

- 2.2.4. Establish development design standards that will help protect the County’s visual character as development occurs, including cluster development, preservation of existing trees, siting structures below ridge lines and on moderate rather than steep slopes, landscape buffering, reverse frontage lots and parking areas, and using traditional human-scale architectural forms and massing in new buildings.
- 2.2.5 Consider the impact on views in land use decisions.
- 2.2.6 Encourage the use of voluntary land preservation techniques that will help maintain the existing landscape, including the leasing, sale or donation of conservation easements, the establishment of private land trusts, exclusive agriculture zoning and Agricultural and Forestal Districts.

2. Historic Resources

Summary of Background and Analysis

Historic Properties

Rockingham County is truly rich in historic resources. The Virginia Department of Historic Resources’ current database contains 1,056 property records for Rockingham County, excluding Harrisonburg. An historic property can be a building, district, site, structure or object. They are found above ground, as opposed to archeological sites, which are found below ground.

Presently, twenty-two properties in Rockingham County have been listed on the Virginia Landmarks Register, twenty-one of which have also been listed on the National Register of Historic Places. These are listed below. Only Rife’s Mill / Bowman’s Mill is not on the National Register.

**TABLE 2-2
Current Virginia Landmarks Register / National Register of Historic Places in Rockingham County**

<i>Baxter House</i>	<i>Inglewood</i>
<i>Beery, John K., Farm</i>	<i>Kyle’s Mill House and Farm</i>
<i>Bethlehem Church</i>	<i>Lincoln Homestead and Cemetery</i>
<i>Big Run Quarry Archeological Site</i>	<i>Linville Creek Bridge #6154</i>
<i>Bridgewater Historic District</i>	<i>Miller-Kite House</i>
<i>Dayton Historic District</i>	<i>Paul, Peter, House</i>
<i>Earman, George, House</i>	<i>Port Republic Historic District</i>
<i>Fort Harrison (Daniel Harrison House)</i>	<i>Rife’s Mill / Bowman’s Mill</i>
<i>Funk, Joseph, House</i>	<i>Singers Glen Historic District</i>
<i>Golden Creek Farm (Harnsberger Farm)</i>	<i>Sites House</i>
<i>Harnsberger, Stephen M. House</i>	<i>Tunker House</i>

The Department of Historic Resources also maintains a list of properties that are considered eligible for inclusion on the Virginia Landmarks Register and the National Register of Historic Places, though final listing has not yet taken place. These 25 potentially eligible properties are listed below.

TABLE 2-3
Historic Properties Potentially Eligible for the Virginia Landmarks Register / National Register of Historic Places

<i>Bell Manor</i>	<i>Kratzer-Sipe House</i>
<i>Bogota</i>	<i>Lincoln Hall</i>
<i>Bowman Homestead</i>	<i>Manheim (Kauffman House)</i>
<i>Breneman Mill</i>	<i>Massada (John Nicholas House)</i>
<i>Contentment (Grattan House)</i>	<i>Montevideo (Huffman Store/P.O.)</i>
<i>Farmingreen</i>	<i>Peters-Standley House</i>
<i>Flower Glenn</i>	<i>Pleasant Valley Historic District</i>
<i>Fort Lynne</i>	<i>Ringgold, A.S., House</i>
<i>Friedens Church and Cemetery</i>	<i>Roller House</i>
<i>German Reformed Church Parsonage</i>	<i>Sellers Mill Historic District</i>
<i>Grottoes Elementary School</i>	<i>Smith House</i>
<i>Hedrick House and Barn (Riverside Farm)</i>	<i>Spring Creek Mill</i>
<i>House, Outbuildings (Timberville)</i>	

In addition, a recent survey and study of the County recommended 102 other properties for more intensive survey to determine if they are eligible for the Virginia Landmarks Register and/or National Register of Historic Places. Also recommended was additional survey work to determine whether historic districts merit designation in Elkton, Grottoes and Mount Crawford and whether the existing Bridgewater district should be expanded.

Civil War Battlefields

Rockingham County was the site of a number of Civil War actions during both the Shenandoah Valley Campaign of 1862 and the Shenandoah Valley Campaign of 1864. The best known of those actions, and possibly the most significant, were the Battle of Cross Keys on June 8, 1862, and the Battle of Port Republic on June 9, 1862. These battlefields have recently received a great deal of attention and have become the focus of intense preservation efforts as a result of the designation by Congress in 1997 of the Shenandoah Valley Battlefields National Historic District. A Commission was appointed at that time to develop a plan for preserving ten battlefields within the eight-

county district that includes Rockingham as well as Augusta, Clarke, Frederick, Highland, Page, Shenandoah and Warren counties.

The Shenandoah Valley Battlefields Commission formed a non-profit foundation to carry on its work. The Shenandoah Valley Battlefields Foundation is actively pursuing the acquisition of land and easements at both Cross Keys and Port Republic battlefields. The Foundation worked with Rockingham County to develop detailed preservation plans for the two battlefields, which set priorities for future preservation activities.

Archeological Resources

A significant amount of Rockingham County's history and prehistory remains hidden in 453 archeological sites documented by the Department of Historic Resources as well as other yet undocumented locations. These records include sites frequented by Native Americans of the prehistoric and historic periods as well as sites of colonizing Europeans and of later settlers. Only one of these sites has been placed on the National Register of Historic Places and Virginia Landmarks Register, the Big Run Quarry archeological site. It is the largest and most intensively used prehistoric quarry site within Shenandoah National Park.

Preservation of Resources

There are a number of historic preservation groups active in Rockingham County, which can provide advice and assistance to owners of historic properties, archeological sites, and battlefield land in the effort to preserve and protect these resources. These groups include the Harrisonburg-Rockingham Historical Society, the Dayton Historical Society, the Shenandoah Folk Art & Heritage Center, the Elkton Historical Society, the Society of Port Republic Preservationists, the Shenandoah Preservation League, the Shenandoah Valley Battlefields Foundation, the Valley Conservation Council, the Virginia Outdoors Foundation, the Preservation Alliance of Virginia, and the Civil War Preservation Trust. Assistance can also be sought from the Virginia Department of Historic Resources, which maintains a Shenandoah Valley regional office in Winchester.

Rockingham County could also play a significant role in historic preservation through educational and regulatory measures. The Virginia Code, Section 15.2-2306, permits counties to establish historic districts and to regulate the erection, reconstruction, alteration, restoration and demolition of historic landmarks, buildings or structures in those districts. The County could also consider asking applicants submitting rezonings, special exceptions, site and subdivision plans to provide documentation of historic and archeological resources on their properties.

Historic Resource Strategies, Policies and Actions

Goal 12. Preserve Historic Buildings and Sites

Strategy 12.1: Promote the preservation of historic resources through the development review process and through voluntary measures.

Policies and Implementation Actions:

- 12.1.1. Consider establishing a historic resources commission to provide comments to the Planning Commission and Board of Supervisors on the impacts of development proposals on historic resources and to develop historic preservation programs for the County.
- 12.1.2 Encourage the adaptive reuse and rehabilitation of existing historic structures for new, compatible uses, while retaining the integrity of the structure.
- 12.1.3 Encourage the preservation of historic structures and sites by incorporating them into the design of new development projects.
- 12.1.4 Encourage VDOT and land developers to design new roads and road improvements so as to preserve significant historic features, structures and sites, including encouraging VDOT to allow modifications to curve radii, pavement width and other standards as may be necessary.
- 12.1.5 Promote public and private education efforts about the County's historic resources and efforts to conserve them. Encourage public awareness efforts through the schools, the media and local civic and business organizations. Compile and maintain a file on local historic resources for use by citizens and by County and State agencies in the review of public and private plans and development proposals.
- 12.1.6 Foster a strong and complementary relationship between tourism promotion and historic preservation efforts, including the promotion and awareness of the County's historic resources through the economic development efforts associated with the tourism industry.
- 12.1.7 Encourage the use of conservation easements to preserve land and structures of scenic and/or historic significance.
- 12.1.8 Work with Federal, State, Regional and neighboring local officials to coordinate and reinforce efforts to promote historic preservation efforts and programs.

Strategy 12.2: Support the preservation of the Cross Keys and Port Republic battlefields.

Policies and Implementation Actions:

- 12.2.1. Continue to plan and zone the battlefield areas for agricultural use.
- 12.2.2. Refrain from extending water and sewer service into the battlefields area.
- 12.2.3. Refrain from constructing new roads and major improvements to existing roads that would significantly adversely impact the battlefields.
- 12.2.4. Identify the battlefields as historic preservation areas appropriate for the application of preservation measures, such as:
 - Purchase of development rights (land and easements)
 - Nomination to the National Register of Historic Places and the Virginia Landmarks Register
 - Promotion of the creation and expansion of agricultural and forestal districts
- 12.2.5. Support Cross Keys and Port Republic Battlefields Preservation Plan, as adopted by the Board of Supervisors.

3. Agricultural Resources

Summary of Background and Analysis

Rockingham County continues to be a major part of the agricultural economy both of Virginia and of the United States. It has long been the leading agricultural County in the Commonwealth by a wide margin, and is one of the leading counties in the nation, as well.

Table 2-4 compares the gross farm income among the leading counties in Virginia for the period between 1987 and 1997 (the most recent agricultural census). It shows that Rockingham accounted for 18.7% of the value of agricultural production in the entire Commonwealth. Membership among the top five counties in Virginia has not changed in the past 10 years, although the ranking of third through fifth has shifted. Rockingham and Augusta remain number one and two, respectively, with Rockingham more than three times as productive as second-ranked Augusta. This is of course due to the large amount of intensive poultry production that occurs in the County, which generates more money per acre than most other large-scale agricultural enterprises.

Table 2-5 shows the trend in the total value of all agricultural products sold from the County, reflecting the steady increase during the past decade, and the increasing proportion of the total that is from the poultry industry, from 68% in 1987 to 77% in 1997.

TABLE 2-4
Virginia’s Leading Agricultural Counties

1987 Rank	1997 Rank	County	1997 Gross Receipts	1997 Percent of State Total
1	1	Rockingham	\$ 438,100,000	18.7%
2	2	Augusta	\$ 138,700,000	5.9%
5	3	Page	\$ 115,200,000	4.9%
3	4	Accomack	\$ 84,800,000	3.6%
4	5	Shenandoah	\$ 73,000,000	3.1%
Virginia			\$2,343,000,000	100.0%

Source: U.S. Census of Agriculture, U.S. Dept. of Commerce

TABLE 2-5
Value of Agricultural Products Sold from Rockingham County
(millions of dollars)

Agricultural Product	1987	1992	1997
All livestock and Poultry Products	277.2	371.0	438.1
Poultry Products Alone (% of all products)	189.8 (68%)	274.1 (74%)	335.7 (77%)

Source: U.S. Census of Agriculture; U.S. Dept. of Commerce

Table 2-6 shows a range of key statistics in the local farming economy. From a gross economic standpoint, agriculture continues to be a viable industry in the County. The average net cash return from farming was over \$60,000 in 1997. Note, however, that this is an average, and large scale or highly profitable (or unprofitable) operations may tend to skew the average.

The total number of farms in the County decreased substantially between 1969 and 1987 (13.4%), but this decline subsided somewhat to only 3% in the last ten years of census data, and 16% for the entire period of 1969 to 1997. While this is a substantial decline, the decreasing rate of decline is positive. Sometimes when the number of farms declines, the average farm size increases. However, in Rockingham this is not the case. The average farm size has remained fairly steady for the past three decades, fluctuating only 2% between census counts.

Acres in farms declined along with the number of farms, but the acres of cropland and harvested cropland has continued to increase, indicating efforts to maximize productivity on farms. Total and average expenditures have increased only slightly

more than total and average revenues, indicating continuing but not overwhelming market pressure on farm operators.

The average age of farm operators has also increased slightly during the past thirty years and remained steady between 1987 and 1997. The number of farmers under 35 has declined steadily, and the number of farmers over 65 has increased. Farming as the primary source of income for farm operators has also declined during the past two decades, from 1,074 in 1982 to 1,024 in 1997. These data all indicate a strong, but so far manageable, pressure on the farming economy.

TABLE 2-6
Selected Rockingham County Agricultural Characteristics

Characteristic	1969	1987	1992	1997	%Change	
					'69-'97	'87-'97
Number of Farms	2,187	1,895	1,864	1,834	-16%	-3%
Total Acres in Farms	270,200	242,224	236,074	230,409	-15%	-5%
Acres of Cropland	142,158	144,578	148,539	145,433	2%	1%
Acres in Harvested Cropland	70,350	84,661	85,802	88,370	26%	4%
Farms with sales over \$100,000 (%)	419 (19%)	642 (34%)	683 (37%)	701 (38%)	67%	9%
Farms with sales under \$10,000 (%)	876 (40%)	808 (43%)	752 (40%)	716 (39%)	-18%	-11%
Total Sales (1,000's)	\$148,196*	\$277,168	\$370,998	\$438,103	196%	58%
Total Expenditures (1,000's)	\$124,169*	\$232,481	\$309,299	\$369,864	198%	59%
Principal Occupation is farming	----	1,065	1,043	1,024	----	-4%
Average Age of Farm Operator (years)	51	51	53	53	4%	4%
Average Size of Farm (acres)	124	128	127	126	2%	-2%
Avg. Market Value of products sold	\$67,762*	\$146,263	\$199,033	\$238,879	253%	63%
Average Production Expenses	\$34,675*	\$122,681	\$166,022	\$201,451	481%	64%
Net cash return from ag sales for farm	----	\$38,876	\$58,515	\$60,257	--	55%

Source: U.S. Census of Agriculture; U.S. Dept. of Commerce
*1987 dollars; others in current dollars for the designated year

In addition to the purely statistical factors shown above, there are continuing pressures and concerns regarding agriculture that must be considered when planning the future of the County. These include:

- national and international competition in food production, and the tendency for many agricultural products to become “commodities” that can be produced and transported to local markets cheaply from far away places
- competition for land from rural residential development, which tends to increase the value/cost of farmland, take land out of production permanently, and create land use conflicts between residential and farming neighbors
- competition from other industries and job markets for the labor supply that farmers need to continue operating efficiently

- new, more stringent regulations for managing chemicals and waste from farm operations

Preservation of Agricultural Resources

In recent years, the preservation of farmland has grown in importance. The County's farm community has primarily relied on agricultural and forestal districts to protect agricultural and forestal lands for the production of food and other agricultural and forestal products. Some localities in Virginia have implemented a Purchase of Development Rights (PDR) program. The following describes these two programs.

Agricultural and Forestal Districts (AFD)

The Agricultural and Forestal Districts Act of the Code of Virginia, §15.2-4300, provides "a means for a mutual undertaking by landowners and localities to protect and enhance agricultural and forestal land as a viable segment of the Commonwealth's economy and as an economic and environmental resource of major importance". Rockingham County currently has nine Agricultural and Forestal Districts totaling 26,218 acres. A map of the county's districts appears in the Appendix.

Purchase of Development Rights (PDR)

Programs for Purchasing Development Rights (Conservation Easements) involve public acquisition of conservation easements on open land that will permanently protect it from development, effectively "retiring" the right to develop the property by buying that "right" from the landowner. Priorities are typically farmland but may also include environmentally sensitive areas, recreational lands and other open space resources.

Virginia counties have the legislative authority to enact a PDR program. The City of Virginia Beach pioneered the PDR concept in Virginia, with Albemarle County and Loudoun County subsequently enacting their own version of the concept. Several other Virginia localities are examining PDR. Examples are discussed below.

A PDR program could serve several purposes:

- reinforce the urban growth boundary by preserving undeveloped land at the outer edge of growth areas
- preserve farm and forest land resources through conservation easements
- protect environmental quality by keeping significant amounts of land undeveloped
- create a permanent reserve of land for potential future open space uses

- reduce the total amount of potential dwellings in the rural areas and thus the potential costs associated with providing those dwellings with public services

PDR is a voluntary program whereby a County buys the development rights from farm and forest land in designated areas. “Development Rights” refer to a conservation easement that limits the landowner to only specified rights to the property (access, minerals, agriculture, very low-density development such as one dwelling per 50 or 100 acres, etc.) The underlying remaining fee simple ownership of the land remains in the hands of the landowner, but the number of houses that can be built on that land is greatly reduced or eliminated in return for compensation from the County.

After the development rights are purchased from a property, a permanent conservation easement is placed on the land and held by the County and/or a qualified third party. The land remains in private ownership. Typically, the easement permits continued agricultural or recreational activities but does not provide for public access unless the landowner wishes.

The value or cost of such an easement depends on many factors, but it basically amounts to that portion of the market land value that is due to value that could be gained from developing the land with houses. Therefore, the landowner is essentially being paid for the potential development of his property without having to actually develop it.

Typically, a County would allocate a fixed amount of money annually for purchasing easements and take “bids” or offers from landowners to sell their easements (development rights) to the County. The County would establish criteria for choosing among the bidders, up to the amount of money available annually.

Agricultural Resource Strategies, Policies and Actions

Goal 3. Preserve the Agricultural Industry and Economy. (income, land and jobs - not necessarily type of crops / products)

Strategy 3.1: Retain rural character by continuing agricultural use as the predominant land use.

Policies and Implementation Actions:

- 3.1.1. Strengthen Zoning Regulations:
 - Consider providing incentives for clustering rural lots on new internal roads rather than stripping the existing public roads
 - Identify agriculturally zoned areas for appropriate uses
- 3.1.2. Determine the feasibility of establishing a Purchase of Development Rights program (PDR).

- 3.1.3. Limit rural residential development to 20% of total residential development in the County through changes to development regulations, targeted utility extensions and annual monitoring.
- 3.1.4. Monitor the effectiveness of development regulations in limiting scattered development.
- 3.1.5. Increase awareness of farmers and rural residents on mutual impacts.
- 3.1.6. Foster key improvements, such as bridges, where needed for agriculture (*See transportation strategies*).
- 3.1.7. Promote innovation, expansion and enhancement of agriculture and agricultural support businesses and markets through economic development strategies, including alternative agricultural products and methods and alternative rural economic development (such as agri-tourism, eco-tourism, home-based business and telecommuting).
- 3.1.8. Encourage the formation of private organizations to preserve agricultural and rural character and resources.
- 3.1.9. Encourage the continued formation of Agricultural and Forestal Districts.

Strategy 3.2 Direct growth to appropriate community development areas where public infrastructure can be provided.

Policies and Implementation Actions:

- 3.2.1. Designate areas for extension of existing services for at least 80% of future residential growth; monitor progress annually.
- 3.2.2. Support extensions of public water and sewer in designated growth areas in accord with Comprehensive Plan policies; prohibit extensions or expansions in non-designated areas.
- 3.2.3. Develop a strategic plan for economic development to locate new employment in areas identified for industrial and commercial expansion.
- 3.2.4. Define and implement a long-term phasing plan for expansion of public utilities into designated future community development areas.

4. Economic Resources

Summary of Background and Analysis

Rockingham County's local economy is intertwined with that of the City of Harrisonburg, forming what is in effect a single regional economy. Growth in the area economy in recent years has been generated by several important elements: expansion of the poultry processing industry, growth of James Madison University, and continuing increases in the services sector (including tourism-related activities).

Key factors in the area's continuing population and job growth include the diversification of the employment base; the high quality of life and rural, historic setting; easy access to the interstate highway system; and the proximity to large,

expanding metropolitan markets. During the past decade, employment levels have risen in every sector of the economy except wholesale trade.

The area economy has been generally stable and competitive with its neighbors. While average wages in most industries are somewhat lower than the state as a whole, the unemployment rate is also lower than the state average, and in recent years, it has been substantially better than both state and national averages. See the Appendix for historical economic data.

Employment

In some less intensive agricultural economies, jobs on the farm represent the bulk of agricultural employment, but in the Rockingham-Harrisonburg economy, this is not the case, since the poultry industry creates many local, off-farm manufacturing jobs. This is reflected in the employment data, which show that manufacturing, which includes agriculture-related manufacturing (food and meat products), is the second largest industrial sector in the area, and added the fourth largest number of jobs during the past decade.

It is important to note, however, that despite the growth and strength of the poultry industry, manufacturing was not the fastest growing sector in the area's economy. It slipped from being the largest employment sector in the County to being second to the services sector due to a shift in the County from manufacturing jobs to service sector jobs between 1984 and 1990 and during the 1990's.

The number of jobs in the combined County/City area grew far more rapidly than the number of people. Between 1990 and 1999, the population grew by 11,011 (from 88,189 to an estimated 99,200) for a total increase of 12.5%; whereas jobs grew by 14,500 or 28%. This is a healthy economic trend in that it indicates that the economic base is expanding faster than the population. Job gains have occurred broadly across the area, with both the County and the City experiencing healthy increases in employment in most sectors. The City continued to gain a greater share of employment than the County in proportion to its population growth. This is not necessarily detrimental to the County. It does, however, raise the issue of how the County and City should coordinate economic development efforts so as to maximize cooperation and mutual benefits and minimize destructive competition.

Overall, the characterizations of the two sub-economies remained fairly steady, the City being the trade and services center of the local economy, and the County being the agricultural and manufacturing center. Yet, the current political structure of the two localities as distinct governmental entities encourages them to think independently and competitively in terms of economic development, which does not serve the interests of either jurisdiction. Close cooperation between the two jurisdictions in all planning and economic development matters will help promote a strong and efficient economic development pattern.

The employment forecasts shown in Table 2-7 reflect a general continuation of the trends of the past decade, but at a somewhat slower percentage rate due to the increase in size of the area's economy.

TABLE 2-7
Employment Forecasts by Industry in the Rockingham/Harrisonburg Area

Sector	Employment			% of Total			Change '99-'20	
	1999	2010	2020	1999	2010	2020	#	%
Agricultural Serv., Forestry	730	800	880	1.1%	1.0%	1.0%	150	21%
Mining	150	160	170	0.2%	0.2%	0.2%	20	13%
Construction	5,270	5,890	6,310	8.0%	7.6%	7.3%	1,040	20%
Manufacturing	15,200	17,320	18,430	23.0%	22.3%	21.3%	3,230	21%
Transportation & Utilities	2,090	2,140	2,150	3.2%	2.8%	2.5%	60	3%
Wholesale Trade	2,670	2,970	3,130	4.0%	3.8%	3.6%	460	17%
Retail Trade	11,490	13,470	14,840	17.4%	17.3%	17.1%	3,350	29%
Finance, Insur. & Real Est.	3,500	3,890	4,140	5.3%	5.0%	4.8%	640	18%
Services	15,750	19,440	22,700	23.9%	25.0%	26.2%	6,950	44%
Government	9,140	11,710	13,940	13.9%	15.1%	16.1%	4,800	53%
Total	65,990	77,790	86,690				20,700	31%

Source: Woods & Poole Economics, Inc.; Herd Planning & Design, Ltd.

The labor force in the County grew by slightly less than 23% during the past decade, while jobs grew by slightly more than 24%, the difference mainly accounted for by the lower rate of unemployment. The relatively higher increase in jobs compared to population probably reflects a continuation of the increase in labor force participation among women and young people. This trend cannot continue forever, and as it slows, future job growth will more closely match general population growth. The Rockingham/Harrisonburg area has consistently maintained stronger employment levels throughout the past decade than either the state as a whole, or the nation.

Income

Average wages and income vary among industrial sectors. Higher average wages tend to produce greater consumer strength and overall economic vitality in a community. Generally, wages in the manufacturing sector are higher than those in the services sector, the two largest employment sectors in the Rockingham/Harrisonburg economy. Therefore, growth in manufacturing will tend to have a more powerful positive effect on the local economy than the same job growth in the services sector. With some exceptions, local wages are somewhat lower in the County than the statewide average, and wages in the City tend to be higher than those in the County. Note, however, that these data reflect wages paid to workers at the place of employment, not the income of households where they reside.

A broader measure of the economic well-being of the community is the median adjusted gross income (AGI), which includes the amounts reported on all income tax returns filed by residents of a jurisdiction. Table 2-8 shows the AGI for the local area as well as selected neighboring jurisdictions, over the past decade and more. This data also indicates that the local economic level is somewhat lower than the rest of the state, but compares favorably with competing jurisdictions in the Valley.

TABLE 2-8
Adjusted Gross Income for Selected Jurisdictions*

Jurisdiction	1984	1989	1995	1998
Rockingham County	\$14,848	\$19,168	\$35,249	\$41,215
Harrisonburg	\$13,824	\$17,379	\$37,358	\$42,913
Augusta County	\$16,351	\$20,006	\$37,513	\$43,190
Staunton	\$14,583	\$17,568	\$34,117	\$38,527
Waynesboro	\$14,810	\$17,824	\$32,932	\$38,826
Frederick County	\$15,748	\$21,212	\$40,829	\$47,908
Winchester	\$14,153	\$17,744	\$35,412	\$41,613
Virginia	--	--	\$43,869	\$50,849

Source: Weldon Cooper Center for Public Service
*for married couples

Tourism

The tourism industry consists of portions of several other industrial sectors (services, trade, etc) and thus does not appear as a distinct sector category in the employment data. However, it is of growing importance to the local, regional and state economy. Available data show that the tourist economy in the Rockingham and Harrisonburg area has increased steadily during the past decade, as it did in Virginia as a whole. Tourism in the Rockingham/Harrisonburg area has grown even faster than that for the state as a whole. Traveler spending increased at nearly twice the state-wide rate and travel-related employment increased at more than twice the rate of the overall employment in the area, and faster than in Virginia as a whole. One of the concerns of tourism is that, in general, it is not a high-wage sector, since most of the jobs are in the trade and services sectors. However, it is a very efficient base industry which imports dollars from outside the area by bringing in visitors who spend money locally but then leave the area, and do not require extensive levels of public services. It is also an industry that relies in part on resources that cannot be created, such as scenic beauty, environmental quality and historic resources. This gives an area like Rockingham County a natural advantage in competing for tourist dollars.

Fiscal Issues

The fiscal posture of the County is strong, with a relatively low tax burden on residents and businesses. If the County continues to add jobs in the agriculture, trade and service sectors, as forecast, income levels will also remain fairly stable, since those sectors have relatively lower wage levels than the manufacturing sector. Thus, the County may face increasing fiscal pressures as it supports greater population and public service expenditures while income levels remain relatively stable. However, if income levels keep pace with service demands, the fiscal posture of the County will remain strong. A virtuous cycle can occur in which job and income growth create higher incomes which produce greater demands for public and other services, which in turn create a higher quality of life that attracts higher paying jobs, and so on.

Localities in Virginia are forced by the State to rely mainly on the real property tax for local government revenues, which can cause an impact on residents that is disproportionate to their actual wealth. This problem is often particularly troublesome in areas that are experiencing rapid residential growth from in-migration. Population growth tends to increase the demand for public services such as schools and parks, while it tends to increase land values, which can combine to produce a significant tax impact on long-term residents who have held real estate investments over a long period. The dilemma is that real property appreciation makes the property owner wealthier but it also tends to increase the tax burden.

Counties must rely more heavily than do cities on the real property tax which is paid by all sectors of the community – residential, industrial, commercial and agricultural – at a constant rate. Cities are able to raise more of their tax revenue from consumption-based sources. Thus, the local tax burden in the counties falls disproportionately on the property owner. This imbalance may tend to discourage logical land use planning in that the County will tend to want to develop its business and retail tax base in spite of the logic of locating such uses in a central regional location such as the City. Despite the current moratorium on city annexations, this tension will remain as long as the County has such serious constraints on its taxing choices.

Public service standards mandated to local governments by the state and federal governments is an increasingly important fiscal issue. If such trends continue, the County will need to make special efforts to increase overall resident income and wealth through continued economic development of high-wage sectors, enhancement of existing sources of local tax revenue and through additional taxing authority from the state.

Public expenditures are another fiscal issue. There is a natural tension between the desire of citizens and businesses for better public services and facilities - especially schools - and the simultaneous desire for a low tax burden. As the overall economic well-being of a community improves, it tends to spend more on local government services, because it can afford to. This creates somewhat of a paradox for local officials: as the community's income rises and the opportunity for lowering the

relative tax burden on citizens emerges, those same citizens demand higher levels of service.

Economic Resource Strategies, Policies and Actions

Goal 4: Achieve a Diversity of Employment in industries that are compatible with the County’s desire for environmental protection, high and stable employment levels, increasing incomes, and a strong agricultural sector.

Strategy 4.1 Increase the diversity and stability of the local economy.

Policies and Implementation Actions:

- 4.1.1. Develop a list of employment sectors that would best meet County needs.
- 4.1.2. Develop jobs with a wide range of skills.
- 4.1.3. Offer opportunities for the labor force to diversify skills.
- 4.1.4. Encourage the clustering of businesses.
- 4.1.5. Retain and expand the existing industries and businesses now operating in the County.
- 4.1.6. Focus on maintaining the high quality of life in the County which serves as a major attraction for new employers and employees. Economic development efforts should include the conservation of the scenic rural character, the provision of affordable and high quality housing and public services, and the maintenance of moderate local tax burdens.
- 4.1.7. Promote the growth of advanced service sector businesses as well as manufacturing businesses, in recognition of the trends in technology and markets, the opportunities afforded by the local universities, and the potential for high-wage jobs in many service sector industries.

Strategy 4.2 Protect agriculture. (Refer to Strategies under Goal #3: Preserve the Agricultural Industry and Economy.)

Goal 5. Achieve a Strong and Compatible Tourist Industry.

Strategy 5.1 Capitalize on the economic assets of natural beauty and historic resources.

Policies and Implementation Actions:

- 5.1.1. Identify and assess the value of historical, recreational and natural environmental assets to the tourism economy.
- 5.1.2. Implement land use patterns and taxing policies that promote agricultural uses.

- 5.1.3. Determine measures to protect views.
- 5.1.4. Explore ways to direct visitors of the National Park to other attractions in the County.
- 5.1.5. Work with area tourist attractions, such as Massanutten Resort, on tourism promotion.
- 5.1.6. Promote the efforts of organizations, such as the Harrisonburg-Rockingham Convention and Visitors Bureau and the Shenandoah Valley Partnership, by providing assistance with planning, funding, and coordination of its program initiatives. Coordinate local efforts with the Virginia Economic Development Partnership.
- 5.1.7. Pursue convenient and accessible locations for the visitor center(s) and administrative offices of the Harrisonburg-Rockingham Convention & Visitors Bureau.

5. Land Use and Urban Design

Summary of Background and Analysis

Overall Land Use Pattern and Recent Trends

Several key features characterize the overall pattern of land use in Rockingham County:

- Harrisonburg provides a strong central focal point for the Rockingham - Harrisonburg community; the latest Census showed that, in 2000, the City had 40,468 people or 37 % of the total population in the two jurisdictions and is growing at a faster pace than the County – a 32% increase in the City’s population during the last decade compared to 18% for the County.
- As of 2000, 14,888 people lived within the seven incorporated Towns, which is 22 percent of the County’s total population, which has increased somewhat during the past decade. This concentration reflects the traditional settlement pattern of an agricultural landscape dotted with towns, villages and hamlets.
- Much of the non-residential development is located in and around the existing incorporated areas – the City and the seven Towns.
- Most of the County’s residential development is located either in and around the existing incorporated areas, or in urban residential subdivisions in the County (those served by public water and sewer), although approximately one half of the County’s new residential development is occurring in small, rural subdivisions and on scattered residential lots.

Scattered rural residential development is a major issue for the County, as expressed by many citizens at the community input meetings and confirmed by the Citizen

Advisory Committee. While the County's overall development pattern remains relatively compact, due in part to the County's large land area and moderate growth rate, the pattern of development is beginning to shift from a traditional nodal pattern in which non-farm residences are built in and around rural centers (or villages) and towns, to a more dispersed pattern in which half of the new dwellings are created through minor subdivisions on farms. This newer pattern is a product of the many forces that are now encouraging sprawl in the Valley and elsewhere in the nation (such as wide ownership, use and mobility of motor vehicles, desire for a rural residential lifestyle, telecommunications technology, inexpensive fuel, etc.).

While there are some benefits to a scattered rural residential development pattern such as increasing rural land values, there are also potential detriments, including threats to groundwater quality, pressures on agricultural land uses, pressures (and public costs) to provide services to far-flung residents, visual impacts on the landscape, and threats to long term economic development efforts.

During the past decade, the County experienced a moderately strong rate of housing development, as well as job growth. The total number of housing units increased by 4,714 (from 22,614 in 1990 to 27,328 in 2000), thereby converting an estimated 13,000 acres from agricultural or other undeveloped land to residential uses. By the end of 2004, another 2,188 residential units were added, resulting in 29,228 units.

Most new residential development in the County during the past decade has been conventional "stick-built" housing. Between 1993 and 1999, 65% of new housing was conventional, while 35% was manufactured housing ("mobile homes"). Most new residential development in Rockingham County continues to occur mainly in small-scale projects of only a few houses at a time, rather than very large projects by companies serving a national market. From 1993 through 1997, 50% of all new housing units were provided with both public water and sewer service, a little more than 1% with either public water or public sewer and the remaining 49% with private well and septic.

Data from the County Commissioner of the Revenue's property parcel files provides a general statistical picture of land use patterns in the County. Table 2-9 shows the amount of land in each of the major land use categories, for the County as a whole. This data on the distribution of land uses are shown graphically on the following page. Additional land use data are in the Appendix.

TABLE 2-9
Overall Land Use in Rockingham County
2000

Type of Land Use	Acres¹	Percent of Total
Agriculture	248,000	46%
Forest	50,000	9%
Commercial	4,000	0.7%
Industrial	1,400	0.3%
Single Family Residential	44,000	8.2%
Multi-family or Duplex Residential	175	<0.1%
Mobile Home Park	1,100	0.2%
Government		
Federal	178,000	33%
State	500	0.1%
Local	1,700	0.3%
Regional	130	<0.1%
Charitable/Religious/Education	2,300	0.4%
Other	7,000	1.8%
Total	538,000	100%

Sources: Rockingham County Department of Community Development; Rockingham County Commissioner of the Revenue; Herd Planning & Design, Ltd.

¹ *All figures rounded*

Insert Fig. 2-16. Existing Land Use Map

Major Factors Influencing Land Use and Development

Population and Job Growth. The most fundamental pressure on land use change is the increase in the region's population caused by a combination of natural increases and in-migration of residents to the County. The expansion of the number of jobs in the Harrisonburg-Rockingham area has been a major cause of in-migration. These increases bring both challenges as well as benefits to the existing population.

Regional Location. Interstate I-81, the relationship to other agricultural and manufacturing economies in the Shenandoah Valley, the proximity to Harrisonburg and James Madison University and other universities and colleges, and regional assets such as the National Park, National Forest, and the Washington, D.C. metro area, all influence growth in the County.

Transportation Access and Mobility. Another major factor in land use patterns is the increased reliance on motor vehicles for both personal and business uses. More people are able to afford owning and using cars today than in past decades, the road system continues to improve and the economy relies increasingly on truck transport to ship goods. All of these contribute to the sprawling pattern of land use. Sprawl is defined in the Glossary.

Public Utilities and Soil Suitability. Public water and sewer service can attract and support development because it allows higher densities than private well and septic systems, thus increasing the value of a property or the financial yield of a development project. Providing sewer and water service is one way the County can guide future development to appropriate areas; it also tends to support a more compact pattern of development which is usually easier to provide with other public services such as school bus service and public safety protection. Siting septic systems is dependent on suitable soils. The use of septic systems is dependent upon finding suitable soils to accept wastewater and requires significantly larger lot sizes in the residential zoning districts.

Zoning and Subdivision Regulations. Zoning and subdivision regulations limit the uses, densities and subdivision of land, and also influence development patterns. Zoning regulations are not inherent factors and they can change over the course of time as government leaders are influenced by utility and soil constraints, growth pressures, changing economic and market forces, road capacity, etc.

Market Forces and Trends. The underlying market demand for housing in the region is influenced by a number of other related factors including mortgage interest rates and life style trends, especially the increasing popularity of rural life styles, which is dependent somewhat on motor vehicle mobility and economical fuel costs. The local market can also be indirectly influenced by market conditions and quality of life in neighboring jurisdictions and regions.

Forecast of Residential Land Demand

Following are two land demand scenarios. Table 2-10 estimates the amount of land needed to accommodate expected residential growth to support future population increases, if the recent trend of roughly 50% rural and 50% urban development continues. Table 2-11 estimates the land demand if a one-third rural and two-thirds urban development pattern were pursued. Neither ratio is supported by this Plan. To accomplish the 20% rural and 80% urban development pattern set forth in this Plan, the Plan goals, strategies, and actions must be implemented.

**TABLE 2-10
Trend-Based Residential Land Demand
(Assuming 1/2 Rural Development)**

Population Added

2000-2005	5,775
2005-2010	6,267
2010-2015	6,801
2015-2020	7,382
Total Added 2000-2020	26,225

People per Household	2.57
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Households Added

2000-2005	2,247
2005-2010	2,439
2010-2015	2,646
2015-2020	2,872
Total Added 2000-2020	10,204

Vacancy Rate	5%
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Housing Units Added

2000-2005	2,359
2005-2010	2,560
2010-2015	2,779
2015-2020	3,016
Total Added 2000-2020	10,714

Units per Acre - Rural	0.20 (1 unit/5 ac.)
Units per Acre – Urban	4.0

**TABLE 2-10 (Continued)
Trend-Based Residential Land Demand
(Assuming 1/2 Rural Development)**

Land Demand (Acres)	Rural (1/2) @5 ac/du	Rural (1/2) @1 ac/du	Urban (1/2)
2000-2005	5,895	1,180	295
2005-2010	6,400	1,280	320
2010-2015	6,945	1,389	347
2015-2020	7,540	1,508	377
Subtotal 2000-2020	26,780	5,357	1,339
Total 2000-2020	28,119 acres	6,696 acres	

Sources: U.S. Census; 1999 Rockingham County Comprehensive Land Study; HPD, Ltd.

Notes:

- *Trend population forecast; all unit types combined to determine average persons per household and vacancy rates; assumes trend of decreasing household size with average for the period of 2.57 persons*
- *Continue general trend of about 1/2 of new dwellings locating in rural areas (A1, A2 & RR1 zones on private wells and septic systems) and 1/2 in urban areas (R-zones on public water and sewer)*

**TABLE 2-11
Alternative Residential Land Demand
for Rockingham County 2000 - 2020
(Assuming 2/3 Urban Development)**

Total Population Added: 26,225

Total Households Added: 10,204

Housing Units Added: 10,714

Land Demand (Acres)	Rural (1/3) @5 ac/du	Rural (1/3) @1 ac/du	Urban (2/3)
2000-2005	3,539	708	395
2005-2010	3,841	768	429
2010-2015	4,168	834	465
2015-2020	4,524	905	505
Subtotal 2000-2020	16,072	3,214	1,795
Total 2000-2020	17,866 acres	5,009 acres	

Sources: U.S. Census; 1999 Rockingham County Comprehensive Land Study; Herd Planning & Design, Ltd.

Notes:

- *Trend population forecast; All unit types combined to determine average persons per household and vacancy rates; Assumes trend of decreasing household size with average for the period of 2.57 persons*
- *Alternative pattern of 1/3 of new dwellings locating in rural areas (A1, A2, and RR1 zones on private wells and septic systems) and 2/3 in urban areas (R-zones on public water and sewer)*

TABLE 2-12
Developed and Undeveloped Residential Land by Zoning District
(Through 1996)

Zoning District⁴	Total Land Zoned (Acres)	Developed Land (Acres)	Undeveloped Land (Acres)	Development Capacity (dwellings)¹ (assumes average of 5 acres per unit in A-1)	Development Capacity (dwellings)¹ (assumes average of 1 acre per unit in A-1)
Rural Districts					
A1	90,810	2,525 ²	88,285 (97%)	17,657	88,285
A2	231,133	13,425 ²	217,708 (94%)	10,885	10,885
RR1	6,974	3,543	3,431	686	686
Subtotal Rural	328,917	19,493	309,424	29,228	99,856
Urban Districts					
R1	2,053	1,255	798	1,596	1,596
R2	2,369	1,528	841	1,682	1,682
R3	855	374	481	962	962
R4	5,051	283	4,768	14,304	14,304
R5	485	235	250	750	750
PG	58	49	9	36	36
MH1	92	--	--		
RS1	1,510	1,201	309	618	618
Subtotal Urban	12,473	4,925	7,456	19,948	19,948
Total Residential Capacity³	341,390 (acres)	24,418 (acres)	316,880 (acres)	49,176 (units)	119,804 (units)

Sources: Rockingham County Comprehensive Land Study, 1999; Herd Planning & Design, Ltd.; Town Officials.

¹ Assumes potential development densities in accord with past trends, zoning regulations and estimated development constraints; also assumes unlimited time horizon for eventual development:

A1 - one d.u. per 1 acre or 5 acres	R3 - one d.u. per 0.5 acres
A2 - one d.u. per 20 acres	R4 - one d.u. per 0.33 acres
RR1 - one d.u. per 5 acres	R5 - one d.u. per 0.33 acres
R1 - one d.u. per 0.5 acres	PG - one d.u. per 0.25 acres
R2 - one d.u. per 0.5 acres	RS1 - one d.u. per 0.5 acres

² Acreage in parcels of less than six acres and in residential use

³ Totals exclude Town data and the 179,852 acres within the National Park, National Forest, and State Forest

⁴ Refer to the Appendix for a general description of the various zoning districts.

Forecast of Commercial and Industrial Land Demand

Forecasts of the amount of land needed for future commercial and industrial land uses are based upon the employment forecasts shown previously in this Plan. The number of future jobs added to each employment sector is used to calculate square feet of buildings which are in turn used to calculate the number of additional acres needed to support that amount of construction. The total land demand for all commercial and industrial uses (442 acres) shown in Table 2-13 can then be compared to the amount of land currently available in terms of zoning and utility capacity (1,375 acres), indicating that the County has sufficient amounts of land zoned for commercial and industrial uses. This does not mean that all of the zoning capacity is in the most appropriate location.