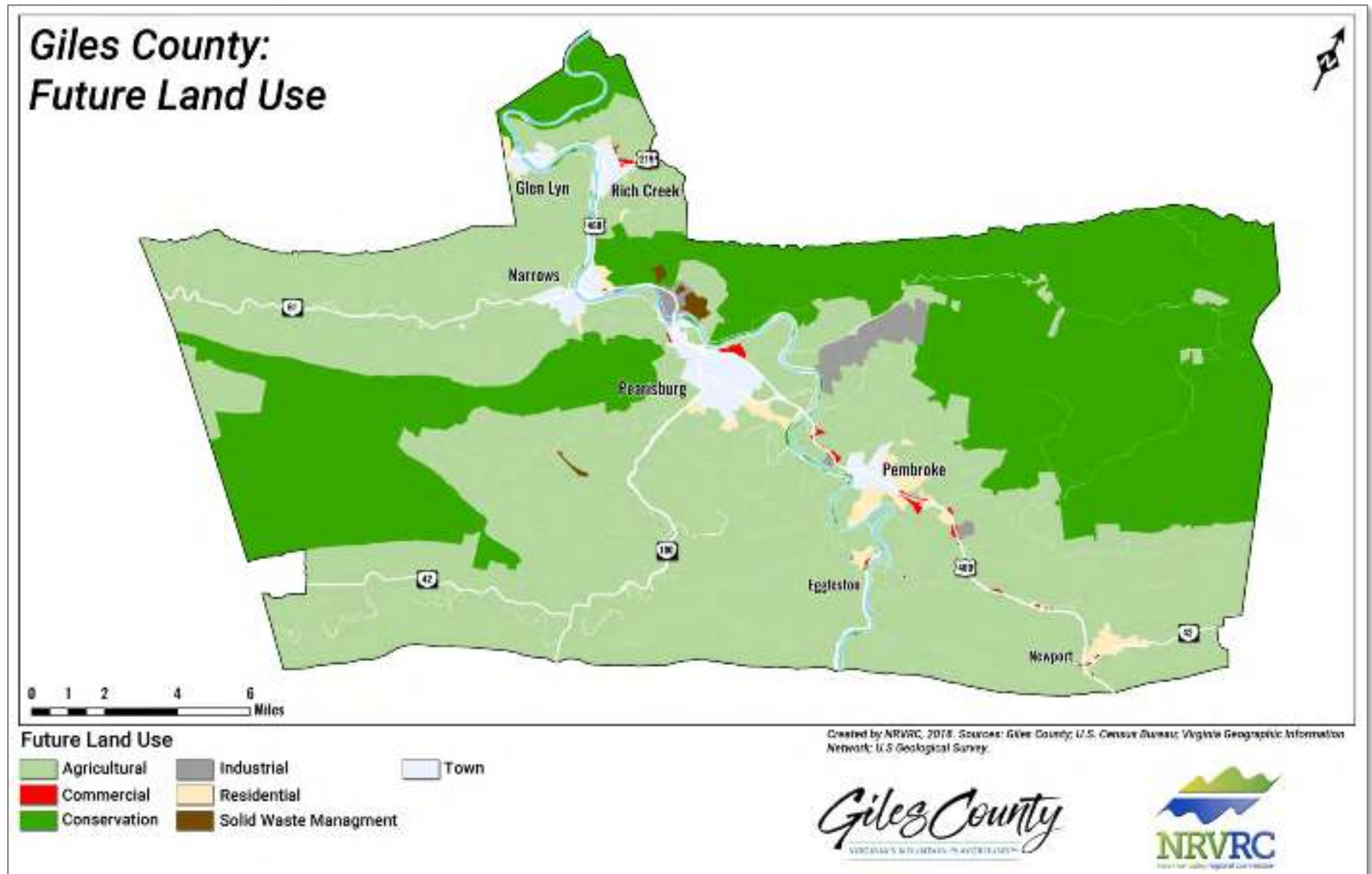
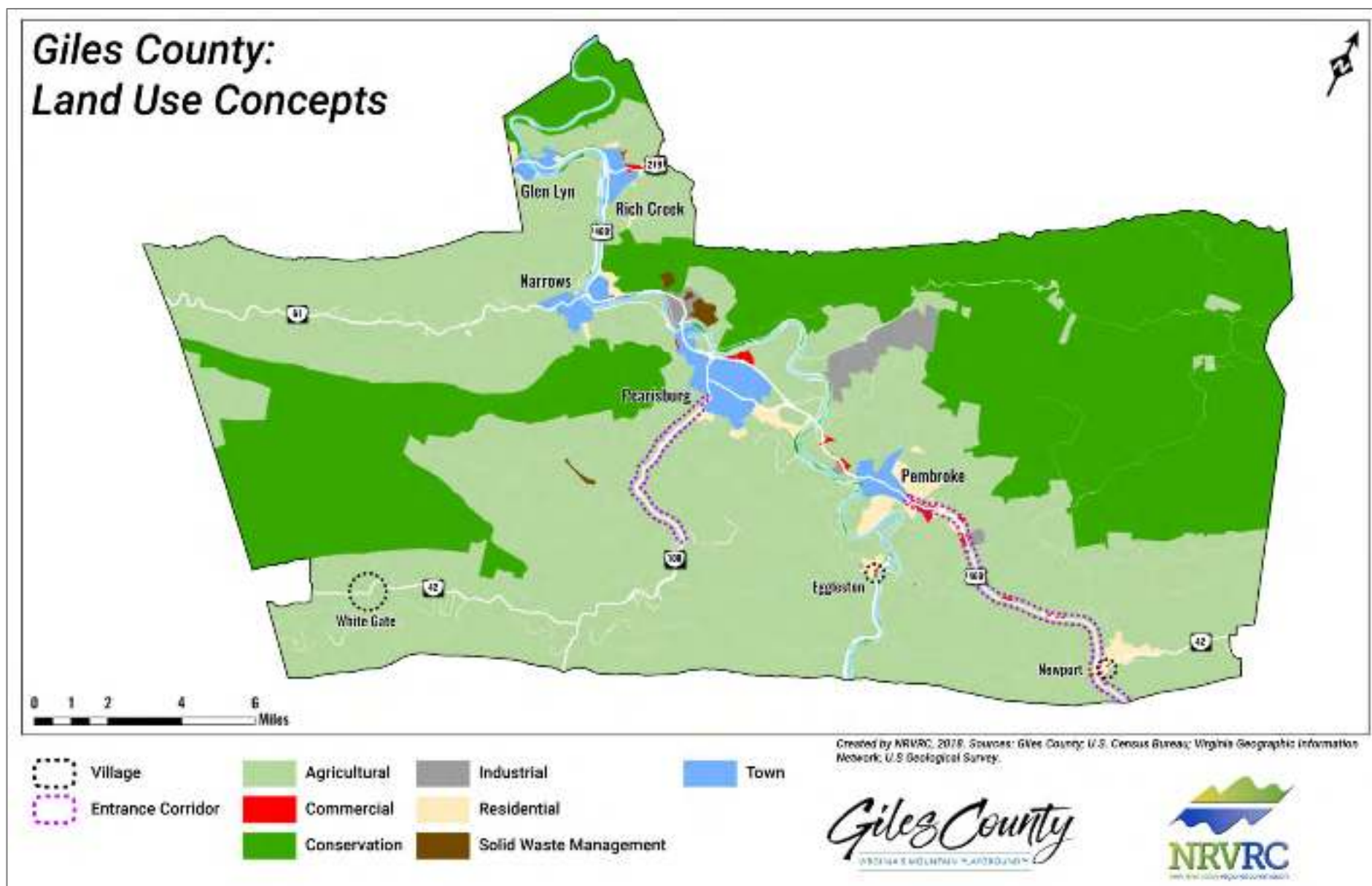


Figure 12: Land Use Concept Plan



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ECONOMIC DEVELOPMENT

GILES COUNTY COMPREHENSIVE PLAN

Photo by Night Watchman Photography

Economic Development

Goal: Encourage and enhance economic success in the County to achieve and maintain a healthy, sustainable and diverse economy.

Objective 1: *Promote new initiatives and adopt plans that will attract high quality employers and new investments and retain and support existing businesses.*

Policy 1.1: Giles County will promote the recruitment and expansion of targeted industries that are high skill and/or high wage, that will contribute to economic diversity of the County. These industries include but are not limited to education, healthcare, manufacturing, professional services and technology.

Policy 1.2: Maintain and enhance the quality of life of County residents by creating a high quality and friendly economic environment that will increase job opportunities.

Strategy 1.2.1: Encourage the support of governmental cooperation on service delivery, planning and problem solving.

Strategy 1.2.2: Collaboration and partnership with State Education Department and related organizations to provide education and training.

Strategy 1.2.3: The County will continue to prepare long range plans, maintain land uses and zoning regulations that will facilitate economic development.

Policy 1.3: Encourage and promote broadband and mobile broadband services provision and expansion throughout the County.

Policy 1.4: Collaborate with public, private and regional partners to identify and develop broadband and mobile broadband initiatives in the County and the New River Valley.

Policy 1.5: Sites that are considered to be prime industrial sites due to their easy access to infrastructure, services and labor will be encouraged for industrial uses. The identification and location of industrial sites will take into consideration its compatibility to surrounding uses including but not limited to noise, traffic, dust, smoke, odors, vibrations and hours of operation.

Strategy 1.5.1: Continue Site Survey Program through the County's Industrial Development Authority and Industrial Development Commission, in conjunction with the New River Valley Regional Commission to identify potential future industrial sites in the County that are in conformity with the Comprehensive Plan.

Strategy 1.5.2: Continue to encourage and assist with the development of the Wheatland Eco Park as endorsed by the County IDA.

Strategy 1.5.3: Continue to support and participate in Celanese Corporation's Planning Initiative as outlined by the EPA's Resource Conservation and Reclamation Act.

Policy 1.6: Promote and encourage commercial and industrial development to locate within existing Industrial areas and Industrial parks.

Strategy 1.6.1: Establish regulations and/or programs that will allow flexibility to allow for approval of developments.

Strategy 1.6.2: Explore economic incentives from Virginia Jobs Investment Program, Virginia Economic Development Partnership and other entities for future businesses.

Policy 1.7: Encourage and protect agriculture as a viable economic use of Giles County's land.

Strategy 1.7.1: Explore opportunities and develop incentives to encourage biomass energy projects.

Strategy:1.7.2: Establish an Agriculture Development Board (ADB) to support and enhance agribusiness and agritourism in Giles County.

Strategy 1.7.3: Support the development of programs that assist farmers with finding markets for their agricultural goods, including but not limited to farm to institution programs, agritourism, online store front, partnerships between growers to meet larger commercial distribution needs, and farmers market.

Policy 1.8: Promote economic development at a variety of locations throughout the County.

Strategy 1.8.1: Facilitate a broad range of commercial and industrial development including tourism, retirement, and high-tech industries.

Policy 1.9: Continue to encourage new and expanded commercial and industrial activities which will increase and diversify the County's economic base.

Strategy 1.9.1: Continue to promote increased wages and more job training opportunities for the residents of the County.

Strategy 1.9.2: Continue to encourage diverse employment opportunities within the industrial/commercial sectors.

Strategy 1.9.3: Continue to develop partnerships with local higher education institutions which expand their involvement in the development of industrial/commercial enterprises within the County.

Policy 1.10: Direct commercial and industrial development to areas that already have necessary infrastructure.

Strategy 1.10.1: Prepare an inventory of industrial and commercial development sites which are ready for fast track construction.

Policy 1.11: Promote economic development in desired areas by providing needed infrastructure.

Policy 1.12: Provide adequate water and sewer service for current and potential industrial sites.

Strategy 1.12.1: Continue to extend existing water and sewer facilities to existing and future industrial/commercial areas and sites.

Policy 1.13: Promote tourism initiatives that are based on the County's natural, ecological, cultural and historic resources, and arts and crafts.

Strategy 1.13.1: Explore partnership opportunities to promote Giles as a tourism destination.

Strategy 1.13.2: Coordinate collaborative activities with partners that promote tourism as part of the County's economic development efforts.

- Policy 1.14:** The County will enhance tourism attractions by proposing new amenities and improving accessibility to existing facilities that will generate a return on investment, spending and tourism.
- Policy 1.15:** Promote and support efforts to expand lodging facilities and encourage more overnight visits.
- Policy 1.16:** Continue to work with regional partners to support marketing and large development projects throughout the New River Valley that will provide employment opportunities to County residents such as the New River Economic Development Authority.
- Strategy 1.16.1: Continue to participate in regional cooperative marketing and economic development ventures.*
- Policy 1.17:** Maintain partnerships with local chambers of commerce, business groups and organizations, and regional and state economic agencies to develop and improve programs that recruit and retain businesses in Giles County.
- Policy 1.18:** Support small businesses by developing economic development initiatives.
- Policy 1.19:** Encourage and support the revitalization of the downtown sections of the County.
- Strategy 1.19.1: Jointly with the Towns, support Downtown Revitalization Programs.*
- Strategy 1.19.2: Continue to assist downtown businesses in all the towns through economic incentives and utilizing partnerships to increase economic opportunities by adopting programs such as the Virginia Main Street.*
- Policy 1.20:** Continue the support and development of new and small businesses in the Towns' downtown centers by fostering County-Town partnerships and coordinating with other economic initiatives.

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HOUSING

GILES COUNTY COMPREHENSIVE PLAN

Photo by Night Watchman Photography

Housing

Goal: The County will ensure the provision of adequate, safe, diverse and affordable housing opportunities for all current and future County Residents.

Objective 1: The County will encourage development of variety of housing types and affordable housing.

Policy 1.1: The County will encourage affordable homeownership opportunities for all County residents by participating, supporting and increasing coordination between private, public and not for profit organizations such as Habitat for Humanity, Hammering in the Hills, the Indoor Plumbing and Rehabilitation Program and the New River Valley HOME Consortium.

Policy 1.2: Encourage adequate residential living facilities for seniors and persons with disabilities.

Policy 1.3: The County will study examples of other communities and best practices to develop incentives and regulations that foster age-friendly housing.

Policy 1.4: The County will encourage retrofit and improvements of older homes for energy efficiency by exploring grant funding options, partnerships and educational outreach.

Policy 1.5: The County will assist non-profit and other housing organizations that provides rehabilitation assistances and/or homebuyers' educational program workshop to eliminate substandard housing.

Policy 1.6: The County will develop incentives for development or redevelopment of affordable housing.

- Policy 1.7:** The County will conduct a housing study to evaluate its housing stock and its alignment with different income levels (low, moderate and high). The study will capture all aspects of housing issues which will include but not limited to determining the need in the area and availability of different housing options to match peoples' needs and preferences.
- Policy 1.8:** The County will continue to assess housing needs and provide for adequate sites for residential and a mix of housing types to meet housing needs.
- Policy 1.9:** The County will encourage housing development in areas where there is need and demand by providing infrastructure.
- Policy 1.10:** The County will promote housing projects that utilizes new construction technologies and housing designs to be energy efficient.
- Policy 1.11:** The County will identify housing locations which are historically significant.
- Policy 1.12:** Sites deemed to be suitable for multi-family development because of its demand and proximity to places of employment, shopping and recreation will be designated as multi-family use.
- Policy 1.13:** The County will explore acquisition and relocation option for those properties that experience repetitive and severe flooding with assistance from State and Federal government.



NATURAL AND HISTORIC RESOURCES

GILES COUNTY COMPREHENSIVE PLAN



Natural and Historic Resources

Goal: To achieve a harmonious relationship between citizens and their natural environment. Maintain and protect the scenic beauty, and natural and historic resources of the County that contributes to the well-being of the citizens.

Objective 1: *The County will protect and maintain important natural and historic resources where it is economically and environmentally feasible.*

Policy 1.1: Encourage voluntary efforts to preserve maximum amount of natural vegetation during siting of development.

Policy 1.2: Continue the implementation and enforcement of the zoning ordinance and other regulations pertaining to the presence of natural hazards, viewsheds, air and water resources, energy, slope and floodways.

Strategy 1.2.1: Protect the County's groundwater resource by actively pursuing enforcement action against open dumps, particularly those in sinkholes.

Strategy 1.2.2: Update the zoning ordinance to allow for flexibility in development of land to maintain natural character.

Policy 1.3: Reduce the rate of soil erosion and sedimentation into the County's streams, rivers and lakes.

Strategy 1.3.1: Continue enforcement of the Giles County Erosion and Sediment Control Ordinance.

Policy 1.4: The County will continue to meet and exceed minimum standards that protect air quality.

Strategy 1.4.1: Continue the enforcement of open burning ordinance.

Policy 1.5: The County will preserve and protect the natural functions of floodplains by implementing regulations to prevent alteration of land that could negatively impact these areas.

Policy 1.6: The County will continue to participate and coordinate with adjacent local governments, and State and Federal agencies to address natural hazards through mitigation activities.

Policy 1.7: Strengthen current civic beautification and litter control programs and provide support to existing volunteer programs such as Renew the New and support clean up efforts such as River Clean Up and Ramps and Roads.

Strategy 1.7.1: Encourage clubs and civic organizations to adopt roads or streams.

- *Continue Public Works transportation of materials picked during clean up.*
 - *Continue organized county wide cleanup days.*
- Policy 1.8:** The County will identify its historic resources and develop measures to protect and preserve them.

Policy 1.9: The County will promote the protection and preservation of natural and historic resources through education and other informational programs and tools.



TOURISM AND RECREATION

GILES COUNTY COMPREHENSIVE PLAN

Tourism and Recreation

Goal 1: Promote tourism and recreation opportunities to help sustain and broaden the economic base.

Objective 1.1: The County will develop and implement strategies to expand tourism facilities.

Policy 1.1.1: The County will implement the goals of the Tourism Development Plan to promote Giles County as a tourism destination through events, advertisements, supporting tourism-related businesses and other strategies as outlined in the Plan.

Policy 1.1.2: Establish Tourism Zones to promote tourism related businesses and attract economic development and redevelopment.

Policy 1.1.3: The County will prepare a Conceptual Riverfront Plan that will develop a vision for the County's Riverfront areas, provide policy guidelines for future planning decisions, and identify key development locations and critical infrastructure improvements.

Policy 1.1.4: The County will pursue cooperation and partnership with Towns, Giles County Chamber of Commerce and partners beyond the County to support and encourage efforts that will make Giles a desirable tourist destination.

Policy 1.1.5: The County will ensure that public recreation areas are well managed.

Policy 1.1.6: The County will enhance and improve access to waterways within the County (i.e. the New River), trail systems and all recreation facilities.

Policy 1.1.7: The County will expand its wayfinding system which includes, but not limited to, gateway signs, directional signs, and maps to enhance marketing opportunities and connectivity within Giles County.

- Policy 1.1.8:** Encourage private enterprise to provide tourism related activities and infrastructure such as hotels, restaurants, outfitters, etc.
- Policy 1.1.9:** The County will continue cooperation and coordination with the U.S. Forest Service, Virginia Department of Conservation and Recreation, Virginia Department of Game and Inland Fisheries (VDGIF), Appalachian Trail Conservancy, and other agencies to promote usage of public areas and trails.
- Policy 1.1.10:** Preserve the County's heritage as illustrated in its historic structures and sites as educational tools, recreation areas, and economic development tools.
- Policy 1.1.11:** Continue cooperation with agencies involved with historic preservation.
- Policy 1.1.12:** Promote partnerships with private enterprise and/or civic organizations to promote heritage tourism through sites, buildings, and communities which have historic or picturesque qualities.
- Policy 1.1.13:** The County will continue to partner with each town to increase accessibility between downtowns and outdoor recreation destinations, restore downtown building facades to increase visitor appeal, further develop public parks and green spaces, to enhance tourism related economy.

Goal 2: The County will protect and preserve the water quality of the New River watershed, along with all its other natural and cultural assets, to maintain the citizen's quality of life and ensure future economic opportunities.

Objective 2.1: The County will identify ways to allow for appropriate recreational use of natural and cultural assets while also providing for their protection.

Policy 2.1.1: Explore innovative methods and partnerships to protect and promote the natural assets and river corridor for current and future residents and to enhance visitors experience.

Policy 2.1.2: The County will participate and support efforts by governmental and/or private entities to preserve and protect natural areas for recreational and cultural purposes.



INFRASTRUCTURE

GILES COUNTY
COMPREHENSIVE PLAN



Infrastructure

Goal: The County will seek to provide the residents and businesses in the County with adequate public facilities to meet the current and future needs of the county residents and to promote economic growth.

Objective 1: The County will continue to work with the Public Service Authority (PSA) and the five towns to provide adequate water and sewer service to meet current and future demands in an effective manner.

Policy 1.1: The County will coordinate potable water and sanitary sewer facilities extensions to areas where operations are feasible and efficient.

Strategy 1.1.1: Extend the provision of sewer service throughout Giles County, where feasible, using the New River Valley Regional Wastewater Study as a guide.

Policy 1.2: Partner and coordinate with the towns to extend existing water and sewer facilities to existing and future designated growth areas and areas where existing water and sewage treatment capabilities are in need of improvement.

Policy 1.3: Work with the towns, the Virginia Department of Health, and all available state, federal, and regional agencies in formulating a program for bringing nonconforming spring-fed public water systems up to state and federal standards.

Policy 1.4: New sewer facilities will be provided to serve areas that are identified as growth areas in the Future Land Use section to support planned growth.

Policy 1.5: Examine the possibility of allowing residential septic tank waste to discharge into public wastewater treatment facilities.

Policy 1.6: The County will explore options for collection and safe disposal of sewage from recreational vehicles.

Objective 2: The County will ensure adequate provision for solid waste collection, disposal and recycling.

Policy 2.1: Continue to maintain a safe and efficient solid waste program in Giles County.

Strategy 2.1.1: Implement an efficient solid waste collection program that provides adequate service in rural areas and addresses collection of recyclable materials.

Strategy 2.1.2: Develop ordinances that facilitate waste stream control, provide for reporting of recycled material volumes, promote recycling, and facilitate enforcement against illegal dumps.

Strategy 2.1.3: Develop a financial program that is sufficient to cover the operation and long-term capital requirements of the total waste management system.

Strategy 2.1.4: Implement strategy that will maintain the mandated recycling rate goal.

Strategy 2.1.5: Require all County departments and agencies to implement internal recycling programs and modify procurement policies to promote the purchase of recycled products.

Strategy 2.1.6: Require that the Giles County vehicle fleet participate in state programs aimed at recycling used tires and oil.

Strategy 2.1.7: Work with the Renew the New Committee along with PSA Recycling Coordinator to develop programs that make all County citizens aware of the need to recycle and how to recycle.

Strategy 2.1.8: The County will continue to explore opportunities to expand the recycling program.

Objective 3: The County will promote and encourage provision of other needed facilities or infrastructure to give the community a competitive advantage and improve the quality of life

Policy 3.1: Support efforts to expand broadband and wireless telecommunication services to areas of the County that are not served.

Policy 3.2: Encourage incorporation of broadband infrastructure in new developments.

Policy 3.3: Support extension of natural gas services countywide.

Giles County
VIRGINIA'S MOUNTAIN PLAYGROUND™



TRANSPORTATION

GILES COUNTY COMPREHENSIVE PLAN

Photo by Night Watchman Photography

Transportation

Goal: Promote and encourage a safe, convenient and efficient transportation network that serves the needs of residents and visitors, and movement of goods.

Objective 1: The County will actively participate and cooperate with VDOT in Transportation Planning so that an adequate, safe, efficient network is maintained.

Policy 1.1: The County will utilize VDOT's access management guidelines to minimize vehicle conflict points at intersections while at the same time allowing reasonable access to the towns, community and area businesses.

Policy 1.2: Giles County is opposed to the construction of Interstate 73 through Giles County and the Board of Supervisors has passed a resolution in opposition to this route. The County encourages VDOT to find other acceptable alternatives and recommends the following provisions:

Strategy 1.2.1: If Interstate 73 is constructed through Giles County, then it should be aligned with Virginia Highway 100, maintaining Appalachian Regional Commission design standards.

Strategy 1.2.2: If Interstate 73 is aligned on US Highway 460, then it should be maintained at ARC design standards, with interchanges at the following locations:

- Rt. 700
- Rt. 730
- The Towns of Pembroke, Pearisburg, Narrows, Rich Creek and Glen Lyn
- Rt. 42
- Major Secondary Routes

Policy 1.2.3: The County continues to support the completion of the four-lane of US Rt. 100 South to the Pulaski County line.

Objective 2: The County will ensure that transportation planning and decisions are coordinated with land use and economic development goals.

Policy 2.1: The County will continue seeking to upgrade and improve secondary roads to meet transportation needs along these roads.

Policy 2.2: The County will continue to support the designation of scenic byway for appropriate roads.

Policy 2.3: The County will continue to work with VDOT to develop and improve Park and Rides in appropriate locations.

Policy 2.4: The County will evaluate parking needs and develop parking facilities and/or management.

Policy 2.5: The County will explore coordination with private and/or public sector to provide parking during high demand season.

Policy 2.6: The County will expand accessibility to the New River by creating a network of walkways and bikeways along the river where feasible.

Policy 2.7: The County will support each town and community with transportation projects that connect downtowns to outdoor recreation anchors, by incorporating appropriate facilities for vehicles, pedestrians, and cyclists.

Strategy 2.7.1: *The County will evaluate street, bicycle and pedestrian linkages between the New River and the Towns and enhance these networks to connect the New River to the Towns to improve connectivity between these areas.*

Objective 3: The County will strive to provide a variety of transportation options.

Policy 3.1: The County will examine ways to provide different transportation options to residents and promote alternative modes of transportation.

Strategy 3.1.1: Support regional public transit options, particularly with respect to special populations within the County such as the elderly, handicapped, and unemployed.

Strategy 3.1.2: The County will encourage and support passenger rail service to the New River Valley.

Strategy 3.1.3: Develop bicycle and pedestrian facilities where feasible, in conjunction with upgrades of existing roads and construction of new roads to enhance bicycling and pedestrian environment.

Strategy 3.1.4: Continue County participation in the New River Valley Airport Commission and encourage development of the Airport to serve corporate users and support industrial development.



EDUCATION

GILES COUNTY COMPREHENSIVE PLAN

Education

Goal: Provide opportunity for all students to receive high quality education that will encourage and challenge them to achieve their best and build a better community.

Policy 1: The County will continue to meet and exceed the state and national levels of academic achievement.

Strategy 1.1: All schools will continue to earn their state accreditation.

Strategy 1.2: Explore the option to raise the salary of teachers to the national average to hire and retain high quality teachers.

Strategy 1.4: Promote staff development program that prepares teachers to become nationally certified.

Policy 2: Continue to improve the quality and diversity of educational classes and programs for all students who are either pursuing college or jobs.

Strategy 2.1: Increase the number of college level courses in high school curriculum to help better prepare students for the challenges of college.

Strategy 2.2: Conduct needs assessment to determine our future facility renovation needs, including the School Board's office.

Strategy 2.3: School facilities will be properly maintained for maximum efficiency.

Strategy 2.4: Enrich career counseling services to help students make well informed decisions and excel in their pursuits.

Policy 3: Promote educational and vocational programs in partnerships with employers, community and higher education leaders to meet evolving needs of industries and businesses.

Policy 4: Develop programs to attract and retain Giles County graduates to the area.

Strategy 4.1: Actively recruit Giles County graduates during their high school career and upon completion of College, Technical Training or Military Service by:

- *Incorporation of business partnership agreements and student Scholarships which yield full time employment opportunities upon completion of high school, technical training or college degree.*
- *Apprenticeship programs incorporated in the Giles Technology Center, Giles High School and Narrows High School.*
- *The Development of a combined branch campus with New River Community College and the Giles Technology Center.*

Policy 5: Ensure that regardless of age, every citizen in Giles County has an equal opportunity to excel in Giles County Schools and their programs.

Strategy 5.1: Develop and implement programs for various age groups to provide support to enable them to attain academic achievement.

Policy 6: Expand and improve communication between parents, teachers, administrators, the school board and the superintendent.

Strategy 6.1: Continue and expand programs to inform all citizens of the achievements and offerings of the Giles County School System and vigorously promote the importance of educational excellence in today 's society by:

- *Continuing the personnel selection teams in the selection of all professional and para professional staff members*
- *Employing sufficient administrative and supervisory staff to ensure compliance with Giles County School Public Schools Mission Statement*
- *Continuing and expanding information about Giles County Schools on the Internet (i.e. School division web page, Facebook and Twitter).*

Policy 7: The County will continue to promote coordination, and sharing of data and information with the School Board and all the Towns by meeting at least quarterly at the intergovernmental meeting.

Policy 8: Continue to promote collaborations of professionals, advocates, business and community members to improve and expand access and affordability to early childhood education.



COMMUNITY SERVICES

GILES COUNTY COMPREHENSIVE PLAN

Community Services

Goal: Preserve and enhance the quality of life of county citizens and enhance self-reliance of community members by working towards better understanding the issues, and increasing accountability and impact by becoming consumer focused, data driven, and outcome based.

Objective 1: Promote a healthy community by providing quality services, developing and maintaining ongoing programs, and supporting education and outreach programs.

Policy 1.1: The County will collaborate and cooperate with partner agencies to pursue alternative funding and reimbursement to provide needed services to the citizens.

Policy 1.2: The County will collaborate with the County Health Department, the New River Community Services, the New River Community Services Board and/or other national, state and local agencies to better identify and understand health related issues throughout the County.

Policy 1.3: Partner with the NRV Regional Commission and the New River Health District to establish an interjurisdictional task force to assess and monitor health related issues in both Giles County and the New River Valley.

Policy 1.4: Consider healthcare as a key component in the economic development of the county and assist in the development and sustainability of needed healthcare facilities.

- Policy 1.5:** Encourage and support the Community Service Programs and partner agencies to evaluate the needs of the community, and revise and add programs to meet these needs.
- Policy 1.6:** Continue to partner and support the New River Health District programs and services in promoting public health and education.
- Policy 1.7:** The County will continue to utilize technology and data analysis to identify the area's needs.
- Policy 1.8:** The County will continue to develop and encourage volunteer opportunities in community projects that promote community health. Examples of such programs include renew the new clean-ups and Ramp-n-Roads.
- Policy 1.9:** Explore opportunities to develop public-private partnerships and use volunteers to help provide cost effective facilities and services.
- Policy 1.10:** The County will continue to support the excellent volunteer organizations in the County that are providing services.
- Policy 1.11:** Encourage the provision of high quality and timely emergency response services to all County residents.
- Strategy 1.11.1: Continue to support fire, rescue and ambulance services.*
Strategy 1.11.2: Encourage the continuance of the Giles County Emergency Services Oversight Committee.
- Policy 1.12:** The County will coordinate and cooperate with other neighboring municipalities to provide effective fire and emergency services.
- Policy 1.13:** Evaluate with Towns the potential of establishing a Countywide library system.
- Policy 1.14:** Continue to provide animal control and animal shelter services in Giles County.

- Strategy 1.14.1: Support and encourage the efforts of volunteers and volunteer organizations, such as Giles County Animal Rescue, in assisting with care and adoption of shelter animals.*
- Strategy 1.14.2: Explore feasibility of and funding options for the future improvements to, or relocation of, the existing animal shelter facility.*

Giles County
VIRGINIA'S MOUNTAIN PLAYGROUND™



GOVERNMENT ADMINISTRATION

GILES COUNTY COMPREHENSIVE PLAN

Photo by Night Watchman Photography

Government Administration

Goal: The County will strive to provide high quality governmental services and efficient local government management.

Objective 1: *Establish efficient and effective processes to address comprehensive planning, inter-governmental coordination and citizen services.*

Policy 1.1: Develop procedures for implementing and amending the Comprehensive Plan.

Policy 1.2: To keep the Comprehensive Plan current and effective, the County will conduct periodic review of the plan, study of current issues and will take action when necessary.

Policy 1.3: Land Use Regulations will be updated and modified to achieve the goals of the comprehensive plan, and to address current issues and changes.

Policy 1.4: Amendments to the Zoning Map will be consistent with the guidelines of the Comprehensive Plan.

Policy 1.5: The County will maintain its commitment to providing the highest quality of administration and service by addressing deficiencies and minimizing disruptions.

Policy 1.6: Implement procedures to ensure that development proposals are coordinated with availability of necessary services at the time of issuing development permits.

Policy 1.7: New developments will be required to connect to water and sewer facilities where such services are readily available.

- Policy 1.8:** County will continue strengthening inter-agency and inter-department/intra-agency coordination by establishing an annual or semi-annual meeting for planning, coordinating and discussing items such as outdoor recreation, public services, transportation and land use compatibility.
- Policy 1.9:** Provide timely and courteous response to citizen's complaints about services and track trends in complaints as to type of service, frequency and location.
- Policy 1.10:** The County will explore new technology to facilitate better dissemination of public information.
- Policy 1.11:** Whenever possible, support government service through rate structures that allow the service to be self-supporting and the beneficiaries of the service bear the cost of service provision.
- Policy 1.12:** When allowing federal agencies to make land swaps to correct irregular boundaries or tracts, disallow Giles County lands from being removed from the tax base.

BACKGROUND DATA
AND ANALYSIS

GILES COUNTY
COMPREHENSIVE PLAN

Photo by Night Watchman Photography

Land Use Data Analysis

Existing Land Use

The existing land use inventory was provided by the County's Tax Assessors' office. The land use codes assigned to each property are categorized as single-family residential (urban), single-family residential (suburban), multi-family residential, commercial/industrial, Agricultural /underdeveloped (20 acres to 99 acres), Agricultural /underdeveloped (over 99 acres), conservation, exempt and not classified. **Error! Reference source not found.**⁷ provides the acreage and percent of total area and unincorporated area for the various Existing Land Use classifications.

Table 7: Existing Land Use Classification

Existing Land Use Classification	Total County Area		Unincorporated Area	
	Acreage	Percentage	Acreage	Percentage
Single-family residential (urban)	1,897	0.8%	153	0.1%
Single-family residential (suburban)	26,892	12.0%	26,490	12.0%
Multi-family residential	42	0.0%	13	0.0%
Commercial/Industrial	5,453	2.4%	4,911	2.2%
Agricultural/underdeveloped (20 acres to 99 acres)	53,719	23.9%	53,360	24.2%
Agricultural/underdeveloped (over 99 acres)	63,449	28.2%	63,331	28.7%
Exempt	2,826	1.3%	2,284	1.0%
Conservation	66,301	29.5%	66,211	30.0%
Not Classified	4,021	1.8%	3,835	1.7%

Zoning Districts

In Giles County, all lands are classified into zoning districts to regulate land use, size, coverage of lots, height, siting of buildings, density and intensity of developments. Table 8 lists all the zoning districts within the County and acreage under each zoning district. The patterns on the Future Land Use Map very closely resemble the patterns of the zoning districts.

Table 8: Giles County Zoning Districts

Giles County Zoning District			
District	Label	Acres	% of Total Area
Agriculture District			
Agricultural and Limited Uses	A-1	71,641.98	32.49%
Rural Residential/Agricultural	RRA-1	60,958.19	27.65%
		132,600.17	60.14%
Commercial Districts			
Community Center Business	B-1	18.93	0.01%
General Business	B-2	180.06	0.08%
Mixed Business/Residential	B-3	251.29	0.11%
		450.28	0.20%
Conservation District			
Conservation	C-1	82,177.71	37.27%
Industrial District			
General Industrial	I-1	2,306.58	1.05%
Light Industrial	M-1	116.32	0.05%
		2,422.91	1.10%
Residential Districts			
Residential Limited	R-1	1,924.74	0.87%
General Residential	R-2	212.00	0.10%
Medium Density Residential	R-3	18.05	0.01%
Planned Development	R-4	229.96	0.10%
Mobile Home	MH-1	68.92	0.03%
		2,453.67	1.11%
Public District			
Solid Waste Management Facilities	SWM-1	391.63	0.002
No Zoning		4.83	0

Giles County: Zoning 2017

Figure 13: Giles County Zoning Map

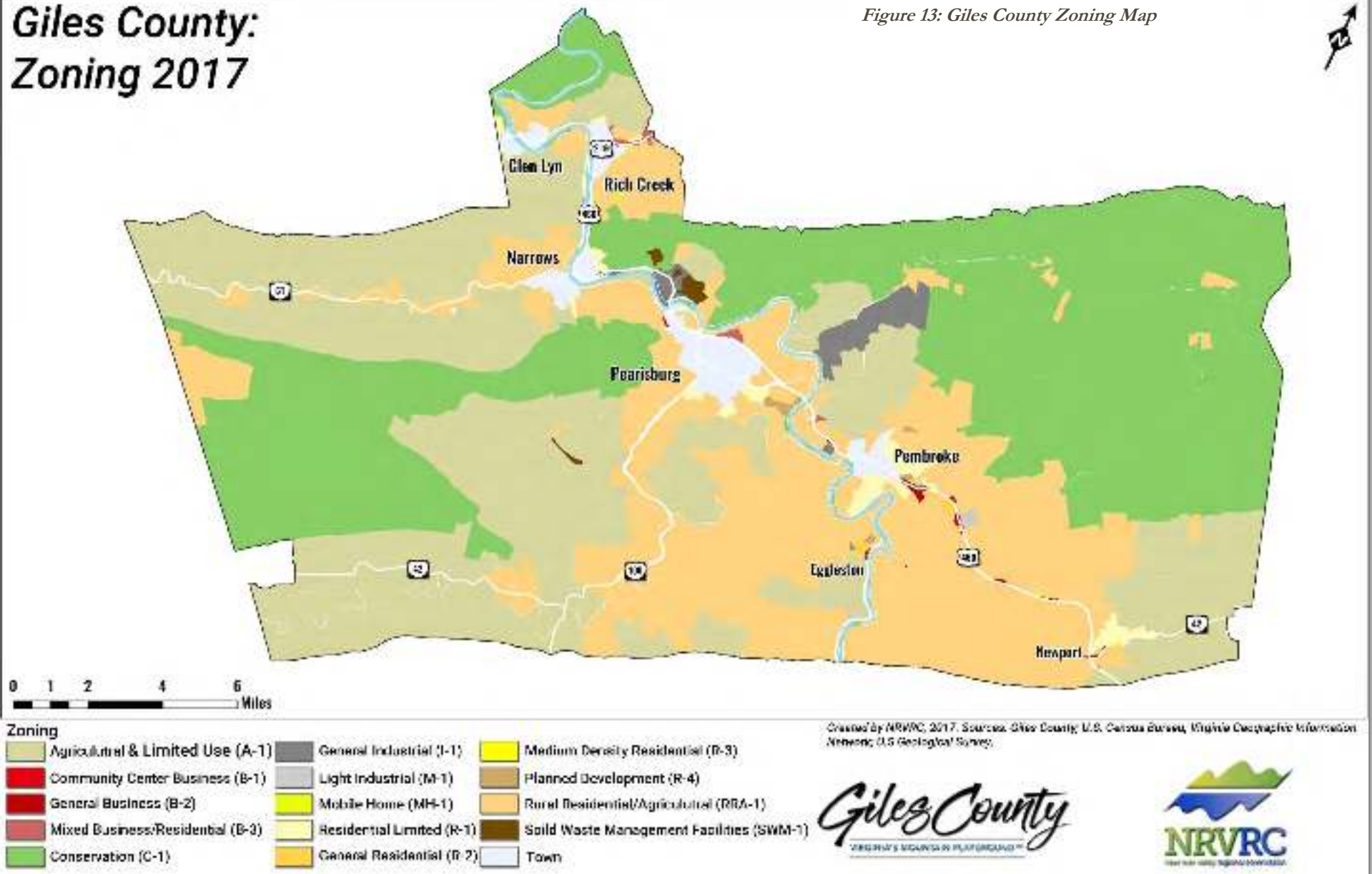


Table 9: Matrix of Giles County Future Land Use and Zoning Districts

	Giles Zoning Districts													
Giles Future Land Use Categories	A-1	RRA-1	R-1	R-2	R-3	R-4	MH-1	B-1	B-2	B-3	I-1	M-1	C-1	SWM-1
Agricultural														
Residential														
Commercial														
Industrial														
Conservation														
Solid Waste Management														

There is currently only one residential land use category that allows R-1, R-2, R-3 and R-4 zoning districts which range from low density, medium density to high density residential. The County should use three (3) tiers of residential density land use category that could further distinguish the different type of densities.

Rural Residential/Agricultural district appears to be the most predominant residential use. The amount of lands in this district is approximately 60,958 acres and represents 27.65 % of all lands within the County (Table 8). According to American Community Survey 2015 there are total of 8,327 housing units of which 6,434 are single unit detached dwellings, 1,274 mobile homes and the rest multi-dwelling units. There is adequate residential land use to accommodate existing and future projected population growth.

In Giles County, businesses are generally concentrated along the major roads. There have been changes in land uses along major roadways and it is recommended that adjustment of the Future Land Use Map is needed to reflect existing conditions and where current use is no longer appropriate due to changing conditions and demands. The changes will help guide land use decisions for orderly and quality growth and development.

In the Agriculture district the minimum lot size is 2 acres. From GIS analysis, it was observed that there are 14,945 parcels in Giles County out of which approximately 9,931 are less than 2 acres. These lots are predominantly along corridors such as US 460, SR 42, SR 100, SR 61 and US 219 and in the Eggleston and Newport areas

Drive-by surveys of Route US 460 indicate that there are many existing commercial and light industrial uses in these areas. These uses were observed along US 460 from near the Montgomery County line to Kow Camp Road. The residences along this corridor are located in close

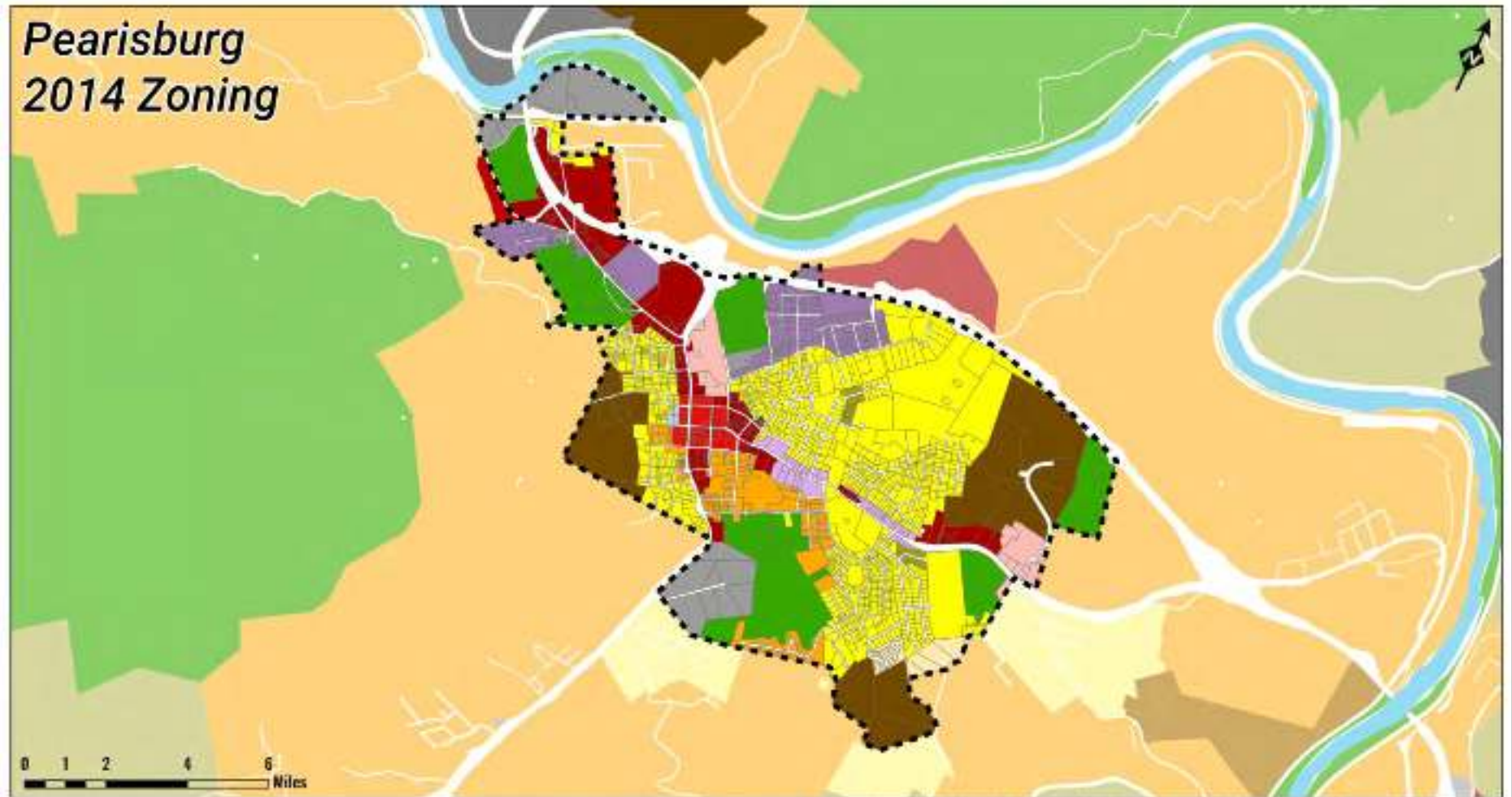
proximity of each other. According to the Future Land Use Map the land use along this stretch of the road is primarily agriculture. From GIS analysis, it can be observed that there are 379 parcels along this stretch of road of which approximately are less than or equal to 2 acres.

Similar survey of portions of SR 100 shows that there are existing commercial and public uses. These uses are located along Route 100 from the Pearisburg Town Limit to Propectdale Road. Also, there are 266 parcels within this stretch which are less than or equal to 2 acres.

Survey of SR 42 heading west towards Craig County shows that there is a mixture of commercial, public and residential uses along this road from the intersection of SR 460 to Clover Hollow Road. There are about 58 parcels along this stretch of road with lot sizes ranging from 0.332 to 69.386 acres and about 44 parcels less than 2 acres. It appears that the area has undergone substantial changes and the future land use designation may need to be studied and updated.

Review and analysis of zoning designations of properties adjacent to the Town of Pembroke, Narrows and Rich Creek indicate that commercial and industrial uses are concentrated near the towns. This analysis was also performed to determine compatibility of uses across the county/town boundaries and to identify the compatible and desired future uses in areas adjacent to the Towns.

Pearisburg 2014 Zoning



Giles County 2017 Zoning

- Agricultural & Limited Use (A-1)
- General Business (B-2)
- Mixed Business/Residential (B-3)
- Conservation (C-1)
- General Industrial (I-1)
- Light Industrial (M-1)

- Residential Limited (R-1)
- Planned Development (R-4)
- Rural Residential/Agricultural (RRA-1)
- Solid Waste Mgmt Facilities (SWM-1)

Pearisburg 2014 Zoning

- AR-1
- B-1
- B-2
- B-3
- M-1
- R-1
- R-2
- R-3
- R-4
- R-5
- R-6
- R-7
- R-8

Created by NRVRC, 2018. Sources: Giles County; Town of Pearisburg; U.S. Census Bureau; Virginia Geographic Information Network; U.S. Geological Survey.

Giles County
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Figure 14: Zoning Districts in Town of Pembroke and adjacent areas

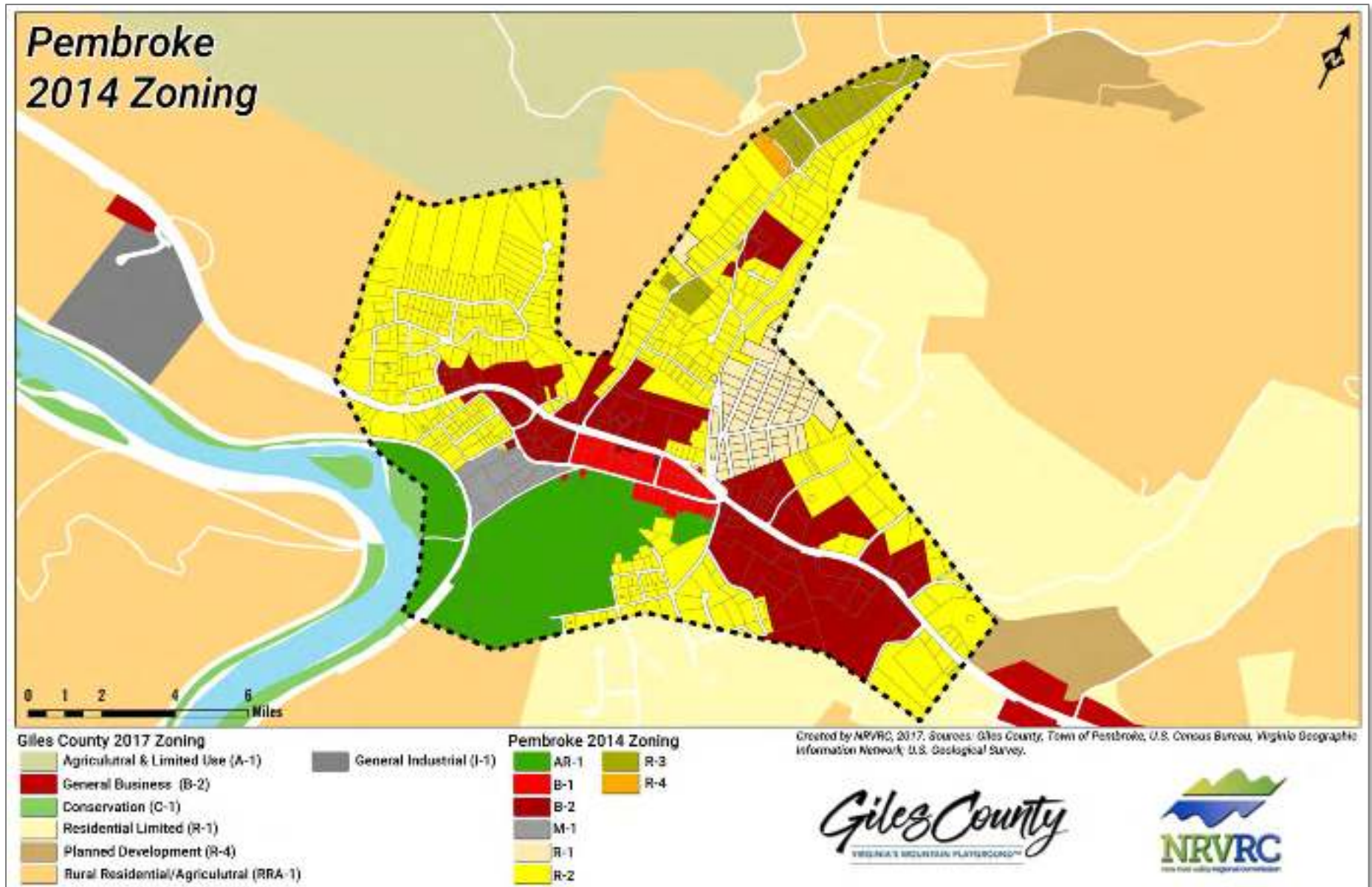


Figure 15: Zoning District in Narrows and adjacent areas

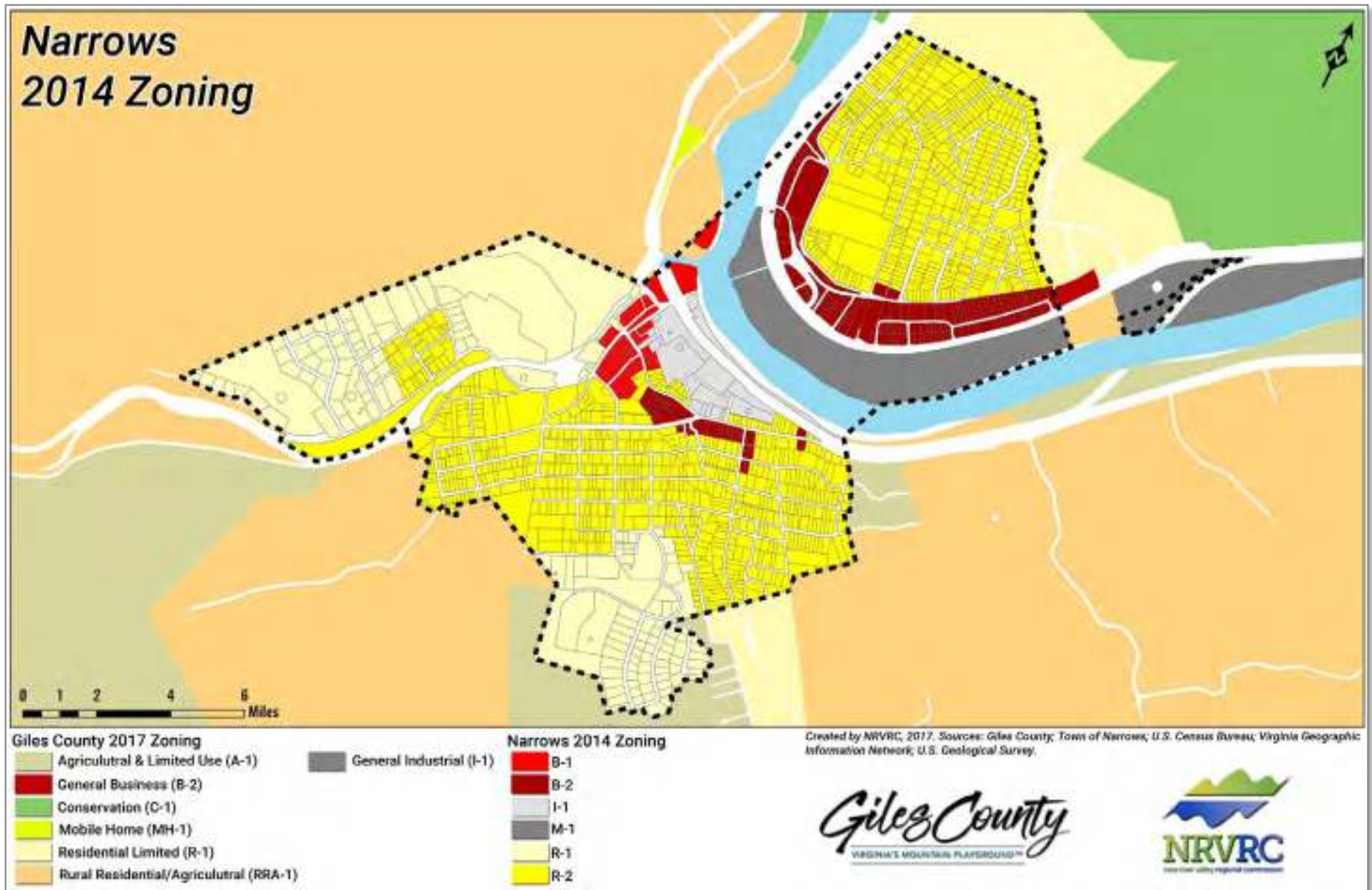
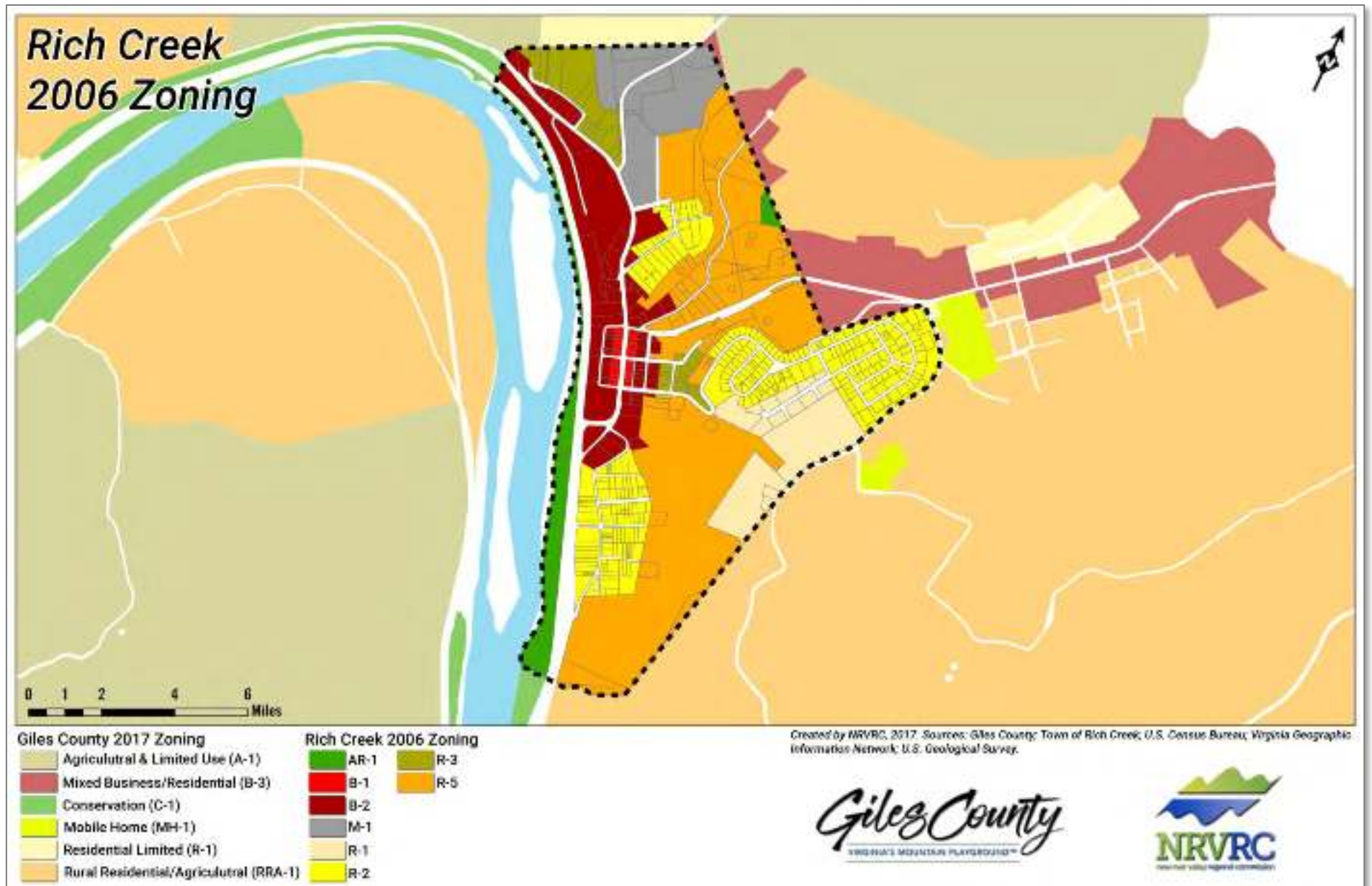


Figure 16: Zoning Districts in Rich Creek and adjoining areas

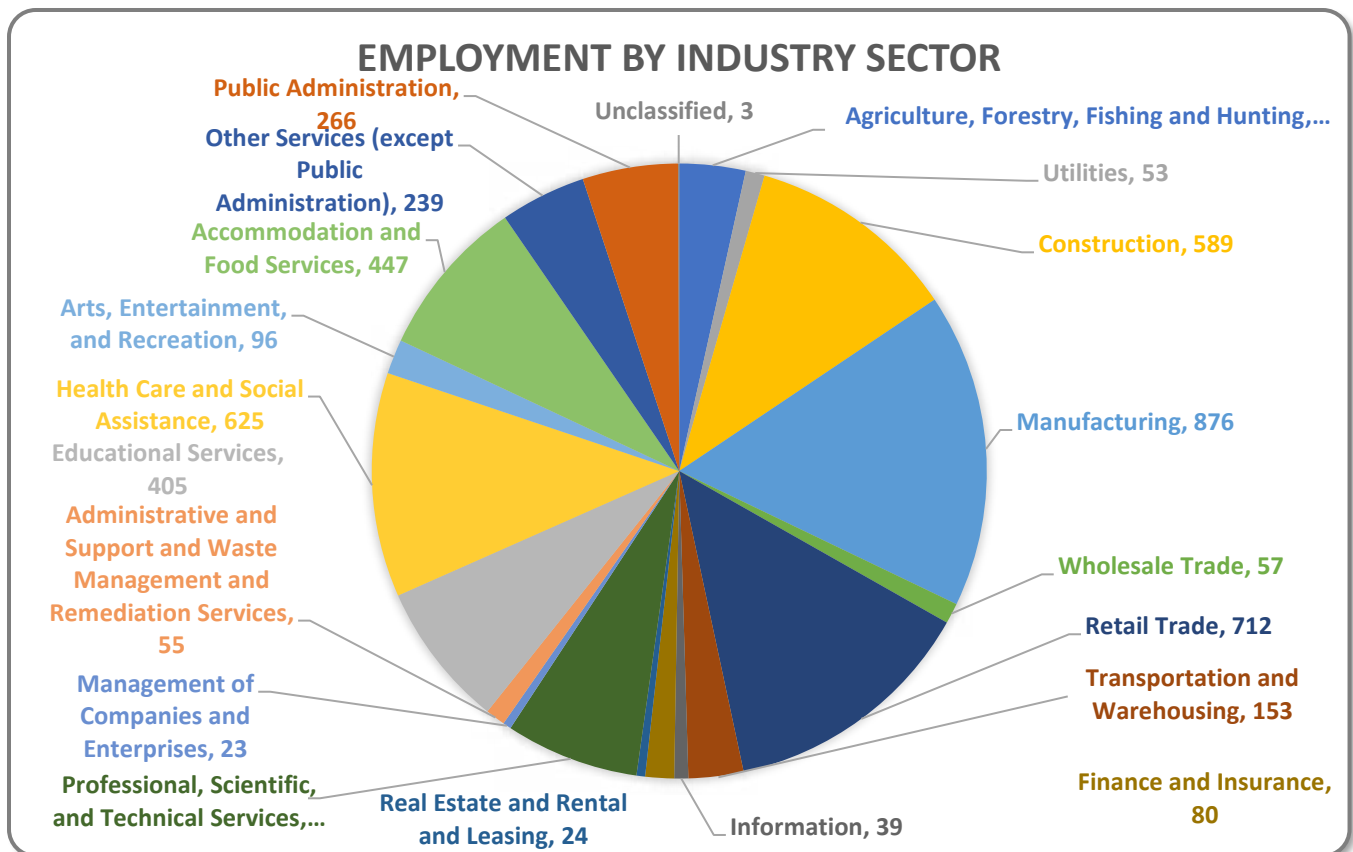


Economic Data Analysis

Employment

Historically the economy of Giles County has been mostly tied to manufacturing, but losses in some major employment sectors has negatively impacted the County. The employment sectors that currently provide the highest number of county employment include: manufacturing, retail, health and social services, and education. Figure 17 (below) identifies employment by industry sectors.

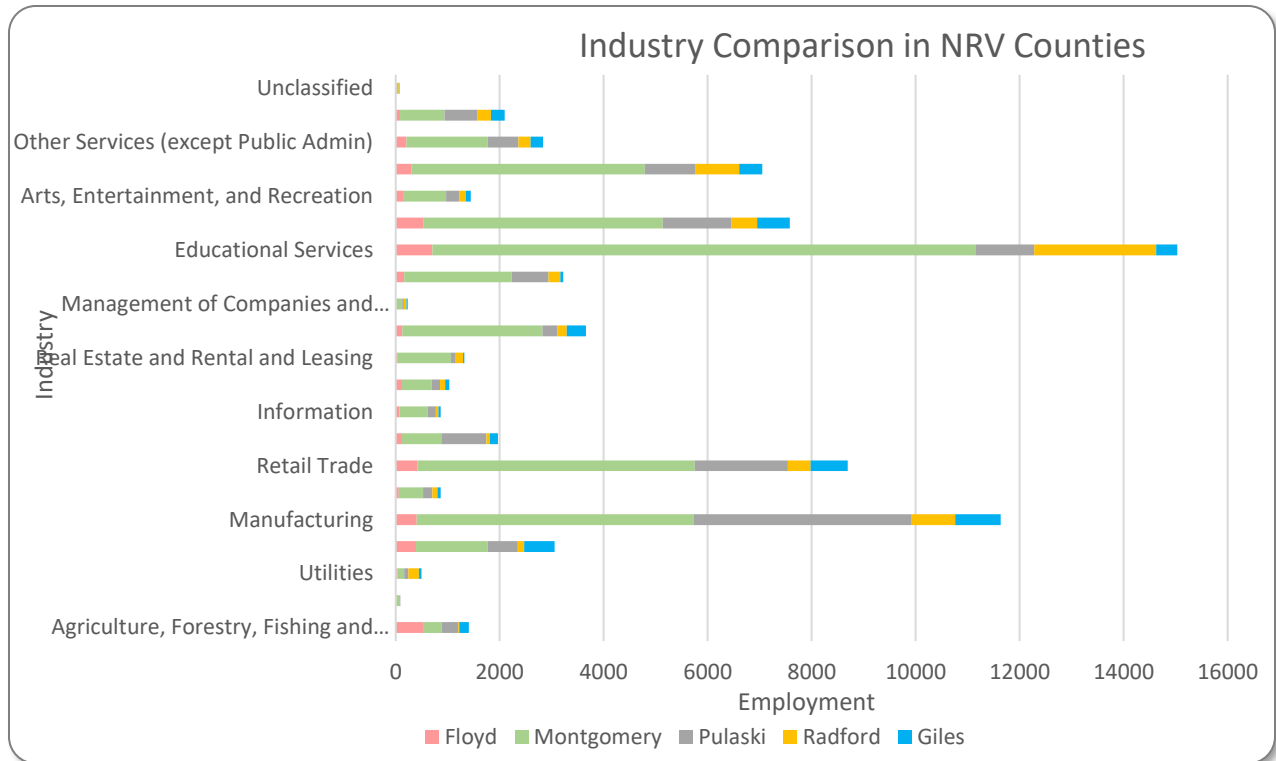
Figure 17: Employment by Industry Sector



Source: U.S. Census 2011-2015 American Community Survey 5- Year Estimate

The higher employment levels in the education, health and social service sectors are very similar to the other counties within the NRV region, which could be attributed to Giles County School Board, Virginia Tech and other higher education institutions.

Figure 18: Industry Comparison in NRV Counties



Source: U.S. Census 2011-2015 American Community Survey 5- Year Estimate

Major Employers

Some of the major employers in Giles County are shown in Figure 19 and listed in Table 10. Some of the largest employers in Giles County are Celanese, Giles County Government and Giles County School Board. Recently, some employers closed their operations in Giles County, including: AEP Glen Lyn was closed in 2015, and GE Fairchild recently closed in 2016. Nanosonic moved to Giles County in 2010.

Figure 19: Giles County Major Employers



Table 10: Major Employers in Giles County

Major Employers in Giles County							
No.	Employer	No.	Employer	No.	Employer	No.	Employer
1	Jennmar Corp	6	Lhoist North America	11	Fresenius Medical Care	16	Patrick Enterprises Inc
2	Eastern Gun & Supply	7	Giles County School Board	12	Wal-Mart	17	Mountain Lake Lodge
3	William G. Simmons Company	8	Giles County Administration	13	Giles County Country Club	18	Nano Sonic Inc
4	SEMCO	9	Carillion Giles Community Hospital	14	Tangent Outfitters		
5	Celanese Acetate	10	Universal Forest Products	15	Southern Tank Transport		

Labor Force Participation

Labor force in Giles County was 54.95% in 2000, it increased to 56% in 2010. It has remained at around 57% since 2011 as shown in Table 11. The data also shows that males are more prominent in the labor force. The gap between male/female workforce had been closing until 2010, as shown in Figure 23. In following years from 2010 to 2015, the female labor participation rate has been between 51% and 53%. At 63.2%, Floyd County has the highest total labor force participation in the New River Valley. Giles County labor participation rate has been slightly lower than Pulaski and Montgomery County as shown in Figure 24.

Table 11: Giles County Labor Force Participation

Giles County Labor Force Participation (1980-2010)				
	1980	1990	2000	2010
Persons 16 years and older	13,506	13,229	13,406	13,905
Employed Persons 16 years and older	7,158	7,652	7,367	7,773
Total Participation Rate	53.00%	57.84%	54.95%	56%
Males 16 years and older	6,523	6,348	6,442	6,782
Employed Males 16 years and older	4,193	4,226	4,022	4,056
Total Male Labor Participation Rate	64.28%	66.57%	62.43%	59%
Females 16 years and older	6,983	6,881	6,964	7,123
Employed Females 16 years and older	2,965	3,426	3,345	3,717
Total Female Labor Participation Rate	42.46%	49.79%	48.03%	51%

Source U.S Census

Figure 20: Giles County Labor Force Participation (1980-2010)

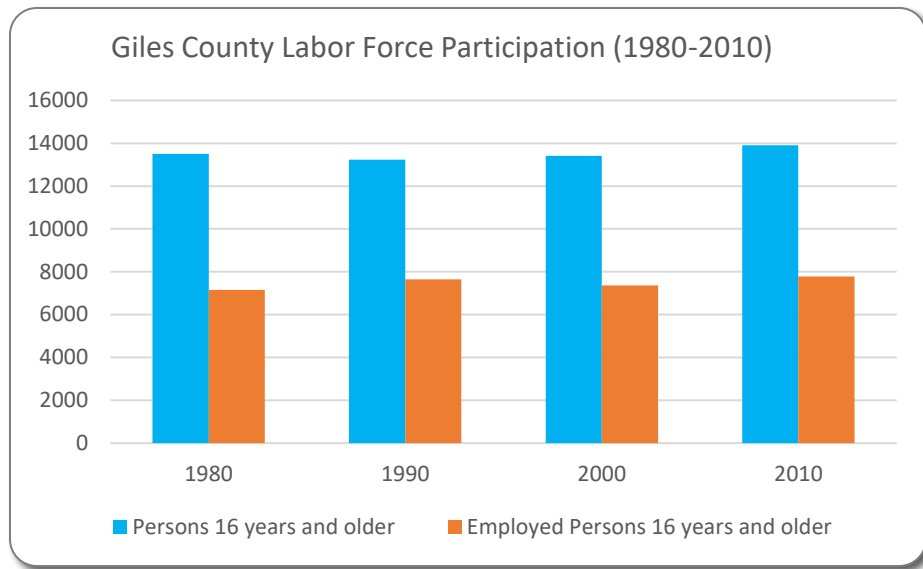


Figure 21: Giles County Labor Gender (1980 -2010)

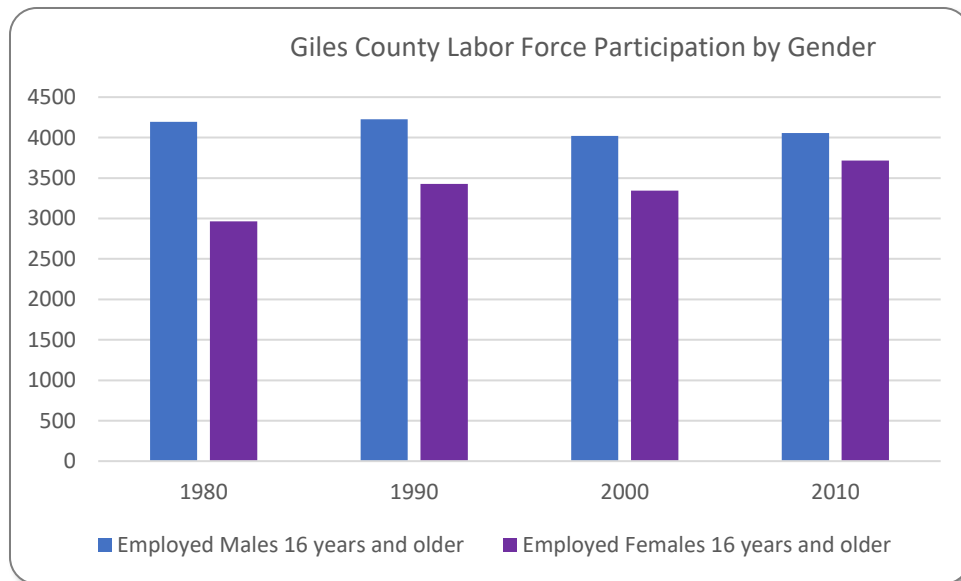


Table 12: Giles County Labor Force Participation

Giles County Labor Force Participation (2011-2015)						
	2010	2011	2012	2013	2014	2015
Persons 16 years and older	13905	13922	13845	13818	13820	13733
Employed Persons 16 years and older	7773	7938	7955	7932	7860	7908
Total Participation Rate	56%	57%	57%	57%	57%	57.50%
Males 16 years and older	6782	6766	6728	6701	6656	6669
Employed Males 16 years and older	4056	4120	4207	4217	4190	4294
Total Male Labor Participation Rate	59%	60%	62%	63%	63%	64%
Females 16 years and older	7123	7156	7117	7117	7164	7064
Employed Females 16 years and older	3717	3818	3748	3715	3670	3614
Total Female Labor Participation Rate	51%	53%	52%	52%	51%	51%

Source: U.S. Census 2011-2015 American Community Survey 5- Year Estimate

Figure 22: Giles County Labor Force Participation (2010-2015)

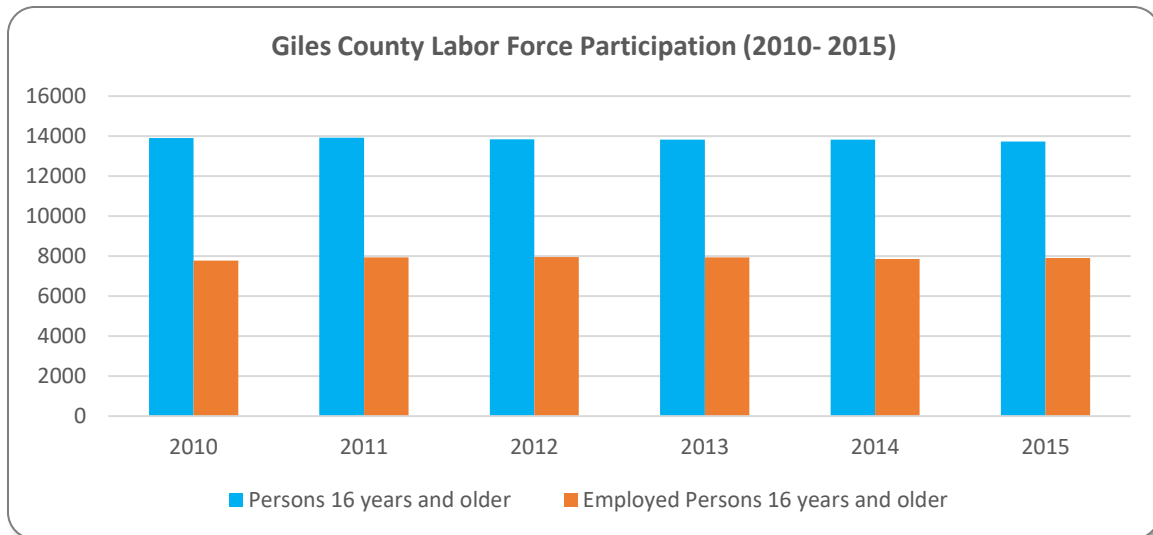


Figure 23: Giles County Labor Force participation by Gender (2010-2015)

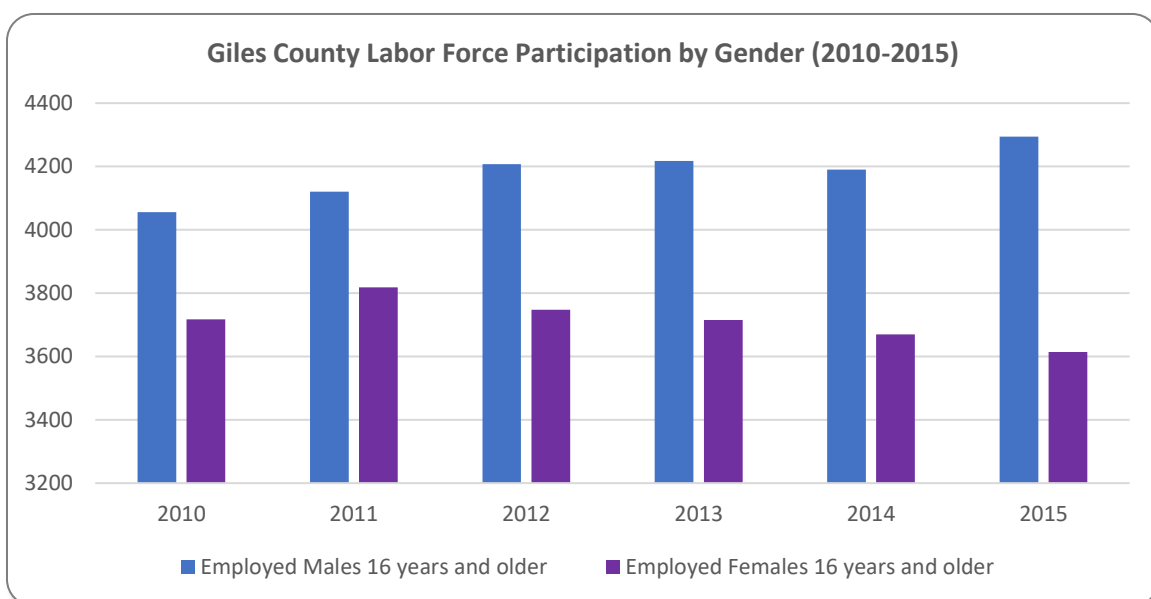


Table 13: Total Labor Force Participation in New River Valley

Total Labor Force Participation						
	Floyd	Giles	Montgomery	Pulaski	Radford	Virginia
2010	63.4%	55.9%	59.7%	59.0%	52.9%	67.4%
2011	63.0%	57.0%	59.9%	58.9%	52.5%	67.2%
2012	62.9%	57.5%	59.7%	57.0%	51.1%	67.1%
2013	62.9%	57.4%	58.6%	57.8%	54.4%	66.7%
2014	63.0%	56.9%	58.2%	58.2%	50.4%	66.4%
2015	63.2%	57.6%	58.4%	58.0%	49.8%	66.3%

Figure 24: Total Labor Force Participation in New River Valley

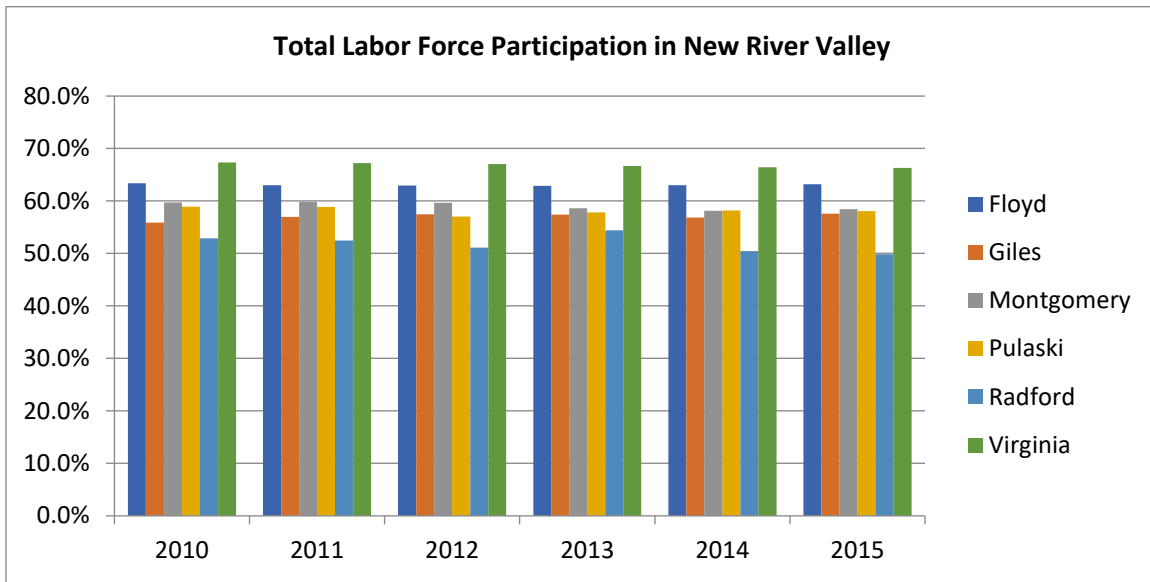


Table 14: Female Labor Force Participation in New River Valley

Female Labor Force Participation in New River Valley						
Year	Floyd	Giles	Montgomery	Pulaski	Radford	Virginia
2010	56.2%	52.2%	58.7%	54.7%	47.2%	62.0%
2011	55.0%	53.4%	59.5%	55.8%	46.4%	61.9%
2012	55.8%	52.7%	59.7%	54.2%	44.8%	61.9%
2013	54.9%	51.8%	58.1%	55.8%	49.3%	61.6%
2014	56.7%	51.2%	57.2%	56.5%	47.5%	61.4%
2015	57.0%	51.2%	57.7%	56.2%	49.0%	61.3%

Figure 25: Female Labor Force participation in New River Valley

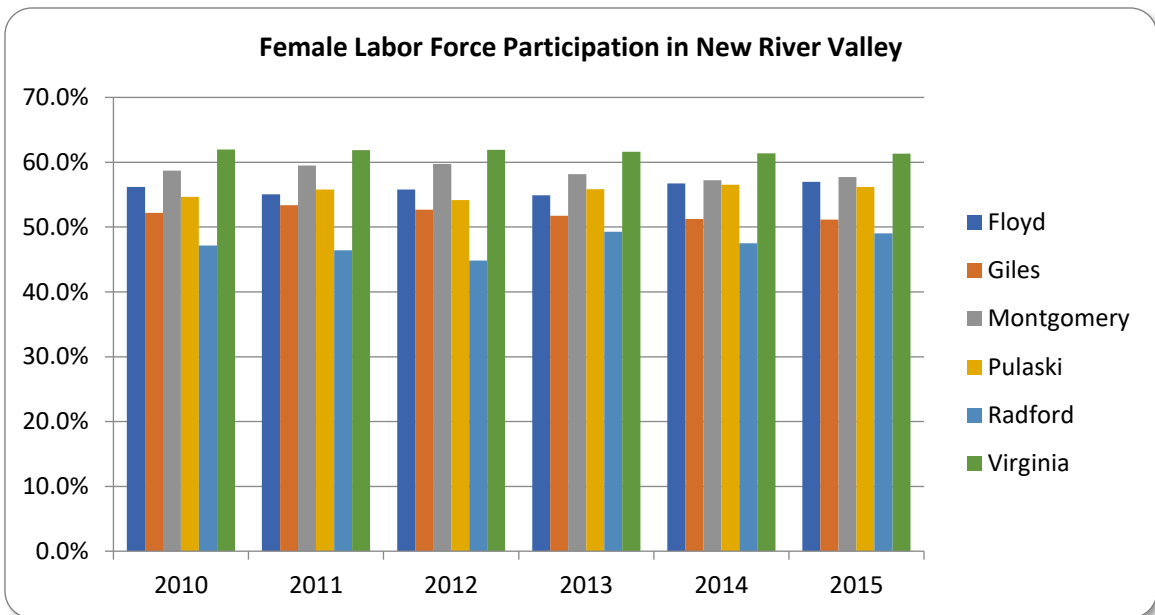
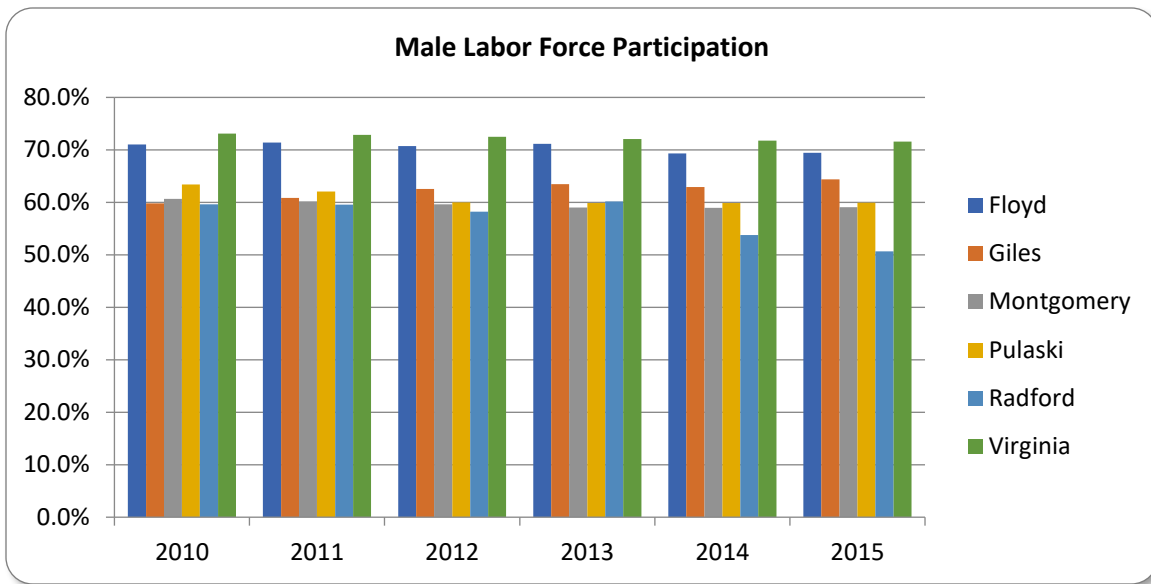


Table 15: Male Labor Force Participation in New River Valley

Male Labor Force Participation in New River Valley						
Year	Floyd	Giles	Montgomery	Pulaski	Radford	Virginia
2010	71.0%	59.8%	60.7%	63.4%	59.6%	73.1%
2011	71.4%	60.9%	60.2%	62.1%	59.5%	72.9%
2012	70.7%	62.5%	59.6%	60.0%	58.2%	72.5%
2013	71.2%	63.5%	59.0%	59.9%	60.2%	72.1%
2014	69.3%	63.0%	59.0%	59.9%	53.8%	71.7%
2015	69.4%	64.4%	59.1%	60.0%	50.7%	71.6%

Figure 26: Male Labor Force Participation



Unemployment

The average unemployment rate in Giles County significantly increased from 5.4% in 2008, to 9.1% in 2009. The unemployment rate change may have been largely attributed to the 2007-2009 recession. Similar increases were also experienced by the surrounding NRV localities and the state of Virginia, as shown in the unemployment charts below. Regional unemployment data also indicates that the rate has been slowly decreasing from 9.6% in 2010, to 5.1 % in 2015, as shown below in Table 16 and figures below.

More recent data indicated a slight increase of unemployment rate from 5.1% in 2015, to 5.2% in 2016. The unemployment rate has not returned to its pre-recession value, which was 4.5% in 2007. In comparison to the neighboring counties of Floyd, Montgomery, Pulaski and City of Radford, Pulaski and Giles had the highest unemployment rate during the recession. In contrast, Montgomery had the lowest.

Table 16: Regional Unemployment

	Floyd			Giles			Montgomery			Pulaski			Radford			Virginia		
Year	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN
2000	3.7	4.8	3.1	4.3	7	3.2	2.6	3.4	1.8	4.6	9.6	2.6	3.3	4.4	2.4	2.3	2.6	2.1
2001	4.3	4.9	3.8	5.7	6.7	4.4	3.3	4.1	2.6	7.1	11.8	5.2	4.2	4.9	3.3	3.2	4.2	2.3
2002	4.4	5.5	3.7	6.1	7.9	5.1	4.0	4.7	3.3	6.3	11.6	4.3	5.3	6.1	4.5	4.2	4.3	4.2
2003	4.0	5	3.3	5.4	7.3	4.4	3.8	4.6	3.3	6.1	10.5	4.6	5.3	6.2	4.3	4.1	4.2	4
2004	4.1	5.1	3.4	5.1	6.3	3.9	3.7	4.4	3.2	6.0	7.7	4.4	5.3	6.9	4.2	3.8	4	3.6
2005	3.7	4.5	3.1	5.2	6.1	4.2	3.6	4.3	2.9	4.5	5.5	3.6	4.5	5.4	3.9	3.6	3.7	3.3
2006	3.3	3.9	2.7	3.8	4.5	2.8	3.1	3.7	2.4	3.9	6	3	3.8	4.7	2.9	3.1	3.2	3
2007	3.5	4.8	3	4.5	5.3	3.7	3.2	3.7	2.9	5.5	7.1	4	4.0	5.2	3.3	3.1	3.5	2.9
2008	4.4	6	3.1	5.4	7.2	4.2	4.1	5	3.1	6.4	8.2	4	5.3	7.1	3.7	4.1	5.3	3.5
2009	7.6	9.1	6.9	9.1	10.1	8.4	7.0	7.9	6.4	10.9	13.3	8.5	8.9	10.8	7.7	6.8	7.3	5.7
2010	7.0	8.2	6.3	9.6	12.1	8.2	7.1	8	6.3	11.1	14	9.3	9.4	10.7	8	7.1	7.4	6.7
2011	6.3	7.4	5.6	8.0	9.5	6.7	6.3	7	5.7	8.7	10.1	7.3	8.4	9.3	7.5	6.5	6.6	6.3
2012	5.7	6.5	4.9	7.3	9.3	6.1	5.9	7	5.3	7.4	8.6	6.5	7.9	9.7	6.7	6.0	6.2	5.7
2013	5.4	7.4	4.5	7.0	9.9	5.9	5.6	6.5	4.8	7.5	13.4	5.9	7.5	8.6	6.4	5.6	5.7	5.4
2014	4.6	5.3	4.1	6.2	7.1	5.3	5.1	5.9	4.3	6.1	7	5.2	6.7	8	5.5	5.2	5.4	4.9
2015	4.0	5.1	3.4	5.1	6.3	4.4	4.3	5.1	3.6	5.0	6.3	4.2	5.7	6.9	4.6	4.4	4.8	4.1
2016	4.0	4.7	3.2	5.2	6.9	4.3	4.0	4.5	3.1	5.7	10	4.7	5.3	6.7	4	4.1	4.1	4

Source: U.S. Bureau of Labor Statistics

Figure 27: Average Unemployment Rate in Giles County and Virginia

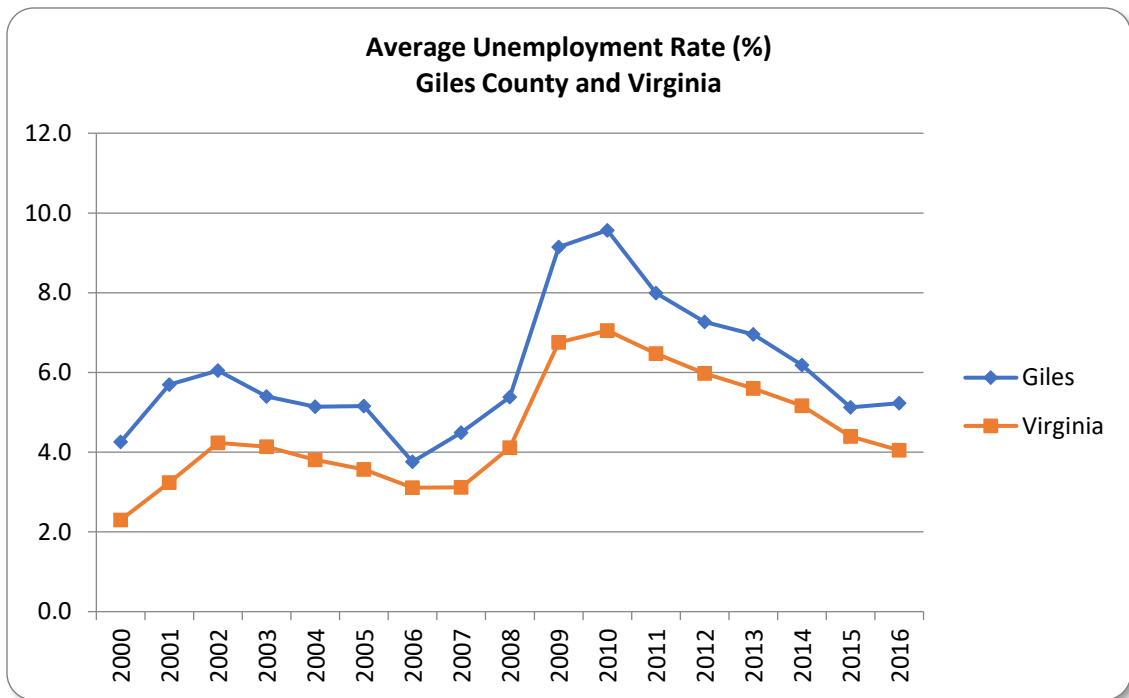
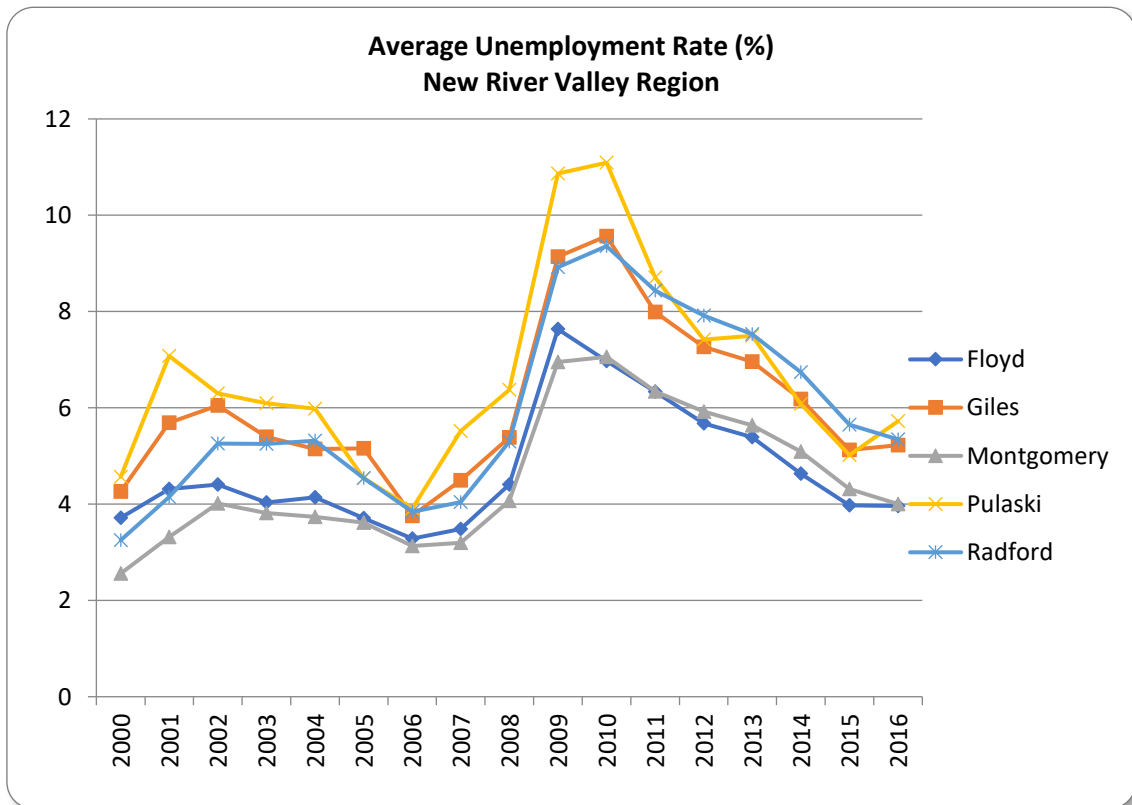


Figure 28: Average Unemployment Rate in New River Valley Region



Income

Giles County saw a significant decrease in per capita income from \$28,350 in 2009 to \$20,985 in 2010, as shown in Table 17 and the following figures. There has been a steady increase since 2010, but the County has not recovered to the same income level of 2009.

Table 17: Per Capita Income

Year	1990 (\$)	1991 (\$)	1992 (\$)	1993 (\$)	1994 (\$)	1995 (\$)	1996 (\$)	1997 (\$)	1998 (\$)	1999 (\$)	2000 (\$)	2001 (\$)	2002 (\$)	2003 (\$)
Giles	14,701	15,107	15,673	16,196	16,873	17,626	18,233	19,151	19,758	20,659	20,903	21,852	21,875	22,620
VA	20,312	20,953	21,842	22,596	23,534	24,360	25,354	26,695	28,199	29,617	31,640	33,278	33,753	35,001

Year	2003 (\$)	2004 (\$)	2005 (\$)	2006 (\$)	2007 (\$)	2008 (\$)	2009 (\$)	2010 (\$)	2011 (\$)	2012 (\$)	2013 (\$)	2014 (\$)	2015 (\$)
Giles	22,620	23,460	24,723	25,889	26,991	27,776	28,350	20,985	21,891	23,766	23,485	24,485	25,241
VA	35,001	36,902	38,966	41,362	43,437	44,676	44,057	32,145	33,040	33,326	33,493	33,958	34,152

Source: U.S. Census

Figure 30: Giles County Per Capita Income

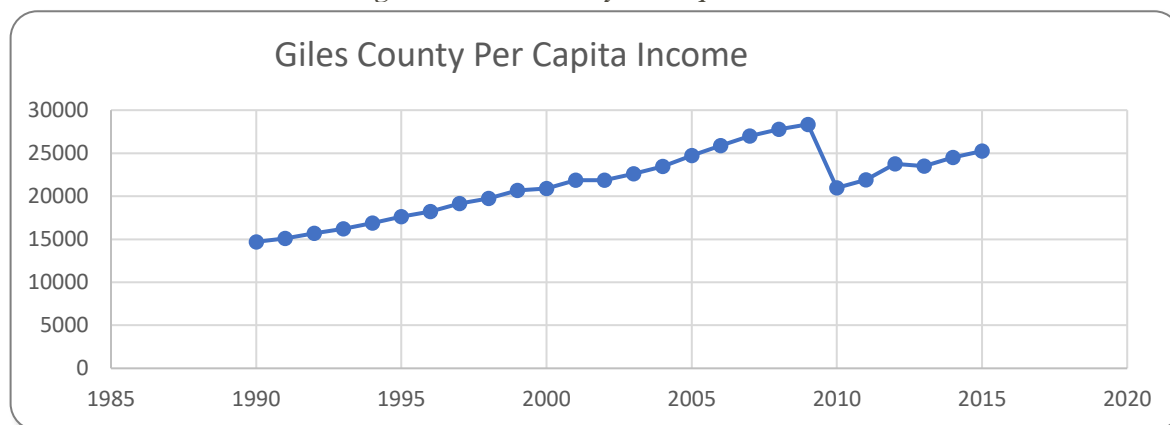
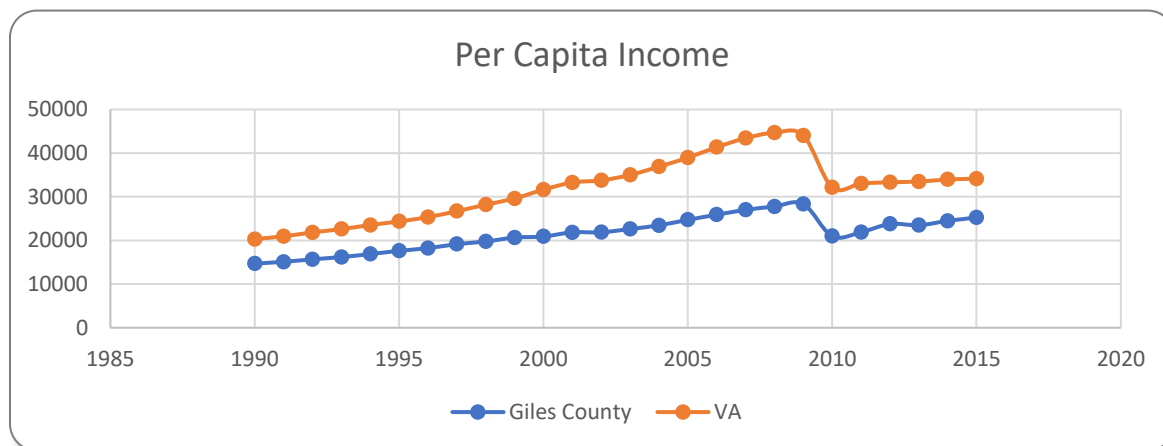


Figure 29: Giles County and Virginia's Per Capita Income



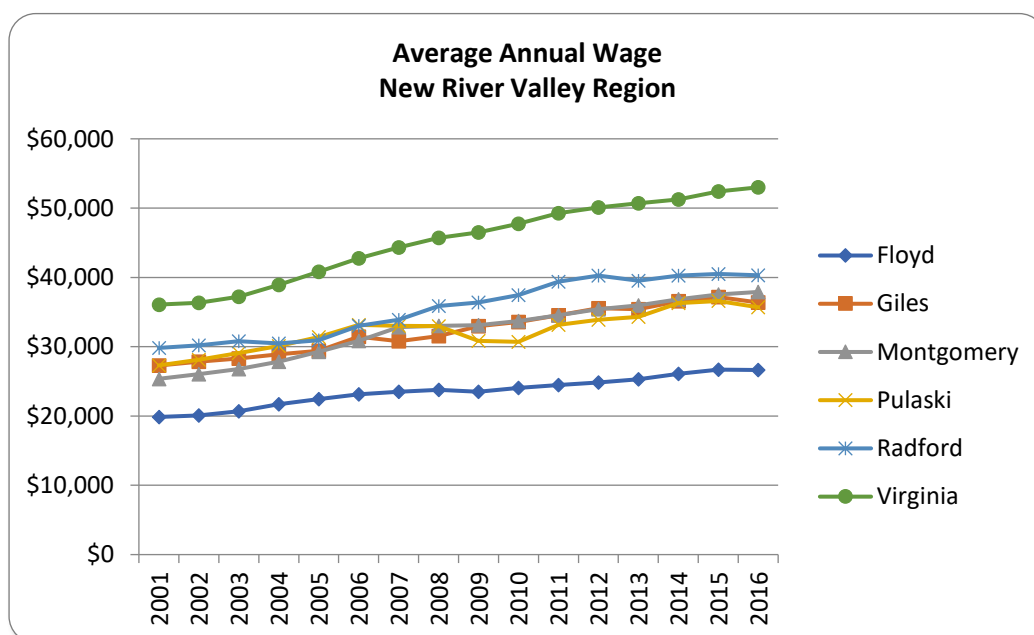
The average annual wages of a worker in Giles County was \$36,374 as of 2016. Table 18 indicates that City of Radford and Montgomery County had higher average yearly wage than Giles County in 2016.

Table 18: Regional Average Yearly Wage

Regional Average Yearly Wage						
Year	Floyd	Giles	Montgomery	Pulaski	Radford	Virginia
2001	\$19,863	\$27,281	\$25,368	\$27,305	\$29,826	\$36,082
2002	\$20,104	\$27,849	\$26,044	\$28,118	\$30,207	\$36,318
2003	\$20,664	\$28,307	\$26,799	\$29,095	\$30,816	\$37,214
2004	\$21,686	\$28,919	\$27,828	\$30,122	\$30,479	\$38,935
2005	\$22,446	\$29,398	\$29,294	\$31,380	\$30,933	\$40,833
2006	\$23,127	\$31,435	\$30,848	\$33,147	\$33,019	\$42,762
2007	\$23,507	\$30,789	\$32,850	\$33,032	\$33,890	\$44,329
2008	\$23,769	\$31,548	\$33,009	\$32,956	\$35,897	\$45,718
2009	\$23,502	\$32,986	\$33,094	\$30,830	\$36,370	\$46,499
2010	\$24,031	\$33,574	\$33,688	\$30,718	\$37,427	\$47,729
2011	\$24,465	\$34,539	\$34,542	\$33,148	\$39,366	\$49,246
2012	\$24,853	\$35,538	\$35,391	\$33,903	\$40,253	\$50,110
2013	\$25,300	\$35,402	\$35,963	\$34,295	\$39,537	\$50,689
2014	\$26,085	\$36,590	\$36,839	\$36,292	\$40,257	\$51,249
2015	\$26,693	\$37,163	\$37,544	\$36,595	\$40,500	\$52,398
2016	\$26,647	\$36,374	\$37,904	\$35,680	\$40,307	\$53,000

Source: Bureau of Labor Statistics and imputed where necessary. Extracted from JOBSeq.

Figure 31: Average Annual Wage in the New River Valley Region



Housing Data Analysis

This section provides information on the County's housing units, projected number of households, housing need, tenure, occupancy, vacancy rate and residential building permit activity. Population trends by age group were also examined to determine the need of special housing.

Household Projections

In Giles County, the projected number of households in 2040 will decrease slightly due to decline in population. Between 2011 and 2015 the number of households in Giles County was 7,230. The number of future households will determine the number of units needed for these households. Based on these projections no additional units will be required in Giles County.

Table 19: Projected Housing Need

Projected Housing Need			
	2020	2030	2040
Giles County Population Projection	17,051	17,277	17,261
Average Household size	2.32	2.32	2.32
Number of Households	7,350	7,447	7,440
Total Housing Need	7,350	7,447	7,440

Source: U.S. Census and Weldon Cooper Center

Tenure and Occupancy

The data indicates that owner-occupied housing units are decreasing slightly, and renter-occupied housing has been steadily increasing. The vacancy rate in Giles County significantly increased from 9.5% in 2000 to 14% in 2010, and further increased to 15% in 2011. This may be due to the housing market downturn between 2008 and 2012.

Table 20: Trends in Housing Units, Tenure and Occupancy

Trends in Housing Units, Tenure and Occupancy						
Year	Total Housing Units	Occupied Housing Units	Owner Occupied Units	Renter Occupied Units	Vacant Units	Vacancy Rate
1990	7,098	6,461	5,202	1,259	637	9%
2000	7,732	6,994	5,529	1,465	738	9.5%
2010	8,273	7,100	5,527	1,573	1,173	14%

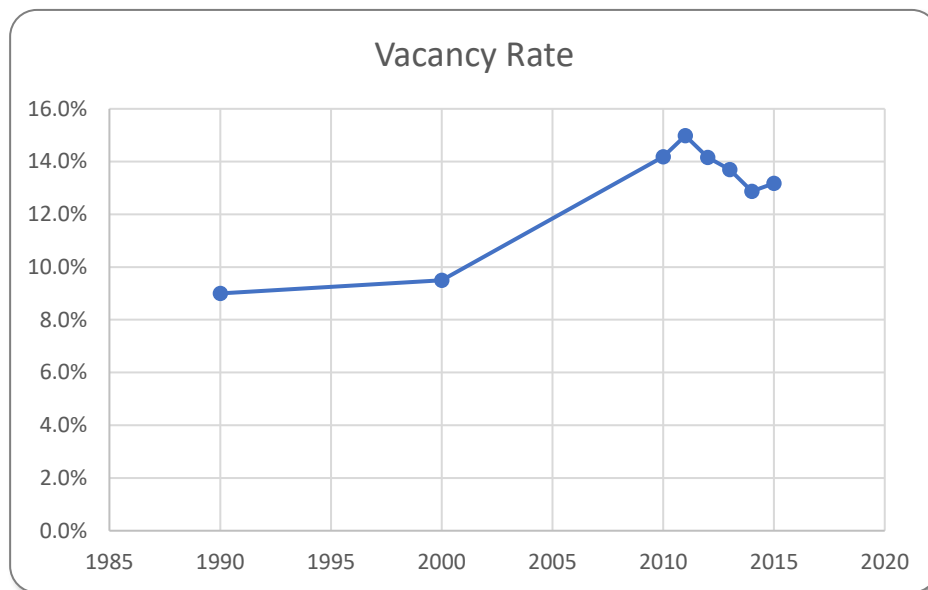
Source: U.S. Census

Table 21: Trends in Housing Units, Tenure and Occupancy

Trends in Housing Units, Tenure and Occupancy						
Year	Total Housing Units	Occupied Housing Units	Owner Occupied	Renter Occupied	Vacant	Vacancy Rate
2010	8273	7100	5527	1573	1173	14%
2011	8297	7054	5494	1560	1243	15%
2012	8301	7126	5516	1610	1175	14%
2013	8305	7167	5442	1725	1138	14%
2014	8324	7253	5482	1771	1071	13%
2015	8327	7230	5499	1731	1097	13%

Source: U.S. Census 2011-2015 American Community Survey 5- Year Estimate

Figure 32: Vacancy Rate



Residential Building Permits

From 2012 to 2017 the total number of residential building permit issued were 131 for the entire County. There was no multifamily building permit issued during this time.

Table 22: Residential Building Permits Activity

Residential Building Permits		
Types of Units	Total Housing Units 2015	Residential Permits from 2012 to 2017
Single Family Units	6512	49
Multifamily	541	0
Mobile Homes	1274	82

Age of Housing

As shown in Table 23, 39 % of the County’s housing stock was built before 1959. By 2020, 67% of the housing stock will be 50 years of age or older and by 2040, 90% of the existing housing stock will be more than 50 years old. Older housing units needs to be adequately maintained to avoid severe problems and blight. Older housing stock which accounts for about 40 % of the housing in Giles are most likely to be high in energy consumption depending on the type of construction and its maintenance. It may be important to encourage and provide incentives to homeowners to make energy retrofit and updates to their homes for energy savings and improve energy efficiency

Though population projection does not warrant new housing units the age of the housing stock may create a demand for new housing construction in the future.

Table 23: Age of Housing Units in Giles County

Age of Housing Units in Giles County								
Year Built	Housing Units	Cumulative Units	Age as of 2015	Age as of 2020	Age as of 2030	Age as of 2040	% Units Built	Cumulative %
Built 2010 to 2015	72	8327	5	10	20	30	1%	100%
Built 2000 to 2009	775	8255	15	20	30	40	9%	99%
Built 1990 to 1999	963	7480	25	30	40	50	12%	90%
Built 1980 to 1989	952	6517	35	40	50	60	11%	78%
Built 1970 to 1979	1212	5565	45	50	60	70	15%	67%
Built 1960 to 1969	1137	4353	55	60	70	80	14%	52%
Built 1950 to 1959	1004	3216	65	70	80	90	12%	39%
Built 1940 to 1949	1193	2212	75	80	90	100	14%	27%
Built 1939 or earlier	1019	1019	76	81	91	101	12%	12%

Figure 33: Percent Units Built

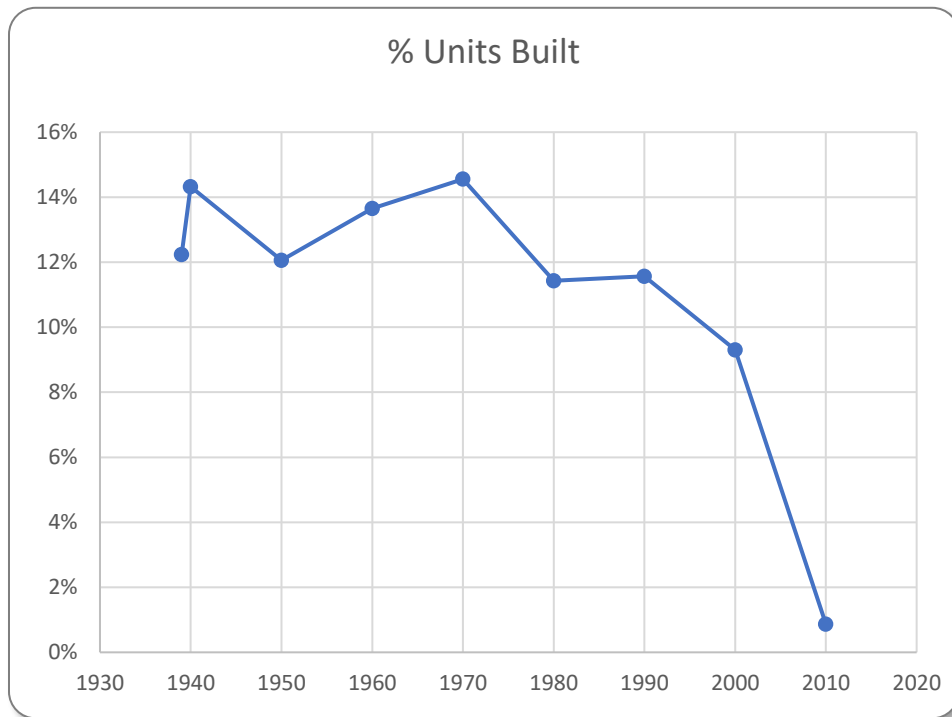
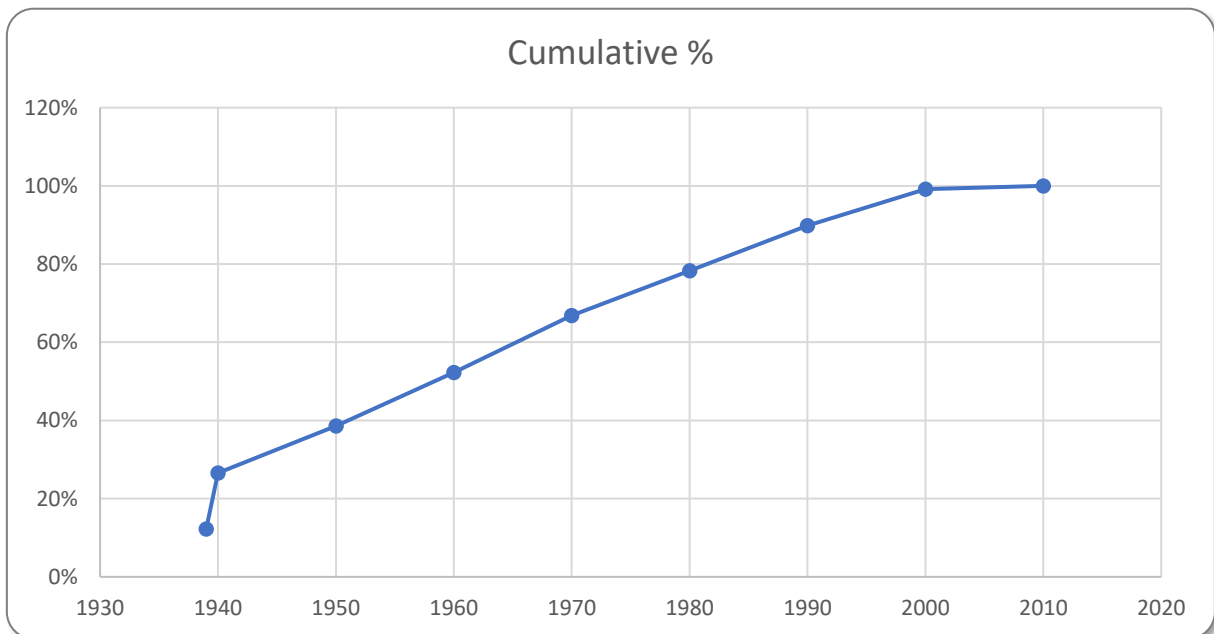


Figure 34: Cumulative Percent of Housing Units Built



Substandard Housing Conditions

The units that are considered substandard are those that lack heating or plumbing facilities or have sufficient structural damage that it does not meet minimum housing regulation requirements. Between 2010 and 2015 the number of substandard units has been declining.

Table 24: Substandard Housing

Substandard Housing						
	2010	2011	2012	2013	2014	2015
Total Housing Units Occupied	7100	7054	7126	7167	7253	7230
No fuel used	9	15	20	8	17	16
Lacking complete plumbing facilities	21	16	15	15	15	5
Lacking complete kitchen facilities	34	45	48	39	34	29
No telephone service available	179	92	77	35	27	25

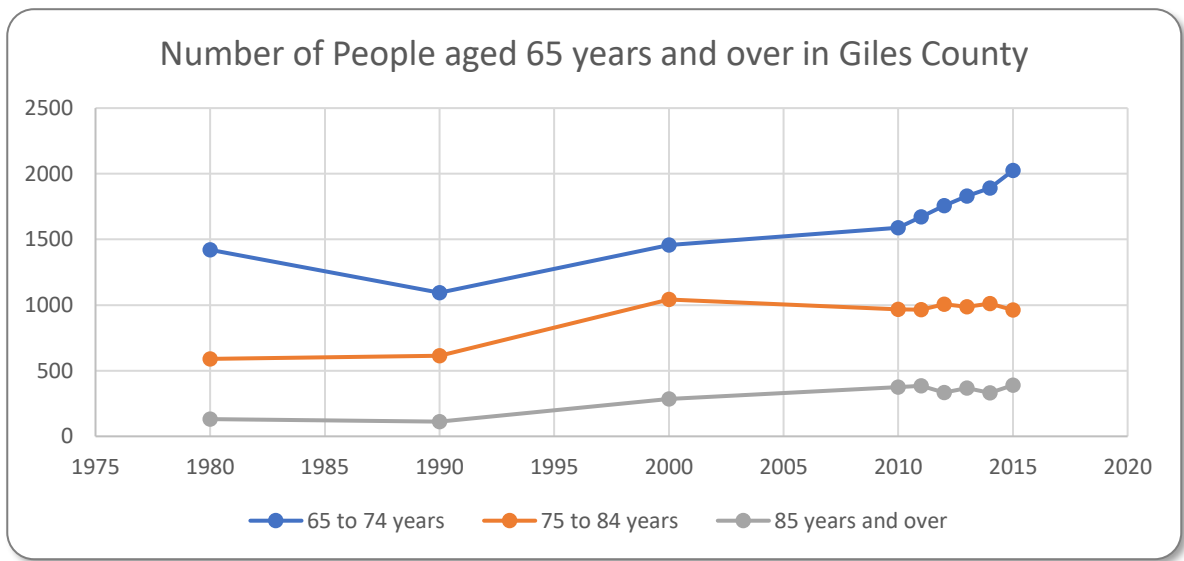
Special Housing Need

The data in Table 25 shows the population trend of residents of Giles County who are 65 years and older. The number of people between the age of 65 to 74 years are steadily increasing. This analysis can be used to determine the need for retirement homes and guide policies addressing multigeneration housing and aging in place to ensure that the needs of senior residents are met.

Table 25: Population Trend by Age Group

Population Trend by Age Group				
Year	Total	65 to 74 years	75 to 84 years	85 years and over
1980	17810	1421	590	132
1990	16366	1094	614	112
2000	16657	1456	1042	284
2010	17205	1,589	966	374
2011	17197	1,671	964	384
2012	17149	1,757	1,007	334
2013	17111	1,830	987	367
2014	17025	1890	1,012	331
2015	16907	2,025	963	390

Figure 35: Number of People age 65 years and over in Giles County



Tourism and Recreation Data Analysis

Giles County has spectacular scenery, possesses numerous natural assets and recreational facilities, along with significant acreage of parkland and open space. It has significant appeal because of its abundant settings for boating, fishing, hiking, biking and paddling. Giles County's location, proximity to a growing region, natural resources and cultural attractions presents an opportunity for Giles County to be a great tourism destination. The County is implementing effective tourism marketing program such as the branding of Giles County as "Virginia's Mountain Playground" and the river trail as "New River Water Trail". The County continues to develop new strategies to promote tourism opportunities, which will encourage economic growth and increase job opportunities in the area.

The major natural assets in Giles County are as follows:

- Jefferson National Forest - This covers an area of about 90 square miles in Giles County and features the Cascades and Glen Alton Recreation Areas. This is managed by the U.S. Forest Service.
- Mountain Lake Conservancy – The property is approximately 2,600 acres in area and has many outdoor recreation opportunities.
- New River – The New River flows through Giles County for about 37 miles. There are various river activities such as fishing, canoeing, kayaking, rafting and swimming which people of all age groups can enjoy.
- Appalachian Trail – 50 miles of the Appalachian Trail runs across the northern section of the County. There are some popular viewpoints on this trail such as the Angel's Rest Overlook.
- Peters Mountain Wilderness – This area is about 4,521 acres in size and lies on the east slope of Peters Mountain. The elevation ranges from 3,956 feet on the mountaintop to a low of 2,300 on the southern border along Big Stony Creek. The Appalachian National Scenic Trail runs from north to south near the middle of the area for about 1.5 miles. It is managed by the U.S. Forest Service.
- Mountain Lake Wilderness – The Mountain Lake Wilderness was designated in 1984 and it has an area of about 16,525 acres. Approximately 13,804 acres is within Giles. The diversity of flora and fauna is significant and there are 21 miles of trail within the wilderness including about five miles of the Appalachian National Scenic Trail.

The National Forest owned about 64,733.8 acres of land within the County, which is about 28.07 % of the total area of the County. Also, about 3.33% of the County is within the Chesapeake Bay Drainage area: 7,691.8 acres.

Other significant Tourist Attractions in Giles County are:

- Historical Newport Covered Bridge
- Dismal Falls
- Palisades Cliffs
- Mill Creek Nature Park
- Kelly's Knob Overlook

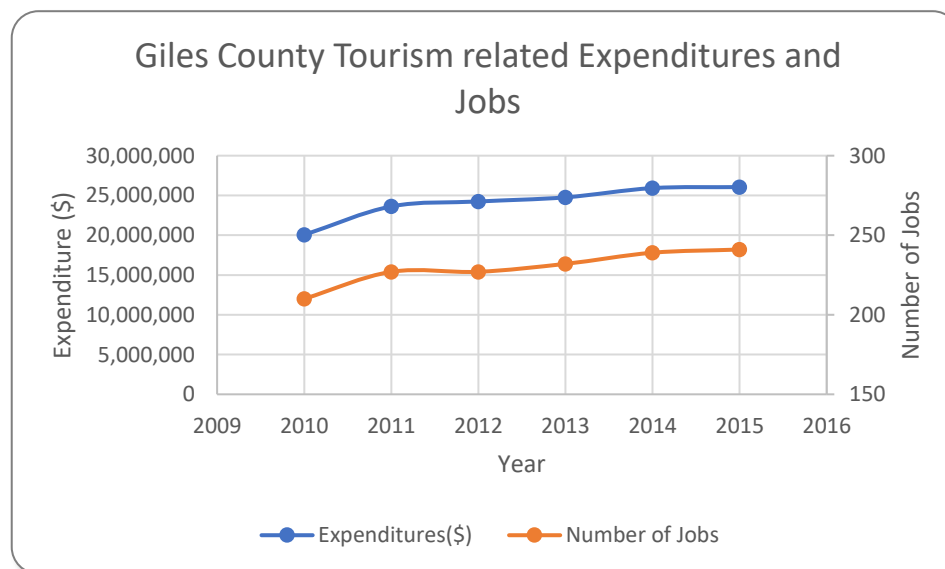
The County also has historic and cultural attractions, such as the Andrew Johnson House & Museum, Giles County Courthouse, artisan studios and craft venues, and an Amish community.

Table 26: Overall Economic Impacts of Tourism

Giles County Overall Economic Impacts of Tourism							
Category	Units	2010	2011	2012	2013	2014	2015
Expenditures	Dollars (\$)	20,046,700	23,622,090	24,239,298	24,761,183	25,922,799	26,051,056
Employment	Number of Jobs	219	227	227	232	239	241

Source: Virginia Tourism Corporation (<http://web.yesvirginia.org/localspending/localspending>)

Figure 36: Giles County Tourism Related Expenditure and Jobs



The economic impact data shows that tourism related spending increased from \$ 20,046,700 in 2010 to \$26,051,056 in 2015. According to data from Virginia Tourism Corporation the number of jobs supported by tourism activities also increased from 219 jobs in 2010 to 241 in 2015.

The County also has other types of public recreation assets such as community and neighborhood parks, community centers and other recreation facilities. The following are some popular recreation areas in Giles County. A complete list of recreation areas is provided in Appendix A.

- Big and Little Stoney Creek
- Camp Success
- Castle Rock Recreation Area
- Duck Pond & Mill Dam
- Eggleston Community Park
- Farley Wayside
- Gentry's Landing
- Glen Lyn Town Park
- Johns Creek
- Narrows Town Park
- Newport Community Park
- Pearisburg Town Park
- Pembroke Town Park
- Treasure Island
- Wolf Creek
- Woodland Park
- Whistle Stop Playground & Picnic
- White Rocks Recreational Area
- Whitt-Riverbend Park
- Village Green
- Rich Creek Community Center
- Lurch Road Facilities
- Narrows Community Center
- Bluff City Boat Launch
- Pearisburg Community Center
- Snidow Park Landing
- Newport Community Center
- Newport Community Center Athletic Fields

The County also has some high-quality trails that attract residents and visitors. There are many trail options available within the County such as hiking, biking and water trail. The hiking trails in Giles County range from easy to strenuous. The total length of trails within Giles County is about 150 miles. Below is a list of some trails in Giles County. A complete list is provided in Appendix A.

- Appalachian Trail
- Butt Mountain - Dickenson Gap Trail
- Cascades National Recreational Trail
- Flat Top Mountain - Ribble Trail
- Jefferson National Forest
- Mary Ingles Trail

- Mountain Lake Resort Hotel
- Newport to Eggleston Trail
- Pearis Mountain - Angels Rest Trail
- Peter's Mountain - Flat Peter Loop Trail
- Salt Pond Mountain - War Spur and Chestnut Trails
- Sinking Creek Mountain - Sinking Creek Trail
- Spruce Run Trail (VA 605)
- Stony Creek Valley to Stillhouse Branch
- Sugar Run Gap to Pearisburg
- The New River Trail
- Virginia's Walk Trail
- War Spur Trail
- White Rocks Recreational Area
- Wolf Creek
- Whitt-Riverbend

A list of the number and types of recreation facilities that are available in Giles County is shown in Table 27. Giles County meet most of the recommended minimum guidelines for provision of recreation facilities.

Table 27: Types and Number of Recreation Facilities in Giles County

Recreation Facilities	Number of Facilities	Available in Schools	in County/Town
Baseball	6	2	4
Basketball	6	2	4
Disc Golf	1		1
Football	5	2	3
Golf	3	1	2
Recreation Center	2		2
Softball/T-ball	6	2	4
Soccer	2	2	
Swimming	4		4
Tennis	2	2	
Volleyball	4	2	2

Source:

In Giles County, there are approximately 64,231 acres of land available for public recreation purposes. The current population estimate of the County is 17,024 people resulting in approximately three (3) acres of public recreation land per resident. Weldon Cooper projects the population of Giles County will be 17,277 in 2030 and the amount of public land available for recreation for each resident will remain about the same at that time.

Figure 37: Giles County Trails and Trailhead Use

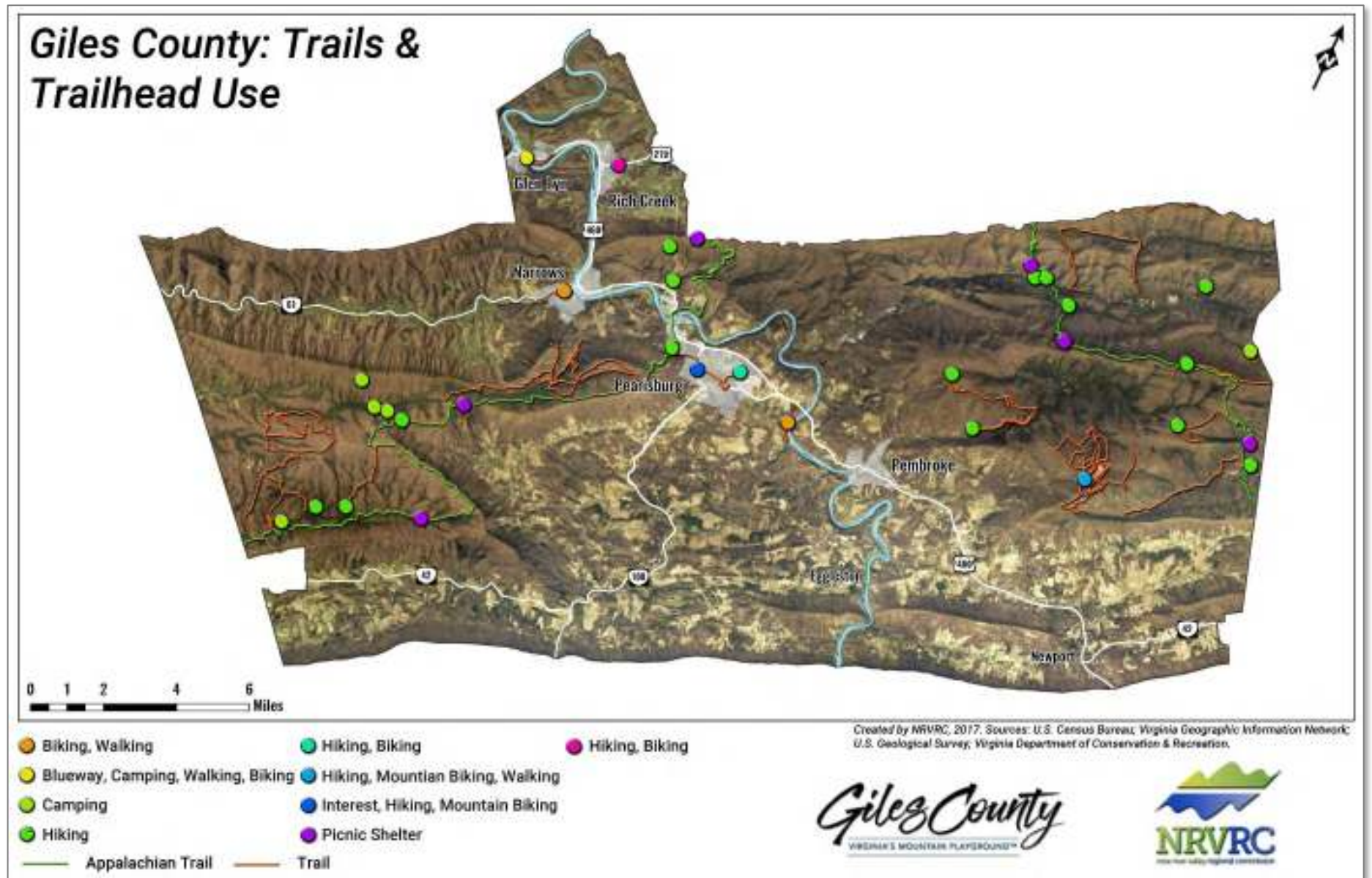




Figure 38: Giles County Parks and Recreation Facilities

Table 28: Giles County Park and Recreation Facilities

Map ID	Name Parks and Recreation Facilities
1	Dismal Falls
2	Glen Lyn Town Park
3	Rich Creek Community Center
4	Woodland Park
5	Gentry's Landing
6	Lurch Road Facilities
7	Camp Success Park & Campground
8	Duck Pond & Mill Dam
9	Narrows Town Park
10	Narrows Community Center
11	Village Green
12	Bluff City Boat Launch
13	Pearisburg Community Center
14	Pearisburg Town Park
15	Farley Wayside
16	Whitt-Riverbend Park
17	Snidow Park Landing
18	Pembroke Town Park & Treasure Island Playground
19	Castle Rock Recreation Area
20	Eggleston Community Park
21	Eggleston Springs Campground
22	Whistle Stop Playground & Picnic
23	Glen Alton Farm
24	White Rocks Recreational Area
25	Cascade Falls
26	Unknown Named Park
27	Newport Community Center
28	Newport Community Center Athletic Fields

Infrastructure Data Analysis

Public Service Authority

The Giles County Public Service Authority (PSA) was formed in 1992. The PSA is owned and operated by the county of Giles and the towns of Narrows, Pearisburg, Pembroke, Rich Creek, and Glen Lyn. A board of directors appointed to represent the towns and the county provide overall guidance to the PSA’s Executive Director. The PSA serves County residents by providing solid waste collection and disposal, recycling programs, and by supplying water to all five towns and certain areas in the County.

Potable Water

Giles County’s primary water sources are two wells: Well Number 1 and Well Number 4. Well number 1 is permitted to withdraw a maximum of 2 million gallons per day (mgd) and Well Number 4 is permitted to withdraw a maximum allowable of 300,000 gallons per day. The PSA has a water treatment plant, which is located in Bluff City and maximum daily capacity of 2.3 mgd. In Giles County approximately 75% of households are served by public water. The water service area within Giles County is shown in .

The PSA sells treated bulk water to six customers - Giles County and the five towns within the County (Glen Lyn, Narrows, Pembroke, Pearisburg and Rich Creek). The amount of water that the PSA sells to each municipality and the number of customers served within each municipality are listed below:

Table 29: Giles County Water Supply

Municipality	Amount of Water Supplied	Number of Customers
Giles County	Average of 5.94 million gallons per month (gpm)	1,300 customers
Rich Creek	Average of 2.55 million gpm	467 customers
Narrows	Average of 6.54 million gpm	1,034 customers
Pearisburg	Average of 11.75 million gpm	1,064 customers
Glen Lyn	Average of 700,000 gpm	92 customers
Pembroke	Average of 5.241 gpm	750 customers

Source: Giles County Public Service Authority

In all, the PSA serves approximately 4,707 customers and supplies an average of around 32.7 million gpm.

Future Water Demands

The New River Valley Water Supply Plan was prepared to comply with the Local and Regional Water Supply regulation. This plan document addresses water source and use information, existing resources information, projected water demand into the future, water demand management, drought response and system need and alternatives. The future water demands for Giles County were extracted from this document and are shown in the following Table 30, Table 31 and Table 32. The Water Supply Plan examined data from all the water sources in Giles County and their capability of serving the current and future needs. The Plan also identifies alternative water sources to supplement existing water sources when they meet capacity limits in order to meet future demands.

Table 30: Giles County Water User Projections

	1990	2000	2010	2020	2030	2040	2050
Total Population	16,366	16,657	16,800	17,100	17,400	17,700	18,017
Population served by PSA	N/A	8,760	8,835	8,993	9,150	9,307	9,475
Population served by other CWS	N/A	160	160	160	160	160	160
Self-supplied Population	N/A	7,737	7,805	7,947	8,090	8,233	8,385
Self-supplied Households	N/A	3,364	3,393	3,455	3,517	3,580	3,648

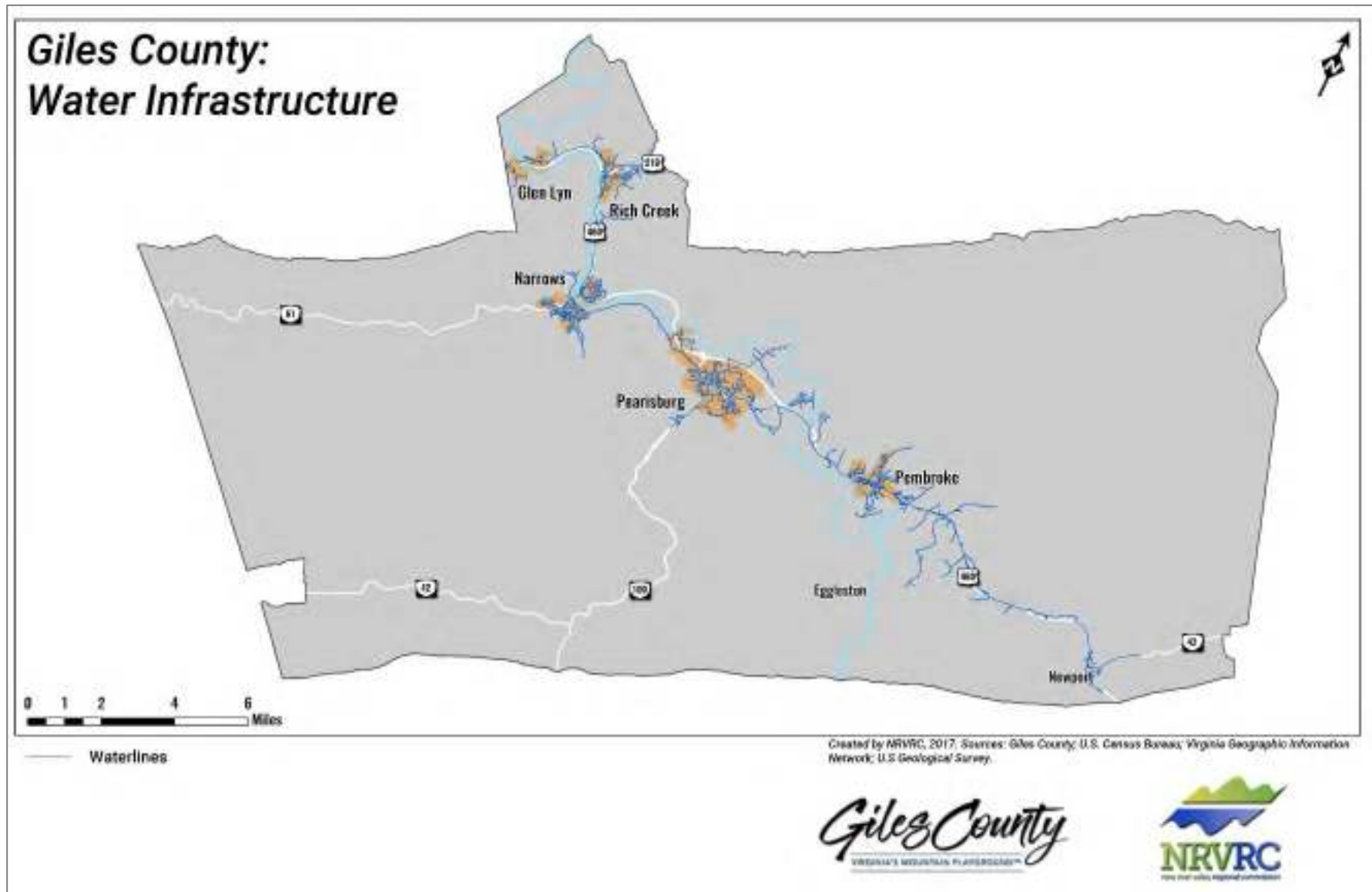
Table 31: Giles County PSA Projected Water Demand (GPD)

	1990	2000	2010	2020	2030	2040	2050
GPD Produced	N/A	1,132,692	1,142,433	1,162,883	1,183,233	1,203,585	1,224,653
Residential Demand	N/A	360,499	363,599	370,107	376,584	383,061	389,770
Commercial Demand	N/A	319,098	321,842	327,603	333,336	339,069	345,008
Industrial Demand	N/A	5,902	5,136	5,228	5,319	5,319	5,510
Total Water Demand (daily)	N/A	684,765	690,654	703,017	715,320	727,624	740,362
% Capacity	N/A	57%	57%	58%	59%	60%	61%
Water Loss		20%-50% Depending on locality					

Table 32: Giles County Projected Water Demand

	1990	2000	2010	2020	2030	2040	2050
Water Demand on PSA (MGD)	N/A	0.685	0.691	0.703	0.715	0.728	0.746
Water Demand on other CWS (MGD)	N/A	0.26	0.26	0.26	0.26	0.26	0.26
Water Demand from Self-supplied users (MGD)	N/A	0.774	0.781	0.795	0.809	0.823	0.838
Grand Total Water Demand (MGD)	N/A	1.72	1.73	1.76	1.78	1.81	1.89

Figure 39: Giles County Water Service Lines



Solid Waste

The PSA provides solid waste collection and disposal services within the County. Curbside collection is provided to all residents of the County who are located on state maintained paved roads throughout the County on a weekly basis. To provide service to customers which do not receive curbside pickup the PSA has strategically located dumpsters in six locations: Bluff City, Narrows-Stockpen, Pembroke, Newport, White Gate, and Big Stoney Creek. The PSA provides dumpster service to businesses located throughout the County.

The PSA also operates four convenience centers which are located at the following locations:

1. In Pembroke at 6399 VA AVE, Pembroke, VA 24136
2. On Route 100 at 1308 Pulaski Giles Turnpike, Pearisburg, VA 24134
3. In Newport at 132 Winding Way Dr., Newport, VA 24128
4. In Lurich at 2506 Lurich Rd., Narrows, VA 24124

These centers are open 12 hours per day and manned for eight hours. They accept bulky waste items such as furniture, tires etc. from residents for a fee. To dispose construction debris contractors are required to use the Pembroke location and are required to pay a dumping fee, which is charged by weight.

The PSA also provides recycling containers throughout the county. The recycling bins accept paper, glass bottles and jars, plastic bottles and metal cans. The collection sites are located at eight locations in the County-listed below:

1. All Convenience Centers
2. Rich Creek Community Center
3. Giles High School
4. Narrows Elementary
5. Macy McClaugherty Elementary
6. Eastern Elementary
7. Newport, Winding Way Dr.
8. Pearisburg Town Shop located at 501 orchard drive

There are a total 7,605 solid waste customers that the PSA is serving. The PSA hauls approximately 900 to 1,000 tons of solid waste every month, which is disposed at the New River Resource Authority's landfill located in Cloyd Mountain in Pulaski County.

The annual solid waste generated in Giles County is estimated to be approximately 0.71 tons per person per year calculated from the available data of waste generated monthly. The demand appears

to remain the same in the future but may change in the event of increase of business or industrial activities.

Table 33: Giles County Projected Population and Solid Waste Generation Rate

Giles County Projected Population and Solid Waste Generation				
	2016	2020	2030	2040
Population	17,024	17,051	17,277	17,261
Solid Waste (Tons/Year)	12,000	12,036	12,196	12,184

Source: Population Estimate and Population Projections - Weldon Cooper Center

Sanitary Sewer

In Giles County, the towns of Narrows, Pearisburg, Rich Creek, Pembroke, and Glen Lyn own and operate the wastewater collection and treatment systems. The network of sewer lines serves the towns and county residents living adjacent to each towns' corporate limits. **Error! Reference source not found.** shows the areas in Giles County where sanitary sewer is available.

Table 34 identifies locations of sewer treatment plants, their permitted treatment capacity, and operating capacity.

Table 34: Sewer Treatment Plants in Giles County

Municipality	Location	Permitted Treatment Capacity (gpd)	Operating Capacity Approx. (%)
Town of Pearisburg	232 Tannery Rd.	275,000 gpd	80 %
Town of Pembroke	126 Pembroke Park Lane	200,000 gpd	60 %
Town of Narrows	141 McArthur Lane	250,000 gpd	45 %
Town of Glen Lyn and Rich Creek	356 Campground Drive, Glen Lyn	200,000 gpd	50 %

Source: Giles County

The Town of Glen Lyn and Rick Creek are serviced together and utilize the same treatment plant that is located in Glen Lyn.

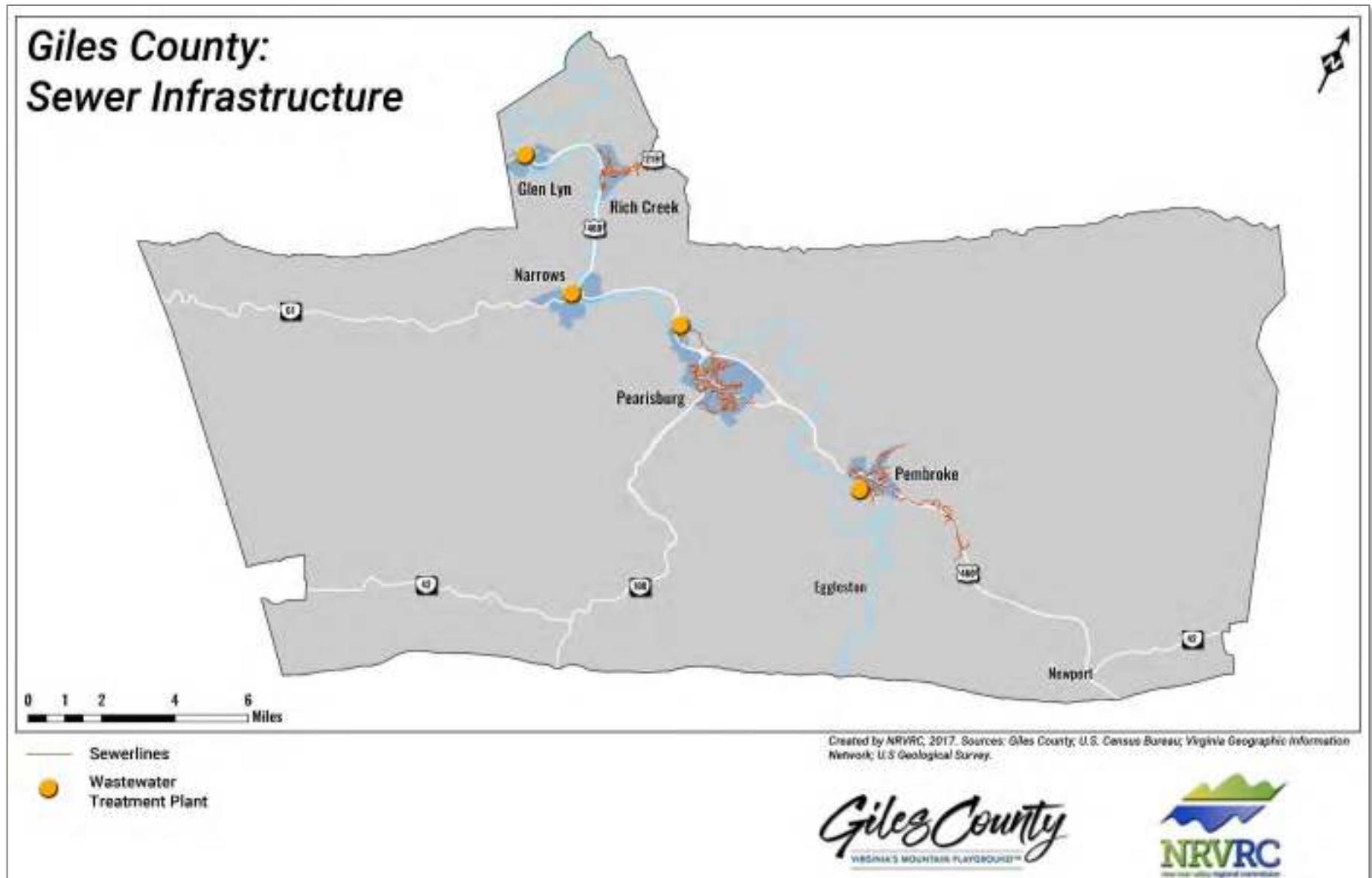
Each of these facilities discharges treated wastewater into the New River. The treated waste water is discharged according to Virginia Department of Environmental Quality permit requirements.

The areas within the County not served by sewer have septic tank systems. The Giles County Health Department permits, regulates and inspects the construction of new systems, repairs and modifications to existing septic systems.

There are areas within the County that have aging septic tanks that have negative impacts. The Ingram Village areas has a large numbers of aging septic tanks that are in residential areas with small lots sizes. Replacing or repairing the system is cost prohibitive to the property owners and have caused some owners to abandon the properties, which contributes to blight of the areas. Extension of sewer lines will greatly benefit this area.

Extension of sewer lines to current designated growth areas that have potential to accommodate residential and commercial development such as the areas along US 460 between New Zion Road and the County Boundary lines will increase economic activity.

Figure 40: Giles County Wastewater System



The County may direct and promote redevelopment and new development in areas where there is available capacity of water and sewer. Directing development towards established places will maximize the use of existing infrastructure and underutilized commercial areas. The County should identify areas that have potential for development and economic activity where utilities may be provided by incremental extension thus supporting and promoting orderly growth and economic development.

Transportation Data Analysis

The Comprehensive Plan's Transportation section serves to enhance the community's accessibility to goods and services and expand its economic base. Transportation planning for the County is achieved through cooperation with the Virginia Department of Transportation (VDOT), and other federal, state, regional and local agencies. This process includes evaluating the current transportation system, identifying deficiencies and improvement needs, prioritizing projects and proposing alternate solutions, and managing transportation infrastructure to promote economic development, provide access to residents, support the County's Future Land Use plan and help guide orderly growth.

Existing Transportation System

In Giles County, the existing transportation system includes roadways and railways. The County is also in close proximity to three airports. Alternative modes of transportation in Giles County include ride sharing and van pool.

Roadways: Roadways in Giles County have different functional classifications, that include Other Freeways and Expressways, Other Principal Arterial, Minor Arterial, Major Collectors, Minor Collectors and Local Roads. Figure 41 shows the functional classification of the different roadways within Giles County.

The Commonwealth of Virginia has identified a set of Corridors of Statewide Significances (CoSS). These corridors include other modal facilities, such as highways, rail lines, transit services, port facilities, and airports. According to State law the CoSS are designated by the Commonwealth Transportation Board. These Corridors display certain characteristics, which are listed below¹:

- Multiple modes and/or an extended freight corridor,
- Connection among regions, states and/or major activity centers,
- High volume of travel, and
- Unique statewide function and/or fulfillment of statewide goal

In Giles County the CoSS is known as the Heartland Corridor, it is identified in Figure 42. This corridor connects Hampton Roads to the west to West Virginia and Kentucky. It is an important freight corridor, with Norfolk Southern Railway's Heartland Corridor running along the entire corridor, which connects the Port of Virginia and the Midwest.

Figure 41; Giles County Roadway Functional Classification

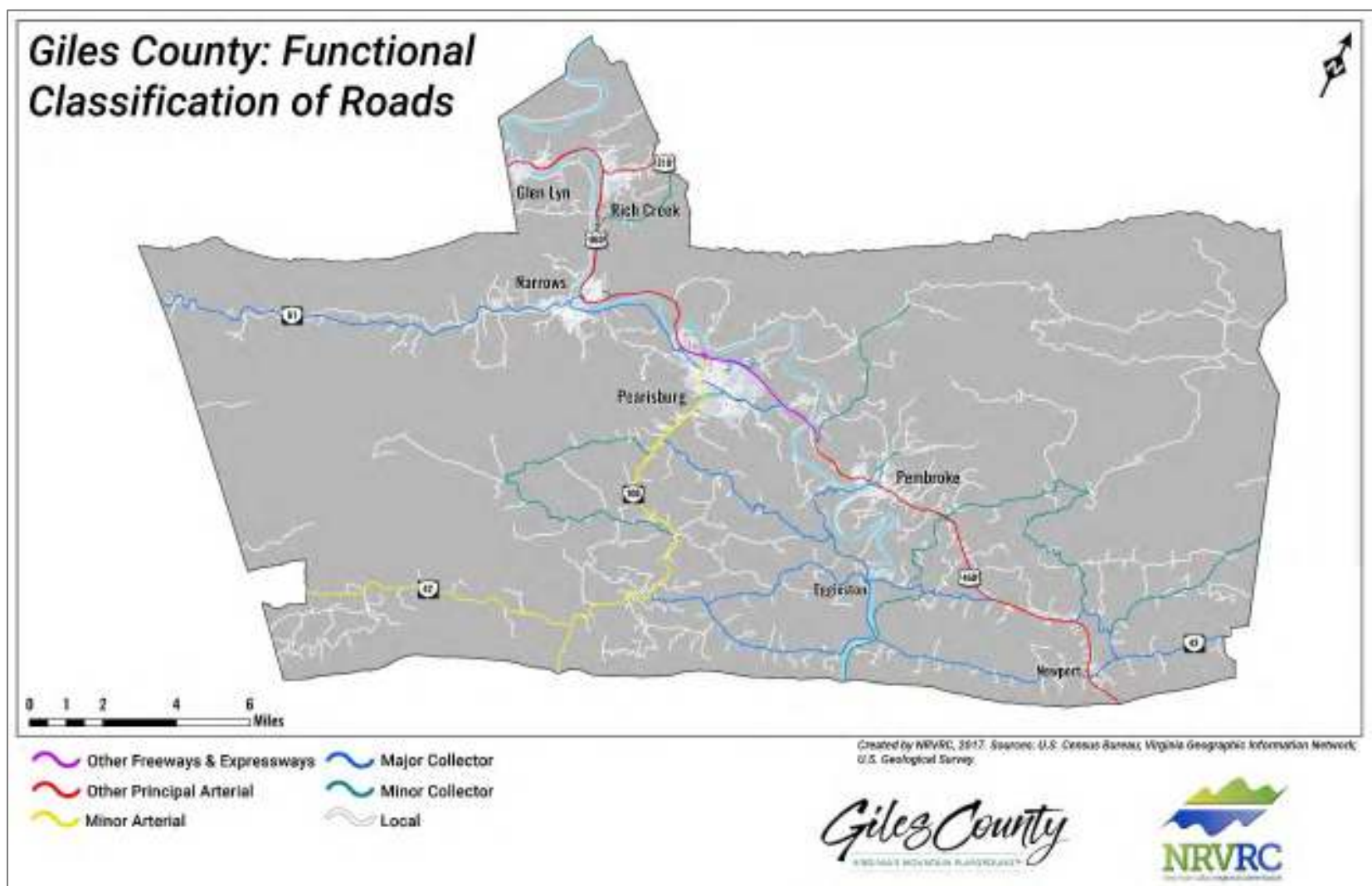
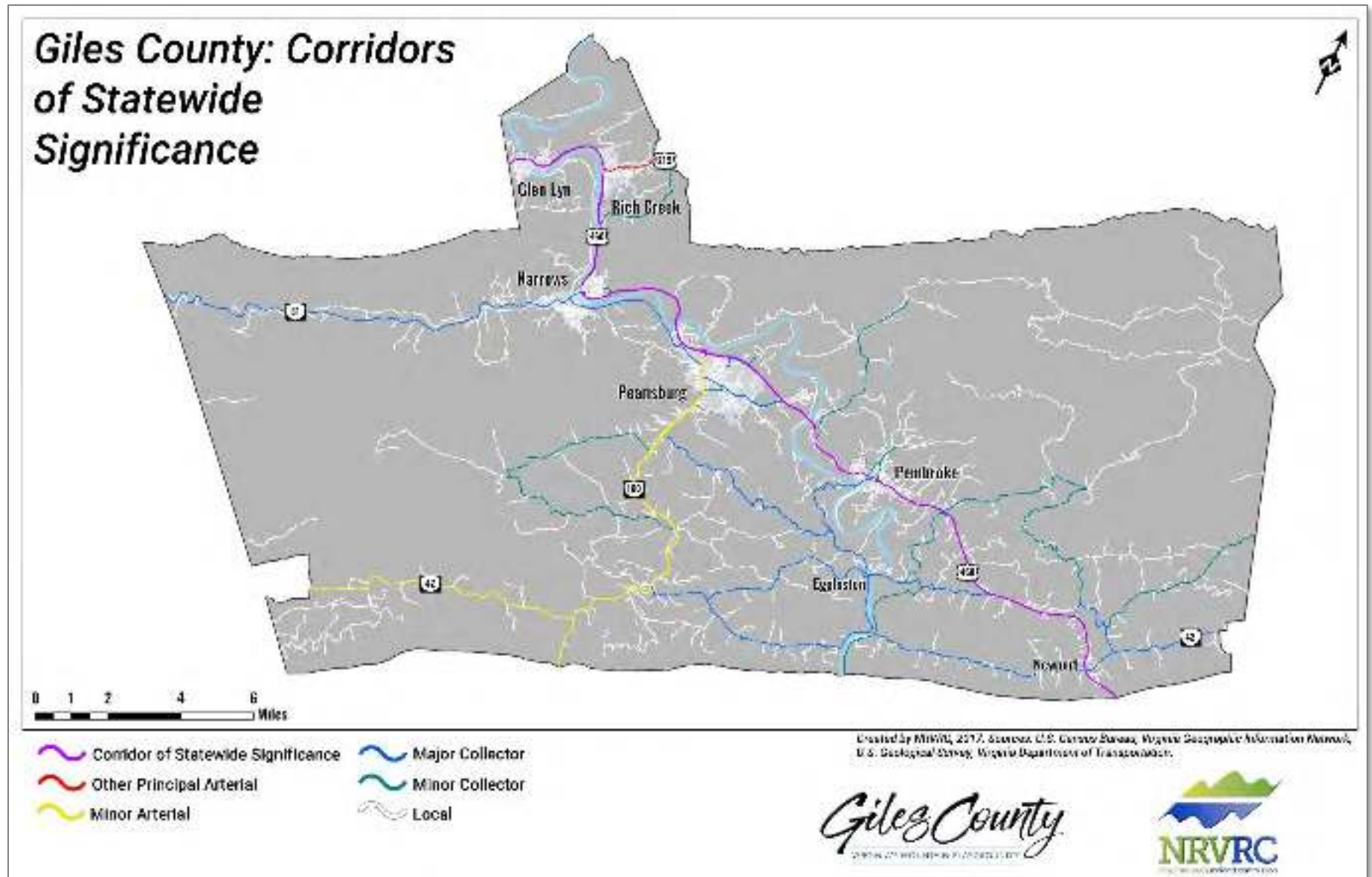


Figure 42: Corridor of Statewide Significance in Giles County



Performance of a roadway is measured by analyzing the roadway volume and roadway capacity which helps to determine if a roadway is well under capacity or if it is at or near capacity. In order to standardize capacity analysis six levels of service have been adopted by Virginia Department of Transportation. They are generally described as follows:

Level of Service A: This level represents a condition of free flow with vehicles completely unimpeded in their ability to maneuver within the traffic stream.

Level of Service B: With this level of service it represents a condition of reasonable free flow where the ability of vehicles to maneuver within the traffic stream is only slightly restricted.

Level of Service C: Traffic flow is still stable at this level of service, but freedom to maneuver within the traffic stream is noticeably restricted.

Level of Service D: This level of service represents that traffic flow is approaching unstable flow. The freedom to maneuver within the traffic stream is more noticeably limited. Small increases in traffic flow will generally cause operational problems at this level.

Level of Service E: This level of service describes a roadway that is operating near or at capacity. There are no usable gaps in the traffic stream

Level of Service F: This describes a forced or breakdown flow situation. Traffic volume exceed capacity. It is the point at which arrival flow exceeds discharge flow which causes a queue to form.

Figure 43 depicts the level of service for primary roadways in Giles County. The roadways in Giles County typically operate within design capacity and can accommodate future growth and development. Figure 44 depicts volume to capacity ratio for the primary roadways within Giles County.

Figure 43: Giles County Level of Service

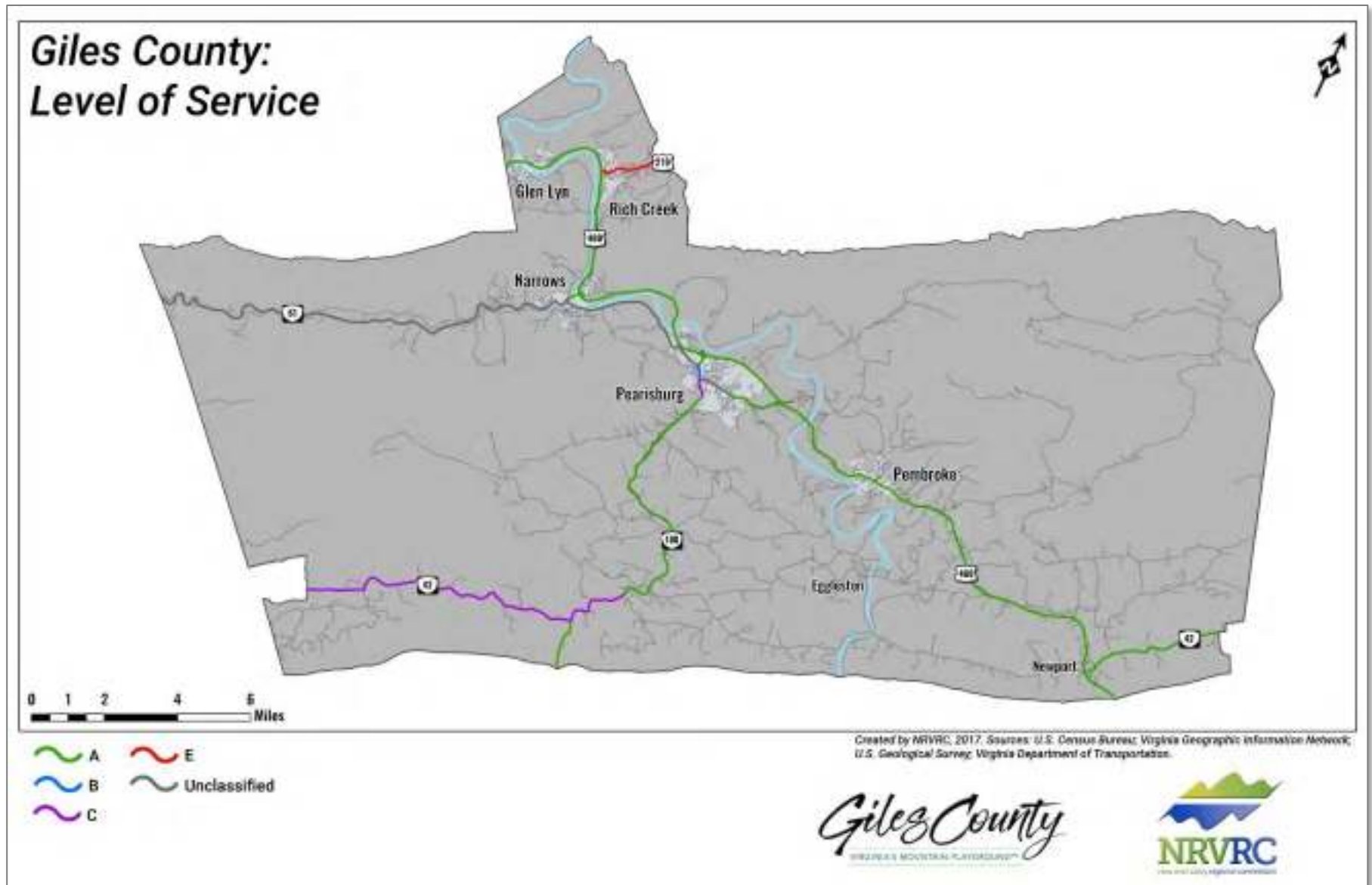
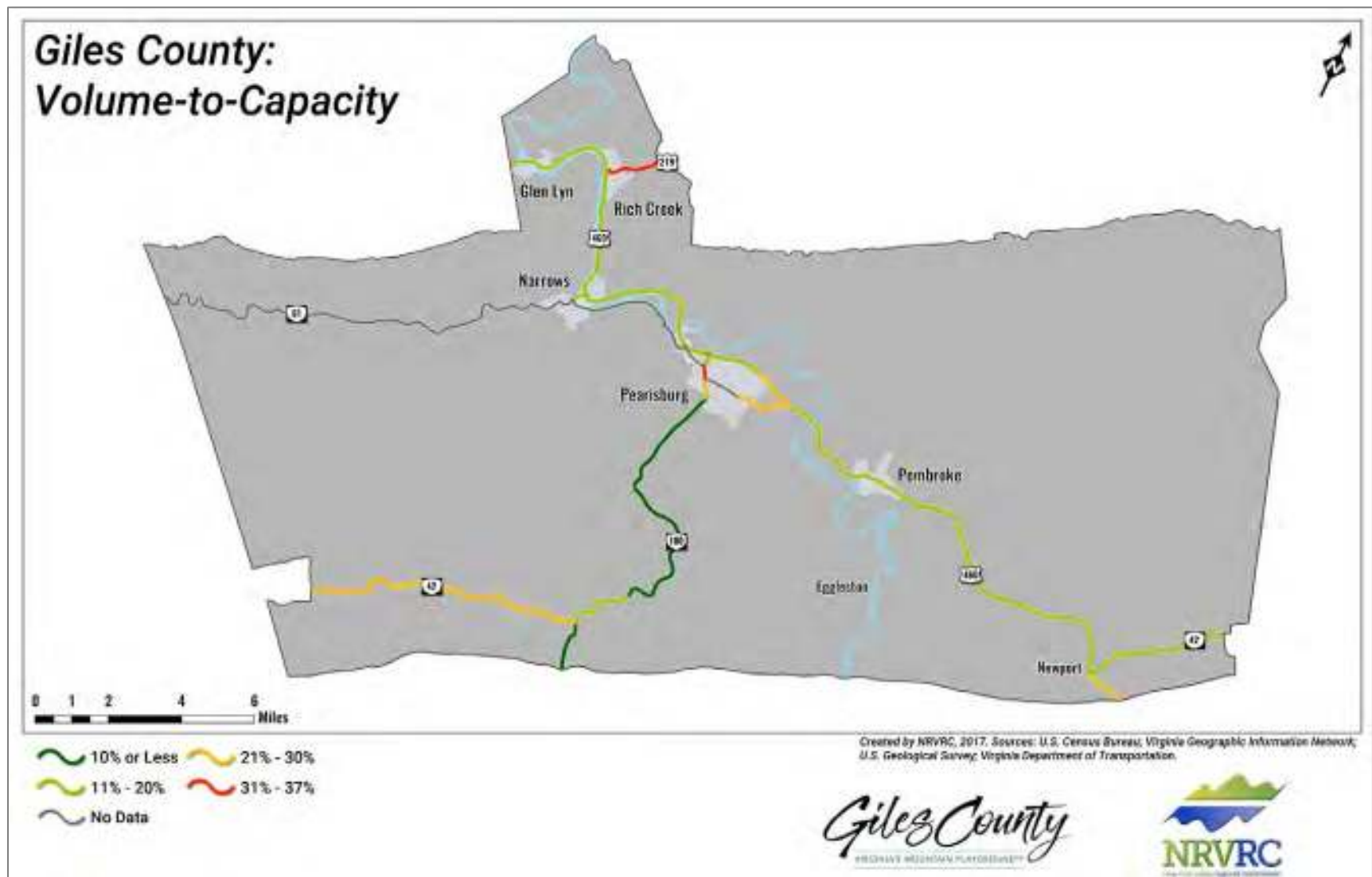


Figure 44: Volume to Capacity Ratio of Roadways in Giles County



Scenic Byways and Trails

In Giles County, there are three roadways that have been designated as Virginia Scenic Byways. They are Wolf Creek Road (Route 61), Big Stony Creek Road (Route 635) and Bluegrass Trail (Route 42).

The County also has some high-quality and significant multi-use trails that attract residents and visitors. In Giles County, there are approximately 150 miles of trails. These trails serve mainly as recreational amenities with only some stretches of trails that are within towns that can be used for commuting. The County continues to enhance trail infrastructure and streetscape to promote Giles as a tourism destination and to increase the economic impact of trails on the economy of Giles downtowns. In the recently completed River Center Action Plan some key projects and planning concepts were identified to promote economic opportunities and generate jobs. The projects that included trail infrastructure enhancement and development are as follows:

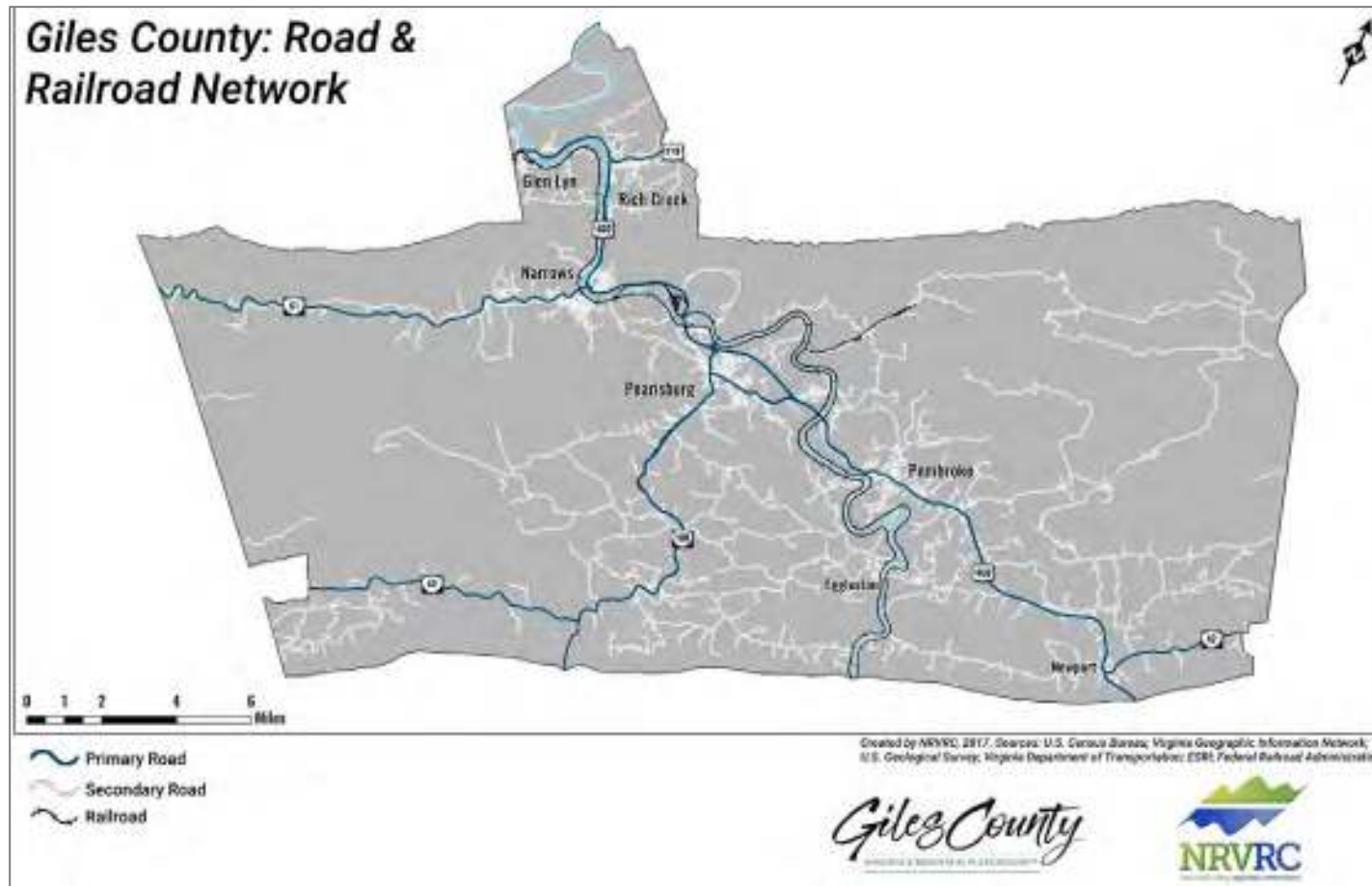
1. Proposed Highland Trail Loop
2. Proposed Wolf Creek Community Trail
3. Proposed Little Stony Creek

The proposed stretch of the Mary Ingles Trail/Great Eastern Trail in Glen Lyn is under development, which is a seven-mile pathway that runs along the east side of the New River between Glen Lyn and West Virginia. This effort was a joint public-private partnership comprising the Narrows Now Trail Club (NNTC), West Virginia Trail Association, Great Eastern Trail Association, U.S. Army Corps of Engineers and the Town of Glen Lyn.

Rail

There are two rail lines in Giles County which are owned by Norfolk Southern. These lines in Giles County run north-south along each side of the New River, which then converge into one line near Narrows as shown in Figure 45. These rail lines provide freight connection between the Port in Norfolk and the cities of Columbus and Cincinnati in Ohio.

Figure 45: Giles County Transportation Network



Airports

There are three airports that are in close proximity to Giles County. The closest airport is Virginia Tech Montgomery Executive Airport in Blacksburg, which is about 12 miles from Giles County. This airport is considered a General Aviation (GA) airport according to the National Plan of Integrated Airports Systems (NPIAS). The second airport is the New River Valley Airport in Dublin, which is about 10 miles from Giles County. In addition to being designated GA airport by NPIAS it is also designated a Foreign Trade Zone which is important for economic development and serving the region. The New River Valley Airport is owned and operated by the New River Valley Airport Commission and Giles County is one of its members. The third airport is the Roanoke- Blacksburg Regional Airport, the nearest commercial airport, located in Roanoke, about 60 miles from Giles County.

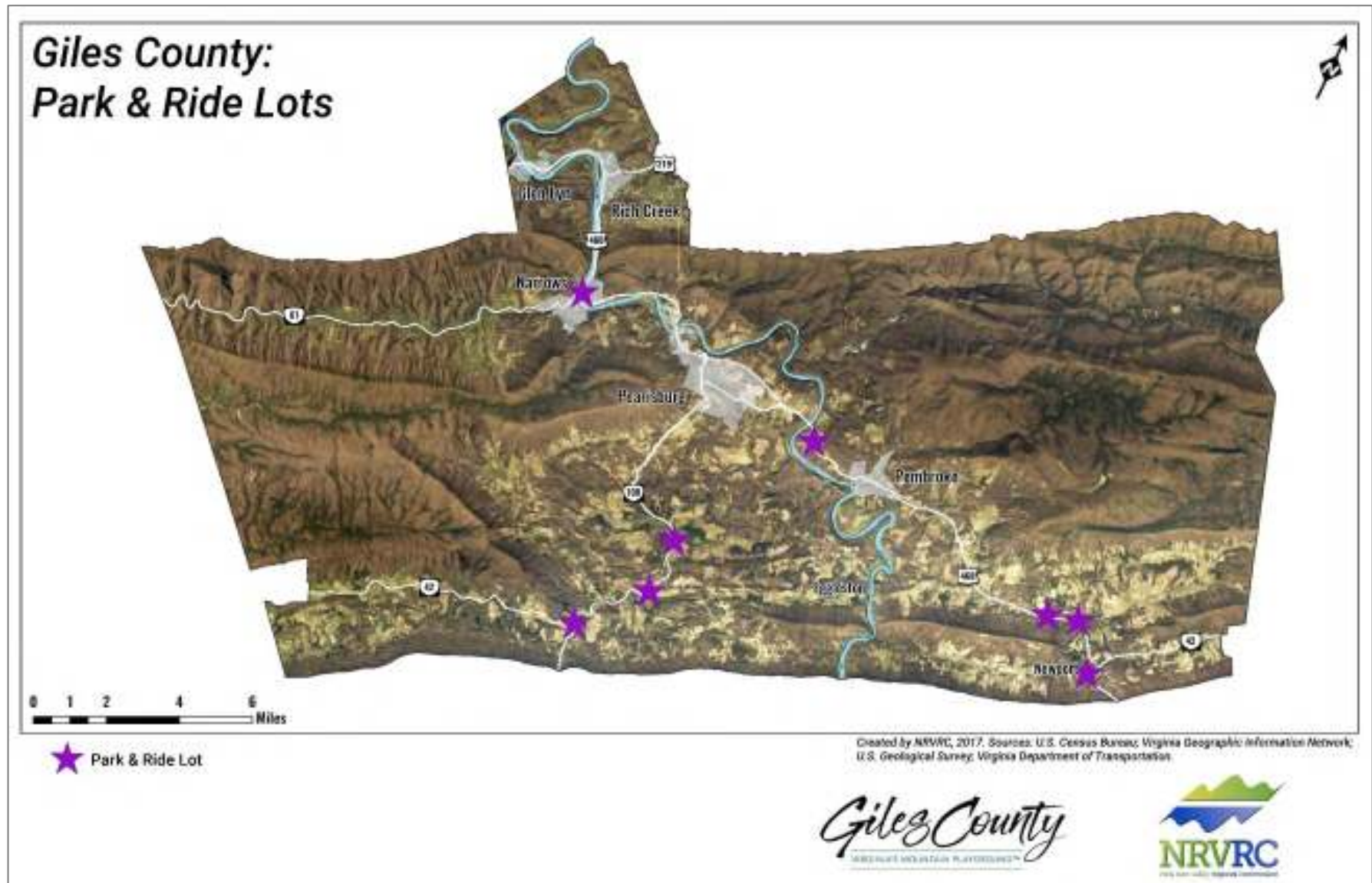
Bike, Pedestrian and Transit Facilities

There are over thirty (30) cycling routes within Giles County which are identified in the Cycling in the New River Valley Guidebook. These routes are mostly on-road rides with a few off-road rides. In Giles County, there are multi-use trails but there are no designated on-road bike facilities such as separate bicycle lanes, shared lane pavement markings, signage on roads or key intersection connections. It is recommended that the County consider bicycle safety policies and strategies and explore different grant and funding options to make the improvements.

There are different pedestrian facilities within the County. There are more than 150 miles of walking, biking and hiking trails in Giles County. Other pedestrian facilities such as sidewalk, and crosswalk are accomplished through VDOT transportation programs.

Giles County does not have fixed transit services, but transportation service is available for non-emergency medical service, trips for seniors and low income or special needs service, which is provided by New River Valley Senior Services and Community Transit (CT). Alternative modes of transportation are also available such as park and ride, carpool and vanpool programs. RIDEsolutions offer park and ride information, carpool matching services and also help employers set up vanpool programs. Virginia Tech has a vanpool program available as an alternative option for commuting for their employees. In Giles County, there are eight (8) park and ride lots. These facilities offer convenient and safe locations to commute in and out of the region. Figure 4**Error! Reference source not found.**6 identifies the different Park and Ride locations in Giles County.

Figure 46: Giles County Park and Ride Locations



Needs and Opportunities

Giles County has an abundance of natural resources and 37 miles of riverfront that makes it a desired tourism destination. Some of the key priorities to attract tourists and promote economic development are as follows:

- Examine accessibility to the different tourist areas and activities. Improve and increase accessibility where needed.
- Ensure availability of convenient parking spaces for visitors.
- Identify visitors' perception of parking in Giles County and work to improve perception for positive destination image.
- Enhance connectivity between different attractions.

The New River Valley Long Range Transportation Plan has identified needs in Giles County. A list of recommendations was compiled based on input contributed by local officials, technical staff, and public input. A number of the improvement projects listed in the plan will address geometric deficiencies and safety concerns. However, two projects identified in the plan relate to higher classification roadways. These projects are capacity projects and they are listed below:

1. VA 100 (Wysor Hwy.) from Pulaski Co. Line to VA 692: Mid-term improve roadway to address safety issues; Long-term widen to four-lane roadway with median.
2. VA 100 from 8.2 Mi. S. of US 460 to Pulaski Co. Line: Mid-term improve roadway to address safety issues.

The Virginia Department of Transportation has identified in their Six Year Improvement Plan some significant transportation projects within Giles County. These projects are as follows:

3. UPC 89655 – Route 673 Bridge Replacement over Wolf Creek
4. UPC 90091 – Route 670 Bridge Replacement over Big Walker Creek (Str. ID 08471)
5. UPC 107051 – Route 100 Safety Improvements
6. UPC 110615 – Deck Overlay on Route 460 over New River (Str. ID 08376)

The segment of the Heartland Corridor that runs through Giles is identified as segment E2. The needs for this segment has been identified in VTrans 2040 and is shown I Figure 47².

The County can pursue funds for the different transportation projects from different funding source such as:

- Revenue Sharing Programs.
- Six Year Improvement Programs.
- Transportation Alternatives (TA).
- Highway Safety Program

Figure 47: Segment needs

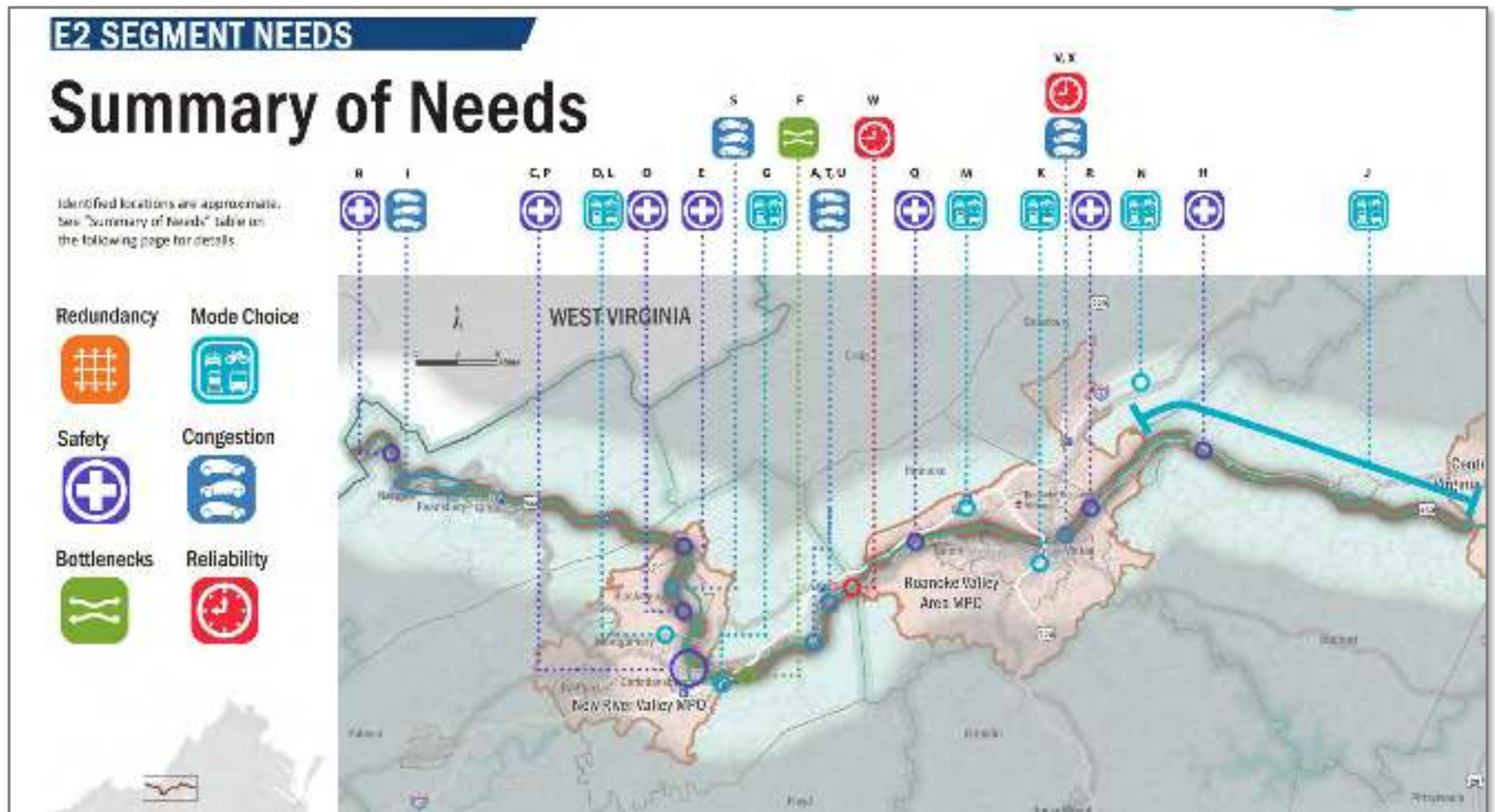


Table 35: Segment Needs



E2 SEGMENT NEEDS

Summary of Needs - E2 Segment

A.		US 460 west of Rossford: Frequent driveways and access points result in slow moving traffic.
B.		Safety issues at intersection of US 460 and VA 214.
C.		Safety issues at intersection of US 460 and North Franklin (5-way intersection).
D.		No rail connections to Northern Virginia and remainder of Northeast Corridor.
E.		Safety concerns at US 460 and Main Street in Blacksburg.
F.		US 33/660: Reduce capacity bottlenecks along 4-lane segment between 4-lane segments to the east and west.
G.		Intermodal park and ride at VA 20 near 1301 indicated need for additional park and ride facility in this location.
H.		Safety concerns related to severe S-curve design on US 460, sight of isolated but very severe crashes.
I.		US 460 through Christiansburg and narrow, frequent driveways and access points result in slow moving traffic.
J.		Widened Highway Facilities for US 460.
K.		No train service from Roanoke to other cities in the corridor.

Summary of Needs - E2 Segment

L.		No train service from Blacksburg/Christiansburg to other cities in the corridor. Bus transfer between cities in corridor is limited by Roanoke and Blacksburg/Christiansburg.
M.		Park and Ride lots in Roanoke County have higher utilization rates than statewide average.
N.		Park and Ride lots in Botetourt County have higher utilization rates than statewide average.
O.		US 460: Roadway between Country Club Drive and Highway 84 in Blacksburg: 23 severe crashes.
P.		US 460: Roadway between Mountain Road and Country Club in Christiansburg: 21 severe crashes.
Q.		US 460/US 11 between Trout Hollow Rd and River Rd in Salem: 22 severe crashes.
R.		US 460 between Ivan Lane and Paradise Rd in Roanoke: 23 severe crashes.
S.		Congestion issue at US 460/424 intersection and Wilson Park Road (VA Route 622) in Blacksburg.
T.		Congestion issue on US 33/US 460 between 103 in Christiansburg and Highway Spring Road in Shawsville.
U.		Congestion issue on US 33/US 460 between One Hollow Road (VA Route 640) and South Electric Road (US 33-460) in Salem.
V.		Congestion issue on US 460/US 211 between US 33 and US 229-Vin in Roanoke.
W.		Reliability issue on US 11/US 460 between North Park Road (VA Route 625) and One Hollow Road (VA Route 640).
X.		Reliability issue at US 460 and US 229/33 road at Roanoke.

References:

- Office of Intermodal Planning and Investment -Significant Corridors
- Virginia's Long-Range Multimodal Transportation Plan: Vtrans 2040, Summary of Needs.

Education Data Analysis

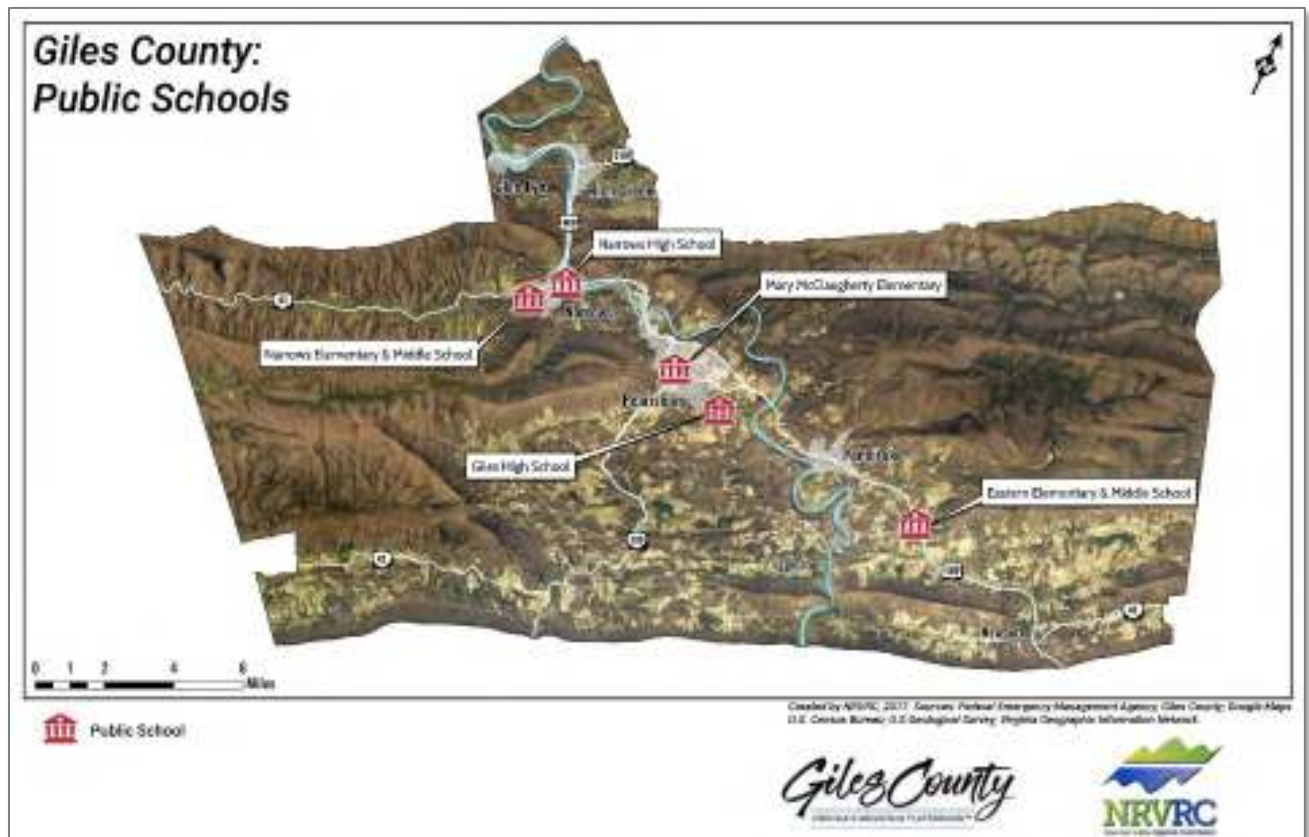
Giles County Public Schools

The mission of Giles County Public Schools is to educate, challenge and encourage students by providing a high-quality education. In Giles County there are a total of six schools - three elementary/middle schools, two high schools and the Technology Center.

Table 36: List of Schools in Giles County

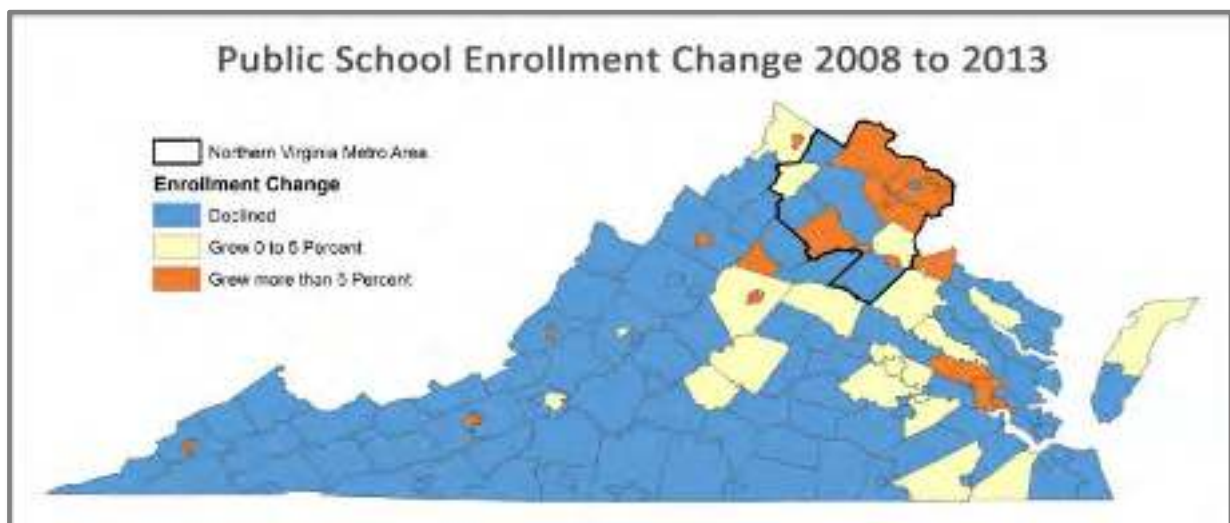
School Name	Grade Levels
Eastern Elementary/Middle School	Pre-Kindergarten to Grade 7
Macy McClagherty Elementary/Middle School	Pre-Kindergarten to Grade 7
Narrows Elementary/Middle School	Pre-Kindergarten to Grade 7
Giles High School	Grades 8-12
Narrows High School	Grades 8-12
Giles County Technology Center	High School and Adult educational programs

Figure 48: Giles County Schools



According to the Weldon Cooper Center most school divisions experienced decline in enrollment in the period between 2008 and 2013. Figure 49 shows that there has been a decline in school enrollment in Giles County between 2008 and 2013.

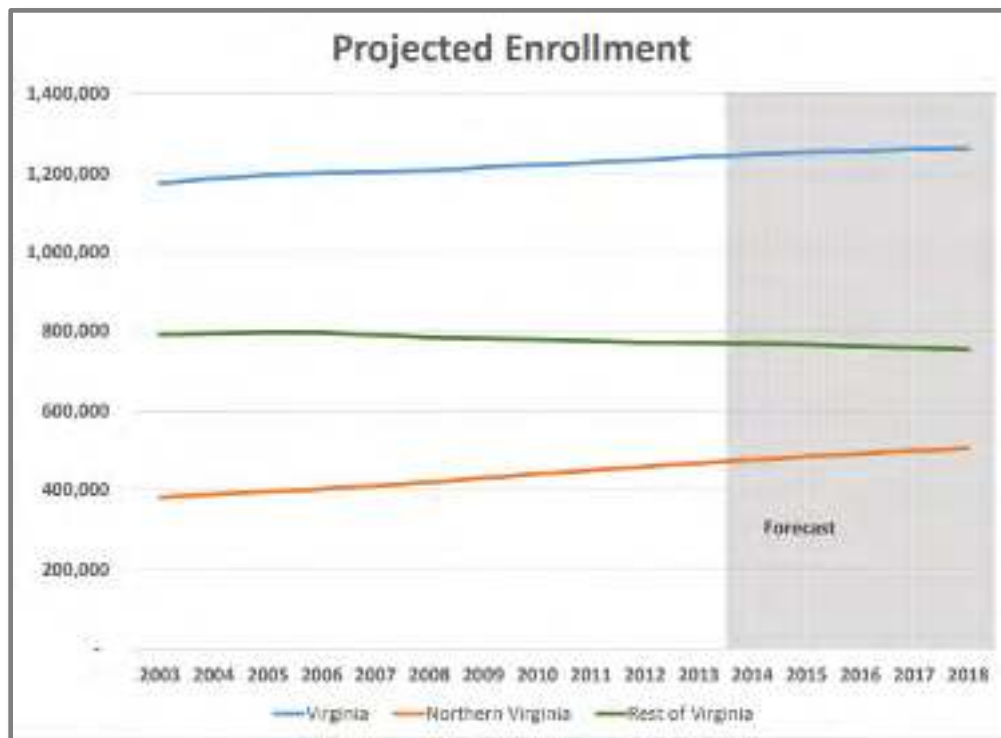
Figure 49: Public School Enrollment in Virginia



Source: Weldon Cooper Center

The Weldon Cooper Center projections through 2018 show that the enrollment in public school in most part of the state and most likely also in Giles County will continue to decline as shown in Figure 50.

Figure 50: Projected Public-School Enrollment in Virginia



In 2016 there were a total of 2,404 students in Giles County. In last three years Eastern Elementary/Middle School has experienced a decline in enrollment. Narrows Elementary/Middle School also saw a decline in enrollment in 2016-2017 school year. On the other hand, Macy McClaugherty Elementary/Middle School, and Giles and Narrows High schools have seen slight increases in enrollment. Table 37 shows the school enrollment and percent change in enrollment in Giles County from 2014 to 2017.

Table 37. School enrollment from 2014 to 2017

Name of School	2014-2015	2015-2016	2016-2017
<i>Eastern Elementary/Middle School</i>	<i>455</i>	<i>451</i>	<i>429</i>
<i>Percent Change</i>		-0.9	-4.9
<i>Macy McClagherty Elementary/Middle School</i>	<i>476</i>	<i>496</i>	<i>510</i>
<i>Percent Change</i>		4.2	2.8
<i>Narrows Elementary/Middle School</i>	<i>453</i>	<i>458</i>	<i>432</i>
<i>Percent Change</i>		1.1	-5.7
<i>Giles High School</i>	<i>689</i>	<i>664</i>	<i>689</i>
<i>Percent Change</i>		-3.6	3.8
<i>Narrows High School</i>	<i>350</i>	<i>339</i>	<i>344</i>
<i>Percent Change</i>		-3.1	1.5

Source: Virginia Department of Education

Giles County Public Schools is one the largest employers in Giles County. They employ approximately 374 employees of which approximately 208 are teachers.

Some of the programs offered by the public schools include:

Summer Food Program: Children (through age 18) can receive free nutritious lunch during the summer months regardless of income. Narrows High School & Macy McClagherty School are the host sites for this program. Breakfast for children during summer months when school is not in session is served at Macy McClagherty

Access to Community College Education (ACCE): One of the needs identified in the 2012 Giles County Comprehensive Plan was the necessity of creating more mid to high paying jobs in order to retain our rising workforce. ACCE and Summer Youth Work Program (SYWP) is in direct response to this. A better educated/skilled Giles workforce is more attractive to industry and, therefore, Giles becomes a stronger contender when it comes to recruiting new industry as well as retaining those presently existing. More jobs with better incomes equates to a more extensive tax base and higher quality of life.

In the fall of 2017, 82 Giles youth attended New River Community College (NRCC) for up to two years with up to 60 credit hours paid for by ACCE. ACCE students must maintain a minimum 2.5 GPA and perform 80 hours of service to the Giles Community each year. In addition to other programs with a community service component, ACCE students contributed 3,340 community service hours in 2017 (1.6 Full Time Equivalents)

Agriculture Land Lab: The Agriculture Land Lab in Giles County is located on a 38-acre parcel of land adjacent to Giles High School. The development of the lab began through donations from the Board of Supervisors and local producers, which allowed for the procurement of land, fencing and livestock. In addition, the lab has a 10,000-square foot vegetable garden. Crops from the vegetable operation are returned to the school for use in the cafeteria along with supplying the schools with beef raised on the Ag Lab. Students are involved in all aspects of the operation from establishing the infrastructure of the facilities to herd management, as well as crop and pasture improvements. The lab is in close proximity to and has a great working relationship with Virginia Tech and the Virginia Cooperative Extension on many fronts, which gives high school students the opportunity to learn from and be involved with the veterinary medicine school and college of Agriculture and Life Sciences.

With the agriculture classes, Career and Technical Education (CTE) curriculum is followed and students obtain their completers¹ needed for the course with Beef Quality Assurance (BQA) certifications or green house operator certifications. However, the land lab is not strictly for traditional Agriculture students. It also has the ability to create opportunities for Biology, Chemistry, Ecology, family and consumer science, and Engineering lessons/classes. In addition, elementary schools have also participated by doing soil composition and plant and animal life cycle programs for students in grades K-7. The Ag Lab is a year-round operation that has students on site throughout the school year and the summer through the County's ACCE program and summer youth work program with Goodwill Industries. The lab's mission in this venture is classroom quality instruction in and about agriculture that utilizes a "learning by doing" philosophy while incorporating math, reading, social studies, and physical, chemical, and biological sciences into each course.

¹ *A Career and Technical Education Program Completer is a student who has met the requirements for a Career and Technical concentration or specialization and all requirements for high school graduation or an approved alternative education program 3 Performance measure for College and Career Readiness required by the Virginia Board of Education.*

Giles County Public School Preschool: Giles County Public Schools has four-year-old preschools at all three elementary schools. The goal is to provide a high-quality preschool experience for every child. Their programs include the Virginia Preschool Initiative Program (VPI), the Virginia Preschool Initiative Program-Plus Program (VPI+), County Tuition Program and a program for special needs for three and four-year old children. In addition, the school system collaborates with Head Start to provide preschool services to as many children as possible who live in Giles County. With the exception of the Tuition Program, these programs are state and federally funded and have specific criteria for enrollment. The preschool programs provide a dynamic, nurturing and play-based setting for every child to learn. The programs promote healthy social, emotional, and physical development and they aim to provide high quality academic instruction that encourages life-long learning and focuses on the growth of the whole child.

All of the programs use the Creative Curriculum for Preschool. Creative Curriculum is a comprehensive set of resources that assists teachers as they plan content-rich programs for children with diverse backgrounds and developmental levels. The program employs a Family Engagement Coordinator, whose role is to work with VPI+ teachers to identify family needs and help build protective factors, engage families in the program, and build family skills as decision makers and advocates. In addition, teachers receive practice based coaching and focused professional development on critical topics such as classroom interactions and environments, content area practice, formative assessment and individualized instruction.

Giles County Technology Center: The Giles County Technology Center serves juniors and seniors from Narrows High School and Giles High School through nine program areas. The Nursing Department educates high school students in the Nursing Assistant program and teaches adults and high school seniors in the two-year Practical Nursing program. The Tech Center has seven programs that fall under the Trade & Industrial Education category: Automotive Service Technology, Building Technology, Computer Information Technology, Cosmetology, Drafting/Pre-Engineering, Precision Machine Technology, and Welding. Each of these programs is a two-year half-day program with juniors attending in the mornings and seniors in the afternoon.

At the Tech Center students are engaged in educational programs designed to prepare students to enter the workforce and begin a career. Curriculum is competency based and students are given multiple opportunities to achieve certifications in their program area which also meet a graduation requirement for the Standard Diploma. In addition to their program area curriculum all students attend a Workplace Readiness Skills course during their senior year taught by the Career Counselor at the Tech Center. Traditionally, approximately 45% of all Giles County graduates have attended the Giles County Technology Center. For almost fifty years the Vocational School/Technology Center has been preparing students to enter the workforce and improve the Giles County economy.

Giles County Public Schools continues to work with the New River Community College and Virginia Tech to offer its schools special educational programs to provide high quality education and learning experiences.

Private Schools

Giles County has one private school - Jefferson Christian Academy - located at 219 Big Stony Creek Road, Ripplemead, VA 24150.

Community College

The New River Community College in Dublin in Pulaski County, which is about 22 miles from Giles County, offers various programs where students can obtain a diploma, certificate or an associate degree. The College has a satellite educational facility in Christiansburg.

Universities

There are two higher education institutions in close proximity to Giles County, Virginia Tech and Radford University. Virginia Tech is about 20 miles from Giles County and Radford University is about 30 miles away. Also, Concord University, WV is about 30 miles from Giles County and Bluefield State College is about 35 miles away.

Community Services Programs and Data

Health, Community Outreach, Social Services, Police, and Fire and Rescue

The County is responsible for identifying the needs of the community and providing certain services to best serve its citizens. County services include court, administration, social, police, and fire and rescue. In Giles County, there are private healthcare services and public health services. The County ensures that health services and facilities are available and adequate and promotes healthy lifestyles and self-reliance. It strives to improve the health and safety of at risk populations. The County ensures protection from health hazards. The County also provides public safety facilities, services and programs.

Health Care

The Carilion Giles Community Hospital in Pearisburg is a high-quality healthcare facility fully equipped with inpatient, outpatient and emergency services. It is a modern, 25-bed Critical Access hospital, offering emergency services recognized nationally for quality and patient satisfaction in addition to high-quality inpatient care and an extended care recovery program. There is a 24 hour emergency room, an Intensive Care Unit, home care, inpatient and outpatient services, inpatient and outpatient surgery, therapy services, Bone density testing, CT scan, Cardiac rehabilitation, Endoscopy services, Life-Guard air transportation, MRI, Mammography, Nuclear medicine/molecular imaging, Swing bed - recovery care and Therapy services (PT, OT, ST, Respiratory). It also offers specialties in emergency medicine, radiology diagnostics, general and cosmetic surgery and Cardiology. Carilion Giles Community Hospital also provides community outreach efforts.

Carilion Clinic Patient Transportation Services (CCPT) provides non-emergency and emergency medical transportation, including air ambulance transportation 24 hours per day. CCPT provides Basic Life Support/Advance Life Support (BLS/ALS), to all types of facilities, organizations, and patients. Patients are transported to and from the hospital, nursing homes, doctor's offices, and dialysis facilities. CCPT services include: Carilion Clinic Life-Guard air transport, Ground transport, State-of-the-art Communication Center, Neonatal Pediatric Team Contract, 911 EMS coverage and Bike EMS Team.

Carilion Health System also operates an ambulance service to serve the emergency needs of Giles County residents. The Giles County Lifesaving Crew also performs emergency rescue services voluntarily. Giles County contributes County funds to the Rescue Squad operations. All County ambulance attendants and rescue squad members have completed, at minimum, an Emergency Management Technician certification (EMT).

Giles Community Health Center provides healthcare services to residents of all ages in Giles County, regardless of insurance status. The center was opened in 2007 with a U.S. Health Resources and Services Administration Rural Health Outreach Grant. The Center provides outpatient primary health care using a combination of volunteer and paid clinical staff. The Center coordinates with member organization Carilion Giles Community Hospital to provide hospital-based care and arrange for access to needed medications through the Giles Medication Assistance Program (G-MAP).

Another health care-related service available to citizens of Giles County is Heritage Hall, located in Rich Creek, which provides rehabilitation and nursing services.

Mobility Coordination Program managed by the New River Valley Agency on Aging assists older adults, adults with disabilities, auto less homes and lower income individuals with unmet transportation needs, including those who do not have Medicaid transportation coverage to assist in improving quality of life. The Mobility Coordination Program assists the targeted populations with transportation/options and information to stay connected with community, maintain medical treatments and meet their basic needs. The Mobility Coordinator promotes and utilizes existing public and private transportation services, volunteers when available and the eleven passenger Mobility Coordination vehicle, purchase transportation as needed from approved providers for the targeted population who reside in Giles County. Historically, individuals who have been served fall within the poverty guidelines and can only pay a minimal amount if any. Service is provided regardless if the participant can pay.

When needing transportation outside of Giles County there are several different programs under the New River Valley Agency on Aging that they can qualify for depending on their individual needs. Some of the options are income-based fee structures and donation based. Transportation to Roanoke Virginia, an estimated 160 miles round trip or beyond to University of Virginia or Wake Forest can be provided if the need is identified. In addition, the Mobility Coordination Program is currently offering a trial program, providing set scheduled group transport using the Mobility Coordination eleven passenger vehicle once a month to Roanoke and Salem medical centers. The Mobility Coordination Program will also continue efforts to establish a volunteer network, recruiting and managing qualified volunteers.

As a “one-stop” our program assists individuals with transportation needs with a toll-free line that was established for clients to have guidance and information about their transportation options for services. The "one stop" call line helps alleviate unnecessary calls into service providers that would slow down productivity and efficiency. By providing this service clients receive a personal approach to the transportation challenge they are facing and are reassured that there are transportation options.

The New River Valley Agency on Aging also provides non-emergency medical transportation to Giles senior citizens 60 years and over and within the New River Valley. A sliding scale fee applies based on client income.

Giles County Health Department, Virginia Department of Health

The Virginia Department of Health must administer and provide a comprehensive program of services as mandated by the Code of Virginia. These services include confidential HIV counseling and testing, Baby Care, breast and cervical cancer screening, Care Connection for Children, Communicable disease prevention and control, Environmental health, Family planning, Health education, Immunizations for children and adults, Maternity care, Nursing home screenings, Resource mothers, Safety seat program, Vital records and health statistics, Well child care and Women, Infants, and Children (WIC).

The Environmental Health Program's Sewage and Water Services provides site evaluation for design and permitting of septic systems and wells. This program also reviews plans for local governments and engineering plans, provides courtesy reviews to private sector, conducts construction inspections of wells and sewage systems, provides site and soil evaluations, reviews sanitary surveys and designs of certain onsite sewage disposal systems, and conducts complaint investigation. The Health Department also collects water samples for bacterial analyses, evaluates and approves construction methods and water quality for individual drinking water supplies and conducts health hazard surveys of individual water well.

Other duties include inspections of daycares, adult care facilities, school cafeterias, restaurants, bed and breakfasts, festival and fair vendors, campgrounds, summer camps, migrant labor camps, and marinas. The program is also responsible for investigating West Nile Virus reports, animal bites and general environmental complaints.

Community Service Programs

The Giles Community Service Program Division administers various programs to provide comprehensive and wrap-around care for the citizens. These services are provided in cooperation with partner agencies, some of which are listed below:

- Giles County Public Schools
- Giles County Circuit Court
- Giles County General District Court
- Giles County Juvenile and Domestic Relations Court
- Giles County Court Service Unit (CSU)
- New River Valley Regional Jail
- Giles County Probation & Parole

- New River Comm. Corrections & Pretrial Service
- New River Valley Community Services (NRVCS)
- Giles County Department of Social Services (DSS)
- NRV Alcohol Safety Action Program (VASAP)

The programs that have been established and are ongoing are as follows:

1. **Access to Community College Education (ACCE):** One of the needs identified in the 2012 Giles County Comprehensive Plan was the necessity of creating more mid to high paying jobs in order to retain our rising workforce. ACCE and Summer Youth Work Program (SYWP) is in direct response to this. A better educated/skilled Giles workforce is more attractive to industry and, therefore, Giles becomes a stronger contender when it comes to recruiting new industry as well as retaining those presently existing. More jobs with better incomes equates to a more extensive tax base and higher quality of life.

In the fall of 2017, 82 Giles youth attended New River Community College (NRCC) for up to two years with up to 60 credit hours paid for by ACCE. ACCE students must maintain a minimum 2.5 GPA and perform 80 hours of service to the Giles Community each year. In addition to other programs with a community service component, ACCE students contributed 3,340 community service hours in 2017 (1.6 Full Time Equivalents)

2. **Assign-a-Highway (AAH):** AAH provides multiple benefits to those who live, work and play in Giles County. These benefits include: protection of Giles' attractive landscapes and a valuable opportunity for a probationer to give back to his/her community. The county continually receives positive comments from citizens, visitors, and government officials alike regarding the minimal amount of roadside litter on Giles highways and byways. AAH is included as a condition of probation for Giles probationers. AAH, which is in partnership with the Virginia Department of Transportation, provides a high return on investment through the provision of sustained litter removal along our roadsides and streams. In 2017, Giles County AAH participants completed 1,360 hours and picked up a total of 1,413 bags of roadway litter.
3. **The Children's Services Act Program (CSA):** The CSA Program is the result of a law enacted in 1993 that establishes a single state pool of funds to purchase services for at-risk youth and their families. The state funds, combined with local community funds, are managed by the local Community Policy and Management Team (CPMT) and Family Assessment and Planning Team (FAPT), who plan and oversee services for the youth.

The mission of the CSA is to create a collaborative system of services and funding that is child-centered, family-focused and community-based when addressing the strengths and needs of troubled and at-risk youth and their families. CSA has six purposes: Preserve families and provide services in the least restrictive environment while protecting children and maintaining public safety; Identify and intervene early with children who have emotional and/or behavioral

problems; Provide services that are responsive to the unique needs of troubled children and families; Increase collaboration between agencies and increase family involvement with service delivery; Encourage public/private partnerships; Provide flexibility to communities.

4. **Day Report Center:** Day Report was established in February of 2009 with the goal of reducing recidivism rates of Giles inmates and therefore, reducing the mounting fiscal and societal costs related to incarceration. Day Report participation begins with extensive screenings and assessments. It then expands to drug, alcohol and life skills counseling. Individual counseling is also provided. Violent or sexual offenders are not eligible for Day Report Programming. The goal to reduce recidivism, and subsequently the New River Regional Jail Bill, was reviewed at the six-year mark. Recidivism rates had been reduced by 31%.
5. **Focus on Communities Utilizing Services (F.O.C.U.S.):** The FOCUS Program began with the act of collecting 23 different (physical locations only, no names) data points including 911 Assault, 911 Domestic, circuit court, district court, truancy, Day Report and Child Protective Services. Five thousand two hundred data points were logged on to 23 different GIS overlays by incident type. The resultant map revealed that 5% of physical locations in Giles County used 55% of all our reactive services expenses. It was also apparent that these locations were parts of distinct community clusters. These clusters were where all existing service providers in the county needed to be more efficient at cross-collaboration and therefore, “focusing” services at the families and individuals living in these clusters.

In 2015 the first intensive interactions began and to date change in more positive social norms has slowly begun to be realized in these community clusters that are literally, residentially segregated. This is especially so with the children. The vision of FOCUS is:

- Every child is provided relationships to help them achieve his/her greatest potential and participate in and contribute to the community
 - Every parent is provided relationships to help them improve the quality of life for their families
 - Every adult is provided the relationships to help them become responsible, participating citizens
6. **Giles County Community Service Program:** The community service program allows individuals to pay their court costs through the provision of work hours benefiting Giles County. Perhaps, even more importantly, these individuals learn accountability, good work habits and through this process, realize increased levels of self-confidence and self-esteem.

It also provides a positive working experience and establishes good job references. It helps offenders to enter into the workforce as productive citizens. Another benefit, which was not initially anticipated was enhancement of the supervisory skills of current Giles County staff. This has, in turn, increased pride in the program's success. As of the end of fiscal 2017, and excluding other programs' community service hours (ACCE and AAH), the Giles County Community Service Program contributed a total 5,209.25 to the county and towns.

Community Service currently averages in excess of 140 hours of work performed weekly. A few examples of where this work is performed include the Giles Public Service Authority garbage trucks, turf management on the county owned golf course, the county animal shelter and our public-school system. Successful work experience has led to ex-offenders obtaining full-time positions with the private sector.

7. **Giles County Adult Drug Rehabilitation Court:** The mission of the Giles County Drug Court is to provide substance abuse treatment with intensive judicial oversight and frequent supervisory contact from probation as well as the treatment provider. It is voluntarily available to (non-violent) adult drug offenders as an alternative to incarceration. The goal is to break the cycle of addiction, crime, and incarceration.

The Adult Drug Court Team is under the direction of Judge H. L. Harrell. Members of the Adult Drug Court Team include the Judge, Court Clerk, Commonwealth Attorney, Defense Attorney, Probation Officer, Law Enforcement Representative, Treatment Provider, Drug Court Program Coordinator and Giles County Community Service Program Representative. Giles Drug Court officially began in March of 2016. As of fall 2017, there are 7 individuals participating and on the road to recovery and productive citizenship.

8. **Fall into the New & Ramps n' Roads:** In 2017, Fall into the New celebrated its' 15th year and Ramps n' Roads, its' 13th.

These activities are sponsored by the largely volunteer group known as ReNew The New with support from multiple agencies and organizations. ReNew sponsors two annual river clean-ups. In the spring is "Ramps 'n' Roads" and in the fall, "Fall into the New". This dedicated group focuses on stewardship of 37 miles of the New River flowing through Giles. Participants include representatives from: New River's Edge, New River Outdoor Company, Tangent Outfitters, Nano Sonic, DGIF, DCR, National Committee for The New River, Giles Sheriff's Department, US Army Corps of Engineers, Giles County personnel, Giles County PSA, National Honor Society, VA Tech Leadership Group, area church youth groups, Boy Scouts, Trout Unlimited, local fire departments as well as many private citizens committed to the preservation and renewal of the historic New River.

The spring 2017 Ramps n' Roads was the largest in event history. The 253 community volunteers, in collaboration with the multiple agencies and organizations collected 472 bags of trash, 90 tires and other debris totaling a combined 18 tons of debris removed from the Giles landscape. The 2017 Fall Into the New achieved 236 participants donating a total of 1,452 hours and more than 3 tons of debris were removed from the water and riverbanks, including 100+ tires, 180 bags of trash and a painted river gauge.

Anyone interested in protecting and renewing the beautiful New River is welcome to join in. For more information, go to ReNewTheNew.org or go on Facebook.

9. **Recovery Court** – This program is a partnership with Circuit Court, NRVS, Commonwealth's Attorney (CWA) and the County. The CWA works with an Interdisciplinary Team to select

candidates. NRVCS provides clinical services and participants attend their programs for treatment.

10. **Summer Youth Work Program (SYWP):** The SYWP began in the summer of 2013 and has just completed its' fifth year. Any resident, Giles County high school student between the ages of 16 through "just about to graduate," may be eligible for SYWP. SYWP is a 32 hour per week, 6 week long program designed to help youth explore vocational interests while acquiring essential work readiness skills. Many studies, such as one from the Brookings Institute, suggest teen employment is directly associated with improved employment and earnings outcomes later in life. More gainful adult employment is indicative of significant, overall quality of life improvement as well. In the summer of 2017, 53 youth completed the SYWP.

SYWP is as a result of collaboration between the Giles County Board of Supervisors, the Giles County Industrial Development Authority, Giles County Public School System, Goodwill Industries-Workforce Office and the highly supportive Giles County Business Community.

11. **Giles County/Department of Social Services Temporary Aid for Needy Families (TANF) Collaboration** - When a family is in need of temporary aid, they are required by state and federal law to either be working, going to school, looking for work or providing volunteer work. When DSS identifies families eligible for TANF, the physically capable member(s) is referred to Giles Administration. Interviews are conducted to identify the individual's interests and skills and they are usually and immediately placed in a volunteer work position with the county or the towns. As they demonstrate their willingness to work, they are often sent for interest and aptitude testing, job interviews, referred to further schooling or in some cases, offered jobs. If they are unwilling to participate, they are reported to DSS and they are sanctioned and no longer receive public benefit.
12. **Utilization Review** – In the Fall of 2016, the local Community Policy Management Team amended local CSA policy to require that utilization review be provided by an independent reviewer. Utilization Review is to assess the services being provided, ensure that progress is being made, and recommend alternative services as needed.

Social Services

The Giles County Department of Social Services provides financial aid and services to low income families in the County. The Social Services office is located in Narrows and is governed by the Social Services Board, which consists of five members appointed by the Board of Supervisors.

The Giles County Department of Social Services administers the following programs:

1. **Financial Services Unit** – The financial services unit administers many financial assistance programs which are:

- i. Aid to Families with Dependent Children – Foster Care (AFDC-FC)
 - ii. Auxiliary Grants
 - iii. Emergency Assistance
 - iv. Energy Assistance – Fuel, Crisis, and Cooling
 - v. Family Access to Medical Insurance Security (FAMIS)
 - vi. Supplemental Nutrition Assistance Program (SNAP) former Food Stamp Program
 - vii. Medicaid
 - viii. Refugee Resettlement Program
 - ix. Temporary Assistance for Needy Families Program (TANF)
2. **Service Program:** In addition to the financial needs programs discussed above, Department of Social Services staff seek to serve some of the other essential needs of their clients through direct services. The following programs are offered to provide support to individuals, families, and children:
 - i. Adoption Services
 - ii. Adult Services
 - iii. Adult Protective Services
 - iv. Child Protective Services
 - v. Chore Services
 - vi. Companion Services
 - vii. Day Care Services
 - viii. Family Preservation
 - ix. Foster Care Services
 - x. Homemaker Services
 - xi. Intake Services
 - xii. Virginia Initiative for Employment Not Welfare Program (VIEW)

Libraries

Giles County currently has five libraries. They are located in the Town of Narrows, Pearisburg, Pembroke and Rich Creek, and Newport. Pearisburg has the largest library in Giles County with 8,000 card holders. They also have an automated card system. They have a variety of programs for children and adults. The library in the Town of Narrows is called the Iris Brammer Public Library and is located at 109 Mary Street. It offers free computer lessons and it partners with Head Start to encourage reading to children and to enhance school readiness. The library at Rich Creek is located on 140 Spruce Street. They have several collections of materials, provide internet service and conduct summer reading programs. The Town of Pembroke's library is located at 107 Snidow St. and is considered the smallest library in Virginia. The library at Newport has thousands of books and offers convenient reference materials, children's and teen literature, free Wi-Fi and computers for public use. It is located at the Newport Community Center.

Public Safety

Law Enforcement

The Giles County Sheriff Office's mission is to provide programs and services that benefit Giles County citizens. It is the primary law enforcement agency for the citizens of Giles County and its headquarter is located at 1 Taylor Avenue, Pearisburg. The agency's functions are law enforcement, investigations, court services, security, answering public calls for service, periodic traffic checks, and interagency partnerships.

The Sheriff's Department is divided into the eight divisions: Administration, Civil Process and Court Security, Patrol, Investigations, School Resource Officers, Animal Control, Communications and Inmate Work Crew.

Administration - The administrative division oversees all Sheriff's Office operations. The administrative division welcomes comments from the public and strives to ensure professionalism and integrity in each Sheriff's Office service.

Civil Process and Court Security - The civil process division is responsible for serving legal papers to citizens of Giles County. The Court Security division is responsible for providing security during General District and Circuit Court proceedings.

Patrol - The patrol division provides 24-hour proactive patrol to citizens of Giles County. The patrol division answers emergency and non-emergency calls, enforces traffic laws, assists stranded motorists, as well as providing many other services.

Investigations - The investigations division investigates criminal matters ranging from drug offenses to homicide.

School Resource Officers - School resource officers (SRO) provide security at all Giles County Public Schools. SRO's also provide educational programs to students from kindergarten through 12th grade.

Animal Control - The animal control division answers all complaints involving domestic animals. They work closely with the Giles County Animal Shelter to provide shelter for the animals and assist with adoption.

Communications - The communications division is the hub of all Sheriff's Office operations. Emergency and non-emergency calls are dispatched through the Giles County E-911 center by

communications officers. Giles County Sheriff's Office communications personnel are responsible for dispatching all Giles County fire, rescue, and law enforcement personnel.

Inmate Work Crew (IWP)- The IWP is overseen and operated by the Giles County Sheriff's Office in collaboration with the Giles County Combined Services Department. Inmates that are screened and approved for outside, daytime work are assigned to the work crew. This opportunity enables these individuals to not only use and demonstrate their work skills but also allows them to give back to the county and towns. In the first nine months of 2017, the IWP contributed 11,028 hours of labor to Giles. If this labor were to be calculated at a rate of \$10/hour, the benefit to the county is \$110,280.

The Sheriff department has a total of forty-seven (47) personnel, with twenty-three (23) Road Deputies, five (5) School Resource Officers, eleven (11) Dispatchers including supervisor, five (5) Court Security Deputies including part time and three (3) part time inmate workforce program deputies.

The Deputies are required to be DCJS certified and require a certain number of In-Service hours and any additional training or specialization to keep up to date with new techniques and changes that may affect the community. The Sheriff's Office is involved in many community service projects including Drug Abuse Resistance Education (D.A.R.E.), Rape Defense (R.A.D), Senior talks, Help Save the Next Girl, and Inmate Workforce Programs, and are open to any other related programs the public may benefit from. Dispatchers are required to be trained and be NCIC/VCIN and EMD certified for their position and continue additional training if necessary.

Fire and Rescue

The Giles County Volunteer Fire Department includes 9 fire departments within the County. The mission is to prevent the loss of lives and property damage by fire. The Fire departments provide fire suppression services, emergency services and education on preventing fire hazards and preparing for emergencies to County residents. There are 9 fire stations which include Glen Lyn, Narrows, Pearisburg, Pembroke, Rich Creek, Eggleston, Poplar, Newport and Celanese fire departments. The location of the fire department and the number of firefighters in each fire department are shown in Table 38 below:

Table 38: Fire Departments in Giles County

No.	Department	Location	Number of Firefighters
1.	Town of Glen Lyn	300 East River Mountain Road, Glen Lyn VA 24093	19
2.	Town of Rich Creek	109 Federal Street, Rich Creek, VA 24147	24
3.	Town of Narrows	131 Center Street, Narrows, VA 24124	39
4.	Town of Pearisburg	720 Mountain Lake Avenue, Pearisburg, VA 24134	39
5.	Town of Pembroke	103 Cascade Drive, Pembroke, VA 24136	25
6.	Eggleston	235 Firehouse Road, Eggleston, VA 24086	18
7.	Poplar Hill	1520 Walkers Creek Valley Road, Pearisburg, VA 24134	20
8	Newport	716 Blue Grass Trail, Newport, VA 24128	33
9	Celanese	3520 Virginia Avenue, Narrows, VA 24124	30

Appendix A

Tourism

1. Tourism Activities

Name of Resource	Location	Activities
4-H Camps (various topics)	Pearisburg	Connecting youth with community through participation and service
Along New River	Throughout the County	Entrance points at Eggleston, Glen Lyn, Narrows, Pembroke, and Pearisburg
Appalachian Trail	Throughout the County	Access at several different points in the county
Big and Little Stoney Creek	Kire/Pembroke	Premier trout fishing stream
Butt Mountain - Dickenson Gap Trail	Pembroke	1.3 miles hiking trail
Camp Success Park	Narrows	Stream bank fishing
Cascades National Recreational Area/Trail	Pembroke	Waterfall, hiking, fishing, picnic area
Castle Rock Recreation Area	Pembroke	18-hole golf course, swimming pool, and occasionally bald eagles
Cooking Camp	Eggleston	Cooking/hospitality camp for children at The Palisades Restaurant
Falls of Dismal Creek	North of White Gate	Stock trout fishing stream, butterflies, wild turkey, ravens, and more
Farley Memorial Wayside	South of Pearisburg	Woodpecker, Blue Jay, Carolina Wren, and more
Flat Top Mountain - Ribble Trail	Staffordsville	Moderate to steep hiking trail
Glen Alton Recreation Area	Glen Alton	Fishing and hiking Bird watching trail
Glen Lyn Park	Glen Lyn	Kingbird, Mourning Dove, American Crow, and more
History Adventure Camp	Pearisburg	Archaeology dig, prehistoric Giles County, colonial crafts & games, music, dance & storytelling, tracking the life of a Civil War soldier
Jefferson National Forest	Throughout the County	Various hiking trails
Johns Creek	Mountain Lake	Trout fishing
Mill Creek Nature Park	Bane	Trout fishing
Mountain Lake Resort Hotel	Pembroke	Bird watching trail and hiking trails ranging in length and difficulty

Source: Giles County Office of Tourism & Marketing

1. Tourism Activities contd.

Name of Resource	Location	Activities
Mountain Lake Watchable Wildlife Area	Pembroke	Depends on the season - observers can see deer, hawk, mink, turkey
Narrows Town Park	Narrows	Fishing
Newport to Eggleston Trail	Newport	Moderately difficult biking trail from Newport though Mountain Lake to Eggleston
Pearis Mountain - Angels Rest Trail	Pearisburg	Steep hiking trail
Peter's Mountain - Flat Peter Loop Trail	North of Ripplemead	Moderate hiking trail
River Trails	Northeast of Bluff City	Steep hiking trail
Salt Pond Mountain - War Spur and Chestnut Trails	Narrows	Song Sparrows, Indigo Buntings, and more
Sinking Creek Mountain - Sinking Creek Trail	Mountain Lake	Easy hiking trail
Spruce Run Trail (VA 605)	Newport	Strenuous hiking trail
Stony Creek Valley to Stillhouse Branch	Newport	Moderately difficult biking trail from Newport to Goodwins Ferry
Sugar Run Gap to Pearisburg	North of White Pine Lodge	17.6 miles moderately strenuous hiking trail
Virginia's Walk Trail	Pearisburg	9.5 miles moderate hiking trail
War Spur Trail	White Rocks Campground	1.5 mile loop trail
White Rocks Recreational Area	North of Mountain Lake	Bird watching trail
Whitt-Riverbend Park	Ripplemead	Trout fishing
Wolf Creek	East of Pearisburg	Fishing and canoe access

Source: Giles County Office of Tourism & Marketing

2. Birding Trails

Name of Resource	Location	Activities
Cascades National Recreational Area	Pembroke	Red tailed hawks and more
Castle Rock Recreation Area	Pembroke	Occasionally Bald Eagles
Falls of Dismal Creek	North of White Gate	Butterflies, wild turkey, ravens, and more
Farley Memorial Wayside	South of Pearisburg	Woodpecker, blue jay, carolina wren, and more
Glen Alton	Kire	Bird watching trail
Glen Lyn Park	Glen Lyn	Kingbird, mourning dove, american crow, and more
Mountain Lake Resort Hotel	Pembroke	Bird watching trail
New River at Eggleston	Eggleston	Warblers, herons, songbirds, water fowl, and more
River Trails	Narrows	Song sparrows, indigo buntings, and more
War Spur Trail	North of Mountain Lake	Bird watching trail

Source: Giles County Office of Tourism & Marketing

3. Campground

No.	Property Name
1	Camp Success Primitive Campsites
2	Eggleston Springs
3	Glen Lyn Town Park
4	Gentry's Landing
5	Kairos Campground
6	New River Park Campground
7	Riverview Campground
8	R&R Campground
9	Walnut Flats Campground and White Cedar Horse Camp
10	White Rocks Campground
11	Whitt-Riverbend Park
12	New River Junction

4. Canoeing and Kayaking

Name of Resource	Location	Activities	Opening Times	Seasonal Restrictions
Canoeing				
Along New River	Throughout the County	Entrance points at Eggleston, Glen Lyn, Narrows, Pembroke, Pearisburg	Dawn to dusk	Open all year round
Kayaking				
Along New River	Narrows	Class III rapids	Dawn to dusk	Open all year round
Along New River	Pembroke	Class II rapids	Dawn to dusk	Open all year round
Along New River	Eggleston	Shallow with stretches of small rapids	Dawn to dusk	Open all year round

5. Fishing

Name of Resource	Location	Activities
Whitt-Riverbend Park	East of Pearisburg	Fishing and canoe access
Big and Little Stoney Creek	Kire/Pembroke	Premier trout fishing stream
Johns Creek	Mountain Lake	Trout fishing
Camp Success Park	Narrows	Stream bank fishing
Mill Creek	Narrows	Trout fishing
Narrows Town Farm Park	Narrows	Fishing
Wolf Creek	Narrows	Small mouth bass, blue gill, redeye
The Falls at Dismal Creek	North of White Gate	Stock trout fishing stream
Cascades National Recreational Area	Pembroke	Fishing
White Rocks Recreational Area	Pembroke	Trout fishing

Source: Giles County Office of Tourism & Marketing

6. Hiking and Biking Trails

Name of Resource	Location	Activites
Biking Trails		
Newport to Eggleston Trail	Newport	Moderately difficult biking trail from Newport through Mountain Lake to Eggleston
Spruce Run Trail (VA 605)	Newport	Moderately difficult biking trail from Newport to Goodwins Ferry
Hiking Trails		
Jefferson National Forest		
Salt Pond Mountain - War Spur and Chestnut Trails	Mountain Lake	Easy hiking trails
Sinking Creek Mountain - Sinking Creek Trail	Newport	Strenuous hiking trail
Peter's Mountain - Flat Peter Loop Trail	North of Ripplemead	Moderate hiking trail
Stony Creek Valley to Stillhouse Branch	North of White Pine Lodge	17.6 mile moderately strenuous hiking trail
Peter's Mountain - Rice Fields Trail	Northeast of Bluff City	Steep hiking trail
Pearis Mountain - Angels Rest Trail	Pearisburg	Steep hiking trail
Sugar Run Gap to Pearisburg	Pearisburg	9.5 miles moderate hiking trail
Butt Mountain - Dickenson Gap Trail	Pembroke	1.3 miles hiking trails
Cascades National Recreational Trail	Pembroke	Waterfall, hiking, fishing, picnic area
Mountain Lake Resort Hotel	Pembroke	Hiking trails ranging in length and difficulty
Flat Top Mountain - Ribble Trail	Staffordsville	Moderate to steep hiking trail
Appalachian Trail	Throughout the County	Access at several different points in the county

Source: Giles County Office of Tourism & Marketing

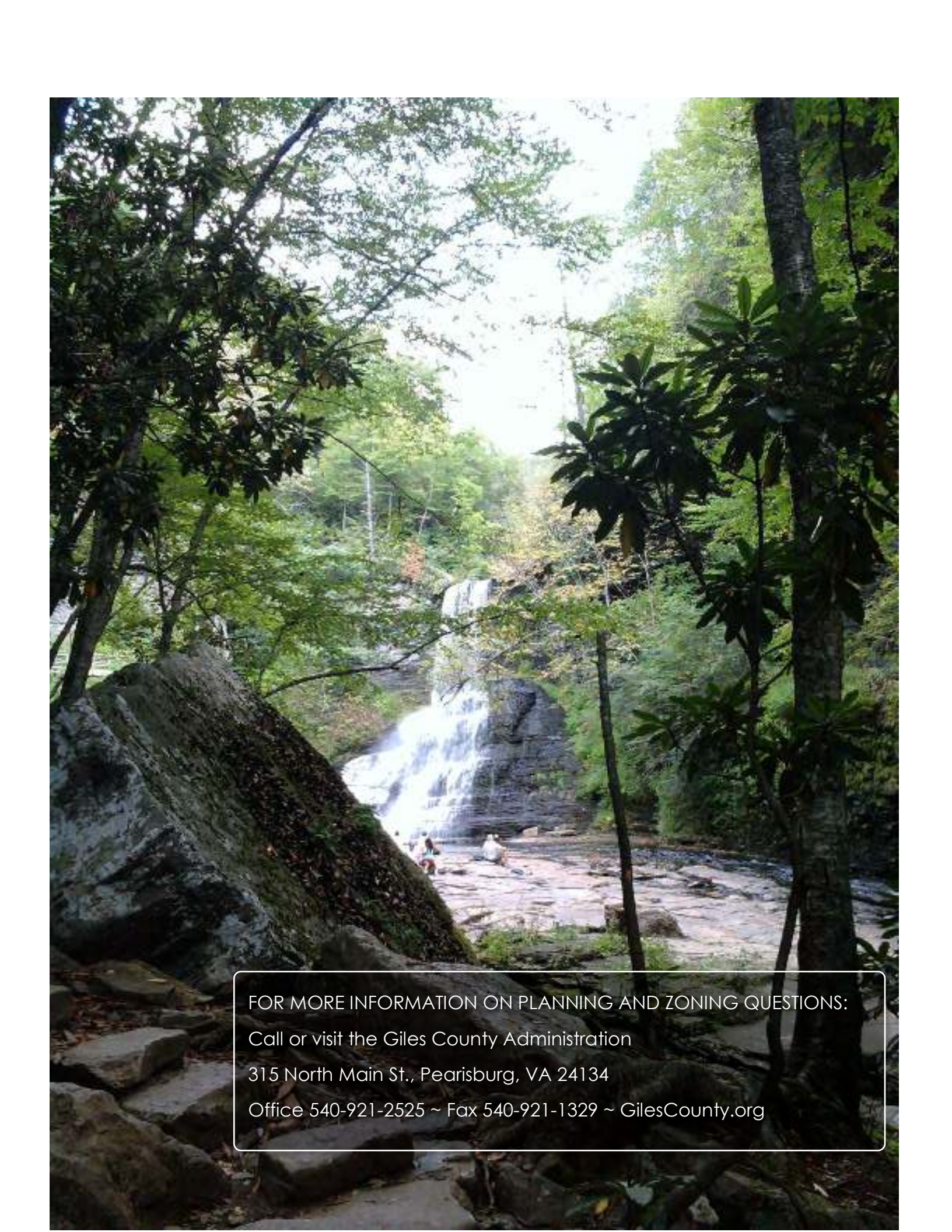
7. Parks

Name of Resource	Location	Features
Glen Lyn Park	Glen Lyn	Picnic shelter
Camp Success	Narrows	Tent camping, bank fishing, disc golf
Duck Pond	Narrows	Fishing, feed ducks, walk
Mill Creek Nature Park	Narrows	Hiking, fishing, picnic tables
Narrows Town Park	Narrows	Basketball court, volleyball court, picnic tables, playground
Newport Community Park	Newport	Youth activities, community meetings, art studios
Village Green	Newport	Hiking, small playground
Farley Wayside	Pearisburg	Picnic table, fishing
Pearisburg Town Park	Pearisburg	Picnic table and covered shelter
Cascades	Pembroke	Hiking, picnic tables
Castle Rock Recreation Area	Pembroke	Club house, swimming, golf
Treasure Island	Pembroke	Picnic tables, playground
Woodland Park	Rich Creek	Basketball court, tennis court, picnic shelter, and grill
Glen Alton	Ripplemead	Walk along trails, hunt, fish, receptions
Whistle Stop Playground & Picnic	Ripplemead	Picnic tables, playground
White Rocks Campground	Ripplemead	Hiking trail, picnic table, camping
Whitt-Riverbend Park	Ripplemead	Picnic tables and covered shelter, several porta johns

Source: Giles County Office of Tourism & Marketing

References

1. 2035 Rural Long-Range Transportation Plan, New River Valley Planning District Commission.
2. Tourism Development Plan, Giles County, VA.
3. River Center Action Plan, Giles County, VA.
4. New River Valley Water Supply Plan, New River Valley Planning District Commission.
5. New River Valley Regional Wastewater Study, May 2009.
6. Emergency Operations Plan, Giles County.
7. Virginia Department of Transportation, www.virginiadot.org
8. Office of Intermodal Planning and Investment -Significant Corridors
9. Virginia's Long-Range Multimodal Transportation Plan: Vtrans 2040, Summary of Needs.



FOR MORE INFORMATION ON PLANNING AND ZONING QUESTIONS:

Call or visit the Giles County Administration

315 North Main St., Pearisburg, VA 24134

Office 540-921-2525 ~ Fax 540-921-1329 ~ GilesCounty.org

FLOOD PREPAREDNESS GRANT

Mr. McCoy made a motion to approve \$6,000 in-kind match for a potential grant of the Giles County Flood Preparedness and Resilience Plan. Mr. Baker seconded the motion. The motion was approved 5-0 as follows: Voting Yes: Mr. Baker, Mr. Lawson, Mr. Martin, Mr. McCoy and Mr. Morris

JOINT ENGINEERING PROCUREMENT

Mr. McCoy made a motion to approve joint procurement for engineering services with the PSA. Mr. Baker seconded the motion. The motion was approved 5-0 as follows: Voting Yes: Mr. Baker, Mr. Lawson, Mr. Martin, Mr. McCoy and Mr. Morris

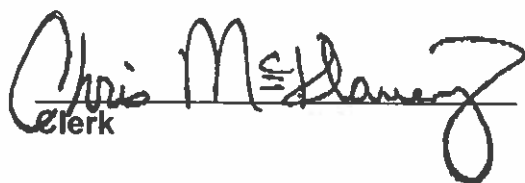
ADJOURN

With no further business, the meeting was adjourned. The next Board of Supervisors meeting will be held on Thursday, January 23, 2025, at 6:30 PM. The meeting will be held at the Giles County Administration Office located at 315 North Main Street, Pearisburg.

APPROVED:


Chair

ATTEST:


Clerk

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF GILES COUNTY, VIRGINIA, BY ESTABLISHING FLOODPLAIN DISTRICTS, BY REQUIRING THE ISSUANCE OF PERMITS FOR DEVELOPMENT, AND BY PROVIDING FACTORS AND CONDITIONS FOR VARIANCES TO THE TERMS OF THE ORDINANCES.

BE IT ENACTED AND ORDAINED BY THE BOARD OF SUPERVISORS OF GILES COUNTY, VIRGINIA, as follows:

ARTICLE I - GENERAL PROVISIONS

Section 1.1 - Purpose

The purpose of these provisions is to prevent: the loss of life and property, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief, and the impairment of the tax base by

- A. regulating uses, activities, and development which, alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, and frequencies;
- B. restricting or prohibiting certain uses, activities, and development from locating within districts subject to flooding;
- C. requiring all those uses, activities, and developments that do occur in flood-prone districts to be protected and/or flood-proofed against flooding and flood damage; and,
- D. protecting individuals from buying land and structures which are unsuited for intended purposes because of flood hazards.

Section 1.2 - Applicability

These provisions shall apply to all lands within the jurisdiction of Giles County and identified as being in the 100-year floodplain by the Federal Insurance Administration.

Section 1.3 - Compliance and Liability

- A. No land shall hereafter be developed and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered except in full compliance with the terms and provisions of this ordinance and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this ordinance.
- B. The degree of flood protection sought by the provisions of this ordinance is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that districts outside the floodplain district, or that land uses permitted within such

district will be free from flooding or flood damages.

- C. Records of actions associated with administering this ordinance shall be kept on file and maintained by the Giles County Zoning Administrator.
- D. This ordinance shall not create liability on the part of Giles County or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

Section 1.4 - Abrogation and Greater Restrictions

This ordinance supersedes any ordinance currently in effect in flood-prone districts. However, any underlying ordinance shall remain in full force and effect to the extent that its provisions are more restrictive than this ordinance.

Section 1.5 - Severability

If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance shall be declared invalid for any reason whatever, such decision shall not affect the remaining portions of this ordinance. The remaining portions shall remain in full force and effect; and for this purpose, the provisions of this ordinance are hereby declared to be severable.

Section 1.6 – Penalty for Violations

Any person who fails to comply with any of the requirements or provisions of this article or directions of the director of planning or any authorized employee of Giles County shall be guilty of a misdemeanor and subject to the penalties set forth in Section 1003 of the Zoning Ordinance.

In addition to the above penalties, all other actions are hereby reserved, including an action in equity for the proper enforcement of this article. The imposition of a fine or penalty for any violation of, or noncompliance with, this article shall not excuse the violation or noncompliance or permit it to continue; and all such persons shall be required to correct or remedy such violations or noncompliance within a reasonable time. Any structure constructed, reconstructed, enlarged, altered or relocated in noncompliance with this article may be declared by Giles County to be a public nuisance and abatable as such. Flood insurance may be withheld from structures constructed in violation of this article.

ARTICLE II - DEFINITIONS

- A. Base flood - The flood having a one percent chance of being equaled or exceeded in any given year.
- B. Base flood elevation - The Federal Emergency Management Agency designated one hundred (100)-year water surface elevation.
- C. Basement - Any area of the building having its floor sub-grade (below ground level) on all sides.

- D. Board of Zoning Appeals - The board appointed to review appeals made by individuals with regard to decisions of the Zoning Administrator in the interpretation of this ordinance.
- E. Development - Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
- F. Elevated building - A non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, or columns (posts and piers).
- G. Encroachment - The advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.
- H. Existing manufactured home park or subdivision - a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.
- I. Expansion to an existing manufactured home park or subdivision - the preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).
- J. Flood or flooding -
 - 1. A general or temporary condition of partial or complete inundation of normally dry land areas from
 - a. the overflow of inland or tidal waters; or,
 - b. the unusual and rapid accumulation or runoff of surface waters from any source.
 - 2. The collapse or subsistence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph 1 (a) of this definition.
 - 3. Mudflows which are proximately caused by flooding as defined in paragraph (a) (2) of this definition and are akin to a river of liquid and flowing mud on the surfaces of

normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

- K. Flood Insurance Rate Map (FIRM) – an official map of a community on which the Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community.
- L. Flood Insurance Study (FIS) – an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudflow and/or flood-related erosion hazards.
- M. Floodplain or flood-prone area - Any land area susceptible to being inundated by water from any source.
- N. Floodproofing – any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.
- O. Floodway - The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.
- P. Freeboard - A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization in the watershed.
- Q. Highest Adjacent Grade - The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure
- R. Historic structure - Any structure that is
 - 1. listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 - 2. certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 - 3. individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or,
 - 4. individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either

- a. by an approved state program as determined by the Secretary of the Interior; or,
 - b. directly by the Secretary of the Interior in states without approved programs.
- S. Lowest floor - The lowest floor of the lowest enclosed area . An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of Federal Code 44CFR §60.3.
- T. Manufactured home - A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term manufactured home also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days.
- U. Manufactured home park or subdivision - a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.
- V. New construction - For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map on or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, *new construction* means structures for which *start of construction* commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.
- W. New manufactured home park or subdivision - a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community .
- X. Recreational vehicle - A vehicle which is
 - 1. built on a single chassis;
 - 2. 400 square feet or less when measured at the largest horizontal projection;
 - 3. designed to be self-propelled or permanently towable by a light duty truck; and,
 - 4. designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel, or seasonal use.
- Y. Special flood hazard area - The land in the floodplain subject to a one (1%) percent or greater chance of being flooded in any given year as determined in Article 3, Section 3.2 of this

ordinance.

- Z. Start of construction - The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, substantial improvement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of the construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
- AA. Structure – for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.
- Structure*, for insurance rating purposes, means a walled and roofed building, other than a gas or liquid storage tank, that is principally above ground and affixed to a permanent site, as well as a manufactured home on a permanent foundation. For the latter purpose, the term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such construction, alteration or repair, unless such materials or supplies are within an enclosed building on the premises.
- BB. Substantial damage - Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.
- CC. Substantial improvement - Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the *start of construction* of the improvement. This term includes structures which have incurred *substantial damage* regardless of the actual repair work performed. The term does not, however, include either:
1. any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
 2. any alteration of a *historic structure*, provided that the alteration will not preclude the structure's continued designation as a *historic structure*.
- DD. Watercourse - A lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

- EE. Violation - means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

ARTICLE III - ESTABLISHMENT OF ZONING DISTRICTS

Section 3.1 - Description of Districts

A. Basis of Districts

The various floodplain districts shall include special flood hazard areas. The basis for the delineation of these districts shall be the Flood Insurance Study (FIS) and the Flood Insurance Rate Maps (FIRM) for Giles County prepared by the Federal Emergency Management Agency, Federal Insurance Administration, dated September 25, 2009.

1. The Floodway District is delineated, for purposes of this ordinance, using the criterion that certain areas within the floodplain must be capable of carrying the waters of the one hundred (100)-year flood without increasing the water surface elevation of that flood more than one (1) foot at any point. The areas included in this District are specifically defined in Table 2 of the above-referenced Flood Insurance Study and shown on the accompanying Flood Insurance Rate Map.
2. The Flood-Fringe District shall be that area of the one hundred-year floodplain not included in the Floodway District. The basis for the outermost boundary of the District shall be the one hundred (100)-year flood elevations contained in the flood profiles of the above-referenced Flood Insurance Study and as shown on the accompanying Flood Insurance Rate Maps.
3. The Approximated Floodplain District shall be those areas identified as an A Zone on the maps accompanying the Flood Insurance Study. In these zones, no detailed flood profiles or elevations are provided, but the one hundred (100)-year floodplain boundary has been approximated.

B. Overlay Concept

1. The Floodplain Districts described above shall be overlays to the existing underlying districts as shown on the Official Zoning Ordinance Map, and as such, the provisions for the floodplain districts shall serve as a supplement to the underlying district provisions.
2. If there is any conflict between the provisions or requirements of the Floodplain Districts and those of any underlying district, the more restrictive provisions and/or those pertaining to the floodplain districts shall apply.
3. In the event any provision concerning a Floodplain District is declared inapplicable as a result of any legislative or administrative actions or judicial decision, the basic

underlying provisions shall remain applicable.

Section 3.2 - Official Zoning Map

The boundaries of the Special Flood Hazard Area and Floodplain Districts are established as shown on the Flood Insurance Rate Map which is declared to be a part of this ordinance and which shall be kept on file at the Giles County Administrative offices.

Section 3.3 - District Boundary Changes

The delineation of any of the Floodplain Districts may be revised by the Giles County where natural or man-made changes have occurred and/or where more detailed studies have been conducted or undertaken by the U. S. Army Corps of Engineers or other qualified agency, or an individual documents the need for such change. However, prior to any such change, approval must be obtained from the Federal Insurance Administration.

Section 3.4 - Interpretation of District Boundaries

Initial interpretations of the boundaries of the Floodplain Districts shall be made by the Zoning Administrator. Should a dispute arise concerning the boundaries of any of the Districts, the Board of Zoning Appeals shall make the necessary determination. The person questioning or contesting the location of the District boundary shall be given a reasonable opportunity to present his case to the Board and to submit his own technical evidence if he so desires.

ARTICLE IV - DISTRICT PROVISIONS

Section 4.1 – Permit and Application Requirements

A. Permit Requirement

All uses, activities, and development occurring within any floodplain district shall be undertaken only upon the issuance of a zoning permit. Such development shall be undertaken only in strict compliance with the provisions of the Ordinance and with all other applicable codes and ordinances, as amended including the Virginia Uniform Statewide Building Code and the Giles County Subdivision Ordinance. Prior to the issuance of any such permit, the Zoning Administrator shall require all applications to include compliance with all applicable state and federal laws. Under no circumstances shall any use, activity, and/or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system. In addition to the Zoning Permit required in Section A above, any filling or excavation within a floodplain district as described in Section 3.1A, 1, 2 or 3 of this ordinance which involved the excavation or fill of more than 5,000 cubic yards of material shall require the issuance of a special exception permit in accordance with the provisions of Section 802.04 of the Giles County Zoning Ordinance. Agriculture activity as defined by the Virginia Erosion and Sediment Control laws shall be exempt from this requirement. (Amended 5/2009)

B. Site Plans and Permit Applications

All applications for development within any floodplain district and all building permits issued for the floodplain shall incorporate the following information:

1. For structures to be elevated, the elevation of the lowest floor.
2. For structures to be flood-proofed (non-residential only), the elevation to which the structure will be flood-proofed.

Section 4.2 - General Standards

In all special flood hazard areas the following provisions shall apply:

- A. New construction and substantial improvements shall be in compliance with the Virginia Uniform Statewide Building Code and shall be anchored to prevent flotation, collapse or lateral movement of the structure.
- B. Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.
- C. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- D. New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
- E. Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities, including duct work, shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- F. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- G. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
- H. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- I. Any alteration, repair, reconstruction or improvements to a building that is in compliance with the provisions of this ordinance shall meet the requirements of "new construction" as contained in this ordinance.
- J. Any alteration, repair, reconstruction or improvements to a building that is not in

compliance with the provisions of this ordinance, shall be undertaken only if said non-conformity is not furthered, extended, or replaced.

- K. In riverine situations, adjacent communities and the Department of Conservation and Recreation (Floodplain Management Program) shall be notified prior to any alteration or relocation of a watercourse, and copies of such notifications shall be submitted to FEMA.
- L. The flood carrying capacity within an altered or relocated portion of any watercourse shall be maintained.

Section 4.3 - Specific Standards

In all special flood hazard areas where base flood elevations have been provided in the Flood Insurance Study or generated according Article 4, section 4.4 (A), the following provisions shall apply:

A. Residential Construction

New construction or substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor, elevated no lower than one foot above the base flood elevation.

B. Non-Residential Construction

New construction or substantial improvement of any commercial, industrial, or non-residential building (or manufactured home) shall have the lowest floor, elevated to no lower than two feet above the base flood elevation. Buildings located in all A1-30 and AE zones may be flood-proofed in lieu of being elevated provided that all areas of the building components below the elevation corresponding to the BFE plus one foot are water tight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied.

C. Elevated Buildings

Enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:

1. not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose storage areas;

2. be constructed entirely of flood resistant materials below the regulatory flood protection elevation;
3. include, in Zones A and AE, measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet the following minimum design criteria:
 - a. Provide a minimum of two openings on different sides of each enclosed area subject to flooding.
 - b. The total net area of all openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding.
 - c. If a building has more than one enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.
 - d. The bottom of all required openings shall be no higher than one (1) foot above the adjacent grade.
 - e. Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions.
 - f. Foundation enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires openings as outlined above.

D. Standards for Manufactured Homes and Recreational Vehicles

1. All manufactured homes placed, or substantially improved, on individual lots or parcels, in expansions to existing manufactured home parks or subdivisions, in a new manufactured home park or subdivision or in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as the result of a flood, must meet all the requirements for new construction, including the elevation and anchoring requirements in Article 4, section 4.2 (A) and (B), and section 4.3 (A).
2. All manufactured homes placed or substantially improved in an existing manufactured home park or subdivision must be elevated so that
 - a. the lowest floor of the manufactured home is elevated no lower than two feet above the base flood elevation;
 - b. the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches

in height above grade

- c. the manufactured home must be securely anchored to the adequately anchored foundation system to resist flotation, collapse and lateral movement;
3. All recreational vehicles placed on sites must either
- a. be on the site for fewer than 180 consecutive days;
 - b. be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions); or,
 - c. meet all the requirements for manufactured homes in Article 4, section 4.3 (D).

Section 4.4 - Standards for Approximated Floodplain and Flood-Fringe Areas

The Approximated Floodplain District shall be that floodplain area for which no detailed flood profiles or elevations are provided, but where a one hundred (100) year floodplain boundary has been approximated. Such areas are shown as Zone A on the maps accompanying the Flood Insurance Study. For these areas, the one hundred (100) year flood elevations and floodway information from federal, state, and other acceptable sources shall be used, when available. Where the specific one hundred (100) year flood elevation cannot be determined for this area using other sources of data, such as the US Army Corps of Engineers Floodplain Information Reports, U.S. Geological Survey Flood-Prone Quadrangles, etc., then the applicant for the proposed use, development and/or activity shall determine this elevation in accordance with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently-accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Giles County Floodplain Administrator.

When such base flood elevation data is utilized, the lowest floor elevation shall be 1 foot above the base flood elevation. During the permitting process the following shall be obtained:

- 1) The elevation of the lowest floor (including the basement) of all new and substantially improved structures; and,
- 2) If the structure has been flood-proofed in accordance with the requirements of this article, the elevation to which the structure has been flood-proofed.

Section 4.5 - Standards for the Floodway District

The following provisions shall apply within the Floodway District:

- A. Encroachments, including fill, new construction, substantial improvements and other developments are prohibited unless certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge. Development activities in which increase the water surface elevation of the base flood be allowed, provided that the applicant first applies – with the County’s endorsement – for a conditional Flood Insurance Rate Map and floodway revision, and receives the approval of the Federal Emergency Management Agency.
- B. If Article 4, Section 4.6 (A) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 4.
- C. The placement of manufactured homes or mobile homes is prohibited, except in an existing mobile home park. A replacement manufactured home may be placed on a lot where an existing mobile home or manufactured home is located provided the anchoring, elevation, and encroachment standards are met.

Section 4.6 - Standards for Subdivision Proposals

- A. All subdivision proposals shall be consistent with the need to minimize flood damage;
- B. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
- C. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards, and
- D. Base flood elevation data shall be provided for subdivision proposals and other proposed development proposals (including manufactured home parks and subdivisions) that exceed fifty lots or five acres, whichever is the lesser. This data is only required for those subdivisions or portions thereof located within the one hundred (100)-year floodplain.
- E. Within the Approximated Floodplain District, the applicant for subdivision approval shall also delineate a floodway area based on the requirement that all existing and future development not increase the 100 year flood elevation more than one (1) foot at any one point. The engineering principle-equal reduction of conveyance shall be used to make the determination of increased flood heights for purposes of this section.

ARTICLE V - VARIANCES: FACTORS TO BE CONSIDERED

In passing upon applications for Variances, the Board of Zoning Appeals shall satisfy all relevant factors and procedures specified in other sections of the zoning ordinance and consider the following additional factors:

- A. The showing of good and sufficient cause.
- B. The danger to life and property due to increased flood heights or velocities caused by encroachments. No variance shall be granted for any proposed use, development, or activity within any Floodway District that will cause any increase in the one hundred (100)-year flood elevation.
- C. The danger that materials may be swept on to other lands or downstream to the injury of others.
- D. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
- E. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
- F. The importance of the services provided by the proposed facility to the community.
- G. The requirements of the facility for a waterfront location.
- H. The availability of alternative locations not subject to flooding for the proposed use.
- I. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
- J. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
- K. The safety of access by ordinary and emergency vehicles to the property in time of flood.
- L. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site.
- M. The repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- N. Such other factors which are relevant to the purposes of this ordinance.

The Board of Zoning Appeals may refer any application and accompanying documentation pertaining to any request for a variance to any engineer or other qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities, and the adequacy of the plans for flood protection and other related matters.

Variances shall be issued only after the Board of Zoning Appeals has determined that the granting of such will not result in (a) unacceptable or prohibited increases in flood heights, (b) additional threats to public safety, (c) extraordinary public expense; and will not (d) create nuisances, (e) cause fraud or victimization of the public, or (f) conflict with local laws or ordinances.

Variances shall be issued only after the Board of Zoning Appeals has determined that the variance will be the minimum required to provide relief from exceptional hardship to the applicant.

The Board of Zoning Appeals shall notify the applicant for a variance, in writing, that the issuance of a variance to construct a structure below the one hundred (100)-year flood elevation (a) increases the risks to life and property and (b) will result in increased premium rates for flood insurance.

No variance shall be granted if the granting of the variance would increase flood insurance rates for other residents of Giles County or would otherwise adversely impact the participation of Giles County in the National Flood Insurance Program (NFIP).

A record shall be maintained of the above notification as well as all variance actions, including justification for the issuance of the variances. Any variances that are issued shall be noted in the annual or biennial report submitted to the Federal Insurance Administrator.

ARTICLE VI – EXISTING STRUCTURES IN FLOODPLAIN AREAS

A structure or use of a structure or premises which lawfully existed before the enactment of these provisions, but which is not in conformity with these provisions, may be continued subject to the following conditions:

- A. Existing structures in the Floodway Area shall not be expanded or enlarged unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed expansion would not result in any increase in the base flood elevation.
- B. Any modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use located in any flood plain areas to an extent or amount of less than fifty (50) percent of its market value shall conform to the Virginia Uniform Statewide Building Code.
- C. The modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use, regardless of its location in a floodplain area to an extent or amount of fifty (50) percent or more of its market value shall be undertaken only in full compliance with this ordinance and shall require the entire structure to conform to the Virginia Uniform Statewide Building Code.

ARTICLE VII - ENACTMENT

ENACTED AND ORDAINED THIS 5th DAY OF August, 2009. This ordinance shall become effective upon passage.

	voting for	voting against	abstain	absent
Gentry	<u>✓</u>	<u> </u>	<u> </u>	<u> </u>
Hobbs	<u>✓</u>	<u> </u>	<u> </u>	<u> </u>
Baker	<u>✓</u>	<u> </u>	<u> </u>	<u> </u>
Spencer	<u>✓</u>	<u> </u>	<u> </u>	<u> </u>
McCoy	<u>✓</u>	<u> </u>	<u> </u>	<u> </u>

Attest: Christopher P. McKlarney
Christopher P. McKlarney, Clerk

Approved as to form: [Signature]
County Attorney



NEW RIVER VALLEY

HAZARD MITIGATION PLAN

Update 2017

*FEMA Approved
November 27, 2017*

Funding provided by:



FEMA



Directed by:
the New River Valley
Hazard Mitigation
Steering Committee

Prepared by:
the New River Valley
Regional Commission

Floyd County
Giles County
Montgomery County
Pulaski County
Radford City
Town of Blacksburg
Town of Christiansburg
Town of Narrows
Town of Pearisburg
Town of Pembroke
Town of Pulaski



**New River Valley Hazard Mitigation
Steering Committee** participants

included:

Jay Eanes, City of Radford

Melissa Skelton, City of Radford

Kevin Sowers, Floyd County

Lydeana Martin, Floyd County

John Ross, Giles County

Emily Gibson, Montgomery County

Eli Sharp, NRVRC

Peter Corrigan, NWS/NOAA

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Appendices

Appendix 1: Meeting Documentation

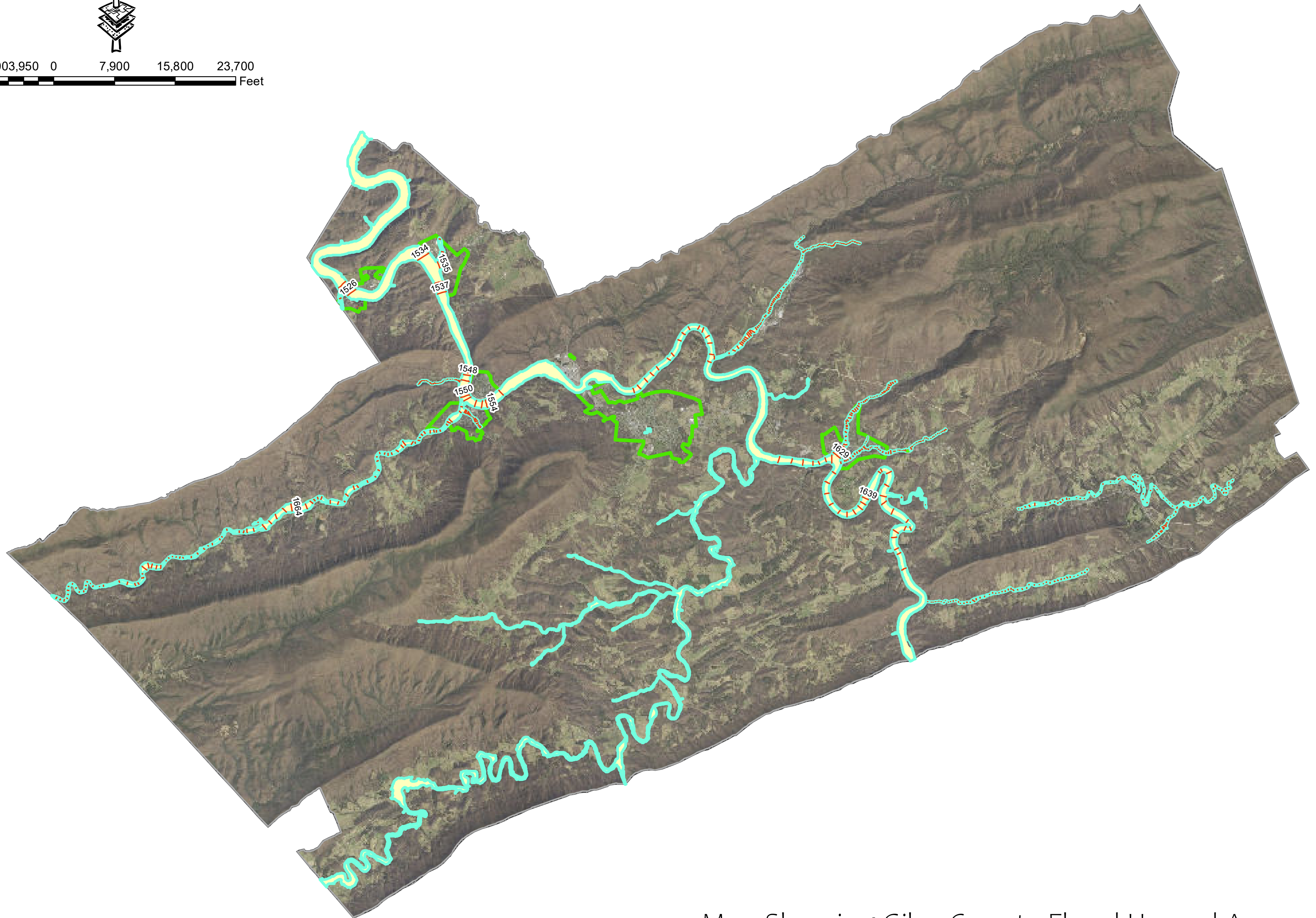
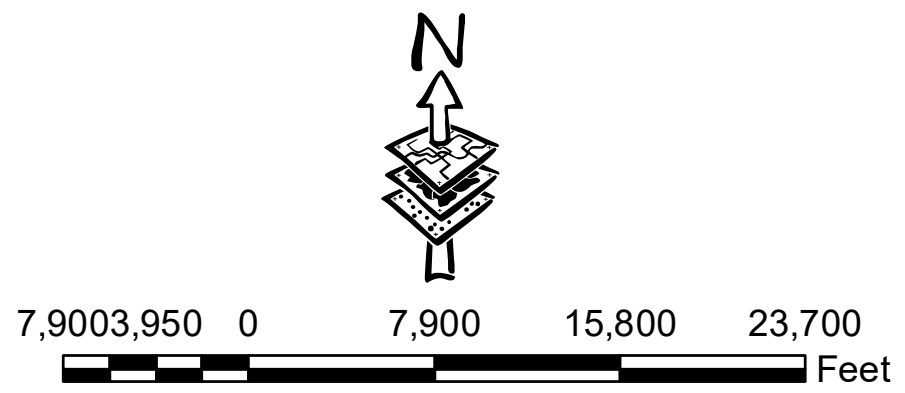
Appendix 2: Adoption Resolutions

Appendix 3: Public Involvement Documentation

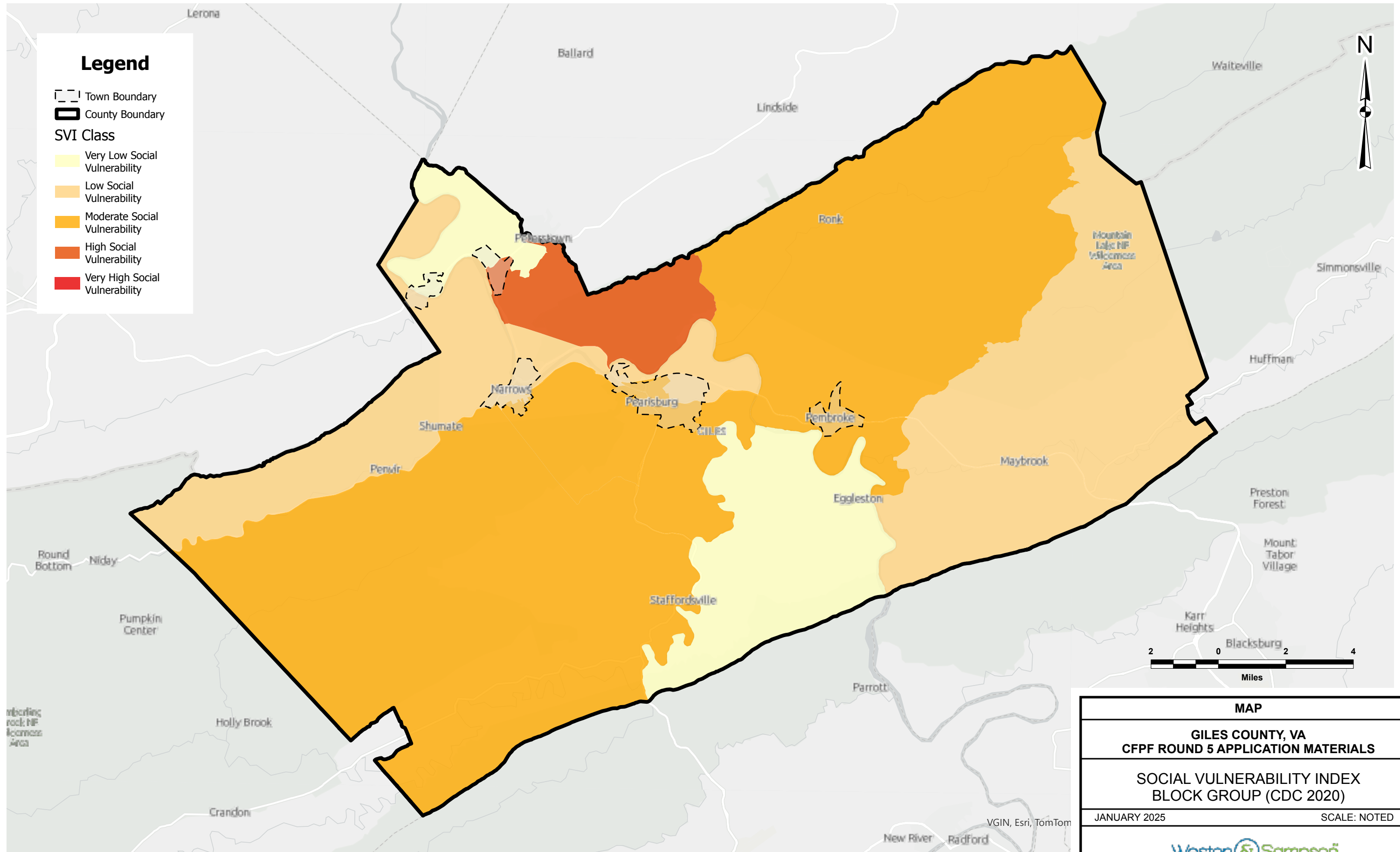
Appendix 4: Mitigation Projects

Appendix 5: Acronyms

Appendix 6: HIRA Maps



Map Showing Giles County Flood Hazard Areas



MAP	
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SOCIAL VULNERABILITY INDEX	
BLOCK GROUP (CDC 2020)	
JANUARY 2025	SCALE: NOTED