

**Chapter Eight**

**LAND USE**

**INTRODUCTION**

Land Use is considered by most people to be the heart of the Comprehensive Plan. The Land Use Plan serves to coordinate public and private decisions that affect the physical development of the County. By establishing a scheme for the future, the plan strives to create a desirable pattern of future development toward which present activities can be directed.

In designating areas within the County as suitable for various land uses, consideration must be given to natural features, existing land uses, existing and proposed public improvements, as well as the transportation system. Overall, the Land Use Plan is intended to create a well organized, cohesive community that functions efficiently. While future growth is encouraged, the unique character of the County must be protected by providing the needs for existing residences and businesses.

The Land Use Plan designates areas in the County for residential, commercial, industrial, public, semi-public, and other general land uses. The designation of these areas is based on the following underlying principles: (1) recognition that agricultural and forestry areas are the primary land uses which should be protected; (2) recognition that residential areas are the second primary land use and should be protected and encouraged to develop; (3) creation of compact, attractive commercial areas that are accessible and convenient; (4) that the costs to the County by not managing growth will be extremely high, thus, future development should locate in those areas of the County in which public services and facilities can most efficiently and economically be provided; (5) concentration of industrial development in planned industrial parks minimizing the impact on the community while increasing the County's employment base; (6) commercial and shopping service areas should be located in well defined groupings to avoid strip development and should be accessible and convenient; (7) that development should be located in such a manner as to minimize impacts to the County's environmental resources, including but not limited to wetlands, steep slopes, highly erodible and highly permeable soils, and aquifer recharge areas.

This chapter will analyze development trends in the areas of commercial, industrial, and residential development. It will also analyze previous comprehensive plans and their land use implications for the future. Finally, recommended changes to land use will be discussed as well as growth management concepts to be utilized in implementing the land use plan.

**1987 LAND USE PLAN**

The 1987 Land Use Plan provided significant land area for development through its land use designations. Although it was not contemplated, nor could all of the area planned actually develop, the amount of area designated for future development created the potential for vast amounts of land to be speculatively rezoned, leading to long-term problems. Table 8-1 shows the amount of land that was planned for development.

Table 8-1

Type of Development	Primary Growth Area	Outside Primary Growth Area	Total (Acres)
Rural Residential (0.5 Dwelling Units Per Acre)	5,200	43,950	49,150
Low-Medium Density Residential (1 - 8 Dwelling Units Per acre)	24,500	1,200	25,700
Medium-High Density Residential (8-15 dwelling Units/Acre)	5,300	-	5,300
Commercial	1,800	100	1,900
Industrial	2,300	700	3,000
<b>Total</b>	<b>39,100</b>	<b>45,950</b>	<b>85,050</b>

\*Source: Caroline County Department of Planning & Community Development, Dewberry and Davis

The total amount of land designated for development is quite small (25%) considering the size of the County. However, when evaluating the development potential based on density, the capacity to accommodate development is actually tremendous. Table 8-2 indicates the amount of residential development that could be accommodated in terms of dwelling units and population, based on the 1987 Plan.

Table 8-2

Residential Type	Acreage	Density Range (Dwelling Units/Acre)	Potential Dwelling Units	Population Range (2.8)
Rural Residential (0.5 Dwelling Units/Acre)	49,150	0.5	24,575	68,810
Low-Medium Density (1-8 Dwelling Units/Acre)	25,700	1-8	25,700 - 205,600	71,960 - 575,680

Medium to High (8-15 Dwelling Units/Acre)	5,300	8-15	42,400 - 79,500	118,720- 222,600
Total Residential	80,150	0.5-15	92,675 - 309,675	259,490 - 867,090

\*Source: Caroline County Department of Planning & Community Development, Dewberry and Davis

It is evident from this table that the population potential greatly exceeds the current population to the point that the capacity is beyond the reach of current planning skills and legislative authority to try to plan and develop regulations to achieve such a development pattern. In short, the County could not achieve the 1987 Plan.

The 1994 update of the Comprehensive plan recognized this deficiency, and recommended several changes to strengthen the County's planning efforts. The Plan established a utility phasing plan, which is further identified in Chapter 6 (Public Facilities). The Primary Growth Area concept was strengthened, by tying land use to the utility phasing plan. Areas that were not within the current phase of the five-year utility plan were designated as "Future Development" areas, thereby reducing the potential for premature or speculative development. The Future Land Use Map was amended to eliminate much of the Rural Residential land use category, that was located on the fringes of the County and would have been expensive to serve with public facilities. Finally, the 1994 plan recommended, and began the process of, the development of detailed area plans for specific areas within the Primary Growth Area, as well as the Secondary Growth Areas.

**INDUSTRIAL LAND USES**

Caroline County currently has approximately 3,418 acres of land zoned for industrial uses. Of this acreage, only about 398 acres are actively used for commercial or industrial purposes. Most of this land was zoned industrial with the establishment of zoning in the County in 1970, due to either existing use of the property at that time or because the owners of record requested such zoning.

There are several methods for determining the amount of industrial land. However, such standards do not take into account special circumstances related to the needs of certain industries, and most localities do not rely on such detailed methodologies. A survey of several localities provided a range from 5 to 50 acres per 1,000 population. A number of factors contribute to this range, including the type of industry that is suitable for the area,

physical characteristics of the area, development constraints, as well as economic considerations.

This plan, as well as the previous plans, emphasizes the need to preserve prime industrial tracts of land for that purpose. The 1987 Plan recognized the importance of the existing industrial park at Milford as well as emerging areas in Carmel Church and Ladysmith. As previously shown in Table 8-1, the 1987 Land Use Plan allocated 3,000 acres of land for industrial development. Based on the 1990 Census figures and estimates by the Virginia Employment Commission for the years 2000 and 2010, the estimates of industrial acreage needs are shown in Table 8-3.

Table 8-3

Census	Population	5 acres per 1000 population	50 acres per 1000 population
1990	19,217	96.09	960.85
2000	22,083	110.42	1104.15
2010	25,099	125.5	1254.95

Table 8-4 indicates the average requirements for industrial development using the Step-Down Methodology (1% of Region), which represents the largest growth scenario outlined in Chapter Two.

Table 8-4

Census	Population	5 acres per 1000 population	50 acres per 1000 population
1990	19,217	96.09	960.85
2000	21,679	108.40	1,083.95
2010	29,445	147.23	1,472.25

In both scenarios, it appears that the amount of land that is both planned for, as well as already zoned for industrial development, exceeds the amount of land needed to meet development expectations.

It appears that additional land to expand capacity is not necessary over the planning period. Rather, the existing inventory should be analyzed to determine its suitability for industrial use. Parcels that are unsuitable due to constraints such as non-conformance with the Comprehensive Plan, wetlands, floodplains, topography, or other factors should be eliminated. Additional land should be zoned only if eliminating unsuitable parcels of land significantly reduces the existing inventory or special situations occur.

**COMMERCIAL LAND USES**

Commercial land uses in the County can be classified into one of three categories: neighborhood, community,

or highway service. Neighborhood commercial uses are scattered throughout the County and are characterized as "general store" types of uses that service either small rural areas or residential neighborhoods in the County. "Community" commercial uses serve larger areas of the County and may be characterized as shopping centers. Finally, "highway service" commercial uses may be characterized as uses, which cater to the traveling public or are highway oriented.

The primary community commercial area is the Town of Bowling Green and the area immediately adjacent thereto. This area currently has two shopping centers plus several other commercial uses that cater to large areas of the County. Smaller community commercial areas are developing in Carmel Church and Ladysmith.

The principal "highway service" area is located in Carmel Church at the I-95 interchange with Rogers-Clark Boulevard. Here, a substantial number of service stations, truck stops, motels, and restaurants have developed that serve the needs of travelers. A smaller highway service area is planned for the Ladysmith interchange.

As previously stated, approximately 1,800 acres of land are zoned commercial. Most of the commercially zoned land is situated within the Primary Growth Areas or Secondary Growth Areas as designated by the 1987 Comprehensive Plan or 1992 Comprehensive Plan Amendment. Since the County has only one commercial zoning district, the County must utilize proffers or special exceptions to ensure compatible land uses.

As with industrial land uses no specific standards or ratios of commercial to other types of development exist. Localities must determine for themselves what is appropriate. Based on development trends and projections, there appears to exist an adequate supply of commercially zoned land, with the possible exception of the Ladysmith area. The emphasis over the planning period should be to determine appropriate types of commercial development for different areas and create zoning districts to reflect the different types of uses.

**RESIDENTIAL LAND USES**

The 1987 Comprehensive Plan designated a very generous area for residential development, both inside

and outside of the Primary Growth Area. The Primary Growth Area contains approximately eighty square miles of land area that equals approximately 15% of the County's land area. The amount of land area planned for residential development and the potential numbers of dwelling units that were theoretically possible are shown in Tables 8-1 and 8-2 respectively.

Since the 1987 Comprehensive Plan, the County has approved approximately 100 residential rezoning requests. Most of these requests were for family subdivisions or created a small number of lots. The two largest rezoning requests, Haymount and Iron Oaks, created the potential for 5,088 additional lots/dwelling units.

In addition to the potential for new lots or dwelling units, a substantial inventory of available residential lots already exist in Lake Caroline, Lake Land 'Or, and Caroline Pines. The number of undeveloped lots equals approximately 4,900 lots among the three developments. Although many of these lots are currently unbuildable due to the lack water or sewer, the extension of sewer to the Ladysmith area will eliminate this problem and will permit the development of the unbuildable lots, thereby increasing the inventory of buildable lots. The development of a stable and adequate water supply for Caroline Pines will also add to the inventory.

**Residential Projections**

Table 2-23 provided various development scenarios through the year 2010. Population projections ranged from 20,503 to 23,592 for the year 2000 and 21,702 to 29,445 for the year 2010. Based on these projections, a range can be developed to determine the approximate number of dwelling units that will be required during that time by dividing the population by the average household size. The average household size was 2.86 people as determined by the 1990 Census. The estimates are shown in Tables 8-5 and 8-6.

Table 8-5

2000 Popula- tion Estimate	-	1990 Popula- tion	=	Popula- tion Increase	÷	House hold Size	=	Number of Additional Dwelling Units
20,503		19,217		1,286		2.86		450
23,592		19,217		4,375		2.86		1,530

Table 8-6

2000 Popula- tion Estimate	-	1990 Popula- -tion	=	Popula- -tion Increase	÷	House hold Size	=	Number of Additional Dwelling Units
21,702		19,217		2,485		2.86		869
29,445		19,217		10,228		2.86		3,576

Of course, the County cannot simply limit the amount of development to the specifically needed to accommodate for future growth. There would be virtually no market competition if supply equaled demand. Therefore, the County needs to ensure that a sufficient amount of land is planned for development allowing market competition and addressing the variety of housing needs in terms of cost, type, and location. A generally accepted estimate is that the supply of buildable lots should exceed demand by two to three times.

Given the range of potential additional dwelling units needed over the next ten years and the inventory of available or planned developable lots, it appears that the supply of lots will exceed the demand in excess of three times. Even through the high-end projections of the year 2010, supply should exceed demand by approximately three times. Additionally, this does not take into consideration "by right" subdivisions that will occur during the planning period. One factor that does not appear to be adequately addressed is that of choice. This lot inventory is based on five major existing or planned developments. The failure of proposed projects to develop or a delay in the extension of utilities to the other could dramatically reduce the future inventory of buildable lots.

**FUTURE LAND USE PLAN**

Based on the previous analysis of current land use conditions in the County, as well as development trends, a number of changes in the Land Use Plan appear to be warranted. These amendments result in a plan that provides a significant amount of land in excess of that required to meet the development needs over the next 10 - 20 years. Yet, it also attempts to provide adequately for all development needs in a manner that can be sufficiently served by public facilities and utilities.

Those who consult the Land Use Plan should keep in mind the following considerations:

- Boundaries of areas designated for specific land uses should be considered as general and approximate.
- The plan is a statement of long range goals for achieving land use changes. Current uses that are in conflict with the plan must be changed over time.

The Future Land Use Map (Appendix 1) is the graphical representation of the proposed land uses in the Comprehensive Plan. The Future Land Use Map identifies the following general land use categories: Agricultural Preservation, Rural Preservation, Rural Residential, Low Density Residential, Low/Medium Density Residential, Medium Density Residential, Business, Industrial, Public, Open Space, Future Development, Primary Growth Areas and Secondary Growth Areas. In using the Plan as a guide for development, the following evaluation criteria should be used:

**Agricultural Preservation** – This designation is intended to provide areas to encourage economic development and to preserve agricultural land for the viability of the County’s agricultural sector. These areas are intended to encourage and promote the orderly and responsible growth of agricultural production activities, including crops, livestock, dairy, poultry and related activities. In designating these areas, it is recognized that certain agricultural activities and some non-agricultural activities suitable for agricultural areas can adversely affect certain existing or anticipated uses. It is further the intent of this district to provide for orderly development of uses in such a manner so as to reduce the conflicts inherent with such uses. Residential densities should be very low, generally not exceeding one dwelling unit per 25 acres of land. Land use regulations should protect and give preference to agricultural/forestry uses over other uses.

**Rural Preservation** - Residential densities should be low, generally not exceeding one dwelling unit per ten acres of land. A variety of rural uses should be permitted, including less intensive agricultural uses. This category should serve as buffer between areas planned for intensive agricultural uses and other land use categories. The Rural Preservation designation reflects the general rural character of the County.

**RESIDENTIAL AREAS**

1. Those areas developed exclusively for detached single-family dwellings should be preserved for that use. As long as the preference for this dwelling type remains as strong as it is, the right to live in a single-family area should be vigorously protected.
2. In planning residential areas the concept of and the development of neighborhoods through planned unit developments should be emphasized. Emphasis on proper relation to physical features, focal points, transportation facilities and place names encourage community interest, neighborhood pride and civic participation.
3. While recognizing the need to preserve single-family areas, variety of choice in housing types should also be encouraged in Caroline County. This includes apartments, townhouses, and manufactured homes as appropriate uses when meeting certain basic standards and when well designed and landscaped.
4. Apartment and manufactured home projects should meet definite criteria regarding access, public services, location with respect to shopping and employment, open space and affect on adjoining or nearby development.
5. Residential development should be planned in five basic categories; rural, low, medium, and high density and manufactured housing parks.

**Rural Residential** - The overall density for rural residential areas should be low and be between one dwelling unit per two acres and one dwelling unit per ten acres.

**Low** - For low-density areas the density limits should remain relatively low and are intended for single-family development. Density limits should range between one and four dwelling units per acre.

**Low Medium** – A variety of housing styles would be encouraged in these areas depending on the physical features and existing residential character. The densities should range from four to seven dwelling units per acres.

**Medium** – For medium density residential areas generally consists of apartments and townhouses. Densities within these areas should range from seven to ten dwelling units per acre. The approval of medium density residential should be achieved through planned developments.

**Manufactured Housing Parks** - Manufactured housing residential areas consist of areas planned for manufactured houses at densities of up to 8.0 dwelling units per acre, subject to development standards.

**EMPLOYMENT CENTERS**

1. Employment Centers in Caroline County should consist generally of three types:
  - (a) Office uses or planned light industry districts, or the two combined (Community Commercial, Planned Office Parks, or Planned Industrial Parks).
  - (b) General light industry, including transportation terminals, and warehousing (Light Industrial).
  - (c) General industry controlled for protection of the environment (General Industrial).
2. Locations of all types should be near major arterial thoroughfares, which can be used for trucking. Heavy industries would tend to be located near railroads as well as arterial thoroughfares.

**SHOPPING AND COMMERCIAL SERVICES**

1. New strip commercial development should be avoided and advantage taken of every reasonable opportunity to stop extensions of existing commercial strips.
2. Commercial facilities should be planned in two basic categories:
  - (a) Retail shopping (neighborhood and community commercial).
  - (b) General commercial, highway or automotive oriented, with some mixed retail and services (highway commercial).
3. Retail shopping and services grouped in centers should be planned in three categories:

- (a) The isolated small groups or country stores (rural commercial).
- (b) The small neighborhood shopping center (neighborhood commercial).
- (c) Large community shopping center (community commercial).

#### **RECREATION AND OPEN SPACE**

Planning for recreation open space should be directed primarily to:

1. The immediate protection of rare and unusual historic features.
2. The immediate and long-range preservation of natural environments of unusual beauty such as those found along the Mattaponi, North Anna, and Rappahannock Rivers and their tributaries.
3. The immediate and long-range protection of the floodplains of the County's streams and rivers.
4. Enlargement of the inventory of land which may be used for recreation and aesthetic purposes.

These open space planning objectives are not the same as those that will encourage preservation of large tracks of vacant land for farming, forestry, wildlife and water resources.

#### **SUMMARY**

Although moderate increases in population and commercial activity can be expected in Caroline County in the next 10 - 20 years, the County will retain its rural character. Growth may continue to occur in a widely scattered pattern, however, every effort should be made to channel growth into the primary growth areas of Bowling Green/Milford, Ladysmith and Carmel Church. Recommended changes to the County's Future Land Use Plan are intended to recognize development patterns that have occurred in the past decade, as well as identify areas with the potential for new development.

There are two components of the future land use map. The Future Land Use Map generally identifies land uses countywide. The sub-area maps in this chapter identify in more detail the land uses for the primary and secondary growth areas. Both land use components

should be considered when evaluating potential land uses with the final determination based on the sub-area maps.

#### **PRIMARY GROWTH AREA**

The Primary Growth Area of Bowling Green - Carmel Church - Ladysmith was developed in the 1987 Plan. The 1994 plan further refined the concept by linking development within the growth area to the provision of public utilities. Accordingly, the actual areas and amounts of land designated for development within the next 5 - 10 years are those areas where public utilities either currently exist or are planned to be extended within the same period of time. Those areas within the Primary Growth Area where utilities are not planned for extension within the ten-year planning period are designated as "Future Development" areas. Additional recommendations specific to particular areas within the Primary Growth Area follow.

#### **BOWLING GREEN/MILFORD**

Several changes are warranted in the Bowling Green/Milford area of the Primary Growth Area. Since the adoption of the 1994 plan, an area along Route 301 north to the Ft. A. P. Hill boundary has been annexed by the Town of Bowling Green. Accordingly, planning for this area is under the auspices of the town, and this area is removed from this plan. Most of the area south of New Baltimore Road continues to be designated for future development, recognizing development trends in the area. Further strip development along Route 301 south of Bowling Green should be discouraged. Commercial designation along Route 207 inside of the bypass should be recognized based on the rezoning for the shopping center.

Additional land for industrial development in the Milford area should be planned out of the 100-year floodplain and adjacent to the industrial park. Additional industrial land should only be zoned, based on the needs of specific prospects. The relocation of Route 722 and the construction of the railroad overpass will improve industrial access and should reduce the amount of truck traffic through residential areas. The Bowling Green/Milford area plan is shown in Figure 8-1. Finally, improving the drainage in the Milford area should be given a high priority, as additional development will worsen existing problems.

### **CARMEL CHURCH**

The Carmel Church portion of the Primary Growth Area (Figure 8-2) has experienced significant highway oriented commercial development over the last 10 years. The I-95/Route 207 interchange has become the focal point of the County's economic development efforts, both in terms of "highway commercial" and industrial development. This trend is expected to continue through out the planning period. The amount of area available for development over the next 10 - 20 years is limited to that area which is currently served by sewer, or can be served by extensions of gravity sewer lines. No development should be allowed that does not utilize public water and sewer.

A significant modification of the land use plan in this area, reflects the designation of the area north of Route 207 for industrial development. This area is suitable for both residential and industrial uses due to its flat to gently rolling topography. However, preference should be given to industrial uses, many of which require large parcels to accommodate existing and future needs. Large parcels of land with relatively flat topography, an absence of environmental constraints, and good interstate access are in high demand. Accordingly, such parcels should be reserved for light industrial uses.

### **LADYSMITH VILLAGE AREA**

The Ladysmith area of the Primary Growth Area (Figure 8-3) has experienced significant residential development over the past three decades. Additional development is likely over the planning period as development pressures continue from Northern Virginia. Lake Caroline, Lake Land 'Or, and Campbell's Creek subdivisions boast significant residential populations while smaller developments such as Bridlewood, Countryside, and Glen Meadows have lower population amounts. Both public sewer and water have been extended to the area since the comprehensive plan was updated in 1995. The extension of these utilities has made previously unbuildable lots suitable for development, and provided additional development opportunities within the utility service area.

Ladysmith has the distinction of having the first citizen driven detailed area plan, developed pursuant to the 1994 Comprehensive Plan. The Ladysmith area was

chosen for three reasons: first, this area has been the subject of most of the development pressure within the County. Secondly, the extension of public water and sewer made development conditions even more favorable. Finally, the opportunity exists to encourage the development of a "community" instead of the typical hodgepodge of subdivisions, so often seen in suburban development. The Ladysmith Village Plan is incorporated into the Comprehensive Plan in Appendix B. Users of the Comprehensive Plan should use the plan in Figure 8-3 as a guide for development in this area.

### **SECONDARY GROWTH AREAS**

The concept of secondary growth areas was developed with the 1977 Comprehensive Plan. Secondary growth areas are designed around existing pockets or concentrations of residential and/or commercial development that are appropriate for small-scale or "infill" development. Revisions to the Secondary Growth Area concept are addressed below.

#### **SKINKER'S NECK**

The 1992 Comprehensive Plan Amendment created a secondary Growth Area, off of Tidewater Trail (Route 17) in the Skinker's Neck area (Figure 8-4). No future expansion areas are identified as a part of this update. Any expansion of the growth area should be approved only upon the development of at least seventy-five percent of that area approved in the 1992 Plan Amendment and in accordance with the goals and objectives as specified in the Resource Sensitive Area designation of the Rappahannock River corridor. In no case should future development extend beyond the boundaries of Ware Creek Road (Route 614) and Ware Creek.

#### **PORT ROYAL**

The Town of Port Royal is listed on the National Register of Historic Places. Several individual structures are also on the Virginia Register of Historic Places. All development efforts should complement the Town's historic status. Accordingly, development should be permitted only through the Planned Development provisions of the zoning ordinance, together with the use of design standards.

The Port Royal Secondary Growth Area is one of two secondary growth areas where public utilities may be feasible. Recognizing this potential, the Port Royal Secondary Growth is planned for densities of 1 - 4 dwelling units per acre (1 dwelling unit per acre with public water and 2 - 4 dwelling units per acre with public water and sewer). The Port Royal Secondary Growth Area (Figure 8-5) contains approximately 500 square acres, excluding the Town of Port Royal. Of this figure 30 acres is planned for commercial uses, 80 acres for open space, and approximately 390 acres for low to medium density residential.

Any rezoning requests should be evaluated in the context of the availability of public utilities. Where public utilities are available, it should be extended to serve the proposed development. Where utilities are not available, the County should consider the benefits of public-private partnerships to make the utilities available. The minimum system design should be 60,000 gallons per day for both water and sewer systems.

Recognizing the status of utilities in this area, there may be development pressures prior to the availability of one or both utilities. The evaluation of such proposals should take into account appropriate densities and designs to facilitate the future cost effective provision of utilities.

#### **CHILESBURG**

Chilesburg is located at the western edge of the Primary Growth Area. Its proximity to the Primary Growth Area makes it difficult to plan for a separate secondary growth area in such close proximity. However, Chilesburg has always been an activity center for the western part of the County with its commercial and social (church) activities. Additionally, much of the Primary Growth Area west of Lake Land 'Or is designated for future development. Finally, the elimination of much of the area designated for rural residential provides additional opportunity for development in this area. Thus, Chilesburg should continue to be recognized as a Secondary Growth Area designed primarily to serve those needs for which it was established (Figure 8-6).

#### **DAWN/FROG LEVEL**

The Dawn/Frog Level Secondary Growth Area (Figure 8-7) was expanded with the 1994 plan update to include areas that were previously developed into 2-5 acre lots. It also provides additional development opportunities for rural lots.

The Dawn Secondary Growth Area also has a substantial number of developed lots of less than two acres. Soils in the area tend to "perc" poorly, limiting its suitability for drainfields. This creates significant public health concerns about failing septic systems and contaminated wells.

The Caroline County Health Department undertook an evaluation of the well and septic systems in the area and confirmed a substantial number of contaminated wells, thus, justify public health concerns. In 1997, the county evaluated the feasibility of constructing a public water and/or sewer system. Construction of a public system could alleviate any identified problems as well as spur economic development efforts in the area.

#### **CEDON**

Due to the reduction in the amount of acreage planned for rural residential development in the 1994 plan, the Cedon secondary growth area was created north of Ladysmith (Figure 8-8). This area recognizes the substantial number of 1 to 5 acre lots have been developed in this area. This area also provides additional land for similar development, as well as the opportunity for limited neighborhood commercial development.

#### **RURAL RESIDENTIAL**

As previously noted, in excess of 49,000 acres of land was designated for potential development into two-acre lots in the 1987 Plan. This created the potential for tremendous public facility costs to the County, promoted sprawl, and would have adversely affected the County's rural character. Much of the land designated for development as two-acre lots in the 1987 plan was eliminated in the 1994 update.

Rural Residential areas are retained in some areas adjacent to the Primary Growth Area or within secondary growth areas. Approximately 3,700 acres of land are designated Rural Residential.

## RESOURCE SENSITIVE AREAS

The land bounded by the Rappahannock River, Portobago Creek, the Fort A.P. Hill Boundary and Snow Creek (collectively the “Corridor”) is an unusual, if not unique, area for a number of reasons.

The area is the location of significant wetlands. These wetlands function as habitat for numerous species, including game species and threatened or endangered species. Eagles nest along portion portions of the Corridor. The area is a watershed for the Rappahannock River, a significant tributary of the Chesapeake Bay. The Rappahannock River is an unusually scenic river that is used for recreational purposes as well as water supply.

The area has attracted people for centuries, resulting in rich archeological resources ranging from prehistoric to colonial artifacts and sites. Because so much of the area has remained in private hands through the years, these resources have remained largely untapped.

The Corridor area is separated from the balance of the County by Fort A.P. Hill, which results in the funneling of commercial traffic into other jurisdictions such as Fredericksburg and Tappahannock. Because of the planned location of a commuter station near Fredericksburg, there will be an increase in the pressure for development within the Corridor.

Traditional forms of unrestricted large lot subdivision development within the Corridor have not achieved the results desired by the County.

Large lot development still require that County services be extended to the Corridor area. Fire and police protection must be provided. Schools must be provided, and school buses still must travel to the most remote ends of the County. Unrestricted large lot development often leaves control of significant archeological features in private hands as well as leaving significant environmental features controlled by individuals and often unavailable to the public. Such development has the potential for increased runoff into the river and the unregulated destruction of both the scenic natures of the river and significant habitat features such as eagle roosting trees.

Unrestricted large lot development within the Corridor will likely preclude the achievement of other goals

deemed significant by the County. Farms may not be protected or preserved, they may simply be divided into large housing tracts. If overall density is kept too low within this portion of the County, then the goals of stimulating new commercial development will not be achieved and the money of County residents will continue to be spent in other jurisdictions and the accompanying tax dollars associated with such expenditures will benefit those other jurisdictions.

Finally, because development pressure generated by the proximity of the commuter rail and the beauty of the Corridor is likely to be strong, detailed planning for this area is warranted.

Consequently, the Corridor is designated a “Resource Sensitive Area” (Figure 8-9) in which the following additional objectives are to be pursued:

### OBJECTIVES

#### Objective 1

Encourage the use of innovative designs and planning to achieve goals which may be especially important within the Corridor. Encourage the use of planned unit developments, which cluster units and permanently preserve large areas of open space. Such developments should be designed to achieve the following:

1. To develop according to a design derived from the natural forms while striving to preserve existing terrain, vegetation and other natural features;
2. To develop a mixture of private and public uses that are organized in such a way as to be compatible with each other and with surrounding areas;
3. To develop creatively, producing an efficient network of streets, walkways, utilities, and open areas;
4. To develop a broad range of housing types and styles;
5. To develop communities in which the social and community interaction is encouraged through a balanced mixture of compatible uses and through the provision of public or quasi-public facilities intended to foster social interaction;
6. To develop according to high standards of land planning and site design in order to create

- distinctive visual character and identity for integrated development;
7. To develop so that facilities and programs reduce reliance on the private automobile as a means of transportation and reduce the effect of development on the transportation network; and
  8. To develop so that necessary public facilities will be available contemporaneously with occupancy of new development by its citizens.
  9. To encourage the preservation of agricultural/forestal lands by preserving open space and reducing the potential for interface problems between agricultural/forestal and nonagricultural/forestal uses.

In general, the County desires to stimulate a flexible approach to land development that encourages the comprehensive design and integration of residential, commercial, cultural and recreational uses in a manner that will achieve the greatest harmony with the existing ecological balance in the area.

#### **Objective 2**

Require any development within a Resource Sensitive Area to document its likely impact in the following areas and to mitigate such impacts through necessary on-site and off-site measures:

- Archeological resources;
- Wetland resources;
- River frontage and access;
- Drainage and water quality;
- County infrastructure and resulting fiscal impact;
- Botanical and Wildlife habitat with special attention to threatened or endangered species; and
- Existing Agricultural or timbering operations.

In undertaking assessment of these impacts the developer should consider the impact of other existing and planned developments within the Corridor as well. The County should strive for a design concept that utilizes carefully planned communities to attract residential density into towns, which significantly reduce the resource impact of such development. These towns should be developed in a context that resists the development of immediately adjoining development for the distance necessary to accommodate any unfiltered residual impacts. Thus, significant development cannot

be located immediately adjacent to areas already identified for development but instead must provide sufficient separation for full mitigation. Moreover, “infill” development must also overcome such impacts on the area’s resources. Designs, which result in substantial “greenbelts”, are to be particularly encouraged.

#### **Objective 3**

Require that all development within a Resource Sensitive Area limit the number and extent of accesses to the Rappahannock River (or any other significant adjacent waterbody) and specifically plan where public access to that waterbody may be appropriate. Development fronting upon the river should be required to reduce its visual impact on the river so that, in any event, the minimum necessary river frontage is opened or developed.

#### **Objective 4**

Recognizing that the studies required for development within the Resource Sensitive Area, the reservation of substantial open spaces and the limitations on development necessary to adequately protect the resource area are sometimes expensive, the County should, in cases where it is appropriate to do so, permit developments meeting the objectives set forth herein, but only when such development independent of other County revenues, generate sufficient revenues to provide the infrastructure necessary for support of such density, including but not limited to, adequate water and sewer facilities, public roads, and sites for schools and other municipal facilities.

#### **Objective 5**

Because of the importance of achieving the objectives set forth for the Resource Sensitive Area, developers should be encouraged to proffer resource related mitigation measures and to commit in detail to the parameters of any proposed development.

#### **Objective 6**

Encourage the “scenic” designation of Tidewater Trail (Route 17) in order to preserve its natural charm, beauty and historic character. The County recognizes, however, that Route 17 is a primary transportation link to Tidewater Virginia. As such, this road must continue

to be used by all types of vehicles, including trucks and other commercial vehicles.

The goals and objectives set forth in this section are to be applicable to residential development and commercial uses, such as fast food restaurants, convenience stores or other commercial uses arising from residential development. These goals and objectives shall not be applied to, other commercial uses arising from residential development. These goals and objectives shall not be applied to, otherwise limit or interfere with, any use, such as agriculture, silviculture, horticulture or sand and gravel extraction operations, permitted by right or by special exception within the zoning district in the Corridor.

### **GROWTH MANAGEMENT/DEVELOPMENT ISSUES**

The concept of "growth management" has been around since the 1970's and is an extremely complex issue. Growth management has often been misguided and used in ways to attempt to limit or control growth. However, growth cannot be controlled or limited. Development will continue in Caroline County. How Caroline County responds and attempts to guide or "manage" growth and the form of that growth is the issue. Growth can be beneficial or detrimental. The County, through its development policies, can influence the quality of development.

Growth management brings together all aspects of comprehensive planning. The purpose of growth management provides for development in an orderly manner in a way that allows local governments to efficiently and effectively provide services commensurate with development needs. This involves issues addressed elsewhere in the plan, including natural resources, public facilities, transportation, cultural and historic resources, as well as land uses.

Existing and future land use patterns will directly affect the provision of services. Transportation systems, schools, water and sewer, parks and recreation, agricultural and forestal preservation are all affected by land use patterns. As such, there are a number of relevant issues that should guide the County's growth policies.

- Development should be accommodated in an orderly manner, which takes into consideration

physical and environmental constraints, the rural character of the County, and the quality of life of residents.

- Public facilities should be provided in the most cost-effective manner possible, in a public private partnership that spreads development costs to all that benefit.
- Agricultural and forestal lands should be preserved as these lands contribute to the economy of the County, the rural character, and the quality of life. The preservation of agricultural lands, open space, and rural character has always been identified as an important goal of previous comprehensive plans. Yet, regulations to implement the plan did not have the effect of promoting rural preservation. More often, the regulations encouraged rural development into patterns of two, five and ten acre lot subdivisions. The importance of agricultural and forestry activities have been previously documented in Chapter 3. The County's growth management efforts should include specific provisions and policies on rural subdivisions. Accordingly, the County's land use regulations should be amended to provide for "clustered" developments to protect the rural character of the County and preserve agricultural lands, forest, environmentally sensitive areas such as floodplains, steep slopes, highly erodible, or highly permeable soils. Prior to rural developments being approved, resources should be documented through a resource analysis for all parcels of land greater than thirty acres as the underlying zoning. However, in return for smaller residential lot sizes with less development costs, a larger parcel equaling the balance of the property would be prevented from further subdivision. This deed restricted or "open space" parcel should contain the features for which the "open space" is required. A minimum amount of land, 80% of the land area or 25 acres (whichever is greater) should be maintained as open space. A second component of the County's rural preservation policy should be to encourage the donation of open space and historical easements. Such easement provides tax benefits to the grantor that allow continued ownership and use of the property. Easements do not have the adverse

effect of introducing development to rural lands that "cluster" subdivisions have.

- Environmentally sensitive features and other natural resources should be protected from the adverse effects of development.
- Cultural and recreational facilities and opportunities need to be provided that commensurate with development.
- A variety of housing styles, prices and locations are needed to meet the housing demands for existing and new County residents. The County's Primary and Secondary Growth Areas were developed to address many of the development related issues. The growth areas are those areas of the County deemed appropriate for development at densities, which make the delivery of public services efficient and convenient. This is also the area where the transportation system is generally adequate and where future improvements are most economically and easily provided. Finally, these areas are the focal point of the County's economic development efforts. It is in these areas with public facilities, the transportation system, and quantities of suitable land that the County encourages business and industry to locate, creating an expanded tax base. The locations of these growth areas have been previously discussed in this chapter and are identified on the Future Land Use Map and sub-area maps.

## **GOALS, OBJECTIVES AND STRATEGIES**

**Goal - To Guide The Future Development In The County To Areas That Are Efficiently Served By Public Facilities By Preserving The Rural Features And The Quality Of Life.**

**Objective - Encourage development to locate in areas with existing or planned public facilities.**

**Strategy 1** - Phase development in conjunction with the availability of public facilities and utilities.

**Strategy 2** - Establish standards for acceptable levels of service for public facilities and ensure those levels of service are maintained.

**Objective - Provide for a variety of land uses so as to allow for a diversity of housing unit types and employment opportunities.**

**Strategy 1** - Permit low, low-medium and medium density residential development in appropriate amounts and locations in the primary and secondary growth areas.

**Objective - Plan and provide public facilities through public-private efforts in a cost efficient manner that meets the needs of development in a timely manner and implements the Comprehensive Plan.**

**Strategy 1** - Target funds in the Capital Improvement Programs, Primary Road Improvements Programs, and the Secondary Road Improvements Programs for projects in the primary and secondary growth areas that will provide the most benefit to the greatest number of people.

**Strategy 2** - Restrict water and sewer utility extensions and the establishment of new central systems outside of the primary and secondary growth area.

**Strategy 3** - Require all development or extensions of public or private water or sewer utilities be reviewed and approved under Section 15.2-2232 of the Code of Virginia.

**Strategy 4** - Develop and maintain a list of all major developments approved at the rezoning, site plan, or subdivision stages and monitor the effects of such developments on all public facilities.

**Objective - Encourage "quality" development through innovative land use ordinances and design standards.**

**Strategy 1** - Amend the Zoning Ordinance to establish open space standards for developments within and outside of the growth areas.

**Strategy 2** - Amend the Zoning Ordinance to establish land use standards related to design, traffic, lighting, smoke, noise, odor and other impacts.

**Strategy 3** - Require the submission of concept plans with rezoning and conditional use permit applications for all developments.

**Strategy 4** - Establish planning advisory committees for the Ladysmith, Bowling Green, and Carmel Church areas of the Primary Growth Area and for each secondary growth area to develop detailed land use plans for the respective areas.

**Objective - Protect existing and planned uses from the encroachment of incompatible land uses.**

**Strategy 1** - Evaluate rezonings and conditional use permit applications to ensure consistency with the Comprehensive Plan and compatibility with the existing and planned land use character of the area.

**Strategy 2** - Require the documentation of impacts of a proposed development including, but not limited to, studies of traffic impact, historic and archaeological resources, water quality and quantity, other environmental considerations, and fiscal impact. Require that the recommendations of such studies be adequately addressed prior to preparation of development plans, or as part of those applications where a rezoning or conditional use permit is required.

**Strategy 3** - Require open space in developments within the primary and secondary growth areas to provide for active recreation, passive recreation, landscaping and buffering.

**Objective - Preserve the rural character of the County by discouraging rural subdivisions that utilize agricultural lands, forestlands, environmentally sensitive areas and open spaces.**

**Strategy 1** - Encourage the use of conservation easements and land trusts in rural areas to facilitate open space preservation and the protection of agricultural lands, forestal lands, natural areas and environmentally sensitive areas.

**Strategy 2** - Encourage developers in the designated growth areas to acquire the development rights to properties in the preservation areas in exchange for higher densities in the designated growth areas.

**Strategy 3** - Evaluate reducing the permitted densities in the preservation areas, as one way of discouraging inappropriate rural development.

**Strategy 4** - Where development is permitted in the preservation areas, encourage cluster development alternatives over conventional development

**Objective - Ensure that rural development is sensitive to the needs for rural preservation and the protection of environmentally sensitive areas.**

**Strategy 1** - Require open space in rural developments to protect agricultural lands, forest lands, environmentally sensitive features and preserve the rural character of those areas.

**Strategy 2** - Utilize the concept of net density in lieu of gross density, to eliminate density credits for environmentally sensitive areas such as floodplains, wetlands and steep slopes