

Chapter 3:

Land Use

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Design and Maps updated June 2016

1.0 Introduction

This chapter describes the history of land use regulation in Shenandoah County, depicts ways the land area of the County is utilized, and presents forward-looking policies to guide future land use activities within the unincorporated County boundary.

2.0 History of Land Use in Shenandoah County

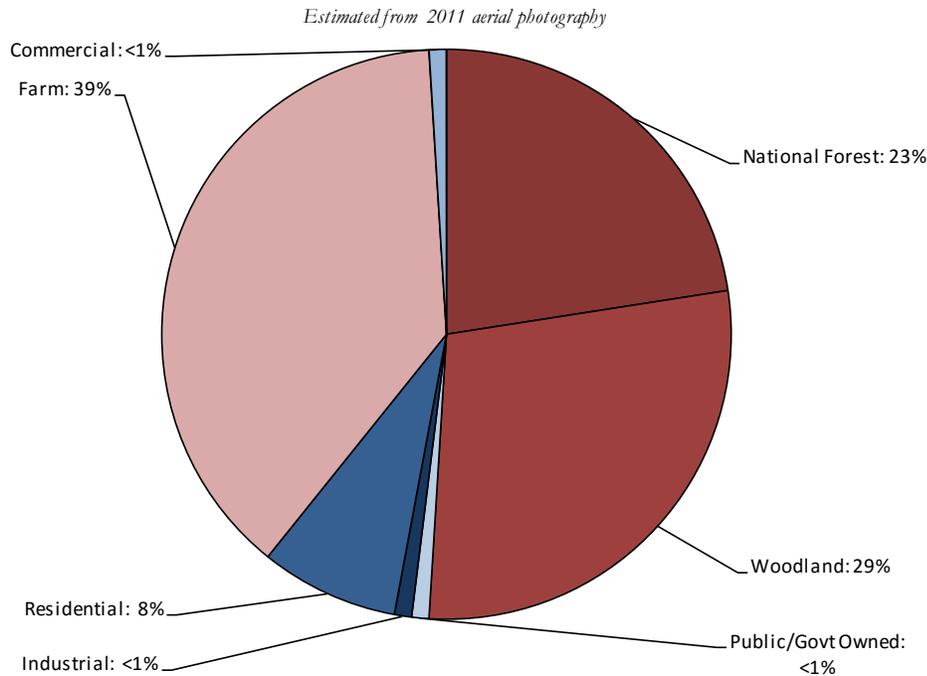
From its earliest settlement by European settlers during the 1730s, Shenandoah County has been an extremely productive agricultural area. The strong tradition of agriculture is a key element of the Shenandoah County economy, landscape and culture and has always been widely and enthusiastically embraced by past and present generations of citizens. The Vision statement in the Comprehensive Plan, confirmed many times in recent years, states that “In the year 2025 Shenandoah County will still be a primarily rural community.”

Before the 20th Century, landowners outside the towns of the county had few choices other than agriculture for productive use of their property. As a result, there was little need for local government to intervene to ensure the continued survival of the rural character of the county. During the 20th Century, as transportation systems improved and employment opportunities became more diverse, changes in land use patterns shifted away from open space. Subdivision of large, rural parcels for homes and other non-farm purposes became feasible and the rural character of the county was jeopardized. During the last several decades, a proliferation of small lots in the rural districts has occurred. Increasing numbers of residential units in the agricultural area and the creation of many parcels too small for agriculture prompted local government action to preserve Shenandoah County’s rural character.

Local government management of land use through subdivision and zoning ordinances has been an option in Virginia since the 1940’s. In the 1950’s, the Division of State Planning and Community Affairs began providing technical assistance to encourage local governments to establish Planning Commissions, develop local plans, and implement the plans through land use ordinances. Towns are responsible for land use within their corporate limits, and counties are responsible for the unincorporated areas.

Actions of the General Assembly in the early 1970’s contributed to increases in the level of planning by localities. The problems encountered in Northern Virginia and the Tidewater area, plus the spread of vacation home development in the Valley and other rural areas, indicated the need for local regulation. Requirements for

Figure 3-A: Proportion of All County Land Uses

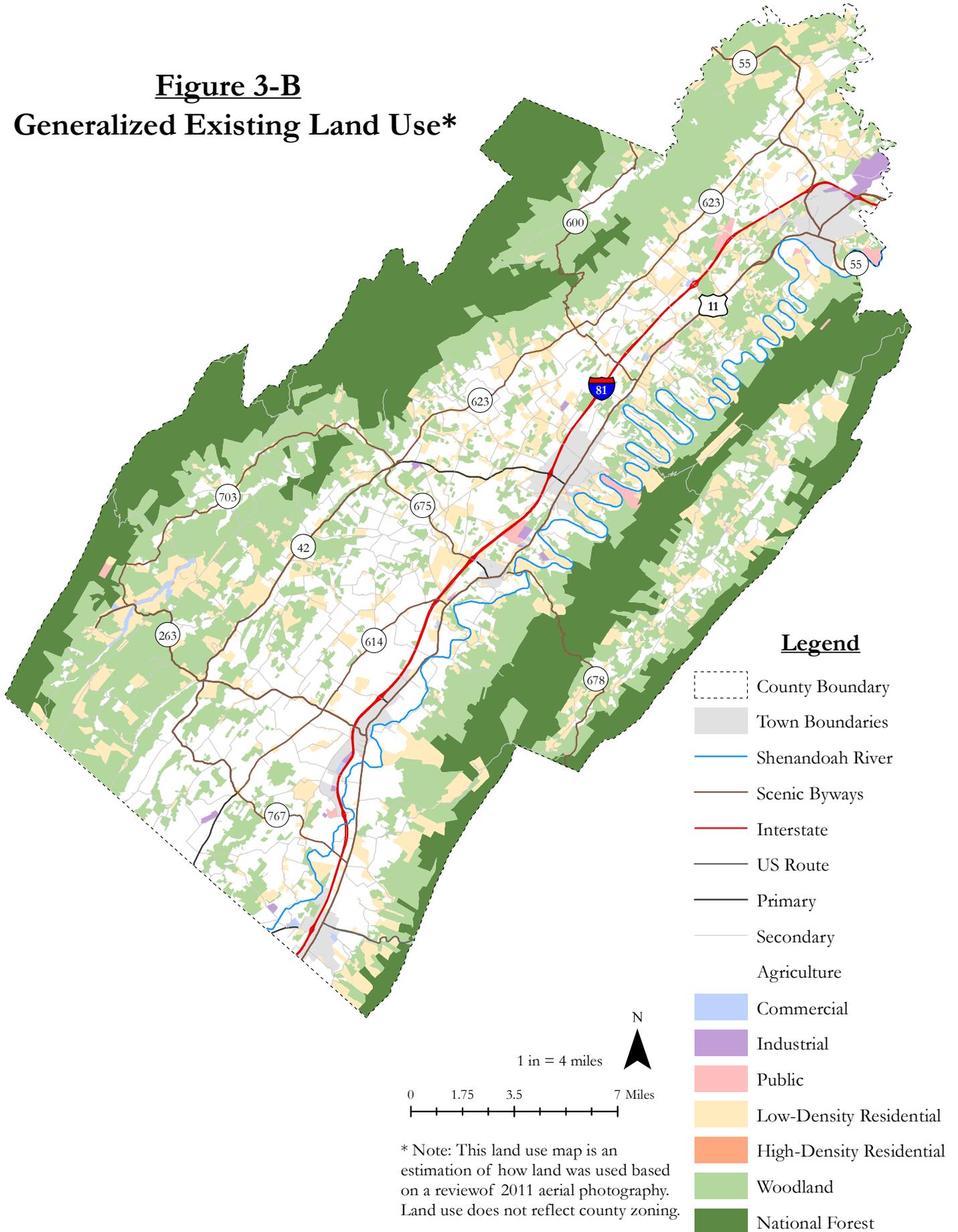


establishing local planning commissions by 1976, subdivision ordinances by 1977, and comprehensive plans by 1980 were included in the Code of Virginia. Zoning, however, is still a local option. The basic premise of zoning is to avoid land use patterns that cause activities on one property to inherently and negatively affect neighboring properties. Writing down the rules for land use is a necessary fact of modern life. Since the adoption of the 1973 Comprehensive Plan by the county, each of the county's six towns have adopted their own plans, and corresponding zoning ordinances to implement them. All towns also have subdivision ordinances.

Shenandoah County first established a planning commission in 1971, adopting its first subdivision ordinance in 1972. The Shenandoah County Comprehensive Plan 1990 was prepared with the Planning Commission by planners from the Virginia Division of State Planning and Community Affairs and adopted in 1973. This included a future land use map and recommendation for a zoning ordinance to implement it.

After the first plan adoption, a zoning ordinance was developed by the same state planners and presented for local adoption in 1975. A large crowd in a meeting at Woodstock's Central High School convinced the then Board of Supervisors that the citizens were not ready for a zoning ordinance to implement the County Plan. In 1976, the Planning Commission began working with staff from the Lord Fairfax Planning District Commission to develop a more appropriate zoning ordinance. In 1978, after much discussion and debate, Shenandoah County enacted its first set of land use (zoning) regulations. These regulations provided for basic zoning district types and created some restrictions on residential development in rural areas. In 2005, the frequency of allowable subdivision of parcels in A-1 (agriculture) and C-1 (conservation) zoning districts was set at one subdivision per three year period.

Figure 3-B
Generalized Existing Land Use*



During the period from 2000 to about 2006, unprecedented residential growth occurred throughout the County, including development in the A-1 and C-1 zoning districts. Investigation of the impact of this residential development revealed that the existing land use and subdivision ordinances of Shenandoah County did not support the Vision statement in the Comprehensive Plan. In particular, over time, those regulations would facilitate the breaking up of large, rural parcels into thousands of small parcels which would not support sustained agriculture. The projected result of such partitioning would be the decline of agriculture and loss of the rural character of Shenandoah County in violation of the Vision expressed in the Comprehensive Plan. A further concern that developed during this period of rapid residential development was the cost of providing residential services (e.g. education and emergency services) in rural portions of the county.

3.0 The Community Planning Project

In 2008, Shenandoah County convened an effort, known as the Community Planning Project (CPP), to assess what policy changes, if any, were needed to achieve the long term goals reflected in the Vision statement of the Comprehensive Plan. The first step in the CPP process was to verify, through public participation, the Vision expressed in the Comprehensive Plan approved in 2005. Those guiding principles (shown at left) were overwhelmingly supported and confirmed by the many residents that participated.

In 2010, the CPP Steering Committee issued its final report with recommendations to achieve the Comprehensive Plan goals. Shenandoah County then passed a series of modifications to zoning and subdivision regulations (see top right, next page) to encourage the retention of large agricultural lots and discourage the creation of numerous small parcels in the A-1 and C-1 zoning districts.

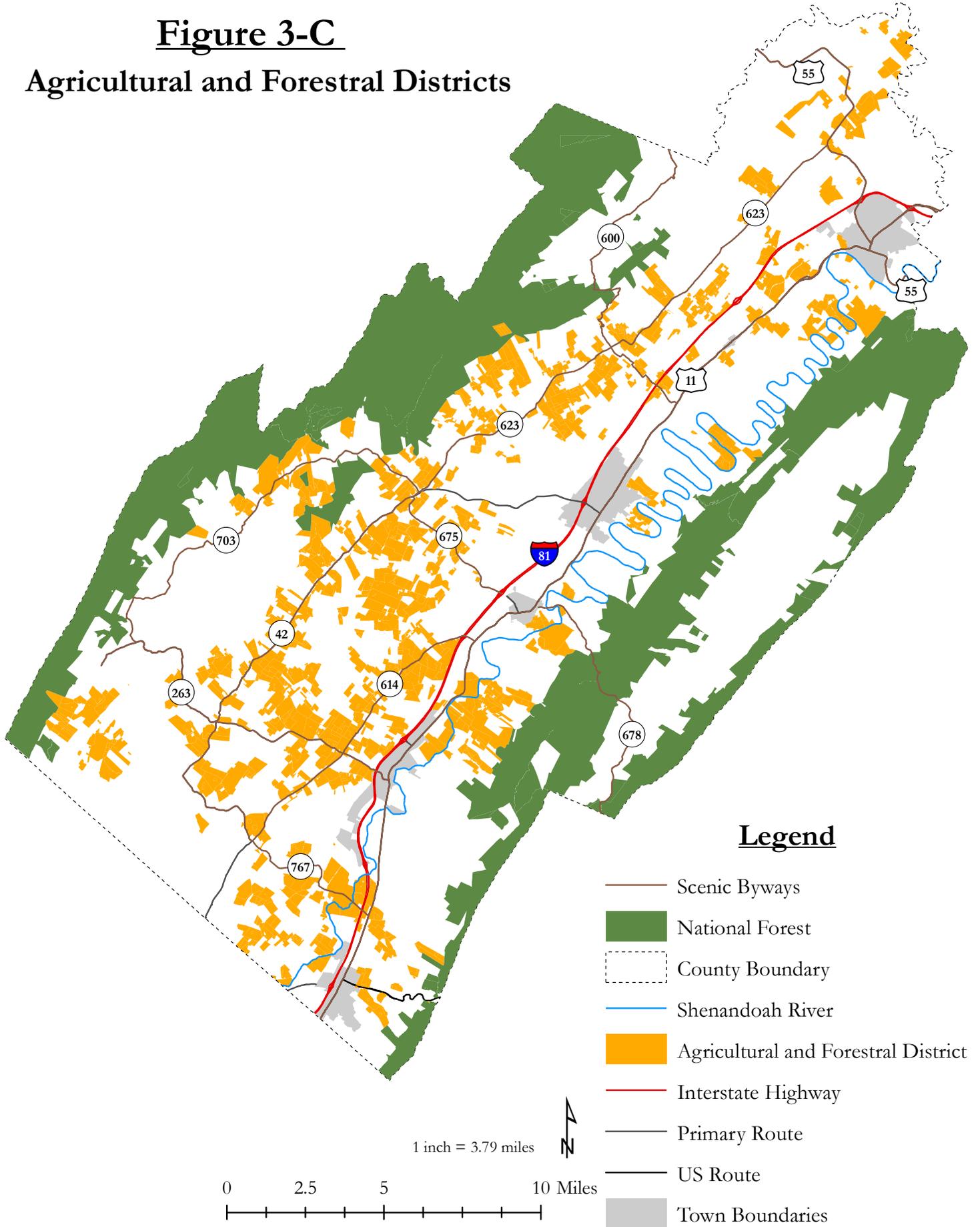
4.0 Land Use Patterns

The general land use pattern of the County has not changed greatly over the past 40 years; Shenandoah is still largely rural, with the predominant land uses being farm and woodland. (See Figure 3-A for percentages of each type of land use, and see Figure 3-B for a map of land use distribution throughout the County.) Farm land includes crop and pasture land, orchards, animal feeding operations, and small tracts of timber. According to the 2012 Census of Agriculture, there were 980 farms in Shenandoah County comprising 133,519 acres.

4.1 Agricultural & Forestal Districts

Shenandoah County has 21 Agricultural and Forestal Districts (AFDs) encompassing over 46,000 acres (see Figure 3-C). These districts are rural zones dedicated to the production of agricultural products and timber and the maintenance of open space land as an important economic and environmental resource. The AFDs were established according to state guidelines with the

Figure 3-C
Agricultural and Forestral Districts



approval of the Board of Supervisors. AFDs constitute a voluntary agreement between landowners and the county that no new, non-agricultural uses will take place in the district for a period of ten years. Districts provide much stronger protection for farmers and farmland than does traditional zoning.

Agricultural and Forestal Districts provide the following benefits for landowners:

- eligibility for land use taxation;
- certainty that agriculture will be maintained in the area;
- protection from nuisance ordinances that would limit customary farming practices such as manure spreading;
- assurance that the district will be taken into account in local planning decisions such as rezonings; and
- protection, in many cases, from government acquisition of land.

From the county's perspective, AFDs serve the public good by maintaining the rural character of the community and protecting productive agricultural and forest lands.

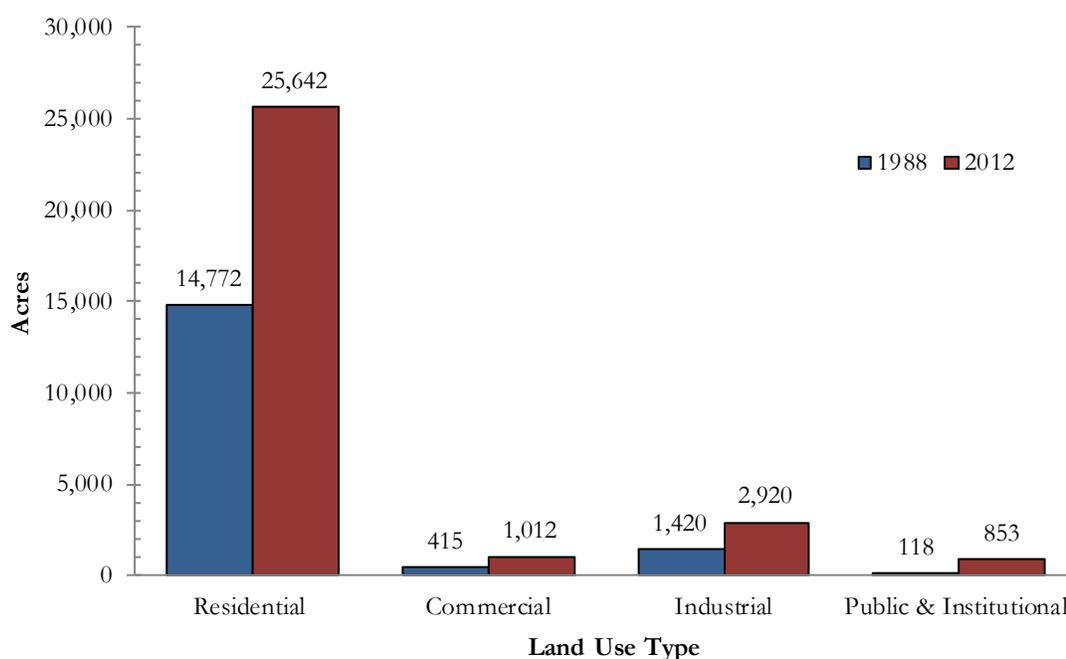
4.2 Forested Lands

Roughly 23% of the unincorporated County can be classified Woodland. The George Washington – Jefferson National Forest contains approximately 78,250 acres of land in Shenandoah County, located along both the western and eastern edges of the County. It represents almost one-fourth of the entire land area of the County that will basically be preserved in its natural state and as managed timber land, thereby contributing to the County's air and water quality. Over half of the forested land in Shenandoah County is privately owned. These woodlands add to the economic vitality of the County, its natural beauty, and to the quality of life for its residents. The County's woodlands are used for recreation, watershed protection, wildlife management and for a variety of forest products. Over the past several decades a number of these privately held forest tracts have been subdivided for development, thereby creating a very fragmented forest resource. Having ownership of this forest land divided among multiple owners creates many challenges for resource managers as they attempt to assist landowners with managing the land for the more traditional uses such as forest harvesting and wildlife management.

4.3 Developed Land Uses

While the majority of land in the county is open space, the major types of developed uses—residential, commercial, and industrial—have increased considerably over the last several decades (see Figure 3-D). Land committed to residential development accounts for an estimated eight percent of the unincorporated area of the County. This represents a marked increase from the 1988 figure of less than five percent, and indicates a shift to larger lot sizes and increased interest in subdividing rural land for residential use.

Industrial and commercial land uses in the unincorporated areas more than doubled from 1988 to 2012, despite annexations of developed land by the towns over that period. Growth and development has taken place in two distinctive patterns over the 14 year period. Where public facilities were

Figure 3-D: Changes in Developed Land 1988-2012**Figure 3-E: Population and Land Area 1980-2010**

Location	'90 Pop	'00 Pop	'10 Pop	% Change '90-'10	Land Square
Rural County	20,287	21,751	23,806	17	492.89
Basye / Bryce Mtn	300	986	1,253	318	2.16
Edinburg	860	813	1,041	21	0.76
Mt Jackson	1,583	1,664	1,994	26	2.77
New Market	1,435	1,637	2,146	50	2.03
Strasburg	3,762	4,017	6,398	70	3.57
Toms Brook	227	255	258	14	0.13
Woodstock	3,182	3,952	5,097	60	3.81

available, there was concentrated growth in and around the towns and the Bryce Mountain service area. Due to the availability of water and sewer, it was possible to construct several types of housing, including townhouses and apartments, as well as commercial and industrial facilities.

Outside of those areas, the growth has been primarily residential on spacious residential lots with individual on-site water and septic systems, and that growth was scattered throughout the County along rural secondary roads. This dispersed development, combined with topographic characteristics that isolate certain areas like Fort Valley and Cedar Creek, makes it impractical to economically serve remote neighborhoods with public water and sewer facilities, and it also impacts the County's natural resources, the secondary road network, and the ability to provide other community services.

The six incorporated towns in the County are located in a linear pattern

running northeast and southwest along Old Valley Pike (U.S. Route 11) from south of Cedar Creek, the Frederick County line, to the Rockingham County line at the southern end of New Market.

Table 3-A shows the population trends and approximate land areas for each of the towns and the Basye area. The population in the Basye area, a resort community, fluctuates seasonally; at times it is several times the permanent year-round population and may approach 3,000. Public facilities such as water, sewer, and roads must have the capacity to serve the maximum number of residents and commercial establishments, even though this capacity may only be needed for one or two periods in the year.

5.0 Development Trends

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5.1 Population and Housing Units

Table 3-B examines the growth which took place in Shenandoah County between 1980 and 2010. Overall, a third of the population growth and just over half of the increase in housing units took place outside of the towns in the rural portions of the County during this time period. As of 2010, 57% of the county population and 62% of housing units were in the rural areas. However, the trend since 2000 shows greater population and housing growth in the towns. Several factors have affected the type and amount of growth that has occurred in the county. Historically, there has been a strong second home/retirement home market in Shenandoah County over the last several decades. Also, the proximity to rapid growth and housing markets of Northern Virginia has contributed to recent growth in the northern part of the County in and near Strasburg, and to some extent in Woodstock.

The rate of housing growth increased rapidly from 2000 to 2006, but has since fallen dramatically. While the number of housing units constructed between 1980 and 2010 was slightly higher in the rural areas, the population growth was greater in the towns over the same period. Figures 3-E to 3-G display these growth trends.

5.2 Recent Development

In accordance with the Annexation Agreement between the County and the Town of Strasburg that was adopted in 1984, the town has been able to annex, by ordinance, developing areas that it serves with public utilities. Strasburg has annexed land along the Route 11 corridor between the downtown area and the I-81 interchange (including the industrial park, a shopping center, apartment and condominium complexes, planned residential development areas and many commercial areas).

Woodstock has been enlarged through a series of boundary adjustment agreements with the County as owners of undeveloped parcels adjacent to the

Figure 3-G Population Growth

Source: US Census Bureau

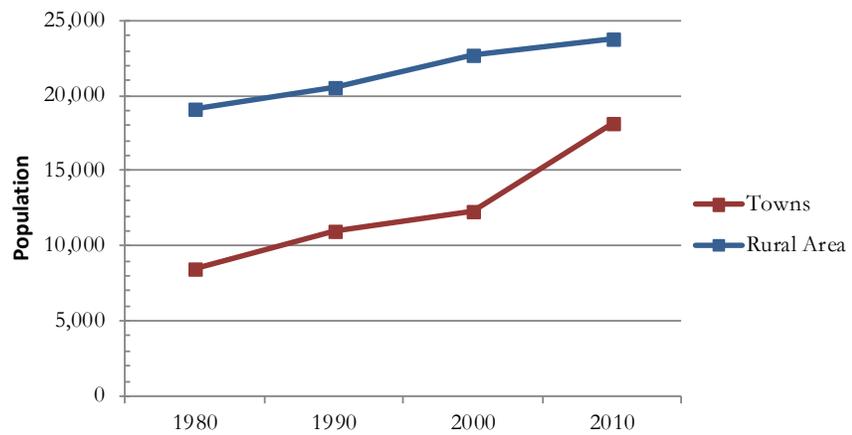


Figure 3-H: Housing Growth 1990-2010

Source: US Census Bureau

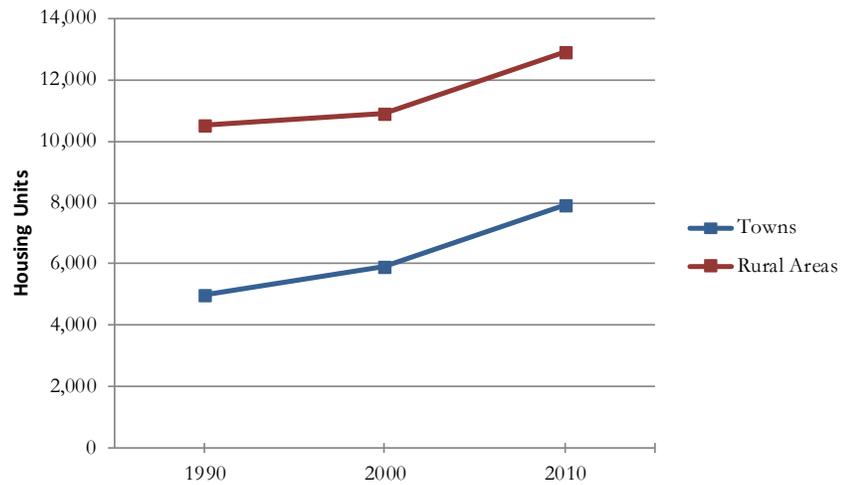
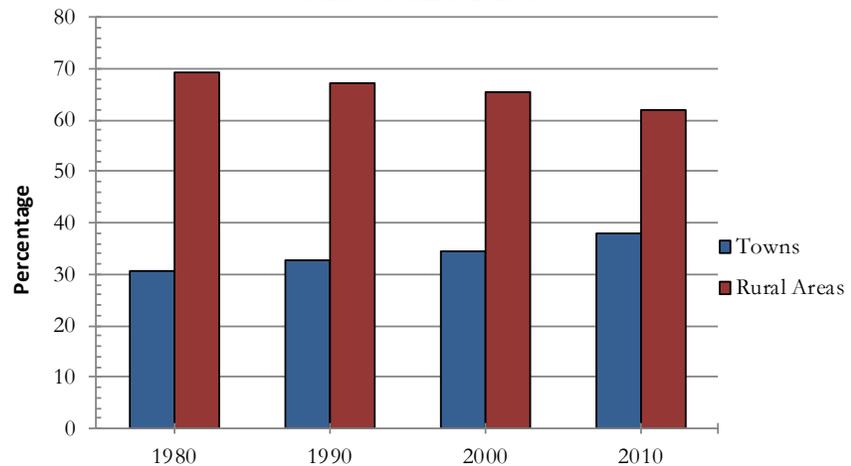


Figure 3-I: Percentage of Housing Growth in Rural Areas vs Towns

Source: US Census Bureau



corporate limits requested their properties be brought into the Town and have utility services extended to them.

In 2001, Mount Jackson also completed an Annexation Agreement with the County and proceeded to annex a 2.47 square mile area into the Town. There have been additional small annexations between 2002 and 2005 under the same agreement.

The industrial park in Mount Jackson continues to be developed with light industrial users. A second major industrial park, the Northern Shenandoah Industrial Park (NSIP), was developed in the northern end of the County. The NSIP provides easy access to I-81, and is served by rail and all utilities (including water, sewer, electricity, natural gas and broadband internet). It contains several major industries and plans are proceeding to create additional road access to and within the park to stimulate further growth. An agreement between the County and Strasburg allowed the Town to annex the NSIP as of January 2014. New Market has a Voluntary Settlement Agreement with the County, last amended in 2012, that outlines future growth of the Town.

5.3 Development Constraints

Due to soil and rock conditions, not all of the previously subdivided lots in the County will be buildable. In some cases multiple lots may have to be combined to obtain sufficient land for a well and a septic system. Where the ground is unsuitable for the approval of a conventional septic system, an alternative on-site wastewater disposal system may be required.

The topography of the land is another limiting factor. Although no current ordinance restricts development on steep slopes, construction on such slopes is limited by natural topography. In flood plains, no permanent buildings are allowed by ordinance, although uses such as parks and other recreational areas may be developed. A similar ordinance governing the development of steep slopes and ridgelines should be considered.

Access by the primary highway and secondary road systems can be another development constraint. There are many locations in the County that do not now have adequate roads, and some where the potential for creating them is very limited due to excessive grades, limited areas for rights-of-way or poor soils. Constraints imposed due to topography, geology, soils and water resources are discussed in further detail in Chapter 2, Natural Resources.

6.0 Impact of Land Use Practices on Water Resources

As stated above, most County land is used in agriculture or is woodland. Because of the amounts of land involved, the potential for polluted runoff from agricultural and forestal uses is one major concern for the quality of water in Shenandoah County. This could take the form of erosion and sedimentation, excess bacteria and nutrients from failed septic systems, animal waste and fertilization, and toxic substances such as herbicides, and pathogens. To avoid these problems, it is important that Best Management Practices (BMP's) be utilized for agricultural and forestal activities.

BMP's are practices or combinations of practices which will prevent or

reduce the amount of polluted runoff. Extensive catalogues of effective BMPs are available from the local Soil & Water Conservation District and several state environmental agencies. There are individual handbooks for Agriculture, Forestry, Sources Affecting Groundwater, Urbanized land uses, and others. Urbanized land uses include built-up areas (such as the towns), and residential, industrial, and commercial uses.

Potential stormwater runoff from urban and urbanizing areas include bacteria, fertilizers and pesticides, traffic-generated pollutants, chlorides from roadway deicing, and erosion and sedimentation from construction projects. As with agricultural and forestal lands, BMP's for urban areas should be followed. Because of the prevalence of karst in the underlying local geology and to the presence of many surface waters, it is of the utmost importance that good practices are followed in all development activities to prevent any degradation of the County's water supply.

7.0 Zoning

The County and all of the incorporated towns have enacted zoning ordinances to implement their land use plans. These ordinances control the types of uses permitted on the land, the density of development, and contain requirements for minimum lot sizes, lot widths, and building set-backs. The County's zoning ordinance has districts designated for agriculture, conservation, residential, commercial, and industrial uses. In addition, there are "overlay" districts or additional regulations that govern such things as uses in flood plains.

The unincorporated areas of the County are subject to the Shenandoah County zoning ordinance. The zoning districts and the acreages which are covered by each are shown in Table 3-C. Figure 3-H (Shenandoah County generalized Zoning Map) shows the location and distribution of zoning districts, while Figure 3-I displays the proportions of each zoning type. It

Zoning District	Acreage	Percent
Conservation (C-1)	69,229	28.85%
Agriculture (A-1)	159,160	66.32%
Rural Residential – Conservation (RR-C)	0	0.00%
Rural Residential – Agricultural (RR-A)	0	0.00%
Low-Density Residential (R-1)	3,600	1.50%
Medium-Density Residential (R-2)	4,112	1.71%
High-Density Residential (R-3)	606	0.25%
Local Business (B-1)	77	0.03%
General Business (B-2)	654	0.27%
General Industrial (M-1)	2,348	0.98%
Limited Industrial (M-2)	202	0.08%

Figure 3-K
Generalized Zoning

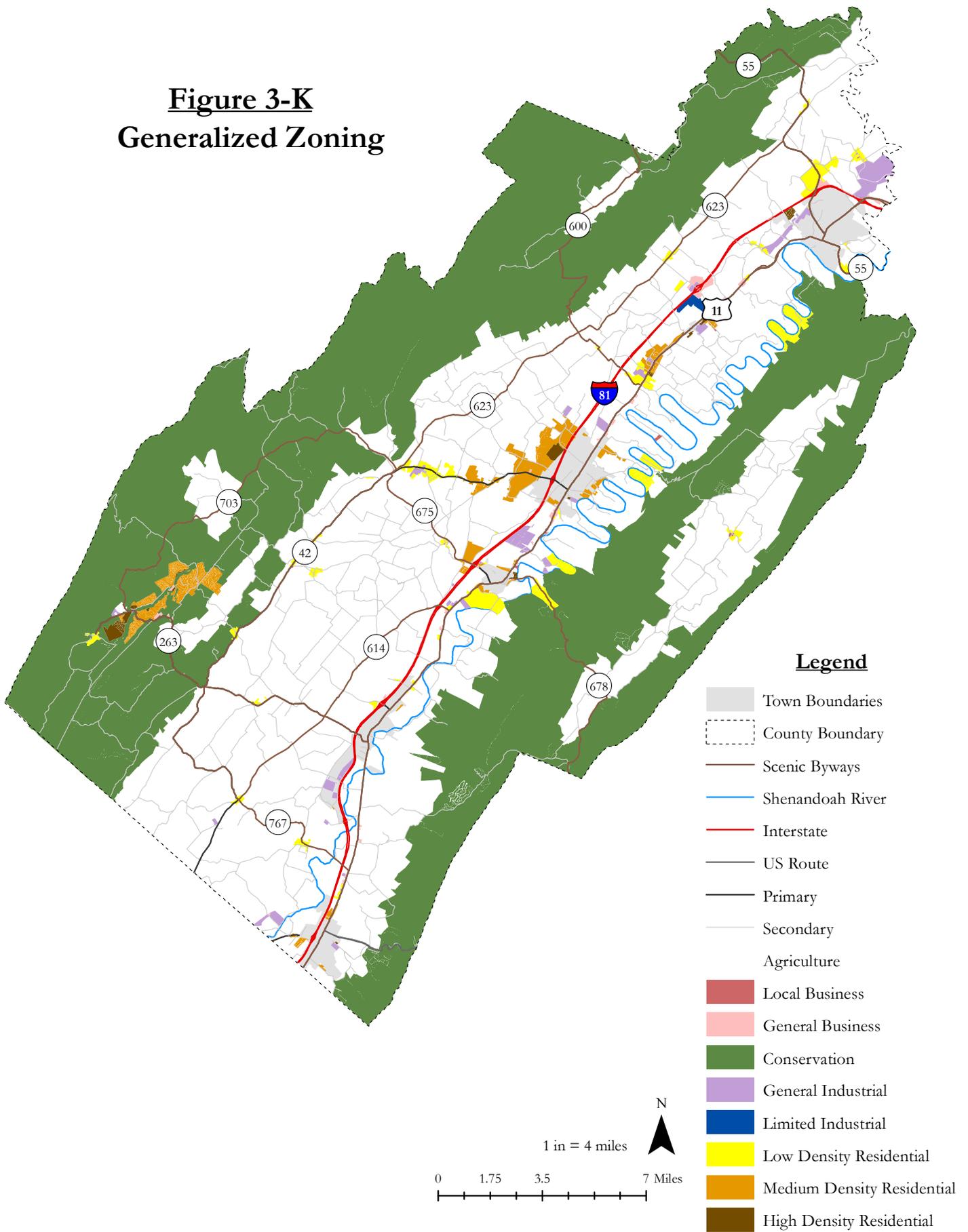
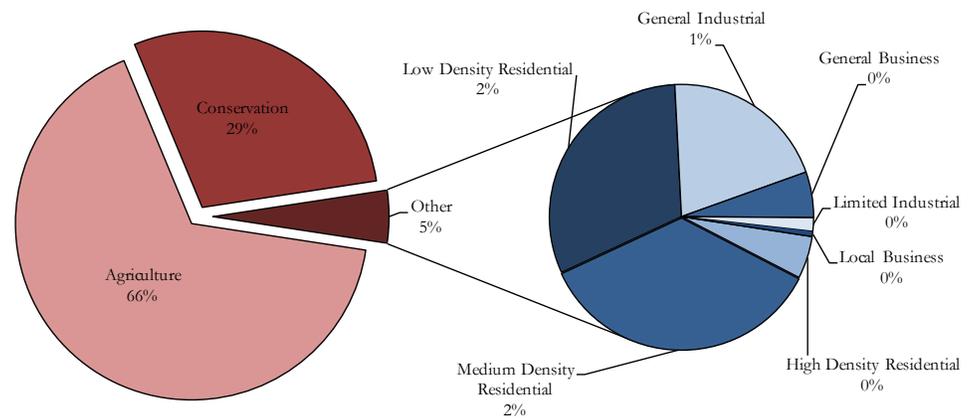


Figure 3-L: Acreage by Zoning District



is important to note that zoning and land use are not always the same (for example, it is common to have residential subdivisions as a use of land in areas zoned for agriculture).

The residential districts range from low-density areas which require a 30,000 square foot lot for a single family house (R-1) to an area which will allow a density of 20,000 square foot lots that could contain duplex units if public water and services are provided (R-3). Lower-density residential areas are located near several towns, in some rural “villages”, and in several recreational subdivisions. Medium-density districts are located near towns and in the Basye/ Bryce Mountain area. New subdivisions being created in all of the residential districts require urban type services such as water, sewer, roads, curbs, gutters, sidewalks, underground utilities and street lights. The “high-density” designations are located within the Toms Brook-Maurertown Sanitary District and the Stoney Creek Sanitary District.

The two business districts are designed to provide for neighborhood convenience type shopping and services (B-1), and more general business operations and services which require frequent access from a major roadway (B-2). Local Business B-1 districts are located in the rural village areas, while General Business B-2 districts are located primarily at interchanges of I-81 and along the Old Valley Pike (U.S. Route 11).

The General Industrial District (M-1) is designed to permit limited industrial uses in order to encourage the development of the local economy. This classification is found in several areas of the County, with large parcels located in the County industrial park and in the Strasburg area.

A Limited Industrial District (M-2) is designed to permit “high tech” research and development type industries and other light industrial uses that generally assemble or process goods from parts that have previously been manufactured.

The Conservation District (C-1) covers parts of the County which contain various open uses such as forests, recreation areas, and farms. It is designed to promote the protection of such open lands and to protect the natural resources.

The Agriculture District (A-1) is designed to preserve the character of those areas where the major uses are agriculture and related uses, and is located primarily in a wide belt running northeast-southwest through the center of the County. Some residential uses are allowed in the conservation and agricultural districts. The required minimum lot size was raised to 3.5 acres in 2003 to reduce the number of lots that could be developed on agricultural land. In 2010, density and lot size requirements were separated. Overall subdivision density was decreased from one lot per 3.5 acres to one lot per 10 acres, and minimum lot size was decreased from 3.5 acres to 1.5 acres.

Two new districts were enacted in 2004: the Rural Residential - Conservation District (RR-C) and the Rural Residential - Agriculture District (RR-A). The purpose of these districts is to provide opportunities for low-density residential lots in areas of the county where there are primarily open uses, such as forests, recreation areas, lakes or streams, agricultural and other low-intensity uses predominate. Uses not consistent with the existing character of the districts are not permitted. As of this writing, no land had been rezoned into either Rural Residential category.

8.0 The Future of Land Use

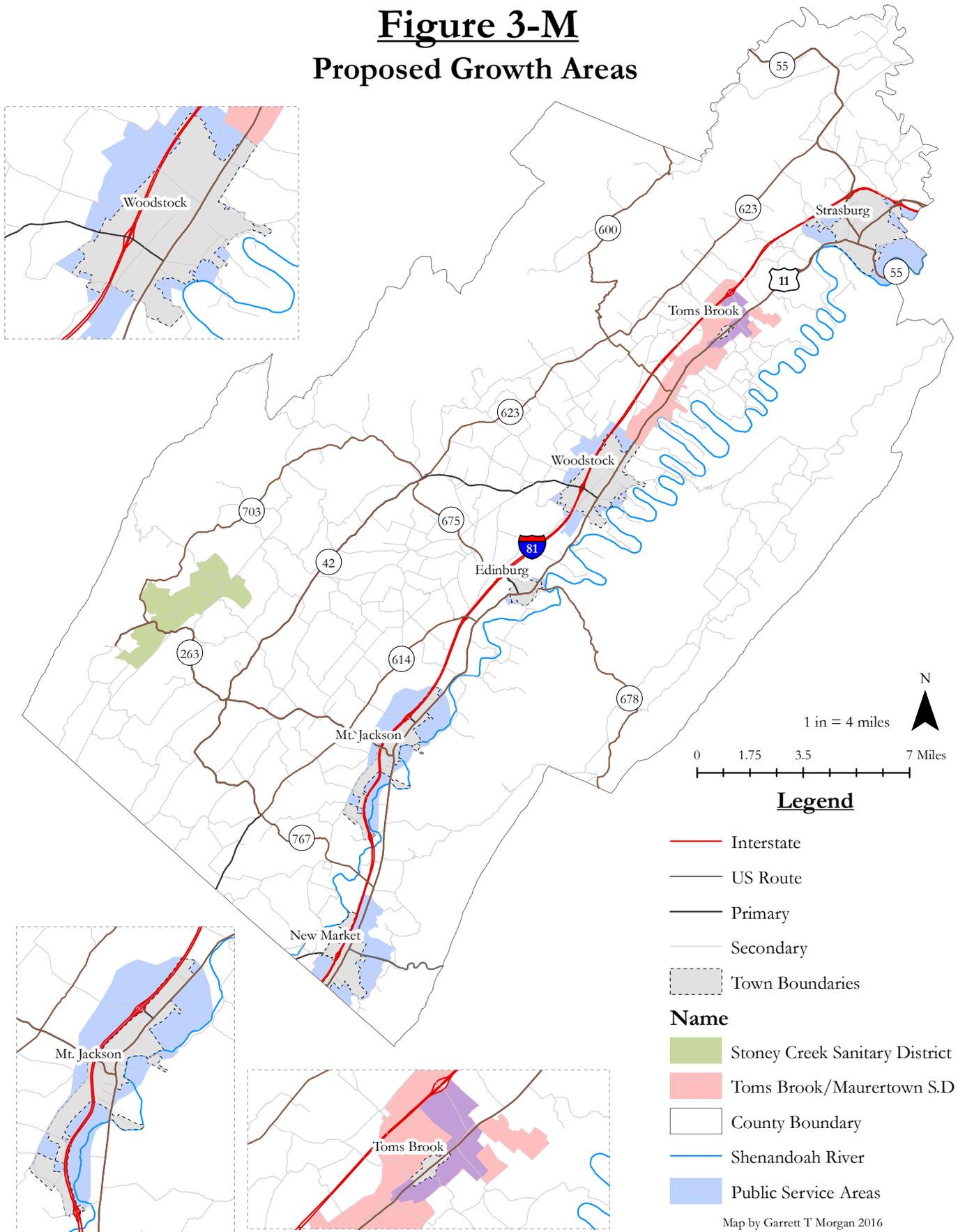
One purpose of the Comprehensive Plan and its supporting ordinances is to provide guidance for the continued orderly growth of the County while maintaining its rural character and the quality of its environment. Efforts to manage the proliferation of small lots in traditional agricultural areas began with the establishment of zoning districts during the 1970s. Early efforts to preserve the rural and agricultural nature of the County concentrated on ordinances related to lot sizes and limitations on the allowed frequency of subdivision of individual parcels. Despite these ordinances, there was a significant growth in the number of small parcels in the A-1 and C-1 districts with a resultant threat to the rural character of the County and its water resources.

In order to preserve agricultural land and to prevent hazards to the ground and surface waters in the county, the County's future growth should be tied to the availability of public water and sewer facilities ("public service areas", or PSAs), with higher density allowed where utilities and services are available or planned to be available. Where individual water and sewage disposal systems must be used and rural secondary roads exist, only low density should be permitted. In order for the goals of the Comprehensive Plan to be met, the average density in the rural (A-1 and C-1) areas should not increase significantly during the period of the Comprehensive Plan.

Future growth areas have been proposed by each of the towns (see Figures 3-J and 3-K). The County has annexation agreements with Mt. Jackson, New Market and Strasburg. (Figure 3-K provides a detailed concept plan for the New Market Growth Area, as agreed to in the voluntary settlement agreement negotiated between the Town and the County.) These

Figure 3-M

Proposed Growth Areas



agreements specifically delineate the areas jointly targeted for future growth. Edinburg, Toms Brook and Woodstock have each published their intent to expand town boundaries into existing or planned PSAs. Those proposed growth areas are also displayed in Figure 3-J for reference purposes, but those three growth areas have not received County review and concurrence. The Toms Brook-Maurertown and Stoney Creek Sanitary Districts are also shown on the growth areas map. County ordinances and policies should encourage most new development (residential, commercial and industrial) to occur in and around the towns.

Changes in development techniques and technology will continue to occur and it is necessary to constantly examine the provisions of the approved plan to see if they conform to the stated Vision of the plan while meeting the needs of the County's citizens. Additional provisions that allow for flexible development and encourage developers to provide needed facilities should be explored and incorporated into the zoning and subdivision ordinances of the County consistent with channeling growth to the public service areas.

Finally, until the Vision of the Comprehensive Plan is modified, Shenandoah County's zoning and subdivision ordinances should be consistent with the following principles and procedures which were confirmed during the recently completed Community Planning Project:

- Creation of policies and ordinances that direct most residential growth to Towns and growth areas around the Towns and other public service areas
- Promote business and economic development in appropriately zoned areas
- Support for agriculture
- Management of rural residential development through overall density
- Provide for landowner flexibility in subdivision of existing parcels
- Allow for smaller, but fewer lots for development
- Preservation of large lots
- Encouragement and means for conservation of rural parcels
- Joint land use planning with Towns
- Consideration of ridgeline and steep slope ordinances
- Land use policies and ordinances should be protective of the quality and quantity of groundwater and surface water resources.
- Periodically evaluate and adjust policies and regulations to implement the Vision stated in the Comprehensive Plan.

