

COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY 2012



High Country Council of Governments Economic Development District

DRAFT

August 2012

High Country Council of Governments
468 New Market Blvd.
Boone, NC 28607
828-265-5434
E-mail: ptrew@regiond.org
Website: www.regiond.org

**Comprehensive Economic Development Strategy 2012
For the North Carolina High Country Council of Governments (COG)
Economic Development District**

NORTH CAROLINA HIGH COUNTRY COG MEMBER GOVERNMENTS

Alleghany County	Town of Sparta
Ashe County	Town of Jefferson Town of Lansing Town of West Jefferson
Avery County	Town of Banner Elk Town of Crossnore Town of Elk Park Town of Newland Village of Sugar Mountain
Mitchell County	Town of Bakersville Town of Spruce Pine
Watauga County	Town of Beech Mountain Town of Blowing Rock Town of Boone Town of Seven Devils
Wilkes County	Town of North Wilkesboro Town of Ronda Town of Wilkesboro
Yancey County	Town of Burnsville

ABSTRACT

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Regional Planning

Organization: High Country Council of Governments
Chairman of the Board: Robert L. Johnson
Executive Director: Rick Herndon

Source of Copies: Phillip Trew
High Country Council of Governments
PO Box 1820 Boone, NC 28607

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Content: The strategy is an economic development planning tool intended to aid local governments in decision-making. The document provides an analysis of regional and local economic conditions within Alleghany, Ashe, Avery, Mitchell, Watauga, Wilkes, and Yancey Counties, NC. Specific projects have been identified that will address economic development in the High Country COG area.

High Country COG Planning

Staff: Phillip Trew, Director of Planning and Development
Kelly Coffey, Senior Planner
Duncan Cavanaugh, Regional Planner
Michelle Ball, Community Development Planner
Craig Hughes, Transportation Planner
Jessica Brannock, GIS Planner

E-Mail: ptrew@regiond.org

Website: www.regiond.org

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I. EXECUTIVE SUMMARY

Introduction

High Country Council of Governments (COG) is one of sixteen multi-county planning districts in North Carolina. The membership of High Country Council of Governments consists of the seven county and 19 municipal governments in Alleghany, Ashe, Avery, Mitchell, Watauga, Wilkes, and Yancey Counties.

Demographics

The population of the High Country region was 210,049 in 2010. The region is expected to have moderate population growth over the next 20 years. Ashe and Watauga Counties are projected to have significant growth, while Avery and Yancey Counties are projected to lose population. The region's population is over 90% white, with significant growth in the Latino population from 2000 to 2010. The region's population is older than the State average, with the exception of Watauga County. The region is behind both the State and US in wealth, measured by income and poverty rates.

The major employment sectors in the High Country are Retail Trade, Agriculture, Government, and Healthcare. The long-term decline of Manufacturing has continued since 2002. The 2011 unemployment rate for the region was approximately 12%, higher than the State and US rate. The Construction industry saw disproportionately high unemployment in the past few years, reflecting the region's significant second-home industry. Since 2008, all counties in the region saw declines in building permits issued. The reductions in Alleghany, Ashe, and Avery Counties between 2008 and 2010 were all above 50%. 2011 foreclosure rates in the region range between 2.5% and 5.0%

Infrastructure

The High Country Water Resource Plan, developed in 2010, provides details on the region's water resources. Generally, the Towns in the region have adequate water and sewer system capacity. There are currently two major water supply projects in the planning and design phase - Boone's new water intake on the South Fork New River, and a proposed raw water intake on W. Kerr Scott Reservoir to serve the Towns of Wilkesboro and North Wilkesboro.

The region has benefitted from telecommunications projects funded through the American Recovery and Reinvestment Act (ARRA). A middle-mile fiber backbone is currently under construction through Yancey, Mitchell, Avery, Watauga, Ashe, and Alleghany Counties. Also, private-sector telecommunications providers received ARRA funds to improve last mile service in Wilkes, Alleghany, Ashe, Mitchell, and Yancey Counties. A key economic development strategy will be to encourage private-sector telecommunications providers to invest in more last mile coverage to serve the remote areas in the region. Local governments can assist in these efforts by allowing use of existing publicly-owned towers, and by quantifying market demand.

The High Country Rural Transportation Planning Organization (RPO) is the established agency chartered to provide transportation planning in the region. The RPO represents all local governments in the region, and works with NC Department of Transportation (NCDOT) in developing long-range transportation plans. The RPO also develops lists of transportation project needs, and works with NCDOT on scheduling funding of the projects. The High Country region currently benefits from the State's Highway Trust Fund, which earmarks a portion of the State gas tax for Intrastate projects. The region also benefits from the State's equity formula for distribution of NCDOT funds.

Natural gas service is provided in the region by two private providers - Frontier Energy and Piedmont Natural Gas. Natural gas service is generally limited to major customers in the Towns. There is no natural gas service in Alleghany County.

Natural resource assets in the region include forestry products throughout, and significant feldspar, mica, and quartz resources in Mitchell County. The region has significant wind resources that can be capitalized for energy projects. Relatively small-scale solar projects have recently been built in Avery County. The potential for hydroelectric energy projects are limited due to the relatively small flows of the rivers in the region.

Industry Clusters

The following industry clusters are present in the region, based on existing businesses and worker skill levels:

Alleghany County – agribusiness, forestry, skilled production, apparel and textiles

Ashe County - agribusiness, forestry, skilled production, electrical components

Avery County - agribusiness, healthcare, visitor industries

Mitchell County - agribusiness, forestry, skilled production, mining, apparel and textiles

Watauga County – higher education, agribusiness

Wilkes County - agribusiness, forestry, skilled production, apparel and textiles

Yancey County - agribusiness, forestry, skilled production, glass and ceramics

Tourism is a large component of the economies of all seven counties in the region, in terms of receipts and employment. Five Counties and eight Towns levy occupancy taxes which generate revenue for tourism promotion and facilities.

Agriculture also is a large component of the region’s economy, with Wilkes County as the leader. Christmas trees, cattle, and poultry are the major crops. Fruit and vegetable production is limited by short growing season, lack of handling and storage facilities, and small markets. These limitations are being addressed through increased numbers of farmers markets, and community supported agriculture (CSA) programs. Two significant agriculture projects are currently underway in the region. The Seeds of Change project will conduct an assessment and gap analysis of the local food network in Alleghany, Ashe, and Watauga Counties. The Toe River Aggregation Center and Training Organization Regional (TRACTOR) project is an aggregation and distribution facility serving Mitchell and Yancey Counties.

Exporting has the potential to grow in the region. Mitchell County exports large amounts of mining products, but the other six counties export very little. Public assistance in market identification, international trade shows, and trade counseling is available at the National and State level.

Strengths and Weaknesses

The High Country region benefits from an environment that attracts a significant visitor population. The region also excels in school performance, and a relatively high percentage of small businesses.

The region lacks Interstate Highway access, significant high-tech employment, and investment of venture capital. Also, the region has a relatively small population of young adults.

Goals and Strategies

Goal #1 Build on the Region's Competitive Advantages

- Update the High Country State of the Workforce Report
- Inventory available vacant buildings
- Promote and expand outdoor recreation opportunities
- Build the film industry in the region
- Increase capacity of agricultural product aggregation, processing, and marketing

Goal #2 Establish a Robust Regional Infrastructure

- Update the High Country Workforce Development Board Strategic Plan
- Continue to work through the High Country RPO to develop long-range transportation plans and advocate for local projects
- Expand natural gas service within the region, specifically Alleghany County
- Develop plans for increased telecommunications infrastructure
- Continue to plan and secure funding for targeted local water and sewer projects

Goal #3 Create Vibrant Communities

- Increase walkability of downtowns through expanded sidewalk networks
- Create downtown master plans that address economic development, infrastructure, and regulation
- Establish wi-fi networks in downtowns

Goal #4 Develop Healthy and Innovative People

- Increase business skills in High School graduates
- Increase technical skills in High School graduates
- Take advantage of the research capacities of Appalachian State University, Lees McCrae College, and the three Community Colleges in the region
- Conduct a gap analysis of educational resources in the region

Vital Projects

Alleghany

- Extend Natural Gas service to Sparta
- Expand/upgrade wastewater treatment plant in Sparta
- Complete the Sparta Western Loop

Ashe

- New well in Lansing
- Ashe County Airport improvements
- Redevelopment/expansion of food incubator at Ashe Family Central
- Relocate Ashe Farm Life Museum to Jefferson

Avery

- Expand internet access in unserved areas of County
- Replace Crossnore's wastewater treatment plant
- Expand Newland's sidewalk system
- Renovation of former Banner Elk Elementary School as business incubator

Mitchell

- Install filtration system on wells in Bakersville
- Complete US 19E widening through Mitchell County
- Various water and sewer line, meter, and intake improvements in Spruce Pine

Watauga

- New water intake for Town of Boone
- Demolish former Watauga High School and develop or sell site for commercial use
- Develop new water supply for Town of Beech Mountain
- Additional well in Seven Devils
- Complete US 321 widening through Blowing Rock

Wilkes

- Development of new raw water intake on the W. Kerr Scott Reservoir to supply the Towns of Wilkesboro and North Wilkesboro
- Development of industrial site(s) along US Highway 421
- Wilkes County landfill expansion
- Construct new law enforcement center

Yancey

- Extend water service to Micaville
- Complete US 19E widening through Yancey County
- Market available industrial buildings
- Continue implementation of the TRACTOR farm product aggregation center

II. INTRODUCTION

High Country Council of Governments (COG) is one of sixteen multi-county planning districts in North Carolina. The North Carolina Department of Administration, in 1974, designated High Country COG as the Lead Regional Organization (LRO) for the seven counties of Alleghany, Ashe, Avery, Mitchell, Watauga, Wilkes, and Yancey.

High Country COG was designated an Economic Development District (EDD) by the Economic Development Administration (EDA) on March 23, 1976. The Council has also been designated a Local Development District (LDD) by the Appalachian Regional Commission (ARC). The purpose of the Economic Development District and the Local Development District is to provide the administrative capacity to establish a continuous economic development planning process which identifies problems and potentials, creates goals and strategies, and provides an implementation organization where necessary and feasible.

Other designations for High Country COG include an Area Agency on Aging (AAA), a Service Delivery Area for administering the Workforce Investment Act programs, and the Lead Planning Agency (LPA) for the High Country Rural Transportation Planning Organization (RPO). The Council is also a Certified Development Company as designated by the U.S. Small Business Administration (SBA) for making SBA 504 loans within the seven counties.

The purposes of the Council are as follows:

- To offer professional and technical services to individual member governments.
- To provide services for member governments that can best be provided on a regional basis.
- To serve as a forum for discussion of regional problems and interests and to promote good intergovernmental relations.
- To facilitate effective communications among the member governments.
- To promote the coordination of other regional public agencies of the seven county area in order to avoid duplication.
- To promote, in the region and statewide, the individual efforts of member governments.
- To serve as a consensus voice for its member governments on matters mutually affecting them.

High Country Council of Governments provides regional administration and planning through the following departments: AAA, the Regional Computer System, Workforce Development, Finance, and Planning.

The membership of High Country Council of Governments consists of 26 local governments who contribute annual dues on a per capita assessment. Each county and town selects a member of its governing board to serve on the High Country COG Executive Board. A minority member is elected by the minority organizations within the region.

High Country COG consists of seven counties and 19 towns in northwestern North Carolina. The region is primarily rural with small manufacturing and service towns. Wilkes County is the largest county in terms of population and land area. Wilkes also has the largest concentration of manufacturing in the region, primarily due to the existence there of flatter terrain and proximity to the interstate highway system. Watauga County is the home of Appalachian State University and has an economy based on education, government, the service industry, and tourism. Avery County has become a major year round tourist destination with winter ski resorts and many seasonal residents. Alleghany and Ashe Counties are typical of rural Appalachian counties where industrial growth has been slow to offset the decline in agricultural employment. Mitchell County originally developed around the mining industry in the early 20th century. Yancey County has recently

diversified from an agricultural economy to one based on light manufacturing. The seven counties have similarities in their obstacles to development. Land uses are limited due to mountainous conditions and most counties have few mineral resources.

The transportation system has historically been considered to be the greatest barrier to large-scale industrial development. Driving distances to the nearest commercial airports are two to three hours. The region is served by four major US highways and nine state highways, although many are two-lane. There is no Interstate access in the region.

High Country Council of Governments

**Comprehensive Economic
Development Strategy
2012**

Chapter III

DEMOGRAPHIC PROFILE

III. DEMOGRAPHIC PROFILE

A. Population

Tables 1 through 5 provide population data for the High Country COG region. Between 1940 and 1970, the seven counties in the region experienced losses of population. This decline was primarily caused by a lack of employment opportunities that resulted in large numbers of Appalachian people migrating to large cities in the northern United States. Around 1970, outmigration began to reverse and the population of the High Country region stabilized. This reversal was due to several factors including the continued development of Appalachian State University, new industry in the area, and improvements to the region's transportation system. Population is projected to continue to grow in the region, although at rate that is slightly more than half that of the State's growth rate.

High Country COG Region County Population Growth, 2000-2030:

Table 1. High Country COG Region County Population Growth, 2000-2030								
County	Census 2000	Census 2010	# Growth 2000-10	% Growth 2000-10	2020	2030	# Growth 2020-30	% Growth 2010-30
Allegh.	10,680	11,155	475	4.5%	11,851	12,533	682	12.4
Ashe	24,387	27,281	2,894	11.9%	30,548	33,743	3,195	23.7
Avery	17,167	17,797	630	3.7%	16,950	16,091	-859	-9.6
Mitchell	15,681	15,579	-102	-0.7%	15,611	15,619	8	0.3
Watauga	42,703	51,079	8,376	19.6%	60,707	70,090	9,383	37.2
Wilkes	65,630	69,340	3,710	5.6%	72,769	76,119	3,350	9.8
Yancey	17,755	17,818	63	0.2%	17,091	16,383	-708	-8.1
Region Totals	194,003	210,049	16,046	8.3%	225,527	240,578	15,051	14.5
North Carolina	8,049,313	9,535,483	1,486,170	18.5%	10,616,077	11,631,895	1,015,818	22.0
United States	281,421,906	308,745,538	27,323,632	9.7%	335,805,000	363,584,000	27,779,000	17.8

Sources: U.S. Census Bureau: State and County QuickFacts;
 North Carolina Office of State Management and Budget, County/State Population Projections;
 U.S. Census Bureau, 2004, "U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin".

Several towns in the region lost population over the ten-year period between 2000 and 2010, including four of the five towns in Avery County. Increasing student enrollment at Appalachian State University contributed partially to population growth in the Town of Boone, the region's largest municipality.

Table 2.					
High Country COG Region Town Population Growth, 2000-2010					
Town	Census 2000	Census 2010	# Growth 2000-10	% Growth 2000-10	
Town of Sparta	1,817	1,770	-47	-2.6	
Town of Jefferson	1,422	1,611	189	13.3	
Town of Lansing	151	158	7	4.6	
Town of West Jefferson	1,081	1,299	218	20.2	
Town of Banner Elk	811	1,028	217	26.8	
Town of Crossnore	242	192	-50	-20.7	
Town of Elk Park	459	452	-7	-1.5	
Town of Newland	704	698	-6	-0.9	
Village of Sugar Mountain	226	198	-28	-12.4	
Town of Bakersville	357	464	107	30.0	
Town of Spruce Pine	2,030	2,175	145	7.1	
Town of Beech Mountain	310	320	10	3.2	
Town of Blowing Rock	1,418	1,241	-177	-12.5	
Town of Boone	13,472	17,122	3,650	27.1	
Town of Seven Devils	129	192	63	48.8	
Town of North Wilkesboro	4,116	4,245	129	3.1	
Town of Ronda	460	417	-43	-9.3	
Town of Wilkesboro	3,159	3,413	254	8.0	
Town of Burnsville	1,623	1,693	70	4.3	
Region Totals	33,987	38,688	4,701	13.8	

Source: U.S. Census Bureau, American FactFinder, Census 2000 and 2010.

With the exception of Watauga County (primarily due to the presence of Appalachian State University), the region's median age is significantly older than both the State of North Carolina and the U.S. All counties in the region have higher poverty rates than the state and the nation.

Table 3.								
High Country COG Region Population by Age Group, 2010								
County	Under 20	% Under 20	20-44	% 20-44	45-64	% 45-64	65 and Over	% 65 and Over
Alleghany	2,496	22.4	2,949	26.4	3,406	30.5	2,304	20.7
Ashe	5,843	21.4	7,609	27.9	8,328	30.5	5,501	20.2
Avery	3,564	20.8	5,980	34.8	5,156	30.0	3,097	18.0
Mitchell	3,343	21.5	4,297	27.6	4,679	30.0	3,260	20.9
Watauga	11,873	23.2	21,376	41.8	11,501	22.5	6,329	12.4
Wilkes	17,059	24.6	20,052	28.9	20,451	29.5	11,778	17.0
Yancey	3,930	22.0	4,853	27.2	5,363	30.1	3,672	20.6
Region Total	48,108	-	67,116	-	58,884	-	35,941	-

Source: 2010 Census, US Census Bureau.

The vast majority of the region’s population is White. However, since 2000 the Hispanic population in the High Country region has experienced notable growth.

Table 4. High Country COG Region Population by Ethnic Group, 2010								
County	White	% White	Black	% Black	Asian	% Asian	Hispanic	% Hispanic
Alleghany	10,288	92.2	140	1.3	54	0.5	1,004	9.0
Ashe	26,050	95.5	161	0.6	105	0.4	1,311	4.8
Avery	16,346	91.9	709	4.0	56	0.3	797	4.5
Mitchell	14,844	95.3	58	0.4	50	0.3	631	4.1
Watauga	48,272	94.5	877	1.7	475	0.9	1,713	3.4
Wilkes	62,824	90.6	2,830	4.1	296	0.4	3,772	5.4
Yancey	16,967	95.2	145	0.8	34	0.2	814	4.6
Region Total	195,591	-	4,920	-	1,070	-	10,042	-

Source: 2010 Census, US Census Bureau.

In 2010, Hispanics represented nearly 10% of Alleghany County’s total population. Three out of the region’s seven counties have experienced Hispanic population growth rates greater than 100% (from 2000 to 2010).

Table 5. High Country COG Region Persons of Hispanic or Latino Origin 2000-2010					
	2000		2010		00-10
	#	% of Total	#	% of Total	%
County	Persons	Population	Persons	Population	Change
Alleghany	530	5.0	1,004	9.0	89.4
Ashe	590	2.4	1,311	4.8	122.2
Avery	413	2.4	797	4.5	93.0
Mitchell	311	2.0	631	4.1	102.9
Watauga	622	1.5	1,713	3.4	175.4
Wilkes	2,262	3.4	3,772	5.4	66.8
Yancey	478	2.7	814	4.6	70.3
NC	378,963	4.7	800,120	8.4	111.1

Sources: U.S. Census Bureau, American FactFinder, Census 2000 and 2010;
North Carolina Department of Health and Human Services.

III. DEMOGRAPHIC PROFILE

B. Age, Education and Income

Tables 6 through 9 below provide county-level data on age, educational attainment and income. Six of the District's seven counties rank below the state in the percentage of high school and college (Bachelor's Degree) graduates. The district's Median Age is notably higher than the state's (with the exception of Watauga). All seven counties in the High Country are below the state per capita income average of \$24,745. Similarly, Poverty Rates are higher than the state throughout the District. Over 36,000 people in the District meet the U.S. Department of Agriculture's criteria for being classified as "Food Insecure"; the highest percentage of food insecure people is found in Alleghany (20.8%) and Wilkes Counties (19.7%). The percentage of food insecure children is highest in Alleghany County (39.6%).

Table 6. High Country COG Region Educational Attainment, 2005-2009										
County	Pop. 25 yrs. and over	% < 9th Grade	% 9th-12th Grade (no diploma)	% HS Grad. (incl. equivalency)	% Some College (no degree)	% Assoc. Deg.	% Bach. Deg.	% Grad. or Profess. Deg.	% HS Grad or Higher	% Bach. Degree or Higher
Alleghany	7,920	15.1	16.5	28.6	16.9	6.4	11.5	5.1	68.4	16.5
Ashe	18,773	9.5	14.7	32.8	18.8	7.7	10.9	5.6	75.8	16.5
Avery	12,810	8.4	10.0	32.5	18.2	9.1	15.3	6.5	81.6	21.8
Mitchell	11,326	10.6	14.1	37.0	15.6	8.1	9.3	5.3	75.3	14.6
Watauga	23,761	5.5	8.4	25.3	18.4	7.5	19.3	15.7	86.1	34.9
Wilkes	46,644	10.7	18.2	32.7	17.6	8.7	8.5	3.6	71.1	12.0
Yancey	13,189	9.9	11.9	38.0	16.2	8.3	9.9	5.8	78.3	15.7
Region Total	134,423	-	-	-	-	-	-	-	-	-

US Census Bureau, American Community Survey 5-Year Estimate, 2005-2009.

Table 7. High Country COG Region: Median Age, Education & Income						
County	Median Age 2010	% HS Grad or Higher (06-10)	% Bach Deg or Higher (06-10)	Median Household Income (06-10)	Per Capita Income (06-10)	% Persons Below Poverty Level (06-10)
Alleghany	45.9	71.4%	16.1%	\$30,845	\$18,919	26.2%
Ashe	45.5	76.8%	17.2%	\$34,538	\$20,350	17.8%
Avery	42.3	81.3%	20.3%	\$34,918	\$23,465	18.1%
Mitchell	45.7	76.5%	14.4%	\$32,743	\$18,804	16.8%
Watauga	28.4	86.9%	37.1%	\$31,967	\$20,961	24.8%
Wilkes	42.4	72.6%	12.3%	\$33,438	\$19,406	19.2%
Yancey	45.5	77.9%	15.2%	\$35,703	\$18,576	18.1%
North Carolina	37.4	83.6%	26.1%	\$45,570	\$24,745	15.5%
United States	37.2	85.0%	27.9%	\$51,914	\$27,334	13.8%

Table 8.					
High Country COG Region Food Insecurity					
County	General Population: Food Insecurity			Children: Food Insecurity	
	# of Food	% of Food		# of Food	% of Food
	Insecure People	Insecure People		Insecure Children	Insecure Children
Alleghany	2,260	20.8		840	39.6
Ashe	4,660	18.3		1,630	33.3
Avery	2,770	15.5		930	28.6
Mitchell	2,920	18.6		1,020	32.4
Watauga	7,560	16.9		1,630	25.2
Wilkes	13,110	19.7		5,330	35.4
Yancey	3,460	18.9		1,280	33.4
Totals	36,740	-		12,660	-

Source: Feeding America, *Map The Meal Gap*, 2011.

Wages in the District, while historically lower than the state and nation, grew by 5 percent between 2007 and 2010. Mitchell County experienced the largest growth in wages over the period, at nearly 8 percent.

Table 9.								
High Country COG Region Average Annual Wage, 2000-2010								
County	2000	2005	2007	2010	Change 2000-10	% Change 2000-10	Change 2007-10	% Change 2007-10
Alleghany	\$20,696	\$23,244	\$24,180	\$25,948	\$5,252	25.4	\$1,768	7.3
Ashe	\$22,100	\$25,064	\$27,508	\$28,912	\$6,812	30.8	\$1,404	5.1
Avery	\$19,968	\$23,348	\$25,636	\$26,364	\$6,396	32.0	\$728	2.8
Mitchell	\$22,880	\$25,532	\$28,132	\$30,316	\$7,436	32.5	\$2,184	7.8
Watauga	\$22,412	\$26,884	\$29,380	\$31,616	\$9,204	41.1	\$2,236	7.6
Wilkes	\$26,624	\$37,336	\$29,796	\$30,836	\$4,212	15.8	\$1,040	3.5
Yancey	\$22,256	\$24,596	\$27,040	\$27,560	\$5,304	23.8	\$520	1.9
Region Totals	\$156,936	\$186,004	\$191,672	\$201,552	\$44,616	28.4	\$9,880	5.2

Source: North Carolina Employment Security Commission.

III. DEMOGRAPHIC PROFILE

C. Housing

Tables 10 through 14 provide information on housing in the District. Single-family detached homes comprise the majority of housing stock in the District. However, mobile homes in the region are notably prevalent: In Wilkes County, more than a quarter of all housing stock consists of mobile homes; in Ashe and Mitchell Counties that number approaches 25%. The majority of housing stock in the region was built between 1970 and 1999. The area's popularity as a second home market drives home prices upward, most notably in Watauga County, where 22% of owner-occupied homes are priced in the \$300-\$499,999 range.

Table 10.							
High Country COG Region Housing Stock							
2006-2010 American Community Survey 5-Year Estimates							
	Allegh.	Ashe	Avery	Mitch.	Wat.	Wilkes	Yancey
HOUSING UNITS							
Total number of housing units	7,844	16,739	13,669	8,578	30,743	32,605	10,893
1-unit, detached	78.5%	72.0%	68.3%	68.0%	62.9%	65.5%	69.2%
1-unit, attached	1.5%	0.4%	0.9%	0.7%	1.2%	0.6%	0.6%
2 units	0.5%	1.6%	2.1%	2.2%	5.0%	1.3%	1.3%
3 or 4 units	2.8%	1.0%	5.4%	2.0%	4.9%	2.3%	3.4%
5 to 9 units	2.2%	1.0%	3.2%	2.9%	7.4%	2.4%	1.0%
10 to 19 units	0.3%	0.3%	2.4%	0.8%	5.4%	0.4%	1.4%
20 or more units	0.4%	0.5%	5.0%	0.7%	5.4%	1.2%	1.0%
Mobile home	13.8%	23.2%	12.7%	22.8%	7.9%	26.4%	22.1%
Boat, RV, van	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AGE							
Total number of housing units	7,844	16,739	13,669	8,578	30,743	32,605	10,893
Built 2005 or later	2.2%	1.6%	2.1%	2.6%	3.0%	2.0%	4.0%
Built 2000 to 2004	5.8%	7.9%	4.3%	4.9%	5.9%	7.7%	6.3%
Built 1990 to 1999	18.0%	19.2%	14.4%	15.9%	19.6%	17.1%	20.4%
Built 1980 to 1989	18.7%	18.0%	33.0%	16.1%	23.0%	16.5%	19.9%
Built 1970 to 1979	22.4%	18.5%	17.2%	18.5%	23.2%	19.8%	16.4%
Built 1960 to 1969	16.3%	11.5%	11.5%	13.6%	11.6%	14.7%	9.7%
Built 1950 to 1959	6.1%	8.9%	5.4%	11.3%	5.5%	9.4%	9.4%
Built 1940 to 1949	3.9%	6.2%	4.0%	6.5%	2.4%	6.7%	4.9%
Built 1939 or earlier	6.6%	8.3%	8.3%	10.4%	5.7%	6.1%	9.1%
VALUE							
Number of Owner-Occupied Units	3,678	9,379	5,235	5,106	11,440	20,658	5,862
< \$50,000	11.8%	16.6%	10.3%	18.0%	7.3%	17.2%	12.5%
\$50,000-\$99,999	21.6%	17.4%	21.4%	29.2%	8.3%	28.5%	26.2%
\$100,000-\$149,999	25.6%	17.5%	16.1%	19.8%	12.7%	21.4%	22.0%
\$150,000-\$199,999	12.4%	13.7%	19.4%	12.9%	17.5%	13.5%	11.7%
\$200,000-\$299,999	15.7%	18.4%	15.5%	14.0%	23.1%	12.8%	14.8%
\$300,000-\$499,999	8.0%	12.4%	9.8%	3.0%	21.9%	4.2%	9.8%
\$500,000-\$999,999	3.8%	3.3%	5.6%	1.9%	7.5%	2.0%	2.3%
\$1,000,000 +	1.2%	0.6%	2.0%	1.2%	1.7%	0.5%	0.6%
Median Dollar Value	133,100	145,700	155,100	105,000	215,800	109,100	129,700

The construction of second homes comprises a significant portion District’s economic activity. Beginning in 2007, the number of housing permits issued throughout the region declined precipitously. Between 2000 and 2008, housing permits dropped by 47 percent in Alleghany County, and by 43 percent in Wilkes County. In the 2 year period between 2008 and 2010, housing permits declined by 58 percent in Avery County; by 56 percent in Ashe; by 51 percent in Alleghany; and by 30 percent in Watauga.

Table 11.
High Country COG Region Private Housing Building Permits

<u>County</u>	<i>New Private Housing Building Permit Totals</i>				<i>Percent Change</i>		
	<u>1990</u>	<u>2000</u>	<u>2008</u>	<u>2010</u>	<u>1990-00</u>	<u>2000-08</u>	<u>2008-10</u>
Alleghany	81	151	80	39	86.4	-47.0	-51.3
Ashe	162	239	203	90	47.5	-15.1	-55.7
Avery	212	148	119	50	-30.2	-19.6	-58.0
Mitchell	64	70	62	49	9.4	-11.4	-21.0
Watauga	322	573	386	271	78.0	-32.6	-29.8
Wilkes	175	242	138	89	38.3	-43.0	-35.5
Yancey	4	87	70	44	2,075.0	-19.5	-37.1
Totals	1,020	1,510	1,058	632	48.0	-29.9	-40.3

Source: U.S. Census, 2010.

As would be expected in a region that is dependent on tourism, a significant amount of the housing stock in the High Country is used for Seasonal, Recreational, or Occasional activities. Nearly 45% of the total housing units in Avery County are classified as such; Alleghany, Watauga, and Ashe counties range from approximately 25% to 30% (2010).

Table 12. High Country COG Region Seasonal/Recreational/Occasional Housing Units 2000 - 2010						
County	2000	% 2000 Total	2010	% 2010 Total	Change 2000-2010	% Change 2000-2010
Alleghany	1,315	20.5	2,388	29.5	1,073	81.6
Ashe	1,974	14.9	4,270	24.6	2,296	116.3
Avery	4,751	39.9	6,004	43.2	1,253	26.4
Mitchell	478	6.0	1,189	13.6	711	148.7
Watauga	5,098	22.0	8,993	28.0	3,895	76.4
Wilkes	545	1.9	1,222	3.7	677	124.2
Yancey	1,230	12.6	2,081	18.9	851	69.2
Region Total	15,391	-	26,147	-	10,756	69.9

Median Household Incomes (MHI) can serve as an important indicator of the financial challenges facing potential homeowners and renters. MHI in the District ranges from \$10,000 to \$15,000 less than the state’s

MHI. Watauga County’s Median Value for Owner-Occupied Units is almost one and a half times greater than the state’s; Avery County’s is also greater than the state’s. A substantial percentage of renters in the region are spending 35 percent or more of their Household Income on rent, particularly in Alleghany and Watauga counties, as shown in Table 13 below.

Table 13. High Country COG Region: Equitable Housing Assessment Owner-Occupied Housing and Rental Housing						
County	% Persons Below Poverty Level (06-10)	Per Capita Income (06-10)	Median Hsld. Income (06-10)	Median Value: Owner-Occupied Units (06-10)	Median Gross Rent (06-10)	% of Renters Spending 35%> of Hsld. Income on Rent
Alleghany	26.2%	\$18,919	\$30,845	\$133,100	\$532	55.0%
Ashe	17.8%	\$20,350	\$34,538	\$145,700	\$542	35.4%
Avery	18.1%	\$23,465	\$34,918	\$155,100	\$677	43.7%
Mitchell	16.8%	\$18,804	\$32,743	\$105,000	\$462	37.1%
Watauga	24.8%	\$20,961	\$31,967	\$215,800	\$740	66.8%
Wilkes	19.2%	\$19,406	\$33,438	\$109,100	\$512	42.7%
Yancey	18.1%	\$18,576	\$35,703	\$129,700	\$490	32.5%
N. Carolina	15.5%	\$24,745	\$45,570	\$149,100	\$718	40.2%

Source: U.S. Census, 2006-2010 American Community Survey 5-Year Estimates.

Table 14 shows regional foreclosure filings in the District in 2011. Foreclosure filings were highest in Wilkes and Watauga counties.

Table 14. 2011 Regional Foreclosure Filings		
County	# Mortgages	2011 Filings
Alleghany	1,690	77
Ashe	4,194	147
Avery	2,747	144
Mitchell	2,403	55
Watauga	7,199	248
Wilkes	10,632	276
Yancey	2,570	63
Totals	31,435	1,010

Source: North Carolina Housing Finance Agency, 2012.

High Country Council of Governments

Comprehensive Economic Development Strategy 2012

Chapter IV

INFRASTRUCTURE

IV. INFRASTRUCTURE

A. Workforce

Tables 15 through 19 provide data on the District’s workforce. In most High Country COG counties, the number of non-manufacturing industry employees is higher than those employed in Manufacturing. This is most apparent in Avery and Watauga Counties where tourism is a major industry. Agriculture is a notable component of the region’s economy, particularly in Alleghany and Ashe Counties. Retail Trade, Government, and Healthcare are strong sectors throughout the region. Refer to Section III for additional information on the region’s key economic clusters.

Table 15.

High Country COG Region Percentage of Workforce by Sector 2011							
Sector	<i>Percent of Workforce</i>						
	Alleghany	Ashe	Avery	Mitchell	Watauga	Wilkes	Yancey
Agriculture, Forestry, Fishing and Hunting	13.2	10.1	5.2	4.3	1.8	4.2	6.3
Mining, Quarrying, and Oil and Gas Extraction	1.3	0.3	0.4	6.4	0.2	0.1	1.7
Utilities	0.2	0.3	0.5	0.3	0.2	0.2	0.4
Construction	9.7	12.0	12.4	8.0	6.8	8.6	13.3
Manufacturing	9.5	9.2	1.6	4.8	2.4	12.4	4.3
Wholesale Trade	1.1	2.1	1.2	1.6	2.6	2.7	2.9
Retail Trade	8.3	12.5	10.5	11.6	13.6	11.8	11.3
Transportation and Warehousing	1.3	1.6	1.5	3.6	1.0	2.5	3.8
Information	0.5	1.0	0.7	0.3	1.0	0.8	0.9
Finance and Insurance	3.2	4.0	2.7	2.8	2.8	3.4	2.3
Real Estate and Rental and Leasing	5.0	4.8	7.9	3.7	6.6	2.6	4.7
Professional, Scientific, and Technical Services	2.5	3.0	3.5	2.3	4.3	2.7	3.7
Management of Companies and Enterprises	0.3	1.5	0.2	0.6	0.8	6.3	0.0
Administrative and Support and Waste Mgmt.	4.4	3.9	5.5	4.3	3.9	4.4	6.4
Educational Services (Private)	0.2	0.7	3.6	2.3	1.4	0.7	1.0
Health Care and Social Assistance	10.9	9.9	8.7	13.2	11.1	7.5	7.0
Arts, Entertainment, and Recreation	4.5	1.7	5.2	1.9	3.4	0.9	2.9
Accommodation and Food Services	5.5	5.5	7.8	4.8	11.6	5.9	6.2
Other Services (except Public Administration)	5.7	6.1	7.7	5.9	5.3	6.9	7.2
Government	12.6	9.8	13.3	17.5	19.3	15.3	13.7
Unclassified Industry	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Source: North Carolina Employment Security Commission, Labor Market Information Division, via Economic Modeling Specialists Inc.							

The District's manufacturing sector has experienced steep declines in employment since 2002. Mitchell, Alleghany, and Yancey counties were impacted the most, both in terms of overall employment and total payroll.

Table 16.

High Country COG Region Manufacturing Employment								
Manufacturing Sector								
County	Total Number of Employees				Total Payroll of Employees			
	1997	2002	2007	% Change (02-07)	1997	2002	2007	% Change (02-07)
Alleghany	1,422	1,156	628	-45.7	\$27,246,000	\$29,034,000	\$18,213,000	-37.3
Ashe	2,093	1,177	1,122	-4.7	\$42,167,000	\$38,619,000	\$35,273,000	-8.7
Avery*	-	-	-	-	-	-	-	-
Mitchell	1,868	1,297	552	-57.4	\$37,078,000	\$31,877,000	\$17,144,000	-46.2
Watauga	1,223	1,066	862	-19.1	\$24,762,000	\$26,521,000	\$26,567,000	0.2
Wilkes	8,082	6,656	5,839	-12.3	\$168,069,000	\$167,534,000	\$173,493,000	3.6
Yancey	1,645	1,007	655	-35.0	\$39,276,000	\$26,908,000	\$21,093,000	-21.6
Totals	16,333	12,359	9,658	-	\$338,598,000	\$320,493,000	\$291,783,000	-
* No data.								
Source: North Carolina Department of Commerce, Division of Employment Security.								

Tables 17 through 19 provide unemployment data for the region. The statewide unemployment rate for 2011 was 10.5%. Unemployment rates in the High Country have consistently been higher than the state average, with the exception of Watauga County - which historically has had one of the lowest unemployment rates in the state.

Table 17.

High Country COG Region Unemployment, 2007-2011

County	Unadjusted Annual Employment Rates (%)					% Chng. 2010-2011
	2007	2008	2009	2010	2011	
Alleghany	5.2	7.7	11.7	12.1	12.4	2.5
Ashe	5.1	6.9	11.8	12.9	12.2	-5.4
Avery	4.8	5.9	9.1	11.2	11.6	3.6
Mitchell	7.2	8.3	12.2	12.1	11.7	-3.3
Watauga	3.4	4.9	7.8	8.8	9.0	2.3
Wilkes	5.5	7.7	12.6	13.9	12.4	-10.8
Yancey	5.9	7.8	11.8	12.2	12.0	-1.6

Source: United States Department of Labor, Bureau of Labor Statistics.

Since the start of the recession in 2007, unemployment rates in the District have risen. The region's dependence on Manufacturing, Natural Resources/Mining and Second-Home Construction –three sectors of the economy which have been severely impacted by the recession – has resulted in a significant and lasting downturn in the regional economy. The average annual labor force in the District (2011) was 94,948.

Table 18.								
High Country COG Region Employment, 2000-2010								
County	2000	2005	2007	2010	Change 2000-10	% Change 2000-10	Change 2007-10	% Change 2007-10
Alleghany	4,348	3,605	3,748	3,312	-293	-8.1	-436	-11.6
Ashe	8,161	8,098	8,272	7,387	-711	-8.8	-885	-10.7
Avery	7,337	7,101	7,389	6,773	-328	-4.6	-616	-8.3
Mitchell	6,342	6,068	5,456	5,048	-1,020	-16.8	-408	-7.5
Watauga	21,044	21,400	22,755	21,199	-201	-0.9	-1,556	-6.8
Wilkes	27,605	25,196	23,333	20,479	-4,717	-18.7	-2,854	-12.2
Yancey	4,887	3,945	4,148	3,649	-296	-7.5	-499	-12.0
Region Totals	79,724	75,413	75,101	67,847	-7,566	-10.0	-7,254	-9.7

Source: North Carolina Employment Security Commission.

An analysis of average annual employment in the District by industry sector indicates the extent of job losses and gains for the period of 2000-10. Significant declines in the Manufacturing sector were evident by 2007, while the Construction sector's decline began in 2008-09. Throughout the period, the Education and Health Services, Public Administration, and Leisure and Hospitality sectors experienced growth.

Table 19.							
High Country COG Region Average Annual Employment							
Industry Sector	2000	2007	2010	Change 2000-07	% Change 2000-07	Change 2000-10	% Change 2000-10
Natural Resources and Mining	1,558	1,310	1,179	-248	-15.9	-379	-24.3
Construction	4,439	5,449	3,866	1,010	22.8	-573	-12.9
Manufacturing	17,413	9,372	6,551	-8,041	-46.2	-10,862	-62.4
Trade, Transportation and Utilities	14,064	14,369	13,009	305	2.2	-1,055	-7.5
Information	912	929	795	17	1.9	-117	-12.8
Financial Activities	2,683	3,170	2,602	487	18.2	-81	-3.0
Professional and Business Services	7,633	5,273	5,070	-2,360	-30.9	-2,563	-33.6
Education and Health Services	16,065	19,303	19,190	3,238	20.2	3,125	19.5
Leisure and Hospitality	8,607	9,514	8,905	907	10.5	298	3.5
Other Services	2,105	1,724	1,788	-381	-18.1	-317	-15.1
Public Administration	4,244	4,414	4,870	170	4.0	626	14.8
Unclassified	-	279	32	-	-	-	-
Region Totals	79,723	75,106	67,857	-4,617	-5.8	-11,866	-14.9

Source: North Carolina Employment Security Commission.

Small business/entrepreneurial development efforts are not new to the District, but have received increased attention in recent years. Entrepreneurial development has been recognized as a major component of economic development efforts at the federal, state, and local level. Statewide, there are three significant small business development efforts:

1. The NC Rural Economic Development Center, Inc. (Rural Center)'s Institute for Rural Entrepreneurship offers potential and existing entrepreneurs training, information, financing, and technical assistance.
2. The North Carolina Small Business and Technology Development Center (SBTDC) helps small business owners (and those interested in starting a business) by providing management counseling and educational services to small and mid-sized businesses throughout North Carolina. The SBTDC has 17 offices - each affiliated with a college or university.
3. The Small Business Center Network (SBCN) is operated out of the state's 58 Community Colleges. The SBCNs, like the SBTDCs, provide counseling and education services to entrepreneurs and small businesses.

Following is a list of local government small business/entrepreneurial development efforts in the High Country COG District.

Alleghany County developed the Blue Ridge Business Development Center (BDC) in 2002 to revitalize and diversify the local economic base, focusing on the creation of high-tech jobs. Services offered at the BDC include small business counseling, customized technology training, incubator space and services, and flexible office/meeting space.

Avery County is evaluating the potential creation of an incubator, **AC P.R.I.D.E.**, at the former Banner Elk Elementary School site in downtown Banner Elk.

Mitchell, Watauga, and Yancey counties, working with **AdvantageWest**, have become Certified Entrepreneurial Communities. The rigorous certification provides assistance to community leaders and economic developers in creating a fertile and supportive environment for entrepreneurial growth

Watauga County has established the Appalachian Enterprise Center, a small business incubator with typical incubator functions (office space, administrative assistance, etc.), and also includes a strong group of support partners to provide business counseling. These partners include Watauga County Chapter of SCORE, Appalachian State University's Appalachian Regional Development Institute, the Small Business and Technology Development Center, and AdvantageWest (western NC's regional economic development commission).

IV. INFRASTRUCTURE

B. Water/Sewer

In the High Country region, 18 Towns operate public water systems. The Village of Sugar Mountain contracts with Carolina Water Systems, Inc. for provision of water service in the Village. Some Counties in the High Country region own and maintain small water systems at individual schools, landfills, and other county properties. Five private water associations operate in the region, and numerous community/private water systems are operated by property owners associations, country clubs, etc. The NC Watershed Protection Act of 1989 requires local governments to protect the half mile critical area upstream from each public water source, and to regulate development through zoning controls or police power ordinances within the watershed. These regulated areas have been mapped in each county. The purpose of the legislation is to protect public drinking water sources from unregulated growth and development.

The tables below provide data on the municipal water and sewer systems in the region.

Municipal Water Systems

Town of Sparta	
Water System	Surface water (in-stream)
Water Source/Treatment Capacity	1,000,000 gpd
Water System Average Use	500,000 gpd
Storage Capacity	1,002,000 gallons
Water System Condition	Fair
Digital Mapping	yes
Water Loss	30%
Population Served	1,783
Residential Connections - Use	1,231 - 227,000 gpd
Commercial Connections - Use	158 - 26,000 gpd
Industrial Connections - Use	7 - 53,000 gpd
Institutional Connections - Use	12 - 23,000 gpd
Sewer System Capacity	600,000 gpd
Sewer System Average Use	285,000 gpd
Policy on water/sewer extensions	yes

Town of Jefferson	
Water System	Surface water (impoundment); 3 wells
Water Source/Treatment Capacity	750,000 gpd
Water System Average Use	350,000 gpd
Storage Capacity	1,030,000 gallons
Water System Condition	Good
Digital Mapping	yes
Water Loss	10-12%
Population Served	1,763
Residential Connections - Use	690 - 177,000 gpd
Commercial Connections - Use	16 - 40,000 gpd
Industrial Connections - Use	2 - 108,000 gpd
Institutional Connections - Use	4 - 30,000 gpd
Sewer System Capacity	600,000 gpd
Sewer System Average Use	375,000 gpd
Policy on water/sewer extensions	case by case

Town of Lansing	
Water System	3 wells
Water Source/Treatment Capacity	23,000 gpd
Water System Average Use	11,000 gpd
Storage Capacity	50,000 gallons
Water System Condition	Very Good
Digital Mapping	no
Water Loss	< 10%
Population Served	2,100
Residential Connections - Use	75 - 5,000 gpd
Commercial Connections - Use	15 - 6,000 gpd
Industrial Connections - Use	0
Institutional Connections - Use	0
Sewer System Capacity	50,000 gpd
Sewer System Average Use	10,000 gpd
Policy on water/sewer extensions	

Town of West Jefferson	
Water System	10 wells; one spring
Water Source/Treatment Capacity	565,000 gpd
Water System Average Use	270,000 gpd
Storage Capacity	1,000,000 gallons (3 tanks)
Water System Condition	Good
Digital Mapping	yes
Water Loss	unknown
Population Served	1,143
Residential Connections - Use	515 - 121,000 gpd
Commercial Connections - Use	260 - 69,000 gpd
Industrial Connections - Use	18 - 1,000 gpd
Institutional Connections - Use	8 - 11,000 gpd
Sewer System Capacity	500,000 gpd
Sewer System Average Use	203,000 gpd
Policy on water/sewer extensions	none

Town of Banner Elk	
Water System	5 wells
Water Source/Treatment Capacity	366,000 gpd
Water System Average Use	194,000 gpd
Storage Capacity	538,000 gallons
Water System Condition	Fair
Digital Mapping	partial
Water Loss	20%
Population Served	854
Residential Connections - Use	437 - 44,000 gpd
Commercial Connections - Use	93 - 45,000 gpd
Industrial Connections - Use	11 - 4,000 gpd
Institutional Connections - Use	6 - 4,000 gpd
Sewer System Capacity	600,000 gpd
Sewer System Average Use	200,000 gpd
Policy on water/sewer extensions	yes

Town of Crossnore	
Water System	3 wells
Water Source/Treatment Capacity	75,600 gpd
Water System Average Use	32,000 gpd
Storage Capacity	200,000 gallons
Water System Condition	Good
Digital Mapping	yes
Water Loss	
Population Served	242
Residential Connections - Use	146
Commercial Connections - Use	
Industrial Connections - Use	
Institutional Connections - Use	3
Sewer System Capacity	70,000 gpd
Sewer System Average Use	33,000 gpd
Policy on water/sewer extensions	no

Town of Elk Park	
Water System	2 wells
Water Source/Treatment Capacity	237,000 gpd
Water System Average Use	64,000 gpd
Storage Capacity	205,000 gallons
Water System Condition	Fair
Digital Mapping	yes
Water Loss	< 15%
Population Served	495
Residential Connections - Use	241 - 49,000 gpd
Commercial Connections - Use	15 - 6,000 gpd
Industrial Connections - Use	0
Institutional Connections - Use	6 - 9,000 gpd
Sewer System Capacity	100,000 gpd
Sewer System Average Use	53,000 gpd
Policy on water/sewer extensions	yes

Town of Newland	
Water System	4 wells
Water Source/Treatment Capacity	265,000 gpd
Water System Average Use	100,000 gpd
Storage Capacity	400,000 gallons
Water System Condition	Poor
Digital Mapping	yes
Water Loss	23%
Population Served	711
Residential Connections - Use	350 - 49,000 gpd
Commercial Connections - Use	112 - 30,000 gpd
Industrial Connections - Use	1 - 3,000 gpd
Institutional Connections - Use	16 - 9,000 gpd
Sewer System Capacity	600,000 gpd
Sewer System Average Use	150,000 gpd
Policy on water/sewer extensions	yes

Village of Sugar Mountain	
Water System	Carolina Water System; 22 wells
Water Source/Treatment Capacity	865,000 gpd
Water System Average Use	228,000 gpd
Storage Capacity	610,000 gallons
Water System Condition	Good
Digital Mapping	yes
Water Loss	unknown
Population Served	2,827
Residential Connections - Use	1,618 - 200,000 gpd
Commercial Connections - Use	75 - 9,000 gpd
Industrial Connections - Use	0
Institutional Connections - Use	0
Sewer System Capacity	500,000 gpd
Sewer System Average Use	154,000 gpd
Policy on water/sewer extensions	

Town of Bakersville	
Water System	4 wells
Water Source/Treatment Capacity	200,000 gpd
Water System Average Use	41,000 gpd
Storage Capacity	266,000 gallons
Water System Condition	
Digital Mapping	yes
Water Loss	20%
Population Served	357
Residential Connections - Use	230 - 26,000 gpd
Commercial Connections - Use	70 - 10,000 gpd
Industrial Connections - Use	0
Institutional Connections - Use	1 - 5,000 gpd
Sewer System Capacity	200,000 gpd
Sewer System Average Use	46,000 gpd
Policy on water/sewer extensions	no

Town of Spruce Pine	
Water System	Surface Water (intake; lake); 2 wells
Water Source/Treatment Capacity	1.6 MGD
Water System Average Use	1.22 MGD
Storage Capacity	1,300,000 gallons
Water System Condition	Fair
Digital Mapping	yes
Water Loss	51%
Population Served	5,500
Residential Connections - Use	1,748 - 385,000
Commercial Connections - Use	283 - 308,000
Industrial Connections - Use	7 - 407,000
Institutional Connections - Use	1 - 87,000 gpd
Sewer System Capacity	2.0 MGD
Sewer System Average Use	362,000 gpd
Policy on water/sewer extensions	yes

Town of Beech Mountain	
Water System	Surface Water (2 lakes)
Water Source/Treatment Capacity	1.0 MGD
Water System Average Use	316,000 gpd
Storage Capacity	1,500,000 gallons
Water System Condition	Fair
Digital Mapping	yes
Water Loss	47%
Population Served	360 (2,500 seasonal)
Residential Connections - Use	1,912 - 140,000 gpd
Commercial Connections - Use	24 - 63,000
Industrial Connections - Use	0
Institutional Connections - Use	1 - 10,000 gpd
Sewer System Capacity	480,000 gpd
Sewer System Average Use	165,000 gpd
Policy on water/sewer extensions	yes

Town of Blowing Rock	
Water System	Surface Water (reservoir)
Water Source/Treatment Capacity	1.0 MGD
Water System Average Use	300,000 gpd
Storage Capacity	3,500,000 gallons
Water System Condition	Good
Digital Mapping	yes
Water Loss	20%
Population Served	1,467
Residential Connections - Use	1,910 - 123,000 gpd
Commercial Connections - Use	271 - 152,000 gpd
Industrial Connections - Use	0
Institutional Connections - Use	2 - 24,000 gpd
Sewer System Capacity	800,000 gpd
Sewer System Average Use	400,000 gpd
Policy on water/sewer extensions	yes

Town of Boone	
Water System	Surface Water (reservoir; intake)
Water Source/Treatment Capacity	3.0 MGD
Water System Average Use	1.8 MGD
Storage Capacity	5,110,000 gallons
Water System Condition	Good/Fair
Digital Mapping	yes
Water Loss	
Population Served	14,473
Residential Connections - Use	3,730 - 700,000 gpd
Commercial Connections - Use	900 - 850,000 gpd
Industrial Connections - Use	13 - 50,000 gpd
Institutional Connections - Use	30 - 150,000 gpd
Sewer System Capacity	4.84 MGD
Sewer System Average Use	2.2 MGD
Policy on water/sewer extensions	yes

Town of Seven Devils	
Water System	6 wells
Water Source/Treatment Capacity	195,000 gpd
Water System Average Use	59,000 gpd
Storage Capacity	170,000 gallons
Water System Condition	Good/Fair
Digital Mapping	no
Water Loss	25%
Population Served	225 (1,000 seasonal)
Residential Connections - Use	489 - 59,000 gpd
Commercial Connections - Use	0
Industrial Connections - Use	0
Institutional Connections - Use	0
Sewer System Capacity	n/a
Sewer System Average Use	n/a
Policy on water/sewer extensions	yes

Town of North Wilkesboro	
Water System	Surface Water (stream impoundment)
Water Source/Treatment Capacity	4.3 MGD
Water System Average Use	2.2 MGD
Storage Capacity	4,300,000 gallons
Water System Condition	Good
Digital Mapping	yes
Water Loss	minor
Population Served	4,135
Residential Connections - Use	1,276 - 222,000 gpd
Commercial Connections - Use	509 - 347,000 gpd
Industrial Connections - Use	15 - 81,000 gpd
Institutional Connections - Use	19 - 89,000 gpd
Sewer System Capacity	2.0 MGD
Sewer System Average Use	600,000 gpd
Policy on water/sewer extensions	yes

Town of Ronda	
Water System	2 wells
Water Source/Treatment Capacity	136,000 gpd
Water System Average Use	32,000 gpd
Storage Capacity	130,000 gallons
Water System Condition	Good
Digital Mapping	no
Water Loss	minor
Population Served	607
Residential Connections - Use	214 - 25,000 gpd
Commercial Connections - Use	8 - 1,000 gpd
Industrial Connections - Use	2 - 3,000 gpd
Institutional Connections - Use	1 - 2,000 gpd
Sewer System Capacity	pumps to Elkin
Sewer System Average Use	
Policy on water/sewer extensions	no

Town of Wilkesboro	
Water System	Surface Water (in-stream intake)
Water Source/Treatment Capacity	10 MGD
Water System Average Use	4.4 MGD
Storage Capacity	4,400,000 gallons
Water System Condition	Good
Digital Mapping	yes
Water Loss	
Population Served	3,259
Residential Connections - Use	1,468 - 207,000 gpd
Commercial Connections - Use	424 - 215,000 gpd
Industrial Connections - Use	37 - 1,976,000 gpd
Institutional Connections - Use	53 - 105,000 gpd
Sewer System Capacity	4.9 MGD
Sewer System Average Use	2.8 MGD
Policy on water/sewer extensions	yes

Town of Burnsville	
Water System	Surface Water (3 intakes)
Water Source/Treatment Capacity	1.0 MGD
Water System Average Use	600,000 gpd
Storage Capacity	2,575,000 gallons
Water System Condition	Fair
Digital Mapping	partial
Water Loss	unknown
Population Served	3,760
Residential Connections - Use	1,273 - 146,000 gpd
Commercial Connections - Use	256 - 79,000 gpd
Industrial Connections - Use	4 - 44,000 gpd
Institutional Connections - Use	16 - 17,000 gpd
Sewer System Capacity	800,000 gpd
Sewer System Average Use	450,000 gpd
Policy on water/sewer extensions	yes

North Carolina law requires local governments to begin planning for a future water source when the demand exceeds 80% of the system’s available supply, or the seasonal demand exceeds 90%. As shown in the table below, none of the local governments in the High Country region are expected to reach that threshold over the next 20 years. Most will remain at least below 60%, with only Banner Elk, Newland, and Spruce Pine reaching or exceeding 60% by 2030. Blowing Rock, Boone, Lansing, and Burnsville will experience a drop in the ratio by 2020 as new sources are developed and brought online.

Municipal Water Demand as Percent of Supply

Table 20.			
Town	2010	2020	2030
Bakersville	29%	28%	30%
Banner Elk	53%	66%	72%
Beech Mountain	11%	12%	13%
Blowing Rock	125%	54%	56%
Boone	66%	33%	37%
Burnsville	16%	9%	10%
Crossnore	42%	42%	42%
Elk Park	39%	39%	41%
Jefferson	2%	3%	3%
Lansing	48%	24%	34%
Newland	38%	55%	60%
North Wilkesboro	16%	22%	23%
Ronda	24%	28%	32%
Seven Devils	30%	39%	45%
Sparta	36%	37%	39%
Spruce Pine	50%	57%	64%
Sugar Mountain	30%	51%	51%
West Jefferson	49%	49%	50%
Wilkesboro	28%	40%	41%

Water Associations

Five independent rural water associations are located in the High Country region, all in Wilkes County. Their purpose is to deliver water to their customer base (which is overwhelmingly residential) through the provision and maintenance of water distribution lines and storage. The associations purchase finished water, directly or indirectly, from the Towns of North Wilkesboro and Wilkesboro. The associations produce no water on their own.

Water Use Analysis

An analysis of current water use is essential when considering available and future supplies. In the High Country region, water withdrawals are typically associated with drinking water. But drinking water (public supply and self-supplied domestic) comprises only 53% of water use regionwide, and varies widely from county to county. Fourteen percent of water withdrawal in the region is used for irrigation. Water withdrawn for livestock consumption (23%) is significantly more than withdrawn from private wells for household consumption (17%). Much of this consumption can be attributed to poultry production in Wilkes County, but beef cattle production is significant in Wilkes as well in other counties. The figure for industrial use (7%) includes only those industries that supply their own water (industries who obtain water from municipalities are included in the public supply category).

Water withdrawn for irrigation, livestock, mining, and industry seemingly would have little relationship to public supply and private wells. But major withdrawals for these uses could limit the quantity available of potable water. Though no conflict is presently apparent and limitations seem unlikely in the near future, it is an issue that should be considered when assessing available water resources.

Municipal Sewer Systems – Capacity versus Average Use

Table 21.					
County	Town	Ownership	Capacity (GPD)	Average Daily Use (GPD)	Capacity/Use Ratio
Alleghany	Sparta	Municipal	600,000	285,000	48%
Ashe	Jefferson	Municipal	600,000	375,000	63%
	Lansing	Municipal	50,000	10,000	20%
	W. Jefferson	Municipal	500,000	203,000	41%
Avery	Banner Elk	Municipal	600,000	200,000	33%
	Crossnore	Municipal	70,000	33,000	47%
	Elk Park	Municipal	100,000	53,000	53%
	Newland	Municipal	600,000	150,000	25%
	Sugar Mtn.	Private	500,000	154,000	31%
Mitchell	Bakersville	Municipal	200,000	46,000	23%
	Spruce Pine	Municipal	2 million	362,000	18%
Watauga	Beech Mtn.	Municipal	480,000	165,000	34%
	Blowing Rock	Municipal	800,000	400,000	50%
	Boone	Municipal	4.8 million	2.2 million	46%
	Seven Devils	No system			
Wilkes	N. Wilkesboro	Municipal	2.0 million	600,000	30%
	Ronda	Connects to Elkin			
	Wilkesboro	Municipal	4.9 million	2.8 million	57%
Yancey	Burnsville	Municipal	800,000	450,000	56%

Source: NCDENR – Division of Water Quality.

County On-site Systems

The seven counties in the District do not operate any water or wastewater systems, and only a few on-site systems, as listed below:

Table 22.	
<i>Alleghany County</i>	
Glade Creek Elementary School	water/sewer
Piney Creek Elementary School	water/sewer
<i>Ashe County</i>	
Blue Ridge Elementary School	water/sewer
Ashe County Middle School	water/sewer
<i>Avery County</i>	
Riverside Elementary School	water/sewer
<i>Mitchell County</i>	
Buladean Elementary School	water/sewer
Tipton Hill Elementary School	water/sewer
Mitchell County High School	future
<i>Watauga County</i>	

Bethel Elementary School	water/sewer
Cove Creek Elementary School	water/sewer
Green Valley Elementary School	water/sewer
Mabel Elementary School	water/sewer
Parkway Elementary School	water/sewer
Valle Crucis Elementary School	water/sewer
Wilkes County	
Boomer-Ferguson Elementary School	water/sewer
CB Eller Elementary School	sewer
CC Wright Elementary School	water/sewer
Millers Creek Elementary School	sewer
Moravian Falls Elementary School	sewer
Mt Pleasant Elementary School	sewer
Mountain View Elementary School	water/sewer
Mulberry Elementary School	sewer
Roaring River Elementary School	water/sewer
Ronda Clingman Elementary School	water/sewer
Traphill Elementary School	water/sewer
East Wilkes Middle School	sewer
North Wilkes Middle School	water/sewer
West Wilkes Middle School	sewer
North Wilkes High School	water/sewer
West Wilkes High School	sewer
Wilkes County Airpark	water/sewer
Yancey County	
Bald Creek Elementary School	water/sewer
Bee Log Elementary School	water/sewer
Clearmont Elementary School	water/sewer
Micaville Elementary School	water/sewer
South Toe Elementary School	water/sewer
Cane River Elementary School	sewer

IV. INFRASTRUCTURE

C. Broadband

Broadband infrastructure is as important to the region's economic development as water, sewer, natural gas and electricity are. Broadband is another word used for "bandwidth" - or the amount of data that can be sent through a connection – in order to access high-speed internet service. The more bandwidth, the more information a user can send or receive. Broadband speed is important because it allows for faster transmission (uploading and downloading) of data.

Broadband enables local communities and regions to develop, attract, retain and expand job-creating businesses and institutions. It also improves the productivity and profitability of large, small and home-based businesses - and allows each of them to compete in local, national and global markets. In addition to economic development, access to broadband is necessary for other important community activities including education, telework, public safety, and healthcare.

Broadband is accessed through various high-speed transmission technologies:

- **Digital Subscriber Line (DSL)** transmits data over traditional copper telephone lines already installed to homes and businesses. However, not all copper telephone lines are capable of transmitting data.
- **Cable Modem** services transmit data through the same coaxial cables that generate pictures and sounds on a TV set.
- **Fiber-Optic Cable (Fiber)** transmits data that has been converted into light through transparent glass fibers about the diameter of a human hair. Fiber transmits large amounts of data at speeds much faster than DSL or cable.
- **Wireless** can be mobile or fixed. Fixed wireless involves the wireless transmission of data from a local antenna to a permanent location such as a home or business. The service is similar to what is delivered over DSL or a cable modem, but the transmission is wireless. Mobile wireless connects users who are in temporary locations, such as coffee shops. Mobile broadband is commonly transmitted through mobile phones.
- **Satellite** is another form of wireless that is useful in serving remote or sparsely populated areas.
- **Broadband over Powerline (BPL)** is an emerging technology, but delivers broadband over low and medium voltage power lines using existing electrical connections and outlets.

Because of its ability to transmit and receive large amounts of data far faster than all other available internet technologies, Fiber is preferred by the private sector – from large industrial entities to small entrepreneurial start-ups. Private residences and farms are increasingly the centers of entrepreneurial activity, yet fiber is not widely available to either. The availability of fiber will be a significant factor in the District's ability to stimulate entrepreneurial activity, provide healthcare, recruit new businesses, and retain existing businesses.

In 2010, MCNC (a North Carolina non-profit organization) was awarded \$75.75 million in Broadband Technology Opportunities Program (BTOP) grant funding. The Golden LEAF Foundation awarded \$24 million in matching funds for MCNC's grant, resulting in the construction of a "Middle-Mile" fiber line through much of the District. The fiber line, scheduled to be completed in 2013, extends in an arc from Alleghany, through Ashe, Watauga, Avery, Mitchell, and Yancey counties.

"Middle-mile" networks are like onramps leading to super highways. Middle-mile networks connect the local "Last-mile" networks (the networks that ultimately serve residents, businesses, schools, and governments) to the internet "Backbone" – the super internet highway that carries data across the U.S. and the world. Although some private sector last-mile fiber providers have expressed interest in connecting to MCNC's middle-mile fiber line, the extension of last-mile fiber to homes and businesses is generally considered to be too costly by private sector providers, primarily because of the region's low population density and rugged terrain.

Current middle and last-mile projects in the District include:

Mitchell County

Mitchell County Historic Courthouse Foundation
Public Computing Project
\$239,194

Summary: In collaboration with Mitchell County Public Library and Mayland Community College, the Center will provide access to broadband programs and services that will address specific educational and communication needs of displaced workers, farmers, high school dropouts, residents wanting college courses, health care workers, EMS personnel, educators, government officials and small business owners.

Alleghany, Ashe, Avery, Mitchell, Watauga and Yancey Counties

MCNC
Comprehensive Community Infrastructure (Middle Mile)
\$75,757,289

Summary: MCNC's round two program is called the Golden LEAF Rural Broadband Initiative (GLRBI). The GLRBI project will deliver broadband infrastructure to the District by building both middle mile infrastructure and direct connections to Community Anchor Institutions (CAIs) including K12 schools, community colleges, 4 year colleges and universities, public libraries, and municipal, county and state public safety facilities.

Alleghany and Ashe Counties

Skyline Membership Corporation
Last Mile Project
\$28,985,294

Summary: This funding will expand the provision of advanced fiber-to-the-home services via a fiber optic network with combined speeds exceeding 20 mbps to households, local businesses and anchor institutions in Alleghany and Ashe counties.

Mitchell and Yancey Counties

Country Cablevision Inc.

Last Mile Project

\$25,297,000

Summary: The project will deliver critical digital services (TV, data and Voice Over Internet Protocol) to more than 33,000 people, including approximately 1,900 local businesses and 120 community institutions.

Wilkes County

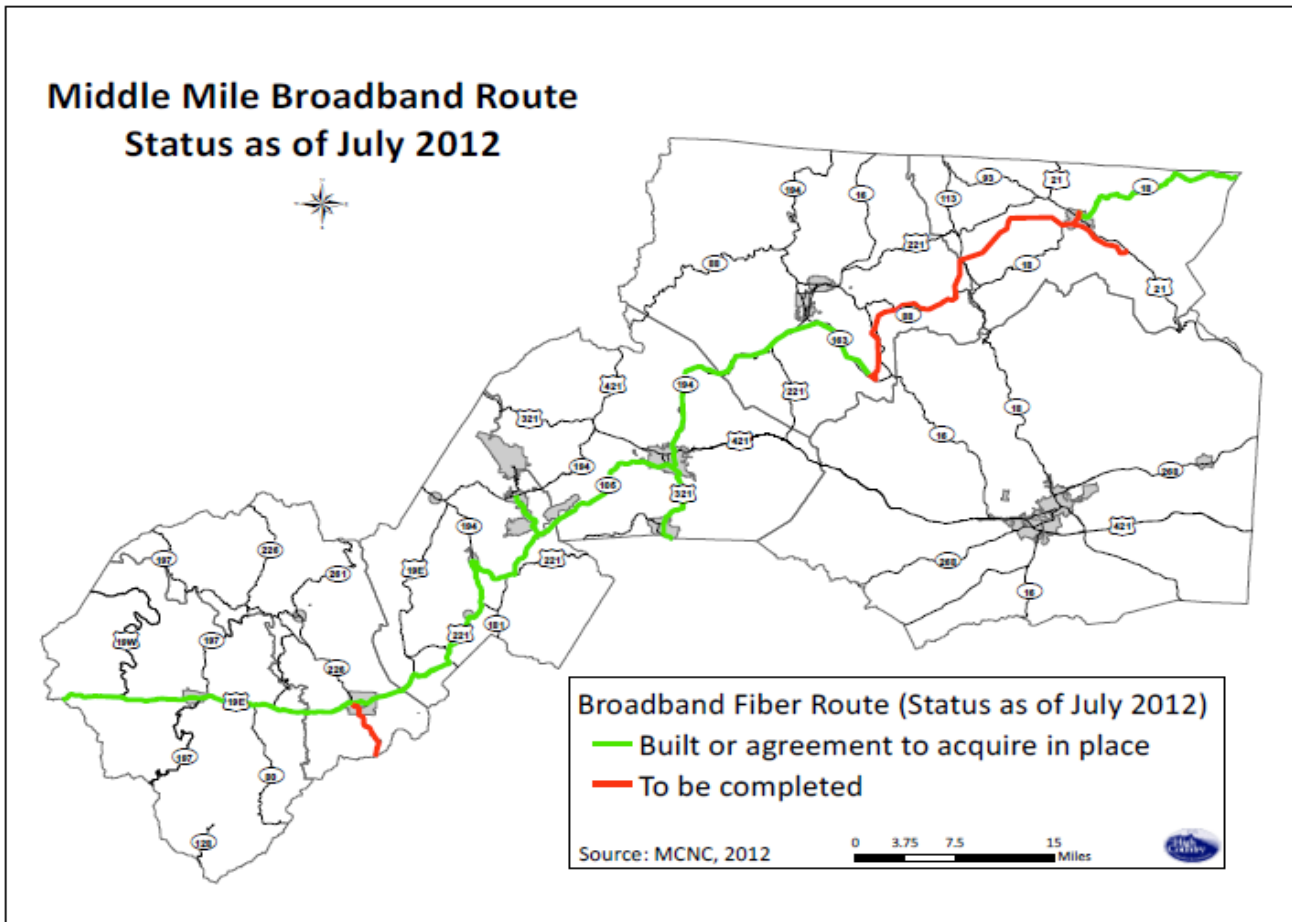
Wilkes Telecom, Inc.

Last Mile Project

\$21,611,000

Summary: The project will provide last mile fiber optic high speed broadband, video, and voice services to underserved rural areas in Wilkes County. The project will serve approximately 8,500 people, 3,300 businesses, and 45 other community institutions.

The map below shows the current status of middle-mile broadband construction in the District.



Broadband access is becoming an increasingly important tool for local governments in the District, primarily because broadband allows local governments to provide essential services and information to citizens and businesses - in much more efficient ways. Services such as applications for permits, online GIS services, staff training (webinars), videos of public meetings, invoicing and receiving payments, and customer service can be offered online leading to increased efficiency.

Access to broadband varies widely throughout the District. Some communities in the region rely almost exclusively on DSL internet connections, including Laurel Springs and Whitehead in Alleghany County; Crumpler, Fleetwood, Idlewild, and Todd in Ashe County; and McGrady and Ennice in Wilkes County.

Wilkes County currently has the largest fiber coverage footprint, particularly in North Wilkesboro and Wilkesboro. Watauga County, from Boone to the western portion of the county has access to fiber. The absence of fiber in Mitchell and Yancey Counties is particularly notable. However, large sections of Mitchell and Yancey Counties have access to Fixed Wireless technology, in addition to DSL and Cable.

While almost every county in the region has some access to fiber, the geographic areas with access to fiber are quite limited. The overall lack of access to last-mile fiber, particularly to existing or potential industrial/commerce parks, downtowns, schools, health care institutions, businesses, and residential areas will continue to constrain the region's overall economic development. As with other important infrastructure needs like natural gas, local governments can work with businesses and residents in advocating for improved broadband service, and seek grant funding for last-mile fiber construction (when available).

Tables 23 through 29 below summarize broadband availability in each of the District’s 7 counties.

Table 23: Allegheny County Broadband Overview			
Provider Name	Transmission Technology	Max Download Speed	Max Upload Speed
Skyline Telephone	DSL	>= 6 mbps and < 10 mbps	>= 768 kbps and < 1.5 mbps
Skyline Telephone	Fiber	>= 50 mbps and < 100 mbps	>= 1.5 mbps and < 3 mbps
CenturyLink	DSL	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
CHARTER COMM.	Cable Modem – DOCSIS 3.0	>= 100 mbps and < 1 gbps	>= 3 mbps and < 6 mbps
AT&T Mobility LLC	Mobile Wireless	>= 1.5 mbps and < 3 mbps	>= 768 kbps and < 1.5 mbps
T-Mobile	Mobile Wireless	>= 1.5 mbps and < 3 mbps	> 200 kbps and < 768 kbps
Wilkes Telecomm.	DSL	>= 1.5 mbps and < 3 mbps	> 200 kbps and < 768 kbps

Table 24: Ashe County Broadband Overview			
Provider Name	Transmission Technology	Max Download Speed	Max Upload Speed
CenturyLink	DSL	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
MEDIACOM	Cable Modem	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
Morris Broadband LLC	Cable Modem	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
Skybest Comm.	DSL	>= 6 mbps and < 10 mbps	>= 768 kbps and < 1.5 mbps
Skybest Comm.	Fiber	>= 50 mbps and < 100 mbps	>= 1.5 mbps and < 3 mbps
AT&T Mobility LLC	Mobile Wireless	>= 1.5 mbps and < 3 mbps	>= 768 kbps and < 1.5 mbps
Sprint	Mobile Wireless	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
CHARTER COMM.	Cable Modem – DOCSIS 3.0	>= 100 mbps and < 1 gbps	>= 3 mbps and < 6 mbps

Table 25: Avery County Broadband Overview

Provider Name	Transmission Technology	Max Download Speed	Max Upload Speed
AT&T Mobility LLC	Mobile Wireless	>= 1.5 mbps and < 3 mbps	>= 768 kbps and < 1.5 mbps
Verizon Wireless	Mobile Wireless	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
CHARTER COMM.	Cable Modem – DOCSIS 3.0	>= 100 mbps and < 1 gbps	>= 3 mbps and < 6 mbps
Skyline Telephone	DSL	>= 6 mbps and < 10 mbps	>= 768 kbps and < 1.5 mbps
Sprint Mobile	Wireless	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
AT&T North Carolina	DSL	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
T-Mobile	Mobile Wireless	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
Skyline Telephone	Fiber	>= 50 mbps and < 100 mbps	>= 1.5 mbps and < 3 mbps
Country Cablevision	Cable Modem	>= 6 mbps and < 10 mbps	>= 768 kbps and < 1.5 mbps

Table 26: Mitchell County Broadband Overview

Provider Name	Transmission Technology	Max Download Speed	Max Upload Speed
Country Cablevision	Cable Modem	>= 6 mbps and < 10 mbps	>= 768 kbps and < 1.5 mbps
Frontier Comm.	DSL	>= 1.5 mbps and < 3 mbps	> 200 kbps and < 768 kbps
MAIN	Fixed Wireless	>= 768 kbps and < 1.5 mbps	>= 768 kbps and < 1.5 mbps
Verizon Wireless	Mobile Wireless	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
AT&T North Carolina	DSL	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
Morris Broadband LLC	Cable Modem	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
AT&T Mobility LLC	Mobile Wireless	>= 1.5 mbps and < 3 mbps	>= 768 kbps and < 1.5 mbps
CHARTER COMM.	Cable Modem – DOCSIS 3.0	>= 100 mbps and < 1 gbps	>= 3 mbps and < 6 mbps

Table 27: Watauga County Broadband Overview

<i>Provider Name</i>	<i>Transmission Technology</i>	<i>Max Download Speed</i>	<i>Max Upload Speed</i>
AT&T North Carolina	DSL	>= 10 mbps and < 25 mbps	>= 3 mbps and < 6 mbps
CHARTER COMM.	Cable Modem – DOCSIS 3.0	>= 100 mbps and < 1 gbps	>= 3 mbps and < 6 mbps
AT&T Mobility LLC	Mobile Wireless	>= 1.5 mbps and < 3 mbps	>= 768 kbps and < 1.5 mbps
Verizon Wireless	Mobile Wireless	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
Skyline Telephone	Fiber	>= 50 mbps and < 100 mbps	>= 1.5 mbps and < 3 mbps
Sprint Mobile	Wireless	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
Skyline Telephone	DSL	>= 6 mbps and < 10 mbps	>= 768 kbps and < 1.5 mbps
T-Mobile	Mobile Wireless	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps

Table 28: Wilkes County Broadband Overview

<i>Provider Name</i>	<i>Transmission Technology</i>	<i>Max Download Speed</i>	<i>Max Upload Speed</i>
AT&T Mobility LLC	Mobile Wireless	>= 1.5 mbps and < 3 mbps	>= 768 kbps and < 1.5 mbps
CenturyLink	DSL	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
CHARTER COMM.	Cable Modem – DOCSIS 3.0	>= 100 mbps and < 1 gbps	>= 3 mbps and < 6 mbps
Sprint Mobile	Wireless	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
Wilkes Telecomm.	Fiber	>= 10 mbps and < 25 mbps	>= 10 mbps and < 25 mbps
T-Mobile	Mobile Wireless	>= 1.5 mbps and < 3 mbps	> 200 kbps and < 768 kbps
Wilkes Telecomm.	DSL	>= 6 mbps and < 10 mbps	> 200 kbps and < 768 kbps
TIME WARNER CABLE	Cable Modem – DOCSIS 3.0	>= 50 mbps and < 100 mbps	>= 3 mbps and < 6 mbps
AT&T North Carolina	DSL	>= 10 mbps and < 25 mbps	>= 3 mbps and < 6 mbps
Yadtel	DSL	>= 3 mbps and < 6 mbps	>= 768 kbps and < 1.5 mbps
Skyline Telephone	DSL	>= 6 mbps and < 10 mbps	>= 768 kbps and < 1.5 mbps
Skyline Telephone	Fiber	>= 50 mbps and < 100 mbps	>= 1.5 mbps and < 3 mbps
MEDIACOM	Cable Modem	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
Yadtel	Fiber	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps

Table 29: Yancey County Broadband Overview

<i>Provider Name</i>	<i>Transmission Technology</i>	<i>Max Download Speed</i>	<i>Max Upload Speed</i>
Verizon Wireless	Mobile Wireless	>= 768 kbps and < 1.5 mbps	> 200 kbps and < 768 kbps
MAIN	Fixed Wireless	>= 768 kbps and < 1.5 mbps	>= 768 kbps and < 1.5 mbps
Country Cablevision	Cable Modem	>= 6 mbps and < 10 mbps	>= 768 kbps and < 1.5 mbps
Frontier Comm.	DSL	>= 1.5 mbps and < 3 mbps	> 200 kbps and < 768 kbps
MCNC	Fiber	>= 100 mbps and < 1 gbps	>= 100 mbps and < 1 gbps
AT&T North Carolina	DSL	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
CHARTER COMM.	Cable Modem – DOCSIS 3.0	>= 100 mbps and < 1 gbps	>= 3 mbps and < 6 mbps
AT&T Mobility LLC	Mobile Wireless	>= 1.5 mbps and < 3 mbps	>= 768 kbps and < 1.5 mbps
T-Mobile Mobile	Wireless	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps
Morris Broadband LLC	Cable Modem	>= 10 mbps and < 25 mbps	>= 1.5 mbps and < 3 mbps

Source: North Carolina Department of Commerce, NC Broadband, 2012.

Note: gbps refers to a data transfer rate in terms of Gigabits (1,000,000,000 bits) per second; mbps refers to a data transfer rate in terms of Megabits (1,000,000 bits) per second; kbps refers to a data transfer rate in terms of Kilobits (1,000 bits) per second.

IV. INFRASTRUCTURE

D. Transportation

The primary form of access to the High Country is by highway. The primary highway options have been identified as Strategic Highway Corridors (SHC) by the North Carolina Department of Transportation (NCDOT). Strategic Highway Corridors carry significant traffic volumes and are vital to the state and/or region's interest, provide a connection between major activity centers, provide a connection to existing and/or planned interstates, currently serves, or has the potential to serve, as a reliever route to an existing interstate facility. NCDOT had developed a statewide vision and identified the desired facility type (i.e. freeway, expressway, boulevard, or thoroughfare) for each corridor. These highways play a critical role in regional and statewide mobility. The North Carolina Board of Transportation identified the Strategic Highway Corridors in 2004, but prior to that the North Carolina General Assembly approved the North Carolina Highway Trust Fund. This legislation includes the identification of "Intrastates". The general statute states that all segments of the routes in the Intrastate System shall have at least four travel lanes except those for which projected travel volumes and environmental considerations dictate fewer lanes." Intrastate Trust Fund projects in the High Country region include the following:

- US 19E: Complete 4-laning from US 23 to NC 194 in Ingalls
- US 221: Complete 4-laning from Linville to South Carolina
- US 321: Complete 4-laning from Tennessee line to South Carolina line
- US 421: Complete 4-laning from US 321 west of Boone to I-40
- NC 105: Complete 4-laning from Boone to Linville
- NC 194: Complete 4-laning from US 19E to US 221

Strategic Highway Corridors in the High Country Region include:

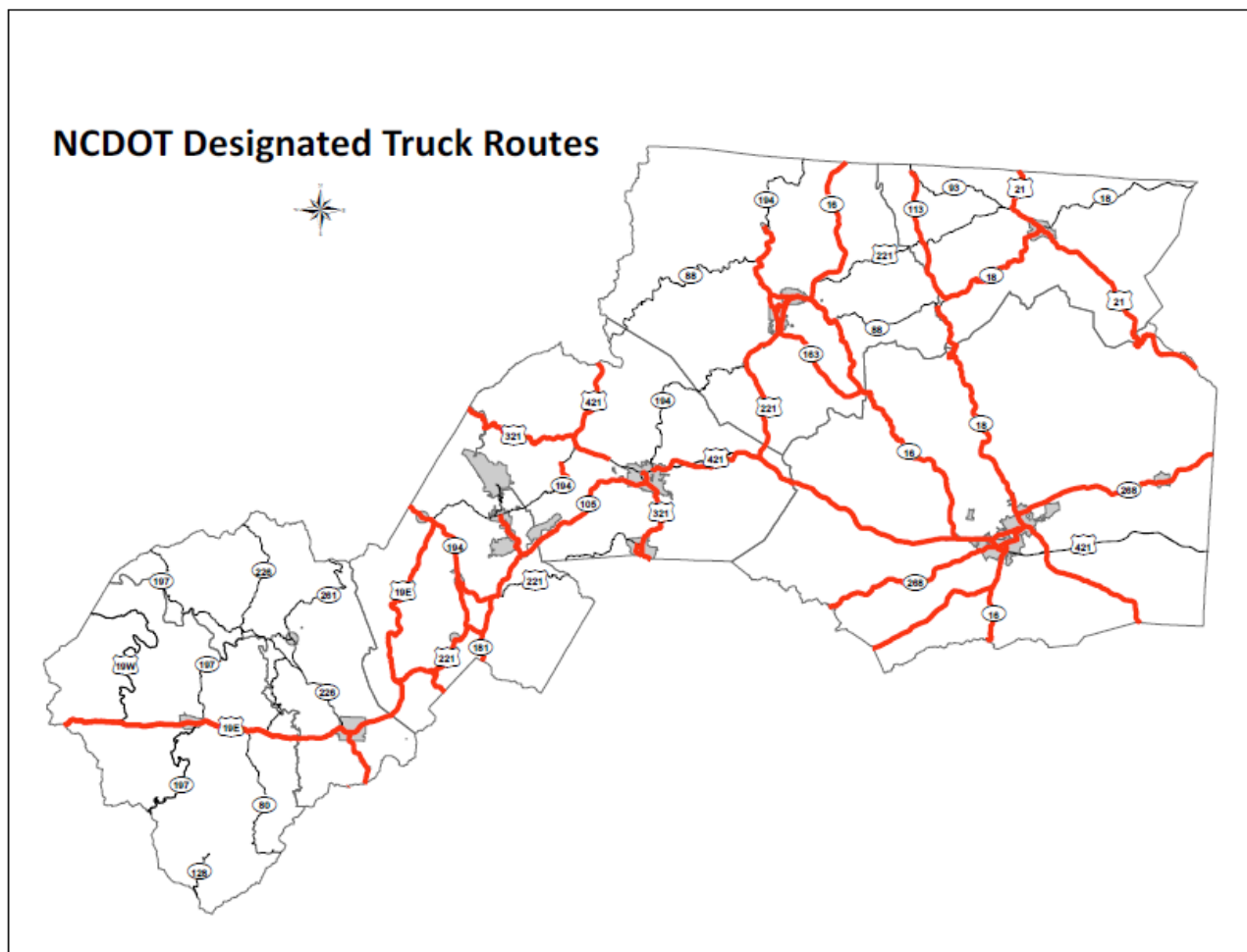
- US 421: traverses Watauga and Wilkes Counties, provides direct access to Tennessee and the NC Piedmont cities of Winston-Salem and Greensboro along with access to I-77 and I-40.
- US 321: enters the region through Watauga County, provides a route to either Tennessee or to Hickory and eventually South Carolina.
- US 221: provides access to Virginia and South Carolina and crosses four of the seven counties in the High Country region.
- US 19: crosses three the western most counties in the region and provides access to Johnson City, TN and Asheville, NC.
- NC 105: provides important access for the region between Boone and Linville.
- NC 16: enters the region in Wilkes County and provides a connection to South Carolina.
- NC 18: enters the region in Wilkes County and provides a connection to South Carolina.

The Strategic Highway Corridors and Intrastate Trust Fund projects that are scheduled to begin Construction in the next six years include the following:

- US 221: 4 lanes from US 421 in Deep Gap to NC 88 in Jefferson
- US 321: 4 lanes from Blackberry Road in Caldwell County to US 221 in Blowing Rock
- NC 105: 4 lanes from NC 105 Bypass (SR 1107) in Boone to Broadstone Road.
- US 19E: 4 lanes from NC 80 in Yancey County to the multi-lane section west of Spruce Pine

The widening of US 421/King Street in Boone was completed in April of 2012, alleviating congestion and allowing traffic to move through Boone at a quicker pace. Other improvements include the completion of a 4 lane widening of US 321 from Kirby Mountain Road to Blackberry Road in Caldwell County. This improvement will assist in creating a safer and quicker route from the Hickory and Charlotte areas. US 19E from I-26 through Yancey County was also under construction at the time this document was prepared. Many of the NC highways in the High Country are narrow, twisting, two lane, and poorly shouldered, which has been a major barrier to economic development for decades. Overall, the highway system in the region continues to substantially improve.

Highways are the primary means of access for moving freight into and out of the High Country. US 421 from Wilkesboro to the Yadkin County line is the only route approved for "STAA Dimensioned Vehicles" (Includes twin trailers and 53 ft. trailers) in the High Country with three mile access allowed off of these routes unless otherwise posted or restricted. The primary access is along "Non-Designated Primary Highways (Maximum of 53 ft. trailers) with three mile reasonable access allowed off of these routes unless otherwise posted or restricted. Because of the grades and curvature of the roads in the High Country region, there are many primary routes that are truck restricted. The map below shows the designated truck routes in the District.



Rail also plays a part in moving freight in Wilkes, Mitchell, and Yancey Counties. Yancey and Mitchell Counties are served by CSX rail lines with tracks, which primarily follow the North Toe River heading north into Tennessee and south toward South Carolina. Wilkes County has access to the Yadkin Valley Railroad in North Wilkesboro and heads east to connect to other freight rail in Rural Hall, NC.

The High Country Rural Transportation Planning Organization (RPO) enables its member governments to participate in continuing, cooperative, and comprehensive transportation planning with NCDOT. The High Country Council of Governments serves as the administrative agent for the High Country RPO, providing staff, technical support, and GIS services. The RPOs develop long range, multi-modal transportation plans; provide a forum for public input in the transportation planning process; and develop and prioritize suggestions for projects to be included in the State Transportation Improvement Program (TIP). Projects for the High Country RPO are prioritized every two (2) years and submitted to NCDOT for funding consideration.

The current High Country RPO Priority Needs List is included in Table 30 below.

Table 30. High Country RPO 2014-2022 TIP Priorities List					
RANK	NCDOT PROJECT #	SUBMITTED BY	ROUTE DESCRIPTION	ESTIMATED COST	STATUS
1	R-2566 *	Avery	NC 105, Linville to Boone	103,362,000	Funded
2	R-2915	Ashe	US 221, Jefferson to US 421	99,743,000	Funded
3	R-2520 *	Avery	US 19E/NC 194, Spruce Pine to US 221	53,639,000	Unfunded
4	N/A	Watauga	NC 194 (Section A) US 421 to Howards Creek Rd	29,469,000	Unfunded
5	R-2595 *	Avery	US 221, from NC 194 to Linville	63,350,000	Unfunded
6	N/A	Watauga	NC 105 Bypass	Undetermined	Unfunded
7	R-2615B*	Watauga	US 421, US 321 to Boone	21,300,000	Unfunded
8	N/A	Alleghany	US 21, Oklahoma Rd to Old Railroad Grade Rd	19,000,000	Unfunded
9	N/A	Yancey	SR 1186 (Old US 19, Micaville Loop)	3,003,000	Unfunded
10	N/A	Boone	NC 105, NC 105 Bypass to US 321 (Blowing Rock Rd)	2,100,000	Unfunded
11	N/A	Mitchell	NC 226, US 19E to Bakersville	111,111,000	Unfunded
12	N/A	Ashe	NC 88/194 Smethport to Warrensville	19,169,000	Unfunded
13	U-5312	Wilkes	US 421 Superstreet Wilkesboro	34,500,000	Unfunded
14	R-2207	Wilkes	NC 16, from US 421 to Ashe	25,940,000	Unfunded
15	R-2310	Ashe	US 221, from NC 16 to Alleghany	43,664,000	Unfunded
16	R-2563	Ashe	NC 88, Watauga to NC 194	6,300,000	Unfunded
17	R-616	Wilkes	NC 268/18 Bypass, North Wilkesboro	63,000,000	Unfunded
18	R-3309	Wilkes	NC 268, from Airport Road to West Elkin	90,100,000	Unfunded
19	N/A	Wilkes	SR 1001, US 421 to NC 18/268	16,300,000	Unfunded
20	R-2599	Mitchell	NC 226, from NC 261 to NC 197	17,900,000	Unfunded
21	R-4744	Wilkes	US 421/NC 268 Connector	35,800,000	Unfunded
22	N/A	Yancey	US 19W, US 19E to Tennessee	115,615,000	Unfunded
23	N/A	Mitchell	NC 226, McDowell County to US 19E	78,870,000	Unfunded
24	N/A	Yancey	NC 80, US 19E to Mitchell County	12,512,000	Unfunded
25	R-2516	Alleghany	NC 18, south of Sparta	3,700,000	Unfunded
26	R-4756	Alleghany	NC 93, Twin Oaks to Virginia	19,800,000	Unfunded

NCDOT utilizes a data driven process to prioritize projects to be identified for funding in its Program and Resource Plan (10 years), TIP (7 years), and Work Program (5 years). The Program and Resource Plan contains revenue projections and proposed funding across all modes of transportation for construction and engineering, maintenance, operations, and administration over a ten year period. The Work Program outlines specific funding levels for all NCDOT divisions. Projects are prioritized based on congestion, benefit/cost, safety, and economic competitiveness. The TIP lists projects included in the Work Program and the Program and Resource Plan. It provides costs and schedules for each project. Projects selected for the TIP are subject to funding, legal, and scheduling constraints.

Other funding sources available through NCDOT outside of the TIP include Economic Development funds and Appalachian Regional Commission (ARC) funds. NCDOT allocates a total of \$10,000,000 per year for Economic

Development projects across the state. Section 9.5 of the ARC Code gives State Governors the option of using \$500,000 plus 5% of their annual Appalachian Development Highway System apportionment, but no more than \$1,000,000 each year, for local access road projects. Local access road projects which serve industrial and commercial areas, residential developments, recreational areas, and educational areas are eligible for the funds. The funds may be used for preliminary engineering, right-of-way and/or construction.

Public transportation use is increasing in the High Country region. Coach America is the current provider of two intercity bus routes that provide daily bus service from Charlotte to Boone and Greensboro to Boone. Ridership has steadily increased since the Greensboro to Boone route was introduced in August, 2006. The ridership for the month of February, 2012 was 2,345. Local fixed route service is available in the towns of Boone, North Wilkesboro, Wilkesboro, Jefferson, and West Jefferson. Public transportation is also available in the rural areas which utilize on-demand services.

No commercial airports exist in the High Country region. Nearby commercial air service is located in Asheville, NC and Tri-Cities Airport in Tennessee. General aviation services are provided at four local airports in the district. Ashe, Avery, and Wilkes Counties operate and maintain county public airports, while Watauga has a private airport with few facilities. Avery County's airport handles corporate and business travel for Avery, Mitchell, and Yancey Counties. Wilkes County has the greatest air traffic capability and the most advanced facility in the region. Ashe County is in the process of expanding its airport by 700 ft, including terminal and parking area expansions. The expansion began in October, 2011 and should be complete by October, 2012. Following are details concerning these airports:

- Ashe 4,300 ft. x 75 ft. runway; serves all personal and business aircraft up to 12,500 pounds on single wheel struts; located northeast of Jefferson off NC 16N and US 221.
- Avery 3,000 ft. x 60 ft. runway; serves all aircraft up to 12,500 pounds on single wheel struts; located off US 19E near the Mitchell County line. The airport is for daylight Visual Flight Rules only.
- Watauga 2,100 ft. x 40 ft. runway; privately owned and operated; serves all aircraft up to 20, 000 lbs. with dual wheel struts; located off Bamboo Rd near US 421 in Boone.
- Wilkes 6,200 ft. x 100 ft. runway; serves all aircraft with single wheel strut weight up to 45,000 lbs. or dual wheel strut weight of 60,000 lbs.; located off NC 268 in Roaring River.

IV. INFRASTRUCTURE

E. Natural Gas

Natural gas is provided by Frontier Energy and Piedmont Natural Gas. Frontier Energy's service area includes Ashe, Watauga, and Wilkes counties:

Ashe County communities served:

- Jefferson
- West Jefferson
- Southeastern sections of the County along U.S. 221

Watauga County communities served:

Boone

Eastern sections of the County along U.S. 421

Wilkes County communities served:

North Wilkesboro

Wilkesboro

The Piedmont Natural Gas service area includes Yancey, Avery, and Mitchell counties:

Avery County communities served:

Altamount

Linville

Montezuma

Newland

Sugar Mountain

Banner Elk

Yancey County communities served:

Riverside

Burnsville

Micaville

Newdale

Blue Rock

Bowditch

Mitchell County communities served:

Estatoe

Spruce Pine

Normanville

Bakersville

Grassy Creek

Kalmia

IV. INFRASTRUCTURE

F. Natural Resources, Agriculture, Environment, and Tourism

Biomass, landfill gas, solar, wind, geothermal, and hydroelectric resources are particularly abundant in the District. According to the 2011 North Carolina Energy Data Book, there are 85 identified renewable energy systems in the High Country. Off-grid renewable energy systems (those that are not connected to the electricity grid) are not included in these 85 systems, nor are systems currently under construction or those proposed for construction. Thermal energy systems, solar thermal collectors, geothermal heating and cooling systems, and anaerobic digesters for biogas production are also not included in the total – due to the difficulty of identifying each individual privately-owned system.

There is currently more than 758 kW of renewable energy capacity in the High Country from the various photovoltaic, wind, biomass, and hydroelectric systems region wide. These systems generate collectively more

than 4.5 million kWh of electricity per year, which is enough energy for approximately 329 homes. The newly-installed 1-MW (1,000-kW) solar farm in Avery County provides enough energy to serve 100-120 area homes by itself. Tables 31 and 32 below provide information on renewable energy use and potential in the region.

Table 31.			
High Country COG Region Renewable Energy Overview			
	Registered/Certified	Estimated # Homes	Estimated Installed
	Energy Efficient Buildings	Using Solar Energy	Renewable Energy Capacity
County	(Commercial/Government)	For Heating	(Annual kWh)
Alleghany	1	14	5,000
Ashe	2	13	1,257,182
Avery	2	47	1,111,454
Mitchell	1	-	10,996
Watauga	13	21	2,104,982
Wilkes	5	-	14,060
Yancey	-	5	19,270
Totals	24	100	4,522,944

Sources: 2006-2010 American Community Survey 5-Year Estimates; High Country Workforce Development Board Industry Report: *Potential Impacts of Energy Efficiency and Renewable Energy on a Declining Construction Industry*, 2012.

Biomass resources are widely available in the District. For example, Wilkes County ranks 4th in terms of total biomass tonnage when compared to the 31 western-most counties in the state. Yancey and Ashe Counties also have notable amounts of available biomass. Table 32 below summarizes biomass resource availability in the District.

Table 32.										
High Country COG Region Biomass Resource Availability										
		Primary					Urban	Second.	Total	Tons of
		Mill	Crop				Wood	Mill	Tons	Biomass/
County	Forest	Residue	Residue	Wastewater	Landfill	Manure	Residue	Residue	Biomass/Yr.	km2/Year
Alleg.	17,012	8,039	0	18.6	582.9	356.2	1,167	16	27,191.7	44.6
Ashe	38,488	34,206	0	44.0	1,073.3	17.2	2,640	257	76,725.4	69.4
Avery	16,162	0	0	30.1	610.1	1.5	1,822	29	18,654.7	29.2
Mitch.	24,588	7,885	0	27.0	0.0	2.9	1,763	286	34,551.8	60.0
Wat.	24,125	2,620	0	75.4	1,225.0	8.6	4,395	306	32,754.9	40.4
Wil.	65,450	97,230	1,834	114.4	1,837.5	8,065.7	6,799	2,269	183,599.6	93.3
Yan.	45,325	25,259	0	31.2	942.8	6.6	1,883	0	73,447.5	90.6
Totals	231,150	175,239	1,834	340.7	6,271.4	8,458.7	20,469	3,163	446,925.8	427.5

Source: National Renewable Energy Labs, via the *Western North Carolina Clean Energy Cluster Analysis*, AngelouEconomics, 2011.

The District also has pockets of considerable wind resources in every county, except Wilkes. The highest wind speeds (and thus the best locations for wind turbines) are found along the mountain ridge tops, and 35 potential utility-scale wind sites have been identified in the area (including consideration for transmission, viewshed, and other factors) by Appalachian State University's Energy Center. The Mountain Ridge Protection

Act of 1983 has been interpreted to prohibit utility scale developments on ridge tops. Several local governments in the region have adopted wind energy ordinances, including the Village of Sugar Mountain, and Ashe, Mitchell, and Watauga Counties.

Geothermal energy does not exist in sufficient quantities in the region to generate utility-scale electrical supplies. However, ground source heat pumps using geothermal energy can be deployed at homes or buildings to capture the relatively steady temperature of the ground as a source of heating and cooling. The North Carolina Energy Data Book identifies 38 of these geothermal systems in the District.

Similarly, large-scale hydroelectric power facilities do not exist in the region. However, an analysis of potential “micro-hydro” sites in 24 western North Carolina counties conducted by Appalachian State University concluded that there were “1,592 potential sites capable of generating between 5 & 20 kW for a total of approximately 30 [megawatts]”. The study also concluded that there were “likely at least that many additional sites between 1 & 5 kW in size which would be adequate for residential-scale systems”. According to the U.S. Department of Energy, a 10-kW micro-hydropower system generally can provide enough power for a large home, a small resort, or a hobby farm.

Four of the District’s seven counties have landfill gas (LFG) to energy conversion projects in place. LFG is created as solid waste decomposes in a landfill. This gas consists of about 50 percent methane (the primary component of natural gas), and about 50 percent carbon dioxide. The gas can be flared and used to generate electricity. Solid waste landfills are the third-largest source of human-related methane emissions in the United States. At the same time, methane emissions from landfills represent a major opportunity to capture and use a significant energy resource. Local government LFG facilities are outlined in Table 33 below.

Table 33. High Country COG Region Landfill Gas to Energy Conversion (LFGE) Projects							
Operational LFGE Projects					Candidate LFGE Projects		
U.S. EPA Data					U.S. EPA Data		
County	LFGE System	Waste In Place (tons)	Direct Use or Electricity Use	Project Type	Landfill Site	Waste In Place (tons)	
Alleghany	No	-	-	-	Sparta	237,899	
Ashe	No	-	-	-	Crumpler	438,069	
Avery	No	-	-	-	-	-	
Mitchell	Yes*	384,804	Direct	Direct Thermal	-	-	
Watauga	Yes	500,000	Electricity	Reciprocating Engine	-	-	
Wilkes	Yes	1,127,341	Direct	Greenhouse	Roaring River	750,000	
Yancey	Yes*	384,804	Direct	Direct Thermal	-	-	

* Yancey/Mitchell County Landfill.

Note: EPA defines a candidate landfill as one that is accepting waste or has been closed for five years or less, has at least one million tons of waste, and does not have an operational or under-construction project.

Source: U.S. Environmental Protection Agency, Landfill Methane Outreach Program (LMOP), 2012.

The resource potential of renewable energy systems in the High Country Region is immense; yet, these significant energy resources remain vastly underused. In addition, the manufacturing, installation and maintenance of renewable energy technology can create substantial employment opportunities in the District. A recent analysis of the region concluded that an emerging “Clean Energy Cluster” exists in the District (see Section V, ECONOMY AND COMMUNITY DEVELOPMENT – A. Key Economic Clusters).

Geologically, the North Carolina Geological Survey classifies the District as being divided into the Piedmont and the Blue Ridge provinces. Each province is characterized by particular types of landforms: the Blue Ridge is a deeply dissected mountainous area of numerous steep mountain ridges; the Piedmont is characterized by gently rolling, well rounded hills and long low ridges. Mt. Mitchell, in Yancey County is the tallest peak east of the Mississippi River. The western portion of Wilkes County (in the Piedmont province) includes the Brushy Mountains and Stone Mountain. Rugged terrain in the region presents significant barriers to development, from water and sewer infrastructure to highways and traditional manufacturing – each of which are better-suited to flat, open land areas. With the exception of Wilkes County, little flat land is available, thereby further isolating the region economically.

The Blue Ridge province is well known for its deposits of feldspar, mica and quartz-basic materials used in the ceramic, paint and electronic industries. Most of the mica and feldspar produced in the U.S. originates in the Spruce Pine Mining District in Mitchell County. The district is about 250 square miles in area. Olivine is becoming increasingly important as molding sand in the foundry industry, and is being studied for its use in carbon sequestration applications and heat-storage furnaces, is also found in the region.

Five of the state’s 17 major river basins originate in the District. Although the region’s steep and heavily dissected terrain contains an abundance of surface waters, most have relatively low water volume – and are “flashy” (i.e. water levels can rise and fall quickly).

Table 34. High Country COG Region River Basins		
River Basin Name	Name(s) of River(s)	Location
Yadkin/Pee Dee River Basin	Yadkin River, Reddies, River, Roaring River	Wilkes County
New River Basin	S. Fork New River, N. Fork New River, New River, Little River	Watauga, Ashe, Alleghany counties
Watauga River Basin	Watauga River, Elk River	Watauga, Avery Counties
Catawba River Basin	Linville River	Avery County
French Broad River Basin	N. Toe River, S. Toe River, Nolichucky River	Avery, Mitchell, Yancey counties

Source: NCDENR, 2010.

Several sections of rivers and streams in the District are classified by the North Carolina Department of Environment and Natural Resources as “Impaired”, meaning that due to the presence of pollutants and/or high turbidity levels, these surface waters have severe water quality problems. Table 35 below summarizes impaired bodies of water in the District.

**Table 35.
High Country COG Region Impaired Bodies of Water**

<u>County</u>	<u>Body of Water</u>	<u>Impaired Area</u>	<u>Type/Identified Source (s) of Impairment</u>	<u>Length (mi.)</u>
Alleghany	Crab Creek	From source to Little River	Ecological; biological/Not specified.	7.8
Ashe	Little Buffalo Creek	From source to Buffalo Creek	West Jefferson WWTP; urban runoff, degraded riparian areas	4.4
Ashe	Naked Creek	From 0.4 miles above Jefferson WWTP to South Fork New River	Jefferson WWTP; non-point sources	2.5
Mitchell	Cane River	From Big Creek to North Toe River	Turbidity/Land disturbing construction activities.	3.5
Mitchell	Cane Creek	From source to North Toe River	Ecological; biological/Not specified.	7.8
Mitchell/Yancey	Jacks Creek	From source to North Toe River	Ecological; biological/Narrow riparian zones.	8.5
Mitchell	Nolichucky River	From source to North Carolina-Tennessee State Line	Copper/Not specified.	10.0
Mitchell	Nolichucky River	From source to North Carolina-Tennessee State Line	Turbidity/Not specified.	10.0
Mitchell	North Toe River	From 0.2 mile upstream of Pyatt Creek to 0.5 miles upstream of Hwy. 19E	Copper/Not specified.	9.4
Mitchell	North Toe River	From 0.2 mile upstream of Pyatt Creek to 0.5 miles upstream of Hwy. 19E	Turbidity/Not specified.	9.4
Mitchell	North Toe River	From Grassy Creek to South Toe River	Turbidity/Urban runoff; wastewater discharges	11.3
Mitchell	Hollow Poplar Creek	From source to Nolichucky River	Low pH	5.6
Watauga	Beaverdam Creek	From source to Watauga River	Ecological; biological/wastewater discharges; non-point sources	5.9
Watauga	East Fork New River	From source to Watauga County SR 1524	Ecological; biological/	2.3
Watauga	South Fork New River	From 0.1 mile downstream Hunting Lane to US Hwy.221/421	Ecological; biological/Boone WWTP; eroding streambanks; runoff	5.1
Watauga	South Fork New River	From Winkler Creek to 0.1 miles downstream of Hunting Lane	Ecological; biological/	0.3
Wilkes	Hunting Creek	From Little Hunting Creek to 1.1 miles upstream of Davie County SR 1147	Turbidity/General agricultural use; pastureland.	31.1
Wilkes	Hunting Creek	From Little Hunting Creek to 1.1 miles upstream of Davie County SR 1147	Loe pH/General agricultural use; pastureland.	31.1
Wilkes	Long Creek	From source to Mulberry Creek	Ecological; biological/Impervious surface runoff.	3.1
Wilkes	Roaring River	From source to Yadkin River	Fecal coliform/Not specified.	5.9
Wilkes	Yadkin River	From Reddies River to Mulberry Creek	Copper/Not specified.	3.3
Yancey	Bald Creek	From source to Cane River	Fecal coliform/strightpiping; failing septic tanks	6.5
Yancey	Elk Wallow Creek	From source to Bald Creek	Fecal coliform/Not specified.	3.1
Yancey	Fox Creek	From source to Bald Creek	Fecal coliform/Not specified.	2.2
Yancey	Licksillet Branch	From source to Bald Creek	Fecal coliform/Not specified.	3.4
Yancey	South Toe River	From source to US Highway 19E	Low pH	25.9
Yancey	Possumtrot Creek	From source to Bald Creek	Fecal coliform/Not specified.	3.4

Source: NCDENR, 2010.

Many streams, rivers, lakes and creeks in the District are populated by rare aquatic species, some of which are only found in the region (i.e. “endemic species”). The relatively pristine state of many surface waters in the High Country makes them popular tourism destinations, for fishing, kayaking, and canoeing. For example, the New River (one of the world’s oldest) was designated as a National Wild and Scenic River in 1976, and an American Heritage River 1998. Tourists frequently camp and hike at parks and on trails in which are in close proximity to surface waters. The occurrence of rare species in the District is not limited to surface waters. The region’s varied topography has led to the creation of distinct ecosystems and habitats which are dependent on the unique climate of the mountains. For example, the foggy, cool and wet conditions of Grandfather Mountain in Avery County are vital to the survival of the 70 rare or endangered species living there.

Table 36. High Country COG Region Endangered Species							
Species Common Name	Species Presence in County						
	Alleg.	Avery	Ashe	Mitch.	Wat.	Wilkes	Yancey
Gray Myotis							Yes
Bog Rose	Yes	Yes	Yes				
Peregrine Falcon	Yes			Yes		Yes	Yes
Arctic Bentgrass		Yes		Yes			Yes
Fragile Glyph							Yes
Queen-of-the-prairie				Yes	Yes		
Marsh-marigold	Yes		Yes		Yes		Yes
Red Canada Lily	Yes	Yes					
Three-seeded Sedge		Yes	Yes	Yes	Yes		
Fireweed		Yes		Yes	Yes		Yes

Yellow Avens			Yes					
Tower Mustard			Yes			Yes		
Long-bracted Frog Orchid			Yes	Yes		Yes		
Rusty Cliff Fern				Yes				
Fen Orchid			Yes			Yes		
Elliptic Shinleaf				Yes		Yes		
Appalachian Bewick's Wren			Yes	Yes		Yes		
Appalachian Elktoe					Yes			Yes
Wood Lily			Yes	Yes	Yes	Yes		Yes
American Bittersweet				Yes	Yes	Yes	Yes	Yes
Yellow Canada Lily						Yes		
Carolina Northern Flying Squirrel			Yes		Yes	Yes		Yes
Green Floater		Yes		Yes		Yes		
Virginia Big-eared Bat			Yes			Yes		
Indiana Myotis					Yes			
Purple Wartback		Yes						
Blotchside Logperch								Yes
Swamp Saxifrage						Yes		
Rock Gnome Lichen			Yes	Yes	Yes	Yes		Yes
Stonecat								Yes
Bog Fern		Yes	Yes					
Robin Runaway		Yes		Yes				
Roseroot					Yes			Yes
Bear Oak		Yes						
Littleleaf Sneezeweed		Yes						
Tall Larkspur		Yes		Yes		Yes		
Cain's Reed Grass								Yes
Hay Sedge				Yes				
Few-seeded Sedge			Yes		Yes	Yes		
Shinyleaf Meadowsweet		Yes						

Source: North Carolina Natural Heritage Program, 2012.

The existence of rare and endangered species in the District has economic development implications. For example, the presence (or potential presence) of protected species may result in project delays, modifications to projects, or cancellation of projects due to the results of environmental assessments or reviews. Conversely, tourists often come to the region specifically to experience these species' habitats, or engage in recreational activities in locations which are home to these species.

Tourism:

Tourism is rapidly growing and has become as significant as manufacturing to the local economies of the seven counties. Although tourism does not provide the same quality of high-paying jobs as manufacturing, a highly developed network of service industries has now emerged in the region based on tourism. All of the counties in our region have become major tourist destinations for North Carolina and the Southeast. Tourism is also important because it incidentally promotes the area to potential industries.

Northwest North Carolina is attractive because of the scenic beauty of the Blue Ridge Mountains, cool summer temperatures, skiing opportunities, and the Blue Ridge Parkway. Attractions associated with the New River bring visitors to Alleghany County. The county also contains Doughton Park, a major recreation area along the Blue Ridge Parkway. The New River is a major draw in Ashe County as well. The agrarian character of the county and several churches with impressive frescos also make Ashe County a tourist destination. Avery

County offers visitors Grandfather Mountain, the highest peak of the Blue Ridge, in addition to a number of ski resorts. Roan Mountain and various mineral attractions bring people into Mitchell County. Watauga County contains two major recreation parks along the Parkway- Moses Cone and Julian Price, as well as ski resorts, outdoor historical drama, and a railroad theme park. Merlefest is an important spring event in Wilkes County that features nationally known country and bluegrass music acts. Also in Wilkes, W. Kerr Scott Reservoir and Stone Mountain State Park offer visitors a number of recreation opportunities. Yancey County is home to the highest peak east of the Rockies- Mt. Mitchell- that is located in a state park by the same name.

Tourism development and promotion in the District is handled by individual town and county Chambers of Commerce, by High Country Host, and by local Tourism Development Authorities (TDAs). High Country Host was organized in the late 1970s to promote tourism and the attractions of the area. The organization provides information and markets the area in the major metropolitan centers of the southeast.

The Blue Ridge National Heritage Area was designated in November 2003. National Heritage Areas are a strategy that encourages residents, government agencies, non-profit groups and private partners to collaboratively plan and implement programs and projects that recognize, preserve and celebrate many of America's defining landscapes. The heritage areas seek short and long-term solutions to their conservation and development challenges by fostering relationships among regional stakeholders and encouraging them to work collaboratively to achieve shared goals.

The Blue Ridge National Heritage Area is comprised of 25 counties, including all of those in the High Country region. The Heritage Area board and staff assist governmental agencies, the private sector, and local communities in "managing, preserving, protecting, and interpreting the cultural, historical, and natural resources of the Heritage Area while continuing to develop economic opportunities." The Heritage Area's Management Entity Board is appointed by HandMade in America, AdvantageWest, the Education and Research Consortium of WNC, the Eastern Band of the Cherokee Indians and the Governor.

The arts and crafts industry is a significant component of the District's economy. The craft industry is made up of full-time professional artisans, part-time artisans, and craft retailers. Like tourism, the craft industry is promoted locally by Chambers of Commerce. Handmade in America, Inc. is an organization formed in 1993 with the mission to nurture the craft industry in western North Carolina. A study conducted by Handmade in America (in conjunction with Appalachian State University) concluded that the craft industry contributes \$122 million annually to the local economies.

Mitchell and Yancey Counties have each undertaken initiatives to promote and grow the arts and crafts industries. In Mitchell County, the Mitchell County Development Foundation was established to assist displaced furniture factory workers in developing craft businesses. The Foundation has established the "Market on Oak/Home of the Perfect Christmas Tree" store, a retail outlet for locally-produced crafts.

Yancey County has established the Mountain Heritage Center, a small business incubator focused on the craft industry. The Mountain Heritage Center is multi-faceted project designed to promote and expand the craft industry in the County. The project includes establishment of a crafts-focused business incubator, a retail outlet, and a Marketing Director position.

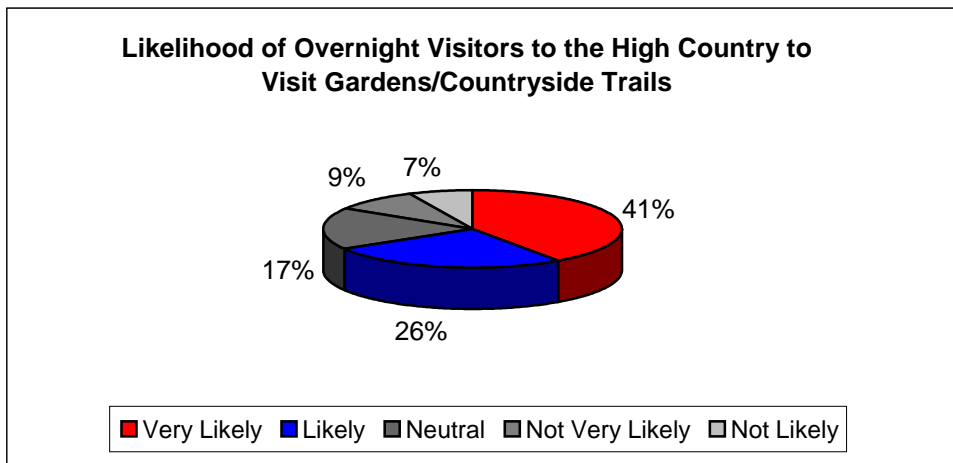
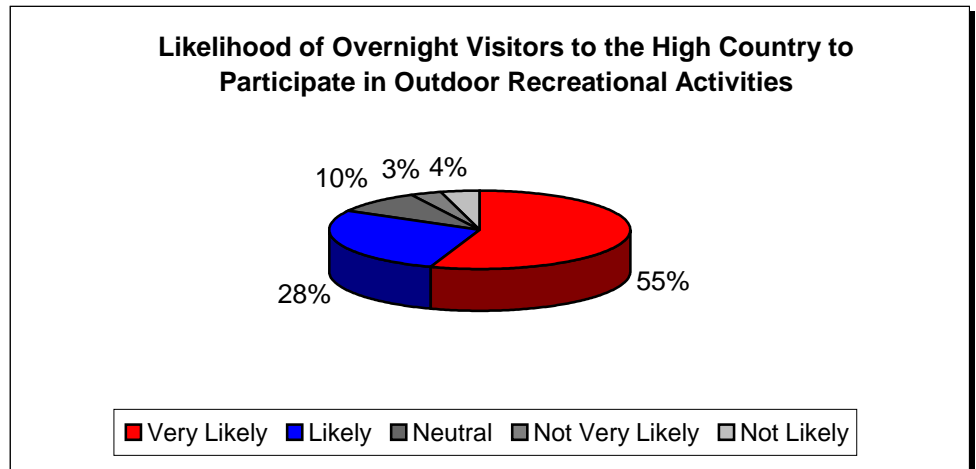
Over the ten-year period between 2000 and 2010, tourism expenditures increased in all counties in the region. Tourism expenditures in Ashe and Alleghany counties increased by nearly 50 percent; in Yancey, by nearly 35 percent. In 2010, the local payroll in Watauga from tourism was \$41 million; in Avery it was \$20 million. Similarly, local revenue generated from tourism was highest in Watauga and Avery counties. 4,950 jobs in the

District were attributable to tourism. Table 37 below shows the importance of tourism to the District's economy.

Table 37. High Country COG Region Tourism: Expenditures, Payroll, and Revenue						
County	Local Tourism Total Expenditures (\$ millions)			2010		
	2000	2010	% Change	Local Payroll From Tourism (\$ millions)	# Local Jobs From Tourism	Local/State Tax Revenue from Tourism (\$ millions)
Alleghany	\$14.31	\$20.72	44.79	\$3.70	180	\$2.53
Ashe	\$29.08	\$42.99	47.83	\$6.25	370	\$4.86
Avery	\$75.77	\$89.82	18.54	\$20.78	1,140	\$9.13
Mitchell	\$17.95	\$19.10	6.41	\$2.91	160	\$1.78
Watauga	\$151.29	\$189.77	25.43	\$41.13	2,390	\$18.26
Wilkes	\$51.72	\$57.79	11.74	\$8.40	480	\$4.43
Yancey	\$22.18	\$29.92	34.90	\$4.86	230	\$3.73
Totals	\$362.30	\$450.11	24.24	\$88.03	4,950	\$44.72

Source: North Carolina Department of Commerce.

According to a recent study of visitors to the High Country Region conducted by the Blue Ridge National Heritage Area, 83% of overnight Blue Ridge Parkway visitors in the District reported that they would be "likely" or "very likely" to participate in outdoor recreation activities; nearly 80% were "likely" or "very likely" to participate in festivals & special events.



The high percentage of respondents indicating their likelihood to participate in outdoor recreation and other outdoor activities demonstrates the importance of the District's environment to its continued economic well-being. The region's dependence on its unique natural environment for employment and revenue has mixed implications for the

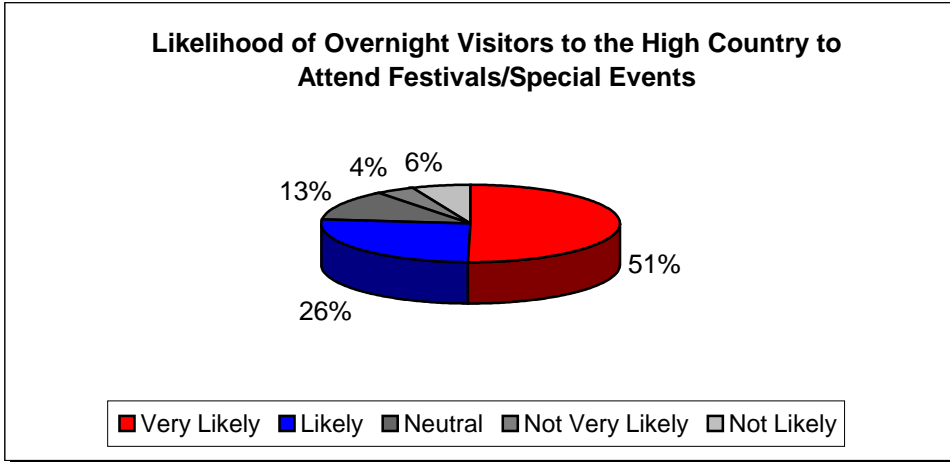
District.

Careful analysis of the economic tradeoffs associated with development and preservation will become increasingly important as second homes, businesses, and tourism continue to grow throughout the region.

The North Carolina Occupancy Tax is a source of revenue that is used by County, City, and Town governments to promote travel and tourism in their community. General Statute 153A-155 outlines the occupancy tax for counties and General Statute 160A-215 outlines the occupancy tax for cities and towns. Two-thirds of the

proceeds from the Occupancy Tax must be used to promote travel and tourism in the region and the remainder must be used for tourism purposes.

TDA's have been established in many areas of the District to promote travel and tourism. Table 38 below summarizes regional occupancy tax and TDA information.



**Table 38.
High Country COG Region Occupancy Tax and
Tourism Development Authority Summary**

<u>County</u>	<u>Municipality</u>	<u>Occupancy Tax</u>
Alleghany		3%
Ashe		3%
	West Jefferson	3%
Avery		-----
	Banner Elk	6%
	Sugar Mountain	6%
Mitchell		3%
Watauga		6%*
	Beech Mountain	6%
	Blowing Rock	6%
	Boone	6%
	Seven Devils	6%
Wilkes		-----
	Wilkesboro	3%
Yancey		3%

*Watauga Occupancy Tax only applies to unincorporated areas.

Source: North Carolina Department of Revenue, 2012.

Local governments (and related agencies including TDAs, economic development commissions, Main Street organizations, cultural commissions, and chambers of commerce) throughout the District are actively involved in efforts to stimulate tourism and tourism-related activities. Table 39 below provides a broad overview of several of these initiatives and projects.

**Table 39.
High Country COG Region Tourism Initiatives and Projects**

County	Initiatives and Projects
Alleghany	Blue Ridge Parkway visitors, Agro-tourism, Hiking/camping, New River canoeing/kayaking, Downtown Sparta Main Street, Arts and Crafts, Golf, Museums
Ashe	Blue Ridge Parkway visitors; Develop streetscape in W. Jefferson; Extend W. Jefferson sidewalks to U.S. 221 and Jefferson; Add bike paths linking Blue Ridge Parkway to Jefferson/W. Jefferson on NC 163, NC 16, and NC 88; Develop art/antique fair in conjunction with Ashe County Farmer's Market; Obtain signage for downtown historic districts; Obtain Scenic Byway designation in Lansing; Upgrade building facades in Lansing; Redevelop Old Mill and Old School properties in Lansing; Establish new computer center in Lansing; Develop recreational facilities on Pond Mountain; Implement Pedestrian Plan in Lansing; Expand sidewalks in Jefferson; Restore old courthouse in Jefferson; Improve streetlights in Jefferson; Develop safe pedestrian crosswalk across U.S. 221 near Jefferson park; Festivals and events in each town; Improve connections between State Parks in the county (trails, bike paths, greenways); Develop study of economic impact of second homes in the county; Study ways to recruit businesses to downtowns.
Avery	Blue Ridge Parkway visitors, Skiing, Cycling/cycling races, Long distance running races, Rock climbing, Fishing, Golfing, Wineries, Ziplines, Horseback riding, Festivals
Mitchell	Blue Ridge Parkway visitors, Arts and Crafts (Market on Oak/Home of the Perfect Christmas Tree), Spruce Pine Main Street, Agro-tourism, Canoeing/kayaking/whitewater rafting, Fishing, Festivals
Watauga	Blue Ridge Parkway visitors; Complete Middle Fork Greenway between Boone and Blowing Rock; Complete South Fork Greenway Trail under U.S. 421 to Brookshire Park; Develop community wi-fi locations in county; Extend existing greenway system to Rocky Knob Mountain Bike Park; Develop a dedicated conference facility; Re-develop the Appalachian Theater and old Post Office in downtown Boone; Obtain additional space for the Watauga Arts Council; install public wi-fi in downtown Boone; Develop new uses for Hayes Center in Blowing Rock; Improve broadband access in Todd community; Develop canoeing/kayaking/whitewater rafting
Wilkes	Blue Ridge Parkway visitors; Support winery-related tourism; Continue to develop Yadkin Valley Heritage Corridor (greenways, river access, signage); Expand the Yadkin Valley Foods (local food production/distribution) initiative; Develop local film industry and establish a film studio in downtown North Wilkesboro; Install directional signage to downtown Wilkesboro/N. Wilkesboro; Install public wi-fi in downtown Wilkesboro/N. Wilkesboro; Connect greenways/sidewalks between downtown Wilkesboro/N. Wilkesboro; Connect trails from Kerr-Scott Reservoir to Wilkesboro/N. Wilkesboro; Implement downtown Wilkesboro master plan; Develop downtown Wilkesboro open-air market; Re-develop "Block 46" and old train depot in downtown N. Wilkesboro; Redevelop Wilkes Motor Speedway; Continue to develop Merlefest, Shine-to-Wine, and other festivals
Yancey	Blue Ridge Parkway visitors; Development of hiking, walking, and biking trails and paths in the Town of Burnsville and along Route 19E corridor; preservation of historic structures and development of historic sites and districts, including the Yancey Collegiate Institute (YCI); development of an Art Museum in the YCI Historic District and Cultural Arts Center; expansion of the Farmers Market in Burnsville; promotion of Brown Dorm as an arts, crafts, and music center; development of agro-tourism and barn quilts tours; canoeing/kayaking ⁵² /whitewater rafting

Agriculture

The economic potential for agriculture in the High Country region is analogous to the collective economic impact of numerous small businesses, often family-run with only one or two employees. Unlike starting a small business, however, many of the region's potential farmers already have assets needed for farming- land, equipment, buildings- and therefore can avoid much of the risk typically involved in starting an economic enterprise.

This situation is the result of inheritance and the region's past agricultural vitality due to crops such as burley tobacco and cabbage. With changes in markets and no reliable outlets for these and other farm products, many ceased farming and their land is idle or underused. However, many of these landowners and their offspring retain farming skills. Thus with capital already in the hands of those with the labor skills, and relatively little risk, agriculture arguably has more potential for rapid economic growth than any other sector.

The limited amount of arable land and short growing season in the District narrows crop production options. Christmas trees, cattle & hay, and nursery crops use land that is generally too steep to plow. Grains, though profitable on large farms, do not produce enough income per acre to be financially viable on mountain farms with little available arable land. In order to be profitable, mountain farms must focus on high-value crops that bring maximum income from the least amount of acreage, as opposed to relying on volume for the same level of income. Fruits and vegetables, though typically high-value crops, have requirements that can reduce their profitability. Most are highly perishable and not easily stored for long periods, some require special handling and packaging, and markets can be difficult to identify and access. While the wide variety of potential fruits and vegetables offers farmers numerous crop options and reduces the risk of oversupply, it also complicates marketing where buyers want to purchase numerous types of fruits/vegetables from a single source. In other words, a single farmer cannot produce 15 different vegetable crops with successive harvests. Coordination among several farmers is required to meet this marketing challenge, but that too can be difficult.

Agriculture comprises a large portion of the region's economy. In 2007, the total market value of agricultural products in the region was \$506.3 million. Wilkes County was, by far, the region's largest agriculture-producing county. Tables 40 through 45 summarize agricultural data from the District.

Table 40.				
High Country COG Region Value of Agricultural Products				
	<i>Market Value of Products Sold</i>			<i>Pct. Chng.</i>
County	2002		2007	2002-07
Alleghany	\$23,838,000		\$33,994,000	42.6
Ashe	\$29,181,000		\$41,703,000	42.9
Avery	\$27,877,000		\$20,522,000	-26.4
Mitchell	\$3,873,000		\$3,568,000	-7.9
Watauga	\$11,615,000		\$11,529,000	-0.7
Wilkes	\$207,506,000		\$389,831,000	87.9
Yancey	\$5,596,000		\$5,173,000	-7.6
Totals	\$309,486,000		\$506,320,000	63.6

Source: U.S Census of Agriculture, 2007.

A significant agricultural product in the District is Christmas trees, specifically the Fraser fir. The region had 32,640 acres in Christmas tree production in 2007, as compared to 24, 570 in 2002. Ashe County had the most

acres in production (12,642 acres in 2007 vs. 9,611 acres in 2002) and Wilkes having the least (33 acres vs. 24 acres in 2002). In 2007, 2,686,863 Christmas trees were harvested in the region, which is 10 percent more than the 2,437,766 trees harvested in 2002. Future growth in this market sector may be limited due to oversupply.

Table 41.
High Country COG Region Christmas Tree Production

County	2002				2007			
	<i>Acres in Production</i>		<i>Trees Cut</i>		<i>Acres in Production</i>		<i>Trees Cut</i>	
	Farms	Acres	Farms	Number	Farms	Acres	Farms	Number
Alleghany	128	4,574	79	427,954	107	7,954	75	523,536
Ashe	317	9,611	192	876,194	290	12,642	201	1,165,798
Avery	295	6,835	230	848,113	290	7,882	225	706,081
Mitchell	85	1,283	24	100,080	73	1,167	59	73,902
Watauga	142	1,789	83	166,846	106	2,795	73	202,409
Wilkes	9	24	4	490	9	33	9	3,798
Yancey	70	454	51	18,089	32	167	-	11,339
Totals	1,046	24,570	663	2,437,766	907	32,640	642	2,686,863

Source: U.S. Census of Agriculture, 2007.

The region is also prominent in livestock production. In the total value of sales of cattle and calves, Wilkes County ranks second statewide; for total value of poultry and eggs, third; for broilers, first; for total value of agricultural products sold, fifth. Alleghany County ranks ninth in the state in the total value of sales of cattle and calves. While prices fluctuate like any other commodity, cattle production is moderately profitable (primarily due to overall market stability). Stability and lack of competition for acreage means that cattle production will likely remain the region's agricultural base. The economic impact of cattle production, however, could be enhanced with better marketing infrastructure in certain locations. The nearest traditional auction markets are in Canton; Turnersburg; and Abingdon, Virginia.

Greater distance to auction markets not only increases production costs due to fuel and time, but it also increases the risk of livestock illness due to travel and exposure. As a result, internet video sales have become more popular and profitable. Under this scenario, a local agricultural extension agent travels to several farms and electronically records the cattle the farmer is marketing. The recordings are then shown on web-based auctions sites, with feedlot buyers from around the nation participating in the bidding process. After the sale, a date is established for buyers to send a truck to a local aggregation facility, and farmers deliver their cattle for transfer. The local collection point reduces hauling costs, exposure to disease is minimalized, and the cattle are generally sold at a higher price because more buyers participate.

The aggregation facility in southeastern Watauga County- a former livestock market where the structure has been repurposed for these cattle transfers- is operated as a private business. It serves cattlemen in Watauga, Ashe, and Wilkes Counties. Some counties, however, lack an aggregation facility, making video sales unfeasible.

Between 2002 and 2007, all counties in the region experienced a decline in the total number of farms, while in every county except Ashe and Alleghany, the amount of land in farms decreased. The amount of cropland used for pasture/grazing declined in all counties – in some cases precipitously – while harvested land remained relatively constant.

Table 42. High Country COG Region Agricultural Land Use and Production										
County	Number of Farms		Land in Farms (Acres)		Average Farm Size (Acres)		Harvested Cropland (Acres)		Cropland for Pasture/Grazing (Acres)	
	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007
Alleghany	544	519	72,627	76,656	134	148	17,329	22,626	14,479	4,499
Ashe	1,152	1,125	107,930	108,452	94	96	21,239	25,480	24,740	7,356
Avery	495	477	30,614	27,818	62	58	9,683	10,397	2,891	1,158
Mitchell	358	314	26,044	22,787	73	73	4,941	3,612	3,324	1,535
Watauga	731	587	51,758	45,782	71	78	8,822	8,535	12,000	1,941
Wilkes	1,273	1,095	124,189	109,970	98	100	30,598	26,599	21,490	8,751
Yancey	622	447	38,658	33,431	112	106	5,396	4,875	7,264	2,950
Totals	5,175	4,564	451,820	424,896	-	-	98,008	102,124	86,188	28,190

Source: U.S. Census, Census of Agriculture, 2007.

A common misperception is that in order for agriculture to be economically significant, there must be a large number of full-time farmers; and since a dependable income from full-time farming in the mountains is challenging for many reasons, agriculture has little potential to contribute significantly to the region’s economy. While encouraging widespread full-time farming may not be the best agricultural development strategy, part-time farming holds much potential (as described above) but is often ignored in economic development planning.

A significant percentage, if not the majority, of past and current lucrative agricultural products in the region- such as burley tobacco, cabbage, Christmas trees, beef cattle, and poultry production- have been grown by part-time farmers. In many low-income families, the farm income, though supplemental to a non-farm salary, nevertheless has been critical income for basic needs and not a luxury.

Given overall economic uncertainties and manufacturing losses, part-time farm income has the potential to mitigate unemployment and underemployment and therefore provide a degree of economic stability that is not possible in more urban regions. In addition, part-time farming enables an entrepreneur the opportunity to develop skills, experiment with crops, and explore marketing options with minimal risk, thereby serving as an incubator for transition into full-time farming. Therefore even if the notion were true that only full-time farming is economically significant, support of part-time farming would be critical to achieve that objective.

Table 43.		
High Country COG Region Farm Workers and Payroll		
County	# Workers	Payroll (2007)
Alleghany	1,259	\$5,888,000
Ashe	1,904	\$8,383,000
Avery	984	\$5,293,000
Mitchell	217	\$495,000
Watauga	382	\$998,000
Wilkes	973	\$5,852,000
Yancey	242	\$783,000
Totals	5,961	\$27,692,000

Source: U.S. Census of Agriculture, 2007.

Locally-grown food production and distribution represents a growing sector of the District's agricultural economy. Farmers markets, community supported agriculture (CSA) programs (where a group of consumers agree to purchase, and a farmer or group of farmers agree to grow, a specific quantity of specific vegetables at an established price) community gardens, farm-to-school programs, and other efforts to strengthen the connections between local/regional producers and consumers have grown throughout the region.

Nearly every county in the region has a farmer's market. Ashe and Wilkes Counties have the highest number of farms offering direct sales to the public, while Yancey County has the highest percentage of farms offering direct sales to the public. Alleghany County leads the region in the number of vegetable acres harvested. Farm-to-school programs are beginning to emerge in the region. While a few schools in each district may have farm-to-school programs, not every school in each district participates in a farm-to-school program.

Table 44.							
High Country COG Region: Local Food Economy							
County	# Community Gardens	# Farmers Mkts.	# Farms w/Direct Sales (07)	% Farms w/Direct Sales (07)	# Veg. Acres Harvested (2007)	Veg. Acres Harv. Per 1,000 Pop. (07)	Farm to School Prog. (09)
Alleghany	3	2	14	2.7	965	88.7	-
Ashe	-	2	62	5.5	175	6.9	-
Avery	-	-	17	3.6	81	4.5	-
Mitchell	1	2	16	5.1	55	3.5	1
Watauga	1	3	33	5.6	78	1.8	-
Wilkes	2	2	40	3.7	21	0.3	-
Yancey	1	1	16	7.6	55	3.5	1
Totals	8	12	198	-	1,430	109.2	2

Sources: U.S. Department of Agriculture, Economic Research Service, Food Environment Atlas, 2012; North Carolina Cooperative Extension, North Carolina Community Garden Registry, 2012.

A growing agricultural sector is vegetables (especially organic) and, to a lesser extent, fruits. The region has access to a distribution network in the Piedmont, a cooperative regional sales system, and farm-to-consumer outlets such as farmers markets and community supported agriculture organizations. Demand has been strong and increasing, even in a slow economy. Vegetable and fruit production requires much less land than cattle and Fraser firs, but is comparably profitable.

Farming in the region seems to be trending away from commodity production and toward multiple crops and niche products. Societal concerns about food safety and a desire for local food are contributing to a growing market for a wide variety of vegetables, fruits, and meat products; with no crop dominating. In short, everyone eats and therefore a major market exists in local and regional residents. Despite such enormous potential, a local (or regional) food agricultural development strategy has challenges not found in commodity markets, including:

- **Consumer access** – Direct consumer sales can be highly profitable but also highly problematic in connecting the seller and the buyer. Farmers markets are successful and growing, but also time-consuming for the grower, and especially difficult for part-time growers. On such a small scale, gauging demand and avoiding overproduction in relation to other growers involves delicate adjusting and guesswork. Sales volumes do not always match the sales efforts. Nevertheless many growers successfully employ farmers markets. But their potential for significant agricultural development is limited.
- **Production coordination, quantity, & variety** – A challenge for growers is knowing what crops to grow based on what will sell and what other farmers are growing. With dozens of vegetables and fruits, farmers have more options but more risk of overproduction, especially in smaller markets. Access to larger markets can reduce this risk considerably, but have their own challenges. Vegetable and fruit buyers (e.g. grocery stores & restaurants) want to minimize their number of contacts and therefore prefer to buy a large variety from a single source or a large quantity of a single vegetable from a single source. These preferences make large markets unfeasible for most small growers.

While still relatively small, the percentage of farms contributing produce to community supported agriculture organizations is highest in Mitchell and Yancey Counties. Region-wide, the percentage of farms producing value-added commodities is notable; Yancey and Watauga Counties lead this category. The percentage of farm operators aged 65 and over is highest in Mitchell and Alleghany Counties, indicating high turnover rates in the near term. The lack of high-speed internet service (broadband) to farms in the District is particularly important, and constitutes a significant barrier to the further development of agricultural entrepreneurship.

Table 45.
High Country COG Region: Local Food Economy

<u>County</u>	<u>% Farms Using Comm. Supp. Agric. (CSA)</u>	<u>% Farms With Agrotourism/ Recreation</u>	<u>% Farms With Value-Added Commodities</u>	<u>% Prin. Operators Aged 65+</u>	<u>% Farms Without Highspeed Internet Access</u>
Alleghany	0.2	1.9	3.1	33.2	64.2
Ashe	0.8	0.5	3.4	31.8	64.0
Avery	0.6	0.2	2.3	29.4	71.3
Mitchell	2.6	0.6	2.9	34.4	61.8
Watauga	0.9	1.4	3.8	31.0	65.1
Wilkes	0.4	0.6	2.9	28.8	66.0
Yancey	1.1	0.7	4.0	32.7	70.7
Totals	-	-	-	-	-

Source: U.S. Department of Agriculture, Economic Research Service, Food Environment Atlas, 2012.

Key to the increased sales of locally-grown food to large-scale institutions such as school districts, hospitals, universities, supermarkets, and prisons will be the development of regional processing facilities. Farmers in the District have very limited access to regional processing facilities such as slaughterhouses, cold-storage facilities, dairy bottling facilities, auction markets, and distribution hubs. The development of infrastructure which will allow small- and medium- sized farmers to offer their products to the local/regional market at affordable prices include shared-use facilities such as processing, storage and distribution facilities, commercial kitchens/kitchen incubators for small businesses and mobile processing facilities.

The “Seeds of Change” program is currently developing an assessment of the local agricultural economy in Alleghany, Ashe, and Watauga Counties, including local crop and livestock production, processing, and distribution capabilities. The assessment will identify gaps in local agricultural infrastructure which will be needed in order to process and retain locally-grown products for markets internal to the region. In 2012, TRACTOR (the Toe River Aggregation Center and Training Organization Regional) began operating a shared-use facility in Burnsville, which will aggregate, package, distribute and market of locally grown fruits and vegetables produced by farmers in Mitchell and Yancey Counties. In addition to county government support, the project has received grant funding from a variety of sources.

New River Organic Growers has no central facility but utilizes a marketer who coordinates and makes sales to area restaurants, grocery stores, CSAs, and other outlets. Farmers deliver to the marketer, who distributes the produce on a refrigerated truck. NROG growers are located in Alleghany, Ashe, Wilkes, Watauga, and Avery Counties. Eastern Carolina Organics (ECO) buys from farmers statewide and sells primarily in the Raleigh area.

ECO has a warehouse, including cold storage, and a refrigerated truck. Several of the region's farmers sell to ECO, though the distance often makes ECO unfeasible unless delivering a large quantity or several farmers consolidate a delivery. All of these marketing organizations operate by retaining 20% of the sales.

Summary of agricultural sales by county, 2007:

Alleghany- Top Products by Sales	Dollars
Cut Christmas trees & short rotation woody crops	\$9.56 million
Milk & other dairy products from cows	\$7.9 million
Cattle & calves	\$7.46 million
Nursery, greenhouse, floriculture & sod	\$791,000
Other crops & hay	\$349,000
Note: NC Ag Statistics shows vegetables, fruits, nuts, & berries sold in 2010 at \$4,658,000	

Avery- Top Products by Sales	Dollars
Cut Christmas trees & short rotation woody crops	\$14.57 million
Nursery, greenhouse, floriculture & sod	\$5.27 million
Cattle and calves	\$363,000
Vegetables	\$122,000
Tobacco	\$54,000

Watauga- Top Products by Sales	Dollars
Cut Christmas trees & short rotation woody crops	\$4.2 million
Other crops & hay	\$269,000
Vegetables	\$259,000
Fruits, tree nuts, & berries	\$250,000
Horses	\$40,000

Ashe- Top Products by Sales	Dollars
Cut Christmas trees & short rotation woody crops	\$26.2 million
Cattle & calves	\$8.98 million
Nursery, greenhouse, floriculture & sod	\$4.3 million
Fruits, tree nuts, & berries	\$388,000
Vegetables	\$374,000

Mitchell- Top Products by Sales	Dollars
Cut Christmas trees & short rotation woody crops	\$1.56 million
Nursery, greenhouse, floriculture & sod	\$751,000
Cattle and calves	\$466,000
Fruits, tree nuts, & berries	\$280,000
Tobacco	\$155,000

Wilkes- Top Products by Sales	Dollars
Poultry & eggs	\$362 million
Cattle & calves	\$14 million
Milk & other dairy products from cows	\$5.6 million
Grains	\$1.8 million
Nursery, greenhouse, floriculture	\$1.5 million

Yancey- Top Products by Sales	Dollars
Nursery, greenhouse, floriculture	\$2.2 million
Cattle & calves	\$1.3 million
Vegetables	\$323,000
Tobacco	\$259,000
Cut Christmas trees & short rotation woody crops	\$200,000

High Country Council of Governments

**Comprehensive Economic
Development Strategy
2012**

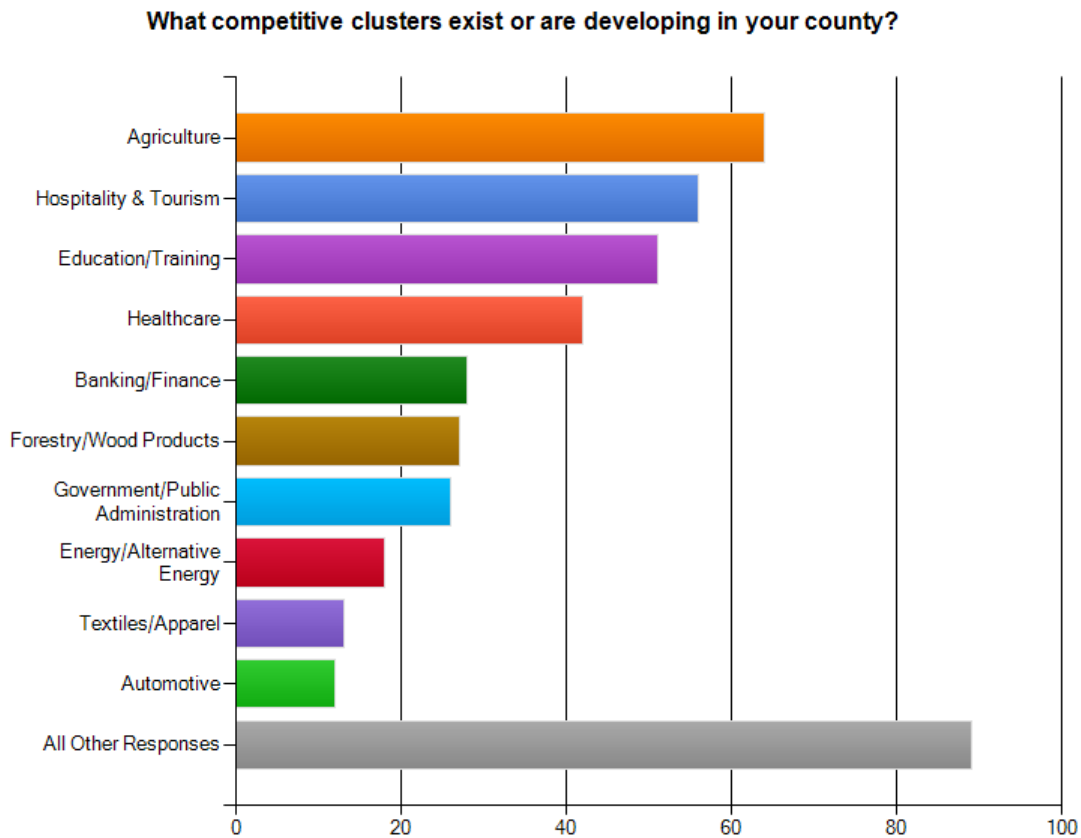
Chapter V

ECONOMY AND COMMUNITY DEVELOPMENT

V. ECONOMY AND COMMUNITY DEVELOPMENT

A. Key Economic Clusters

Regional “Industry Clusters” are geographic concentrations of interconnected businesses, suppliers, service providers, and other institutions like universities, community colleges, and schools (Muro, Katz, 2010). High Country Council of Governments distributed a survey to locally elected officials, economic development Directors town and county Managers, chambers of commerce Directors and others in order to gather input for this Comprehensive Economic Development Strategy. 23 percent of the respondents to the survey were elected officials. When asked to identify competitive clusters in their counties, the top 5 survey responses were Agriculture, Hospitality and Tourism, Education/Training, and Healthcare:



High Country COG staff, using analytical tools developed for the U.S. Economic Development Administration, evaluated the District’s existing industry clusters (focusing on what businesses produce, and to what extent they are concentrated in the region) and also examined the region’s “Occupation Clusters” (focusing on the knowledge, skills and abilities of the individuals who work for businesses and institutions in the region – and to what extent this knowledge, skill and ability is concentrated in the region).

**Table 46.
High Country COG Region Industry Clusters: 2010**

County	Description	Industry Location Quotient	# Employees	# Establishments	Wages
Allegh.	Apparel & Textiles	5.2	128	3	\$4,063,973
Allegh.	Agribusiness, Food Processing & Technology	4.0	316	26	\$10,355,301
Allegh.	Forest & Wood Products	3.8	136	10	\$5,224,691
Allegh.	Mining	3.0	14	3	\$525,771
Allegh.	Machinery Mfg	2.1	54	2	\$2,306,388
Allegh.	Chemicals & Chemical Based Products	1.5	78	4	\$3,891,270
Allegh.	Arts, Entertain., Recr. & Vistor Industries	1.5	197	12	\$3,931,395
Allegh.	Biomedical/Biotechnical (Life Sciences)	1.3	488	18	\$15,965,596
Ashe	Elec. Equip., Appliance & Component Mfg	14.1	290	2	\$15,084,653
Ashe	Transportation Equipment Mfg	3.7	292	3	\$23,669,077
Ashe	Apparel & Textiles	2.5	139	2	\$3,584,740
Ashe	Mining	2.3	24	2	\$955,268
Ashe	Manufacturing Supercluster	2.1	663	7	\$42,767,793
Ashe	Agribusiness, Food Processing & Technology	1.9	339	24	\$10,948,235
Ashe	Energy (Fossil & Renewable)	1.7	551	37	\$26,200,499
Ashe	Information Technology & Telecom.	1.5	421	9	\$24,339,388
Ashe	Forest & Wood Products	1.3	105	13	\$3,900,840
Ashe	Printing & Publishing	1.3	158	13	\$6,164,101
Ashe	Advanced Materials	1.2	338	5	\$17,855,207
Avery	Arts, Entertain., Recr. & Vistor Industries	3.0	798	28	\$23,005,825
Avery	Biomedical/Biotechnical (Life Sciences)	1.3	973	20	\$27,579,055
Avery	Education & Knowledge Creation	1.2	322	12	\$16,834,386
Mitch.	Mining	20.7	147	8	\$10,053,036
Mitch.	Glass & Ceramics	5.3	53	6	\$2,004,361
Mitch.	Apparel & Textiles	4.4	167	3	\$5,608,096
Mitch.	Chemicals & Chemical Based Products	2.7	208	15	\$9,020,166
Mitch.	Forest & Wood Products	2.1	115	7	\$3,433,615
Mitch.	Transportation & Logistics	1.3	196	20	\$8,057,404
Mitch.	Fabricated Metal Product Mfg	1.3	63	2	\$2,943,323
Mitch.	Biomedical/Biotechnical (Life Sciences)	1.3	694	11	\$26,638,593
Wat.	Education & Knowledge Creation	3.6	2,969	23	\$160,366,588
Wat.	Arts, Entertain., Recr. & Vistor Industries	1.8	1,482	86	\$27,455,122
Wat.	Mining	1.3	38	3	\$1,591,459
Wilkes	Forest & Wood Products	4.2	916	42	\$33,969,988
Wilkes	Apparel & Textiles	3.6	549	20	\$18,177,127
Wilkes	Mining	3.4	97	3	\$3,812,152
Wilkes	Agribusiness, Food Processing & Technology	3.1	1,498	34	\$43,955,625
Wilkes	Chemicals & Chemical Based Products	2.6	816	11	\$66,483,655
Wilkes	Glass & Ceramics	1.5	61	2	\$2,017,726
Wilkes	Biomedical/Biotechnical (Life Sciences)	1.3	2,934	60	\$148,912,985
Wilkes	Education & Knowledge Creation	1.2	953	14	\$33,565,739
Yancey	Glass & Ceramics	9.9	72	1	\$3,826,837
Yancey	Apparel & Textiles	3.2	87	6	\$3,206,423
Yancey	Elec. Equip., Appliance & Component Mfg	2.8	28	1	\$1,153,991
Yancey	Printing & Publishing	2.2	129	7	\$7,412,237
Yancey	Forest & Wood Products	1.4	53	9	\$1,718,388
Yancey	Transportation & Logistics	1.3	142	17	\$4,587,510
Yancey	Chemicals & Chemical Based Products	1.3	73	2	\$3,868,030

Source: U.S. Economic Development Administration, 2012.

other dependent industries like retail trade and food services.

Industry Cluster Analysis

An industry cluster analysis provides insight into how “concentrated” certain industries are in the region compared to other regions. According to the analysis, although individual counties such as Mitchell (Mining) and Ashe (Electrical Equipment/Components) have unique concentrations of specific industry clusters,

Location Quotients (LQ) for industry and occupation clusters are used to determine the extent to which an industry or occupation is concentrated in a region, as compared to the rest of the nation. When using location quotients, a *LQ of 1.2 is usually considered the base point for determining whether an occupation cluster or an industry cluster has a “concentration” in the region.* If it does, then the region may have a competitive advantage in that particular industry cluster or occupation cluster. LQ is augmented by two other pieces of information: the size of industry/cluster/occupation in terms of jobs and the percent change in LQ over a given time period.

Industries which have both high LQ and relatively high total job numbers typically form a region’s economic base. Economic developers and government officials need to pay particular attention to these industries not only for the jobs they provide, but also for their multiplier effect—the jobs they create in

Alleghany, Ashe and Wilkes counties have notable concentrations in Agribusiness, Food Processing & Technology. Forest & Wood industry is concentrated in Alleghany, Ashe, Mitchell, Wilkes and Yancey counties, while Glass & Ceramics is concentrated in Mitchell and Yancey counties. The data show that the Apparel & Textile industry remains fairly concentrated across the District. Table 46 above summarizes the findings of the COG's regional industry cluster analysis.

In addition, High Country Council of Governments is working in partnership with the five other regional councils of government (and AdvantageWest) in western North Carolina on a project called *"Building the Clean Energy Economy in Western North Carolina"*. An important part of the project included the recently completed *WNC Clean Energy Cluster Analysis*, which was designed to assist the region in developing a deeper understanding of the current state of clean energy in our region and provide a roadmap for future public and private sector investment. The Clean Energy Cluster Analysis showed that "the western North Carolina region has begun to develop a "hub-and-spoke" pattern of clean energy clustering, with the Asheville metropolitan area at its center as the region's most substantial clean energy industry cluster. Secondary clusters can be found in Watauga County near Appalachian State University, Davie and Forsyth Counties, and Catawba County." Further, the cluster analysis identified Wilkes County as a potential leading producer of biomass resources, and Mitchell County as having the opportunity to expand the supply/production chain related to the mining of rare-earth minerals there.

Occupational Cluster Analysis

An occupation cluster analysis offers insights into the talent base of the regional workforce that go beyond the relatively simple measure of educational attainment. According to the analysis, six out of the seven counties in the District have notably strong "Agribusiness and Food Technology" clusters. This means that workers in the region show a competitive skills advantage in the agricultural/food production sector. While these workers may be employed by a wide variety of entities, the common underlying thread is the workers' skill set in agriculture and food production-related activities. The analysis shows that investment in the region's agricultural sector can build on these existing worker skills to support and expand the region's emerging agricultural industry cluster (local food production/distribution). Another strong occupational cluster in the District is "Skilled Production Workers". In Avery and Mitchell counties, occupational clusters in "Health Care (Therapy, Counseling, and Rehabilitation)", and "Health Care and Medical Science" are present.

Table 47 below summarizes the findings of the COG's regional occupation cluster analysis.

**Table 47.
High Country COG Region Occupation Clusters: 2009**

<u>County</u>	<u>Description</u>	<u>Occupation Location Quotient</u>	<u># Employed</u>	<u>% Total Employment</u>
Alleghany	Agribusiness and Food Technology	6.3	556	9.6%
Alleghany	Skilled Production Workers	1.5	609	10.5%
Ashe	Agribusiness and Food Technology	5.0	1,037	7.6%
Ashe	Skilled Production Workers	1.7	1,633	12.0%
Avery	Agribusiness and Food Technology	2.6	538	3.9%
Avery	Health Care (Therapy, Counseling, Rehab.)	1.5	654	4.7%
Avery	Skilled Production Workers	1.5	1,422	10.3%
Avery	Health Care and Medical Science (Aggregate)	1.3	987	7.1%
Mitchell	Agribusiness and Food Technology	2.6	277	4.0%
Mitchell	Postsecondary Ed./Knowledge Creation	1.5	128	1.8%
Mitchell	Skilled Production Workers	1.4	709	10.1%
Mitchell	Health Care (Therapy, Counseling and Rehab.)	1.3	291	4.2%
Mitchell	Public Safety and Domestic Security	1.3	109	1.6%
Mitchell	Primary/Sec. and Vocational Educ.	1.3	485	6.9%
Watauga	Postsecondary Ed./Knowledge Creation	2.6	896	3.1%
Watauga	Public Safety and Domestic Security	1.5	516	1.8%
Watauga	Agribusiness and Food Technology	1.3	573	2.0%
Wilkes	Agribusiness and Food Technology	2.4	1,103	3.6%
Wilkes	Skilled Production Workers	1.5	3,132	10.3%
Yancey	Agribusiness and Food Technology	3.9	401	5.9%
Yancey	Skilled Production Workers	1.8	858	12.6%

Source: U.S. Economic Development Administration, 2012.

V. ECONOMY AND COMMUNITY DEVELOPMENT

B. Economic Development Investments

The following grant, loan, and technical assistance programs are available to local governments for economic development, infrastructure, venture capital, and community development projects:

Federal

- Appalachian Regional Commission (ARC) – ARC funds can be used for infrastructure improvements (including telecommunications) associated with economic development. ARC funds must be justified by direct job creation or retention, and require a minimum 50% match.
- US Economic Development Administration (EDA) – EDA's Public Works and Economic Development funds can be used for "the construction or rehabilitation of essential public infrastructure and facilities necessary to generate or retain private sector jobs and investments, attract private sector capital, and promote regional competitiveness, including investments that expand and upgrade infrastructure to attract new industry, support technology-led development, redevelop brownfield sites and provide eco-industrial development funds."
- Community Development Block Grant (CDBG) Funds – CDBG funds are federal funds administered at the State level. One category of CDBG funds is specifically for economic development purposes. These CDBG Economic Development funds are administered in North Carolina by the Department of Commerce's Commerce Finance Center. Funds are available for infrastructure projects, based on new job creation.
- USDA Rural Development – USDA's Water and Waste Program provides loan and/or grant funds to local governments for infrastructure improvements. USDA also operates a variety of business programs, including Guarantee Loans, Direct Loans, and Rural Business Enterprise Grants (RBEG).
- US Small Business Administration (SBA) – SBA 504 loans are available to eligible small businesses for the purchase of real estate, construction of buildings, or purchase of machinery. The SBA 504 loans are made in conjunction with loans from private lenders, and are approved locally by Certified Development Companies. In the High Country COG District, the Region D Development Corporation, Inc. is a Certified Development Company, and is staffed by the High Country COG.

State

- North Carolina Department of Commerce – the NC Department of Commerce has a variety of financial assistance programs available to local governments and private business. These include Industrial Revenue Bonds, the Industrial Development Fund, the One North Carolina Fund, and the Industrial Access Fund. All programs are dependent on job creation and/or private investment. Another economic development program operated by the NC Department of Commerce is the Main Street Program. The program is designed to stimulate economic development in downtowns by promoting new business development and redevelopment. The program offers training, technical assistance, advocacy, and networking opportunities to municipalities. In the High Country COG District, the Towns of Boone, Spruce Pine, Sparta, West Jefferson, Wilkesboro and North Wilkesboro are participants in the Main Street Program.

- North Carolina Rural Center – The Rural Center also has a variety of grant programs available to local governments for economic development. These programs include water and sewer grants, the Building Reuse and Restoration Grants Program, the Microenterprise Loan Program, the Entrepreneurial Incubator Grant Program, and the NC Small Town Economic Prosperity (NC STEP) Program. The Rural Center also offers The N.C. Capital Access Program, which provides matching reserve funds for business loans that are just outside a lender's usual standards. The average NC-CAP loan is \$100,000. When a loan is approved and enrolled in NC-CAP, the borrower pays a fee, which is matched with money from the program. The funds together are deposited into a reserve account held by the lender, to offset losses in case of default.

The NC STEP Program provides planning funds and implementation funds over a three-year period. Current local participants in the Program include the Towns of Lansing, Burnsville, Sparta, Bakersville, West Jefferson, and Crossnore.

- Golden LEAF Foundation - The Golden LEAF Foundation was created in 1999 to administer one half of North Carolina's share of the master settlement agreement with cigarette manufacturers. The Foundation is a nonprofit devoted to advancing the economic well-being of North Carolinians and to transforming its economy. It works in partnership with local governments, educational institutions, economic development organizations and other public agencies, and nonprofits to effect positive change. The Golden LEAF Foundation provides grants in the areas of agriculture, economic development and workforce preparedness.

Local

Blue Ridge Electric Membership Corporation (BREMCO) is a local electric cooperative serving three of the District's seven counties (Ashe, Alleghany, and Watauga). Skyline Telephone Membership Corporation is a local telephone service cooperative serving four of the District's seven counties (Ashe, Alleghany, Avery, and Watauga). Both cooperatives operate Rural Development Revolving Loan Funds to provide no-interest loans for the promotion of rural economic development projects that create jobs and support construction of community facilities and infrastructure.

Export Development and Technical Assistance

According to the NC Department of Commerce, companies that engage in global business grow faster, achieve higher profits, and are better positioned to weather economic downturns. The value of exports from businesses in the High Country was approximately \$246 million in 2010. Mitchell County - with its concentration of highly valuable quartz deposits - led the region with over \$217 million in exports. Mitchell County's exports ranked 13th out of North Carolina's 100 counties. Table 48 below examines export and import activity in the District.

**Table 48.
High Country COG Region: 2010 Import and Export Activity**

<u>County</u>	<i>Import Activity</i>				<i>Export Activity*</i>			
	<u># Companies Importing</u>	<u>County Rank</u>	<u>Est. \$ Value of Imports</u>	<u>County Rank</u>	<u># Companies Exporting</u>	<u>County Rank</u>	<u>Est. \$ Value of Exports</u>	<u>County Rank</u>
Alleghany	7	81	\$951,679	75	4	72	\$232,722	71
Ashe	11	72	\$17,873,856	50	9	51	\$1,173,558	51
Avery	10	74	\$340,216	83	4	72	\$176,511	72
Mitchell	10	74	\$731,087	79	4	72	\$217,043,203	13
Watauga	30	44	\$20,780,767	47	21	30	\$20,028,407	30
Wilkes	32	41	\$18,419,886	48	13	41	\$7,658,219	39
Yancey	5	86	no data	no data	no data	no data	no data	no data
Totals	105	-	\$59,097,492	-	55	-	\$246,312,620	-

*Note: this data does not include service exports and imports, or goods not shipped by water-borne vessels.

Source: University of North Carolina, Center for International Understanding, 2012.

The following organizations offer technical assistance to local businesses seeking to engage in or expand their existing export activities:

Federal

- The **U.S. Export Assistance Centers of North Carolina (a division of the U.S. Department of Commerce)** provides access to International Trade Specialists in offices located in Charlotte, Greensboro, and Raleigh. Other offices are located in U.S. Embassies and Consulates in nearly 80 countries. Types of assistance offered include the identification of qualified international buyers and representatives, navigation through international documentation challenges, market intelligence, trade counseling, and commercial diplomacy support.
- The **U.S. Small Business Administration, Office of International Trade State Trade and Export Promotion Grant (Pilot Program)** is currently offering grants through a pilot program designed to provide financial support for participation in foreign trade missions and market sales trips, subscription to services provided by the Department of Commerce, design of international marketing products and campaigns, export trade show exhibits, training, and other efforts. Grant awarded in previous rounds

were for projects designed to promote new-to-market export opportunities to the People’s Republic of China; and/or promote regional innovation clusters.

- The **Appalachian Regional Commission (ARC) Export Trade Advisory Council (ETAC) - *Appalachia USA initiative*** focuses on helping small to medium-sized Appalachian businesses become more successful in international commerce. ARC ETAC conducts annual Appalachia USA delegations to a variety of global markets, including Europe, Central and South America, and Asia. ARC ETAC advocates for the Appalachian Region within the global businesses community, and provides research on issues affecting the Appalachian Region's ability to engage, compete, and succeed in the global economy.

State

- The **North Carolina Department of Commerce’s International Trade Staff** refers companies to educational programs and opportunities throughout the state that meet their specific export business needs. Programs include the Export Ready Program which helps businesses to develop the skills necessary to support international business growth; Export University 101, a one day or half day seminar covering trade finance, logistics, payment methods, and export marketing; and Export University 102, an eight-week training seminar designed to provide businesses with the basic tools to initiate or expand into international markets. Other programs include the N.C. Department of Commerce's International Trade Division Road Show , a seminar series on exporting conducted by foreign-based trade experts; the Export Ready program, which prepares North Carolina businesses to sell their product/services in the international marketplace; and the International Trade Fast Track service which gives North Carolina companies quick entry into six international markets where the State has foreign trade representatives including Canada, Mexico, Japan, Europe, China and Pacific Region, and Korea.

Local

- The **Small Business Technology and Development Center (SBTDC) - International Business Development (IBD)** unit offers export-related guidance and assistance to small and mid-sized businesses interested in exporting. Assistance ranges from the evaluation of export readiness for “new to export” clients to the development of strategies and tactics for exporting, as well as financial analysis, costing, pricing, budgeting, and forecasting.

High Country Council of Governments

Comprehensive Economic Development Strategy 2012

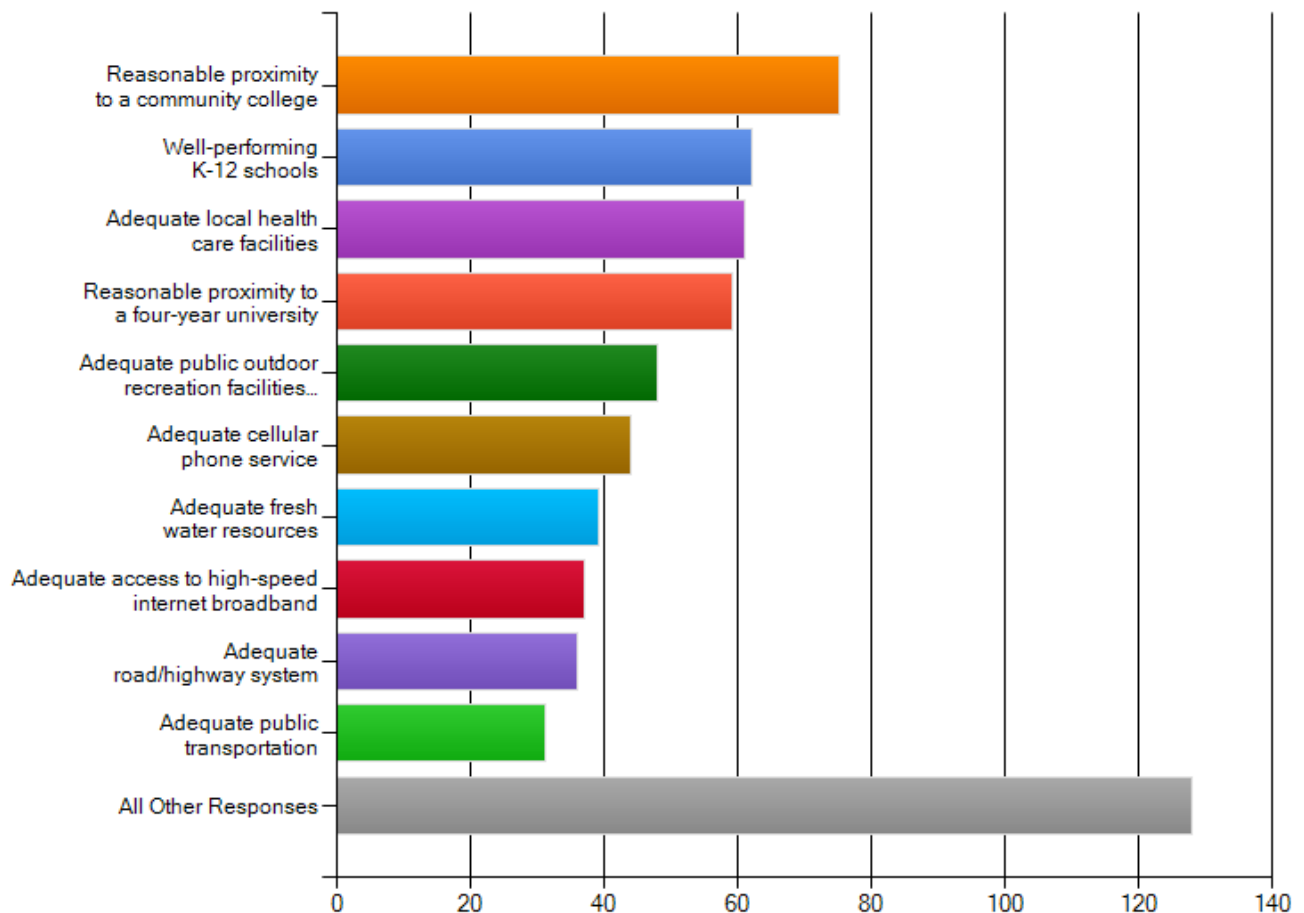
Chapter VI

REGIONAL STRENGTHS AND WEAKNESSES

VI. REGIONAL STRENGTHS AND WEAKNESSES

High Country Council of Governments distributed a survey to locally elected officials, economic development Directors town and county Managers, chambers of commerce Directors and others in order to gather input for this Comprehensive Economic Development Strategy. 23 percent of the respondents to the survey were elected officials. According to the survey results, respondents indicated that the District's competitive strengths include reasonable proximity to community colleges, well-performing K-12 schools, adequate local health care facilities, and reasonable proximity to four-year colleges. Those surveyed also identified the numerous vacant buildings in the District as being central to the region's adaptive capability, and indicated that entrepreneurship was a key regional strength. Less than 40% of the respondents felt that the region had adequate fresh water resources, adequate broadband access, adequate road/highway infrastructure, or adequate public transportation.

Identify the existing county assets from the list below. Choose all that apply.



Research shows that the following “Innovation Categories” have a positive and significant relationship to increases in Gross Domestic Product (GDP) per worker economic growth:

1. Change in high-tech employment share
2. Average small establishments per 10,000 workers
3. Percent of population, ages 25-64, with some college or an associate’s degree
4. Population growth rate for ages 25-44
5. Broadband availability

With the exception of Ashe County (due largely to the presence of General Electric), average high-tech employment share is lower than the state throughout the District.

The District’s average number of small establishments per 10,000 workers (a key indicator of entrepreneurial activity) is higher than the state in every county. Yet, the District’s average venture capital per \$10,000 GDP is virtually nonexistent – indicating a severe lack of startup funding for new businesses.

While the region does have several high-performing schools, overall educational attainment in the area is lower than the state. The region’s young adult population is generally flat or declining, indicating that younger adults are seeking employment elsewhere.

As discussed in section IV. INFRASTRUCTURE – C. Telecommunications/Broadband, with the exception of a few pockets of coverage, the District lacks adequate access to fiber.

Table 49 below summarizes selected Innovation Categories in the region.

**Table 49.
High Country COG Region - Regional Strengths and Weaknesses**

<u>Innovation Category</u>	<u>Allegh.</u>	<u>Ashe</u>	<u>Avery</u>	<u>Mitch.</u>	<u>Wat.</u>	<u>Wilkes</u>	<u>Yancey</u>	<u>North Carolina</u>	<u>High Country COG Region</u>
<i>Average Venture Capital per \$10,000 GDP (2003-08)</i>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.45	\$0.00
<i>% Change in Young Adult Popn. (97-2009)</i>	-0.80%	0.80%	0.80%	1.30%	1.70%	-1.50%	-0.70%	0.30%	-1.10%
<i>Technology-based Knowledge Occupations Share of Tot. Empl. (2009)</i>	3.8%	4.7%	5.2%	5.4%	7.5%	5.7%	4.1%	7.9%	5.8%
<i>Percent Change in High Tech Employment Share (97-2009)</i>	3.8%	-1.0%	-0.6%	0.6%	3.4%	7.9%	-0.5%	0.8%	2.7%
<i>Average High-Tech Employment Share (97-2009)</i>	1.5%	6.9%	1.8%	2.1%	2.2%	2.4%	1.9%	4.4%	2.7%
<i>% Adult Popn. With Some College or Associates Degree (2000)</i>	27.6%	27.2%	26.0%	27.3%	26.9%	26.4%	23.9%	29.7%	26.5%
<i>% Adult Popn. With Bachelors' Degree or Higher (2000)</i>	13.6%	13.2%	14.8%	11.7%	36.5%	12.5%	14.0%	24.2%	17.5%
<i>Average # of Small Establishments per 10,000 Workers (97-2008)</i>	424.5	374.5	430.6	446.6	492.5	344.2	424.7	361.8	413.9

Sources:

U.S. Economic Development Administration, The Purdue Center for Regional Development, The Indiana Business Research Center at Indiana University.

High Country Council of Governments

Comprehensive Economic Development Strategy 2012

Chapter VII

GOALS, OBJECTIVES AND STRATEGIES

VII. GOALS, OBJECTIVES AND STRATEGIES

GOAL NUMBER ONE BUILD ON THE REGION’S COMPETITIVE ADVANTAGE AND LEVERAGE THE MARKETPLACE

STATEWIDE OBJECTIVES

Objective 1	Identify the region’s clusters of economic development that offer competitive advantages
Strategies to Meet Objective	Update the High Country Industry Growth Analysis
Lead Agency Partner	High Country WDB
Strategic Public/Private Partnerships	
Action(s)	Hire consultant to perform analysis
Estimated Costs	\$50,000
Alignment of Resources	EDA
Barriers/Issues	Funding
Performance Measures	

Objective 2	Develop a regional plan to leverage the region’s competitive advantages
Strategies to Meet Objective	Coordinate meetings of local government EDC Directors
Lead Agency Partner	High Country COG
Strategic Public/Private Partnerships	
Action(s)	Coordinate meetings to discuss infrastructure, exporting, and other issues
Estimated Costs	\$4,000/year
Alignment of Resources	
Barriers/Issues	
Performance Measures	Initiatives resulting from meetings

Objective 3	Conduct an analysis that identifies the existing and potential improved place brand for the region
Strategies to Meet Objective	Coordinate with tourism development professional in the

	region to create common brand/marketing
Lead Agency Partner	High Country COG
Strategic Public/Private Partnerships	Possible contract with public relations consultant
Action(s)	Possible contract with public relations consultant
Estimated Costs	\$20,000
Alignment of Resources	EDA
Barriers/Issues	
Performance Measures	Marketing publications/tools developed

Objective 4	Develop a regional marketing plan
Strategies to Meet Objective	Coordinate meetings of local government Managers and EDC Directors
Lead Agency Partner	High Country COG
Strategic Public/Private Partnerships	NC Department of Commerce
Action(s)	Develop marketing plan to promote business assets in region
Estimated Costs	\$3,500
Alignment of Resources	
Barriers/Issues	
Performance Measures	Marketing publications/tools developed

Objective 5	Identify new adaptive capabilities of the regional economy
Strategies to Meet Objective	Identify and evaluate vacant buildings in region
Lead Agency Partner	Local governments
Strategic Public/Private Partnerships	NC Rural Center
Action(s)	Individual grant applications to rehabilitate vacant buildings
Estimated Costs	
Alignment of Resources	High Country COG assistance
Barriers/Issues	
Performance Measures	Funded grant applications/completed projects

REGIONAL OBJECTIVES

Objective: Develop outdoor recreational opportunities which are unique to the region

Strategy: Work with local governments to link recreational tourism goals to infrastructure/planning projects including open spaces, access to public lands and waterways, clean water, wildlife viewing, pedestrian-friendly amenities (trails for walking/biking, sidewalks), night-sky viewing (lighting), and downtowns that reflect local culture and heritage.

Strategy: Recruit sports tournaments to Ashe County Park.

Strategy: Conduct accessibility reviews and develop plans to address public access to water-related recreation and trail uses, including fishing, canoeing, kayaking and hiking along rivers and in forest areas.

Strategy: Focus tourism development efforts on mountain biking, rivers, fishing, hiking, camping, cycling, canoeing, kayaking, and downtowns

Strategy: Integrate bicycle infrastructure into future roadway improvements

Strategy: Include consideration of cycling in future transportation, land use, economic development, and land use plans

Strategy: Complete the Middle Fork Greenway between Boone and Blowing Rock

Strategy: Implement water-quality protection measures

Strategy: Establish the High Peaks trailhead in downtown Burnsville

Strategy: Promote the “Take a Break from the Interstate” tourism program in Alleghany County

Strategy: Support local and regional tourism development efforts

Objective: Support the development of the film industry in the region

Strategy: Seek funding for the establishment of a film production studio in downtown North Wilkesboro

Strategy: Seek funding for building re-use and renovation projects

Objective: Support existing and emerging industry and occupation clusters in the region

Strategy: Evaluate potential locations for agricultural processing, storage, and distribution infrastructure

Strategy: Create a regional agricultural economic development position to: assist potential farmers with no land gain access to unused farmland; assist farmers in

identifying and clarifying marketing & distribution options; assist schools and other food purchasers in buying local produce

Strategy: Develop and implement a plan for buying local produce to supply schools, jails, senior centers, and other local government-affiliated food purchasers

Strategy: Seek funding for the development of agricultural processing, storage, and distribution facilities

Strategy: Improve broadband access to farms in order to develop internet video cattle sales (reduce expenses, and avoid losses and low prices associated with long-distance transportation to markets)

Strategy: Encourage part-time farming as being both an economic contributor and a possible incubator for full-time farmers.

Strategy: Encourage landowners with farming skills and infrastructure (barns, equipment) to put their land into production as a source of secondary income.

Strategy: Request that the North Carolina Wildlife Resources Commission consider revisions to hunting regulations in order to reduce destructive deer populations

Strategy: Inventory and map potential farmland on local and state government-owned property (government offices, vacant government-owned land, correctional facilities, etc.) that could support local food production and provide agricultural job training/employment opportunities

Strategy: Evaluate the use of appropriate brownfield sites for local food production

Strategy: Encourage county governments and landowners to apply to the North Carolina Agriculture Development & Farmland Preservation Trust Fund for grant funding to develop farmland protection plans (plans typically focus heavily on economic development strategies to make farming profitable as a way of keeping land in agricultural production)

Strategy: Expand the TRACTOR agribusiness facility in Burnsville

Strategy: Support the Seeds of Change regional agriculture initiative

Strategy: Identify suitable locations in the region for the establishment of clean tech commerce parks

Strategy: Work with local governments to update permitting processes and develop ordinances that facilitate the siting of renewable energy projects

Strategy: Work with local governments to develop regulatory tools that facilitate energy efficient construction and re-habilitation of homes and businesses

Strategy: Work with local governments and economic development groups to obtain funding for the adaptive re-use of vacant manufacturing sites by the clean energy sector

Strategy: Develop 4-year culinary arts/hospitality management program at Lees-McRae College

Strategy: Support advanced materials manufacturing training program at Mayland Community College

Strategy: Establish a dentistry training program at Spruce Pine Community Hospital

Strategy: Establish and certify a commerce park in Mitchell County

Strategy: Establish and certify a commerce park at the old Watauga High School site with broadband and sewer infrastructure

Strategy: Recruit outdoor recreation manufacturers to the region

Strategy: Recruit high-tech companies to the region

Objective: Support and strengthen entrepreneurial development in the region

Strategy: Redevelop former Banner Elk Elementary School into business/culinary/local food incubator (AC P.R.I.D.E.)

Strategy: Continue to support and expand Certified Entrepreneurial Community Certification process

Strategy: Promote existing business incubation, planning, consultation, export development, and financing programs to small businesses

Strategy: Participate in statewide and regional entrepreneurship efforts

Strategy: Support the development of local outdoor recreation manufacturers in the region

Strategy: Support the development of local high-tech companies in the region

Objective: Prepare the region's workforce for sustainable employment

Strategy: Target workforce development efforts toward growth industries

Strategy: Expand and diversify vocational programs in high schools and community colleges, including advanced materials manufacturing, clean energy systems installation and maintenance training, cloud computing technologies, virtual technology programs, mobile clean energy labs, blacksmithing, HVAC, "pre-hire" customized training programs, Caldwell Community College Information

Technology Institute partnership program with Google, sustainable agriculture, craft industries

Strategy: Identify opportunities for increased collaboration between economic development groups and community colleges in providing clean energy business owners with skills training in entrepreneurship, market research and commercialization.

Strategy: Improve adult education/training opportunities

Strategy: Improve job-search technology tools

GOAL NUMBER TWO**ESTABLISH & MAINTAIN A ROBUST REGIONAL INFRASTRUCTURE****STATEWIDE OBJECTIVES**

Objective 1	Identify the region’s infrastructure assets (transportation, workforce, water/sewer/gas, broadband, housing, education, healthcare, green space, access to capital and energy assets)
Strategies to Meet Objective	Update the High Country WDB Strategic Plan
Lead Agency Partner	High Country WDB
Strategic Public/Private Partnerships	Major employers
Action(s)	
Estimated Costs	
Alignment of Resources	
Barriers/Issues	
Performance Measures	Completed Plan update

Objective 2	Develop multi-modal transportation plans that address existing and future year capacity deficiencies
Strategies to Meet Objective	Develop Comprehensive Transportation Plans for Watauga, Avery, Wilkes, and Mitchell Counties
Lead Agency Partner	NCDOT
Strategic Public/Private Partnerships	High Country RPO, County and Town governments
Action(s)	Develop plans in order of priority established by High Country RPO
Estimated Costs	\$100,000
Alignment of Resources	High Country RPO Planning Work Program
Barriers/Issues	

Performance Measures	Completed plans
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Objective 3	Identify whether water, sewer and natural gas infrastructure can accommodate future growth
Strategies to Meet Objective	Conduct analysis of natural gas existing service and local demand
Lead Agency Partner	Frontier Energy, Piedmont Natural Gas
Strategic Public/Private Partnerships	Local governments
Action(s)	
Estimated Costs	
Alignment of Resources	
Barriers/Issues	
Performance Measures	

Objective 4	Develop plans for the expansion of telecommunications and broadband infrastructure growth or identify their capacity is sufficient
Strategies to Meet Objective	Develop county-level plans for broadband growth
Lead Agency Partner	County governments
Strategic Public/Private Partnerships	Private ISPs
Action(s)	Conduct infrastructure inventories; conduct market demand analysis
Estimated Costs	\$350,000
Alignment of Resources	ARC
Barriers/Issues	
Performance Measures	Improved broadband service

Objective 5	Develop plans for equitable and affordable housing choices
Strategies to Meet Objective	Develop new affordable housing projects
Lead Agency Partner	Northwestern Regional Housing Authority

Strategic Public/Private Partnerships	Local governments, NC Housing Finance Agency, NC Department of Commerce-Division of Community Investment and Assistance
Action(s)	Identify project demand and potential sites
Estimated Costs	\$3,000,000
Alignment of Resources	
Barriers/Issues	
Performance Measures	New housing units

REGIONAL OBJECTIVES

Objective: Improve access to fiber for manufacturers, businesses, downtowns, and residential areas

Strategy: Evaluate access to fiber at existing and future commerce park sites

Strategy: Develop a prioritized strategic plan for broadband infrastructure investments

Strategy: Work to make service profitable for broadband providers by developing plans to cluster and co-locate very large capacity users (manufacturers, high-technology companies, businesses) in commerce parks, downtowns, and business districts

Strategy: Include broadband infrastructure in housing, infrastructure, and building re-use projects

Strategy: Encourage and support broadband infrastructure grant applications

Strategy: Support policymakers in understanding the importance of broadband infrastructure

Objective: Improve the safety and capacity of the region's transportation networks

Strategy: Encourage local government participation in the High Country RPO

Strategy: Advocate for the region during the development of state Transportation Improvement Plans

Objective: Assess the adaptive capability of the region's infrastructure under future climate change scenarios

Strategy: Evaluate regional infrastructure vulnerabilities related to flooding, landslides, wildfires and drought

Objective: Increase water supply and wastewater treatment capacities and service areas

Strategy: Obtain funding for improvements to Beech Mountain's wastewater treatment and collection system

Strategy: Obtain funding for improvements to Beech Mountain's water treatment and distribution system

Strategy: Obtain funding for a water intake on the Watauga River for Beech Mountain

Strategy: Extend water and sewer infrastructure along U.S. 421 east to Deep Gap

Strategy: Extend water infrastructure to Hickory Springs site on Rt. 80 in Yancey County

Strategy: Develop a raw water intake on W. Kerr-Scott reservoir

GOAL NUMBER THREE**CREATE REVITALIZED & VIBRANT COMMUNITIES****STATEWIDE OBJECTIVES**

Objective 1	Promote environmentally sustainable development patterns
Strategies to Meet Objective	Develop stormwater master plans for individual jurisdictions; amend municipal zoning regulations to allow for mixed-use development
Lead Agency/Partner	High Country COG
Strategic Public/Private Partnerships	CWMTF; NC Department of Commerce-Community Planning Program
Action(s)	Hire consultants to perform municipal-level stormwater plans; work with Town governments to amend ordinances
Estimated Costs	\$500,000
Alignment of Resources	
Barriers/Issues	
Performance Measures	Stormwater BMP projects; mixed-use projects

Objective 2	Ensure that underserved and distressed communities are engaged in the planning process
Strategies to Meet Objective	Utilize social media in all planning efforts; publish planning documents/notices of meetings in Spanish; targeted outreach to minority and low-income neighborhoods
Lead Agency/Partner	Local governments
Strategic Public/Private Partnerships	High Country COG

Action(s)	Dependent on specific planning effort
Estimated Costs	
Alignment of Resources	
Barriers/Issues	
Performance Measures	

Objective 3	Develop plan for accelerating investments in healthy, safe and walkable neighborhoods
Strategies to Meet Objective	Construct additional sidewalks
Lead Agency/Partner	Local governments
Strategic Public/Private Partnerships	High Country RPO; Greenway organizations; private commercial developers
Action(s)	
Estimated Costs	
Alignment of Resources	NCDOT; NC Department of Commerce (CDBG funds)
Barriers/Issues	
Performance Measures	New sidewalk installed

Objective 4	Develop a plan to promote the restoration and preservation of urban and town centers
Strategies to Meet Objective	Develop downtown master plans that address economic development and infrastructure
Lead Agency/Partner	Local governments
Strategic Public/Private Partnerships	High Country COG; NC Department of Commerce-Community Planning Program
Action(s)	Utilize existing NC Main Street program plans
Estimated Costs	\$500,000
Alignment of Resources	
Barriers/Issues	
Performance Measures	New plans

REGIONAL OBJECTIVES

Objective: Evaluate the region's vacant building stock

Strategy: Create a regional assessment of vacant manufacturing building stock which recommends buildings suitable for adaptive re-use or teardown

Objective: Promote planned growth strategies in the District

Strategy: Redevelop the former Appalachian Theater in downtown Boone

Strategy: Redevelop "Block 46" in downtown North Wilkesboro

Strategy: Implement NC STEP program recommendations in North Wilkesboro

Strategy: Redevelop the former train depot in downtown North Wilkesboro

Strategy: Revitalize the Rt. 115 corridor from U.S. 421 to downtown North Wilkesboro (building facades, water and sewer extensions)

Strategy: Implement downtown Wilkesboro Master Plan

Strategy: Establish conference centers in Avery and Watauga Counties

Strategy: Analyze regional occupancy tax rates

Strategy: Redevelop old library in downtown Burnsville

Objective: Promote healthy, walkable communities in the District

Strategy: Improve greenway and sidewalk connections between downtown Wilkesboro and downtown North Wilkesboro

Strategy: Extend the greenway in Spruce Pine from Riverside Park along the river to the town's wastewater treatment plant

Strategy: Expand recreational opportunities at individual county and town parks

Objective: Assess regulatory barriers to adaptive building re-use in downtowns, and vacant buildings throughout the region

Strategy: Analyze and revise local zoning and land use ordinances

Strategy: Work with permitting offices to adapt to new technologies and building techniques.

Objective: Promote downtowns in the region as cultural centers

Strategy: Seek funding for expanded open-air farmers/artist market in Wilkesboro

Strategy: Seek funding for building re-use and renovation projects

Strategy: Seek funding for installation of public wi-fi networks in Wilkesboro, North Wilkesboro, Sparta, West Jefferson, Boone, Banner Elk, Newland, Spruce Pine, and Burnsville

STATEWIDE OBJECTIVES

Objective 1	Foster development, recruitment and retention of a skilled workforce
Strategies to Meet Objective	Continue efforts of the WDB
Lead Agency Partner	High Country WDB
Strategic Public/Private Partnerships	ASU, Community Colleges
Action(s)	Update High Country WDB Strategic Plan
Estimated Costs	
Alignment of Resources	
Barriers/Issues	
Performance Measures	Persons receiving education/training through High Country WDB programs

Objective 2	Identify and analyze all educational resources and conduct a gap analysis if needed
Strategies to Meet Objective	Conduct a gap analysis of educational resources in the region
Lead Agency Partner	High Country WDB
Strategic Public/Private Partnerships	Major employers, community colleges, ASU, Lees McRae College
Action(s)	
Estimated Costs	
Alignment of Resources	
Barriers/Issues	
Performance Measures	

Objective 3	Develop ways to create an environment that fosters entrepreneurial development and growth
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Strategies to Meet Objective	Incorporate business skills in high school curriculums
Lead Agency Partner	County Boards of Education
Strategic Public/Private Partnerships	ASU; SBTDC; Community Colleges
Action(s)	
Estimated Costs	
Alignment of Resources	
Barriers/Issues	
Performance Measures	New classes in high schools

REGIONAL OBJECTIVES

Objective: Develop regional supply chain to support growing market sectors/clusters

Strategy: Promote the exceptional deposits of rare earth minerals present within Mitchell County and the potential for the region to support the production of silicon-based products for use in solar technologies by bringing together mining companies, UNC-Asheville, Appalachian State University, solar energy companies and Oak Ridge National Labs

Strategy: Focus on targeted segments of the clean energy industry, including biomass; solar hot water (hot water tank manufacturing-metal fabrication); home building (efficiency improvements); HVAC equipment manufacturing and installation (specific to energy efficiency applications); methane recapture equipment and services; alternative fuel storage and distribution; renewable energy product testing

Strategy: Develop support and maintenance activities in the Energy Efficiency sector by targeting the large number of second-owned homes and older housing stock in the region

Objective: Work with Appalachian State University to bring innovative products/technologies to market

Strategy: Establish a Clean Energy Product Testing Center at Appalachian State University's Energy Center (with WCU Millennial Campus). Activities should leverage ASU's current research pursuits including wind energy, biomass, biofuels, algae and landfill gas

Strategy: Establish a Technology Commercialization Office within the Clean Energy Product Testing Center to assess patentability and commercial potential of inventions, assist with the marketing of inventions, seek industrial partners for further development and commercialization of new technologies, and work with patent counsel for filings and prosecution of patent applications

Strategy: Promote the Clean Energy Product Testing Center for use by clean energy businesses established within and outside of the region.

Objective: Develop key innovative strengths in the District

Strategy: Work to reverse the decline in the young adult population by tailoring entrepreneurial development efforts to High School students

Strategy: Work with the Blue Ridge Angel Investor Network (BRAIN) and others to improve access to venture capital in the District

Strategy: Build on the growing high-tech employment share in Ashe County

Strategy: Build on the emerging technology-based knowledge occupations in Watauga and Wilkes Counties

Strategy: Include community college representation on county economic development commissions/boards

High Country Council of Governments

Comprehensive Economic Development Strategy 2012

Chapter VIII

PERFORMANCE MEASURES

The following Performance Measures will be used to evaluate implementation of the CEDS:

- Number of jobs created
- Number of jobs retained
- Amount of public funds leveraged for projects in the region
- Amount of private investment leveraged for projects in the region
- Unemployment rate
- Per capita income
- Number of new business starts
- Increase in municipal water supply and wastewater treatment capacity
- Increased acres in production
- Increased local sales of local produce
- Increased total sales of local produce
- Increased total farm income/profits
- Number of persons beginning (or restarting) agricultural production including part-time
- Average high-tech employment share
- Percentage of technology-based knowledge occupations share of total employment
- Average venture capital per \$10,000 GDP

High Country Council of Governments

**Comprehensive Economic
Development Strategy
2012**

**Appendix A
PROJECT LISTING**

2012 Project Listing

Infrastructure Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Alleghany	Extend natural gas service to Sparta	2015	unknown
Alleghany	Construction of a new wastewater treatment plant for the Town of Sparta	2014	\$5 million
Ashe	Extend water and sewer service to various residential locations in West Jefferson.	ongoing	\$50,000 annually
Ashe	Extend water service from Lansing to the Warrensville community	2014-16	unknown
Ashe	Replace old water and sewer lines in Lansing	2014	\$100,000
Ashe	Upgrade existing water and sewer lines in the Town of Jefferson.	2013-18	\$500,000
Ashe	Extend Jefferson's water and sewer lines to the Bristol community.	2014-18	\$2 million
Ashe	Extend water and sewer lines to the Smethport community.	2013-16	\$3 million
Ashe	Extend Jefferson's water and sewer lines from Mtn. View School site to Greensboro Mfg. Rd.	2012-14	\$3 million
Ashe	Construct a new well for the Town of Lansing.	2013	\$100,000
Ashe	Replacement of old water lines in West Jefferson's commercial area.	2014	\$300,000
Ashe	Various water and sewer extensions from West Jefferson to surrounding businesses.	2012-16	\$1.9 million
Ashe	Provide public water and sewer service from West Jefferson to the Baldwin community.	2013-18	\$1.7 million
Ashe	Sewer line repair and manhole replacement in West Jefferson	2012-2022	\$1.2 million
Ashe	Upgrade the Greenfield pumpstation and increase line size to 6"	2012-2017	\$250,000
Ashe	Add a well to West Jefferson system	2012-2017	\$150,000
Avery	Construct a new well for the Town of Newland.	2013	\$300,000
Avery	Replace water lines along NC Highway 194 in Newland	undetermined	undetermined
Avery	Construct an additional well for the Town of Crossnore.	2016	100,000
Avery	Upgrade Crossnore's wastewater treatment plant.	2012	\$750,000
Avery	Further development of a stormwater collection system in downtown Banner Elk.	ongoing	\$500,000
Avery	Continued replacement of water meters to radio read meters in Banner Elk.	ongoing	\$38,000
Avery	Rehabilitate Mill Pond Rd. sewer line in Banner Elk.	2014	\$500,000
Avery	Construct Tate Dr. outfall line in Banner Elk.	2016	\$100,000
Avery	Extend sewer line on Turnpike East Rd. in Banner Elk.	2016	\$90,000
Avery	Automatic bar screen cleaner in Banner Elk	2013	\$75,000

Avery	Upgrade water infrastructure in Snow Cloud, Seven Devils from 2" and 3" to 6" lines	2012-2015	\$238,350
Avery	Enlarge the public works facility in Banner Elk.	2012	\$200,000
Avery	Upgrade existing water tank and upgrade water line infrastructure in upper Seven Devils; Four Diamond Drive, Moonlight Trail, and Windy Knob Trail	unknown	\$702,000
Mitchell	Extend water and sewer service to the northern portion of Mitchell County.	unknown	\$1.5 million
Mitchell	Wastewater plant sludge press/composting operation in Spruce Pine.	2014	\$450,000
Mitchell	Complete dredging of Spruce Pine's Beaver Creek Reservoir.	2013	\$470,000
Mitchell	Expand the Town of Spruce Pine's water treatment plant.	2014	\$2.6 million
Mitchell	Construct a 1 million gallon potable water storage tank in the Town of Spruce Pine.	2018	\$900,000
Mitchell	Complete extension of water line to serve Pine Branch Rd., Ollis Road, Sullins Branch Rd., and Stafford Rd. in the Town of Spruce Pine.	2018	\$450,000
Mitchell	Extension of water line from Town of Spruce Pine to NC Department of Corrections prison facility	2018	\$120,000
Mitchell	Rehabilitate the Town of Spruce Pine's water system intake on North Toe River.	2018	\$28,000
Mitchell	Replace Town of Spruce Pine waterline along NC Highway 226 South.	2016	\$300,000
Mitchell	Design and procurement of improvements to Bakersville's 100,000-gallon standpipe storage tank.	2016	\$90,000
Mitchell	Installation of new 8" water main in improvements for Hwy 261/226 area in Bakersville.	2018	\$120,000
Mitchell	Installation of filtration system for wells in Bakersville.	2015	\$620,000
Mitchell	Extend sewer service to Mitchell High School	2015	\$1.9 million
Mitchell	Installation of new 8" and 6" water main improvements for Cane Creek Rd. and Maple St. in Bakersville.	2018	\$175,000
Mitchell	Water Meter Replacement - Spruce Pine	2014	\$400,000
Watauga	Possible development if a water & sewer system on US hwy 421 south corridor	2012-2020	\$15 million
Watauga	New raw water intake and High Rating Filters for Town of Boone	2010-2013	\$18 million
Watauga	New Water Treatment Plant for Town of Boone	2017-2020	\$45 million
Watauga	Improvements to wastewater treatment plant for the Town of Blowing Rock.	2010-2012	\$775,000
Watauga	Upgrade 2" & 3" waterlines to 6" & 8" lines in Seven Devils to create a looped system and increase flow to fire hydrants.	2012-14	\$1.8 million
Watauga	additional well, Seven Devils	2012	\$60,000
Watauga	Extend water line to NC Hwy. 105 to serve commercial district in the Town of Seven Devils.	2012-2015	\$400,000
Watauga	Various water and sewer line extensions to unserved areas in the Town of Blowing Rock.	ongoing	\$100,000 annually
Watauga	Upgrade of Beech Mountain's Pond Creek wastewater treatment plant.	2014-16	\$1.3 million
Watauga	Complete Phase II of Beech Mountain's collection system rehabilitation.	2016	\$480,000
Watauga	Develop new water supply source for Town of Beech Mountain	2017	\$3 million
Watauga	Install back-up power to the wastewater treatment plants and pump stations in the Town of Beech Mountain.	unknown	\$900,000

Watauga	Develop a stormwater drainage system for the Town of Seven Devils.	2015-2020	\$1 million
Watauga	Improving storm water runoff in Blowing Rock	2012-2025	\$2 million
Watauga	Extending and improving water and sewer services in the Gideon Ridge, Blowing Rock	2012-2014	\$468,000
Watauga	Dogwood lane sewer extension Blowing Rock	2012-2012	150,000
Watauga	Secondary water tank in Goforth Road, Blowing Rock	2013-2020	\$1 million
Watauga	Extension of water and sewer service and lift station to future Blowing Rock Hospital North of Town limits	2012-2015	\$1.2 million
Watauga	Completion of water line replacement in remainder of Seven Devils	2015-2020	\$500,000
Wilkes	Construct a raw water intake at Kerr Scott Reservoir to serve Wilkes County, Wilkesboro, and North	2012-2015	\$13.5 million
Wilkes	Upgrade and expansion of North Wilkesboro's water treatment plant.	2012-14	\$6.5 million
Wilkes	Upgrade existing raw water intake for Wilkesboro.	2012-16	\$1 million
Wilkes	Complete water and sewer lines to entirely service Wilkes Industrial Park.	2012-13	\$1 million
Wilkes	Additional pump station and water line extension for Wilkes Industrial Park	unknown	\$600,000
Wilkes	Additional pump station and sewer line extension for Wilkes Industrial Park	unknown	\$700,000
Wilkes	Acquisition of Tyson's wastewater facilities for Wilkesboro.	unknown	\$3.6 million
Wilkes	Construct a pump station near the former Golden Needles factory for Wilkesboro.	2012-14	\$750,000
Wilkes	Expansion of Wilkesboro's wastewater treatment plant from 4.9 MGD to 7.0 MGD.	2014	\$1.5 million
Wilkes	Rehabilitation of Wilkesboro's sewer lines.	ongoing	\$500,000
Wilkes	Extend Wilkesboro's sewer lines to Oakwood subdivision.	2014	\$3 million
Wilkes	Construction of two above-ground water storage tanks for Wilkesboro.	2014	\$2 million
Wilkes	Construct upgrades to facilitate efficient connections between Wilkesboro and Cricket-Millers Creek water systems. (Browns Ford Loop Project)	2013-16	\$800,000
Wilkes	Add sludge handling facility at Wilkesboro Water Plant	unknown	\$1.5 million
Wilkes	New 16" line from Wilkesboro water plant to Beacon tank	unknown	\$500,000
Wilkes	road and utility extensions to industrial site in Wilkeboro	2014	\$1 million
Wilkes	Ground level storage tank and line to US 421, Browns Ford Wilkesboro	unknown	\$2 million
Yancey	Extend water service to Micaville	2012-14	\$4 million
Yancey	Main sewer interceptor video inspection	unknown	\$76,200
Yancey	Main sewer interceptor (west) improvements	unknown	\$1,307,450
Yancey	Main sewer interceptor (east) improvements	unknown	\$710,180
Yancey	OMC pump station replacement	unknown	\$350,000
Yancey	Hickory Lane and West Glendale Avenue sewer line improvements	unknown	\$633,100
Yancey	Orchard drive sewer line improvements	unknown	\$607,872
Yancey	Ramsey Street sewer line improvements	unknown	\$128,187
Yancey	Meadow Road and Indian Trail sewer line improvements	unknown	\$779,470
Yancey	Pensacola Road sewer line improvments	unknown	\$411,867
Yancey	Westover and Presnell Road sewer line improvements	unknown	\$398,890
Yancey	Cane River intake pump replacement	unknown	\$50,000
Yancey	Automated meter reading project	unknown	unknown
Yancey	water treatment plant improvements	unknown	unknown
Yancey	Green Mountain Drive water improvements	unknown	\$493,795

Yancey	Meadow Road water line improvements	unknown	\$359,452
Yancey	Main Street water line improvements	unknown	\$1,973,600
Yancey	West Burnsville Church Road water line improvements	unknown	\$343,575
	Love Fox Road trailer park water and sewer line improvements	unknown	\$207,050
Yancey	West Glendale Avenue water improvements	unknown	\$786,370
Yancey	Burnsville School Road water line improvements	unknown	\$334,790
Yancey	Bill Young Road water line improvements	unknown	\$271,265
Yancey	Comet Lane trailer park water improvements	unknown	\$149,952

Transportation Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Alleghany	Implement recommendations in the Sparta Pedestrian Plan	2012-17	\$2 million
Alleghany	Complete the Sparta Western Loop	2012	\$7 million
Ashe	Expansion of the Ashe County Airport with road improvements to the airport.	2012-16	\$8.5 million
Ashe	extend the Scenic Byways in Ashe County (221, and northern Ashe)	2015	\$50,000
Ashe	Construct connector road between Beaver Creek Industrial Park and GE	2013	unknown
Ashe	Various sidewalk extensions in West Jefferson.	ongoing	\$100,000
Ashe	Additional sidewalk in Lansing	unknown	\$150,000
Ashe	Additional bicycle infrastructure in Lansing	unknown	\$150,000
Avery	Construct sidewalk to portions of Mitchell St. & Estatoa St. in Newland.	2012	unknown
Avery	Expansion of the Town of Newland's sidewalk system.	ongoing	\$800,000
Mitchell	Widen NC Hwy. 226 from McDowell County to Spruce Pine.	unknown	\$15 million
			\$100,000 annually.
Watauga	Sidewalk improvements in the Town of Blowing Rock.	ongoing	
Watauga	Relocate Boone Fire Department station away from current location to avoid congestion.	unknown	\$700,000
Watauga	Upgrade the street system to meet DOT standards for the Town of Seven Devils.	ongoing	\$1.5 million
Watauga	Potential dedication of roads to Town of Seven Devils and repair of roads in the Lakes portion of Town	2012-2013	\$220,000
Wilkes	NC-115 widening to serve North Wilkesboro and Wilkes County	unknown	unknown
Wilkes	Road infrastructure improvements and additions in Wilkes industrial park	unknown	\$1.3 million
High Country COG	Continue administration of the High Country Rural Transportation Planning Organization (RPO).	ongoing	\$130,000 per year
Regionwide	work with NCDOT to establish bicycle routes in each county	underway	
Regionwide	Work with NCDOT to schedule and implement projects identified in the Transportation Improvement Program and the High Country RPO Priority Needs List		

Industrial Park Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Alleghany	Identification and development of an industrial park.	2015	\$6 million
Ashe	Identification and development of an industrial park.	2014	\$2.5 million

Ashe	Conduct a feasibility study to redevelop the vacated Jefferson Apparel Building.	2013	\$40,000
Ashe	Potential business development of old Lansing school building.	2013	unknown
Ashe	Extend water and sewer lines to a potential industrial site in Jefferson.	2014	\$300,000
Avery, Mitchell, Yancey	Develop the Tri-County Morrison Field Industrial Park Complex.	unknown	\$2.5 million
Avery	Extend water and sewer to potential industrial properties.	2014	\$750,000
Mitchell	Development of certified industrial sites on NC 226 in Mitchell County (Bailey property).	2013	\$500,000
Mitchell	Development of certified industrial sites on US 19E in Mitchell County.	2013	\$500,000
Watauga	Demolish and clear former Watauga High School building; develop as industrial/commercial site	2014	\$3.5 million
Wilkes	Continued development of the Wilkes Industrial Park.	ongoing	\$1 million
Wilkes	Wilkes industrial park site/pad development	2015	\$425,000
Wilkes	Development of a business park along Highway 421	2012-2015	\$6 million
Wilkes	Airpark development	2012-2015	\$6 million
Wilkes	Identification and development of an industrial park in Wilkesboro	unknown	\$5 million
Yancey	Identification and development of an industrial park.	2013	\$6 million
Yancey	Identification and marketing of available industrial buildings.	ongoing	\$5,000

Small Business and Entrepreneurial Development Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Alleghany	Recruit small businesses to the Blue Ridge Business Development Center.	ongoing	unknown
Alleghany	Develop a corporate center/business campus in Alleghany		
Ashe	redevelop former Ashe County Hospital for commercial use	2015	\$5 million
Ashe	Expansion of food incubator at Ashe Family Central.	2013	\$300,000
Watauga	Implement projects identified in AdvantageWest's Certified Entrepreneurial Community Program	ongoing	unknown
Watauga	Develop the Appalachian State University Millennium Campus/Watauga Technology Park.	unknown	\$15 million
Wilkes	Establishment of small business incubator	2013	\$400,000
Yancey	Development of former OMC building into a potential industrial park and incubator facility.	ongoing	unknown
Yancey	Continued development of Brown Dormitory as a craft incubator.	2013	\$500,000
Yancey	Implement projects identified in AdvantageWest's Certified Entrepreneurial Community Program	ongoing	unknown
Regionwide	conduct workshops with private lending institutions to promote the SBA 504 loan program	ongoing	n/a
Regionwide	Encourage schools to offer entrepreneurship curricula	ongoing	unknown

Workforce Development Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Regionwide	Conduct research on the economic impact of the second-home industry in the region	2013	\$100,000

Park and Recreation Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Alleghany	Conduct Master Plan and improvements at Crouse Park in Sparta.	2013	\$250,000
Alleghany	Development of multi-purpose fields	2013	\$300,000
Alleghany	Establish Bledsoe Creek Greenway.	ongoing	\$380,000
Alleghany	Develop County Park along Sparta Bypass.		\$500,000
Ashe	New ballfield at Ashe County Park	2013	\$400,000
Ashe	The purchase of playground equipment at Bowie-Seagraves Park in West Jefferson.	unknown	\$50,000
Ashe	Construction of YMCA	unknown	unknown
Avery	Purchase land for new park and bicycle trail in the Town of Newland.	2014	\$300,000
Avery	Further expansion of the Shawneehaw Greenway in Banner Elk.	unknown	\$200,000
Avery	Construct additional walking trails in the Village of Sugar Mountain.	ongoing	\$500,000
Avery	Further development of Heritage Park. Additional infrastructure and support facilities are planned.	ongoing	\$250,000
Avery	Banner Elk Town Park expansion.	ongoing	\$450,000
Mitchell	River Walk and Riverside Park expansion in Spruce Pine	2014	unknown
Mitchell	Construction of public restrooms on the Bakersville Creek Walk	unknown	\$40,000
Watauga	Construct a new Watauga County Recreation Center.	2014-2020	\$10 million
Watauga	Develop multi-use trail (greenway) along Middle Fork New River.	ongoing	\$4 million
Watauga	Town of Boone Greenway expansion.	unknown	\$420,000
Watauga	Develop a park area in Seven Devils with playground equipment for children	2012-2013	\$20,000
Watauga	Renovating the Blowing Rock Parks and Recreation building	2012-2015	\$660,000
Watauga	Implement multi-faceted outdoor rec plan	ongoing	unknown
Wilkes	Concession stand and bathroom at Cub Creek	unknown	\$200,000
Wilkes	Continue development of Park at River's Edge	2012-2014	\$500,000
Wilkes	Develop 18 acre tract next to Cub Creek Park	unknown	\$500,000
Yancey	Development of a multi-purpose facility for fairs, agricultural exhibits, and various recreational activities.	2013-2016	unknown

Environmental Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Alleghany	Implement stormwater BMPs identified in the Bledsoe Creek Watershed Plan	ongoing	\$750,000

Watauga	Stormwater improvements, Blowing Rock	ongoing	\$2 million
Regionwide	Implement stormwater BMPs identified in the High Country Water Quality Initiative Plan	2015-2020	\$2 million

Downtown Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Alleghany	Establish downtown revitalization program to recruit and retain businesses in downtown Sparta.	2014	\$1 million
Alleghany	Construct new public library in Sparta.	2013	unknown
Alleghany	Upgrade Sparta downtown area by burying power lines and constructing new sidewalks.	2015-2020	\$2 million
Alleghany	Increase tourism through establishment of schedule festivals/events		
Ashe	Renovation of the Jefferson Town Hall.	2015	\$500,000
Ashe	Hire police officer(s) for Town of Lansing	2013	\$250,000
Ashe	Complete rehabilitation of the old Courthouse building in Jefferson.	ongoing	\$500,000
Ashe	relocate Ashe Farm Life Museum to Jefferson	ongoing	\$500,000
Ashe	Construct Lansing Welcome Center		\$400,000
Avery	Further development of the Banner Elk streetscape project.	ongoing	\$500,000
Avery	Purchase and renovation of the old Banner Elk Elementary School.	2014	\$3 million
Avery	Construction of a municipal parking lot in Banner Elk.	2013	\$100,000
Mitchell	Revitalization of downtown Spruce Pine, including restoration of Carolina Theater.	2015	\$3 million
Mitchell	Acquire CSX Train Depot in Town of Spruce Pine and renovate for use as Community Center.	2015	\$2 million
Mitchell	Construct a craft and outdoor recreation center as tourist attraction	2012	unknown
Mitchell	Renovate the Mitchell Senior Center and Mitchell County Historical Society Museum	2012	unknown
Mitchell	Replace Spruce Pine Town Hall/Police department with new facility	2015	\$1.5 million
Watauga	Construct a new Watauga County Administrative Building.	2016-2020	\$5 million
Watauga	Implement the Master Improvement Plan for Main Street and Sunset Drive in Blowing Rock.	ongoing	\$640,000
Watauga	Continue Howard Street improvements in Boone.	ongoing	\$4 million
Watauga	Improvements/reconstruction old Fire Station, Blowing Rock	2015	\$290,000
Watauga	Improvements to the American Legion Building, Blowing Rock	2012-2015	\$2 million
Watauga	New Blowing Rock public works facility and site improvements	2012-2014	\$1.16 million
Watauga	Renovating the Blowing Rock Police department	2012-2015	\$840,000
Wilkes	Downtown master plan improvements Wilkesboro	unknown	\$2 million
Wilkes	Downtown master plan implementation & redevelopment, North Wilkesboro	unknown	\$1.2 million

Other Projects

Identified Projects

County	Project Name	Time Frame	Estimated Cost
Alleghany	develop craft/traditional music school in Alleghany County	unknown	unknown
Ashe	Development of low-income housing in Lansing.	unknown	unknown
Mitchell	mobile meat-processing plant	2015	\$183,850
Watauga	Construct two Emergency Medical Service stations for eastern and western Watauga County.	2014-202	\$1 Million
Watauga	Upgrade the Watauga County Emergency Communications Systems.	ongoing	unknown
Watauga	Develop affordable housing project (Workforce Housing Development) at Brookshire property	2013-2016	unknown
Wilkes	Wilkes County Law Enforcement Center	2012-2014	\$15 million
Wilkes	Landfill Expansion	2012-2017	\$10 million
Wilkes	Promotion of Yadkin Valley Heritage Corridor	ongoing	\$1 million
Regional	bookmobile for Mitchell, Avery, Yancey	2014	\$111,700

Vital Projects

The following projects are considered vital due to factors such as economic impact, severity of need, available resources, employment impact, or current level of commitment:

Alleghany

- Extend Natural Gas service to Sparta
- New wastewater treatment plant in Sparta
- Complete the Sparta Western Loop

Ashe

- New well in Lansing
- Ashe County Airport improvements
- Redevelopment/expansion of food incubator at Ashe Family Central
- Relocate Ashe Farm Life Museum to Jefferson

Avery

- Expand internet access in unserved areas of County
- Replace Crossnore's wastewater treatment plant
- Expand Newland's sidewalk system
- Renovation of former Banner Elk Elementary School as business incubator

Mitchell

- Install filtration system on wells in Bakersville
- Complete US 19E widening through Mitchell County
- Various water and sewer line, meter, and intake improvements in Spruce Pine

Watauga

- New water intake for Town of Boone
- Demolish former Watauga High School and develop or sell site for commercial use
- Develop new water supply for Town of Beech Mountain
- Additional well in Seven Devils
- Complete US 321 widening through Blowing Rock

Wilkes

- Development of new raw water intake on the W. Kerr Scott Reservoir to supply the Towns of Wilkesboro and North Wilkesboro
- Development of industrial site(s) along US Highway 421
- Wilkes County landfill expansion
- Construct new law enforcement center

Yancey

- Extend water service to Micaville
- Complete US 19E widening through Yancey County
- Market available industrial buildings
- Continue implementation of the TRACTOR farm product aggregation center

High Country Council of Governments

Comprehensive Economic Development Strategy 2012

Appendix B CEDS STRATEGY COMMITTEE AND ADVISORY TEAM

Development of the High Country Council of Governments Comprehensive Economic Development Strategy (CEDS) was overseen by the High Country Workforce Development Board (HCWDB). The HCWDB, per its by-laws, is comprised mainly of private-sector representatives.

As functionaries of our member local governments, High Country Council of Governments (HCCOG) staff primarily interfaces with local government officials. However, local government staff are in constant contact with the business community, and work to support private-sector needs with public resources. Much of the information contained in the CEDS reflects ongoing exposure to the 26 local governments in the District, including community and private-sector needs. In gathering information for development of the CEDS, HCCOG staff interviewed public and private-sector officials to assess current and planned economic development efforts. HCCOG staff routinely interacts with private-sector groups, including Chambers of Commerce and various Civic Groups.

The High Country Council of Governments Executive Board held an advertised Public Hearing prior to consideration of the CEDS.

High Country Workforce Development Board		
Anne Bowlin		NC Employment Security
Jayne Phipps-Boger		Wilkes Community College Alleghany Campus
Sam Ray (Emeritus)		Retired Business Owner
Earl Tipton		Young & McQueen Grading Company, Inc.
Jennie Harpold		Mayland Community College
Marie Gwyn		Habitat for Humanity
Wanda Proffitt		Yancey County Economic Development
Stacy Sears		Center for Entrepreneurship, Appalachian State University
Bryan Peterson		Altec Industries
Sallie Woodring		Appalachian Regional Health System
Truman Robbins		Avery Co. Department of Social Services
Mike Birkmire		NC Vocational Rehabilitation Services
Skip Greene		Greene Construction, Inc.
Clark Hunter		Blue Ridge Business Development Center
John Boyd		Mayland Community College
Jason Carlton		GoWilkes
Kim Cashatt		NW Regional Housing Authority
Carolyn McKinney		Mitchell County Schools
Trasa Jones		Pioneer Eclipse
Mike Holzworth		Hospitality Mints
Rhonda Herman		McFarland & Co., Inc.
David Honeycutt		Buck Stove
Gina McDowell		CertainTeed Corporation
Dwight Simmons		Mountain Lumber Company

Advisory Team	
County Managers	
Don Adams	Alleghany County Manager
Patricia Mitchell	Ashe County Manager/Dir., Econ. Devel.
Robert Wiseman	Avery County Manager
Charles E. Vines	Mitchell County/Bakersville Manager
Deron Geouque	Watauga County Manager
John Yates	Wilkes County Manager
Nathan Bennett	Yancey County Manager
Town Managers	
Rick Owen	Banner Elk Town Manager
Randy Feierabend	Beech Mtn. Town Manager
Scott E. Hildebran	Blowing Rock Town Manager
Greg Young	Boone Town Manager
Jeanne Martin	Burnsville Town Clerk
Cecil Wood	North Wilkesboro Interim Town Manager
Myrtle D. Brant	Crossnore Town Clerk
Connie Guinn	Elk Park Town Manager
Cathy Howell	Jefferson Town Manager
Bernice Prestwood	Lansing Town Clerk
Brenda Pittman	Newland Town Manager
Lahoma O'Lague	Ronda Town Clerk
Ed Evans	Seven Devils Town Manager
Bryan Edwards	Sparta Town Manager
Richard Canipe	Spruce Pine Town Manager
David Lane	Sugar Mtn. Village Manager
Brantley Price	West Jefferson Town Manager
Ken Noland	Wilkesboro Town Manager
Economic Development/Tourism Directors	
Julia Rowland	ASU Transportation Insight Center for Entrepreneurship Assistant Dir.
Bret Gardella	Avery County Economic Development Director
Clark Hunter	Blue Ridge Business Dev. Center Manager
Pilar Fotta	Downtown Boone Development Association
Millie Barbee	High Country Host Executive Director
Becky Anderson	Mitchell County Economic Development Director
Samuel Hinnant	North Wilkesboro Business Support/Recruit.
Bryan Freeborn	Spruce Pine Main Street
Joe Furman	Watauga Co. Planning Director/EDC Dir.
L. Wright Tilley	Watauga County Tourism Development Authority Exec. Dir.
Jeffrey Gartska	Wilkes County Economic Development Director
Wanda Proffitt	Yancey County Economic Development Director
Community Colleges/Universities	
Donna Bean	Caldwell Community College
Dr. John Boyd	Mayland Community College President
Dr. Gordon Burns	Wilkes Community College President
Mike Pierce	Wilkes Community College
Jayne Phipps-Boger	Wilkes Comm. College Alleghany Campus Director
Chamber of Commerce Directors	
Susan Freeman	Avery County Chamber Director
Bob Bamberg	Alleghany County Chamber Director
Cabot Hamilton	Ashe County Chamber Director
John Troxler	Beech Mtn. Chamber Manager
Charles Hardin	Blowing Rock Chamber Executive Director

Dan Meyer	Boone Area Chamber Director
Shirley Hise	Mitchell County Chamber Director
Linda Cheek	Wilkes County Chamber President
Connie Edson	Yancey County Chamber Director
State of North Carolina	
Brian Rathbone	NC Broadband Technical Assistance Director
Dan Thomas	NC Department of Transportation Planning Branch
Other	
Brian Crutchfield	Blue Ridge Electric
Brian Riggins	BB&T
Greg Edwards	Great State Bank
Cheryl Hagevik	Heifer International
Jeffrey Scott	Heifer International
Wanda Robinson	SBTDC
Mary Romano	SBTDC
Chris Hayes	SBTDC
George Thomas	US Department of Commerce
Tres Magner	NC Cooperative Extension Service (Yancey)
Bill Hanlin	NC Cooperative Extension Service (Wilkes)
Bryan Cave	NC Cooperative Extension Service (Alleghany)
Carolyn Shepherd	NC Cooperative Extension Service (Ashe)
Jerry Moody	NC Cooperative Extension Service (Avery)
Jeff Vance	NC Cooperative Extension Service (Mitchell)
Jim Hamilton	NC Cooperative Extension Service (Watauga)
Lauri Wilson	Seeds of Change
Adrian Tait	High Country Workforce Development Director
Rick Herndon	High Country COG Executive Director
Craig Hughes	High Country COG Transportation Planner
Phil Trew	High Country COG Director of Planning and Development
Kelly Coffey	High Country COG Senior Planner
Duncan Cavanaugh	High Country COG Regional Planner