

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) Agricultural and forestry areas are the primary land uses which should be protected;
- (2) Residential areas are the second primary land use and should be protected and encouraged to develop;
- (3) Compact and attractive commercial areas that are accessible and convenient should be encouraged;
- (4) 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 are planned and can most efficiently and economically be provided;
- (5) Industrial development should be concentrated 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) 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.

PREVIOUS LAND USE PLANS

The 2001 update of the Comprehensive plan is the most recent effort to completely review and revise the plan and recommended several changes to strengthen the County's planning efforts. 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. Finally, the 2001 plan included the first

detailed area plan for Ladysmith, a process envisioned for other primary and secondary growth areas. Since the 2001 plan, Bowling Green/Milford and Port Royal Area Plans have been adopted by the Board of Supervisors and three more are in process.

RESIDENTIAL LAND USES

Since 1990, the County has approved *several major residential rezonings or subdivisions. Together, these developments create the potential for 11,658 dwellings. Figure 8-1 identifies the approved projects and the potential number of additional lots and the additional estimated population attributable to each project.*

**Figure 8 - 1
Population Estimates**

Approved Projects	Dwelling Units	Population		
		2010	2020	2030
Haymount	4,000	1,720	7,970	10,000
Ladysmith Village	2,850	1,795	7,245	7,245
South River	320	861	861	861
Warren Park	48	129	129	129
Brookwood	200	538	538	538
Maury Heights III	79	210	210	210
Pendleton	3,508	1,188	5,148	8,420
Belmont	306	826	826	826
Belmont West	327	648	648	648
Townfield	20	54	54	54
Additional Population Totals:	11,658	8,269	23,429	28,931

2000 Census	Pop/DU 2.69
Haymount	2.5
Pendleton	2.4
Ladysmith Village	2.5
Belmont	2.69
Brookwood	2.69
Maury Heights III	2.69
Southriver	2.69
Townfield	2.69
Warren Park	2.69
Belmont West (Apts.)	2.0

****Population estimates are based on phasing plans. Actual construction schedules will affect these numbers in early years.***

Additionally, 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 3,000 lots among the three developments. With the recent change in health department sewage disposal regulations, many lots that were previously considered un-buildable can now potentially be developed, thereby increasing the inventory of buildable lots.

Finally, the vast amount of land in the County is zoned Rural Preservation, with a permitted density of 1 dwelling per 10 acres of land. Development in these areas require only subdivision approval in accordance with the County’s subdivision ordinance. The housing market this decade indicates that the amount and rate of rural development is poised to increase as the market can bear the costs of development in rural areas. The 2006 amendment to the Code of Virginia that requires some “cluster” development in rural areas is also likely to increase development pressure, thereby adding to the housing/lot inventory.

Residential Projections

Table 3-4 (in Chapter 3) provided various development scenarios through the year 2030. Population projections ranged from 20,503 to 23,592 for the year 2010 and 21,702 to 29,445 for the year 2030. 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 2.69 people as determined by the 2000 Census. Tables 8-1 through 8-3 provide a dwelling unit range for 2010, 2020, and 2030 respectively.

Table 8-1

2010 Population Estimate	-	2000 Population	=	Population Increase	÷	House hold Size	=	Number of Additional Dwelling Units
25,200		22,121		3,079		2.69		1,145
31,800		22,121		9,679		2.69		3,598

Table 8-2

2020 Population Estimate	-	2000 Population	=	Population Increase	÷	House hold Size	=	Number of Additional Dwelling Units
27,900		22,121		5,779		2.69		2,148
38,070		22,121		15,949		2.69		5,929

Table 8-3

2030 Population Estimate	-	2000 Population	=	Population Increase	÷	House hold Size	=	Number of Additional Dwelling Units
31,000		22,121		8,879		2.69		3,301
44,230		22,121		22,109		2.69		8,219

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 through 2020 and the inventory of available or planned developable lots, it appears that the supply of lots will exceed the demand by two times. However, the high-end projections of the year 2030, may see the actual supply fall short of the desired ratio. Thus, the County should revisit the capacity issue in the future to ensure that the minimum ratio is

maintained, without exceeding its growth management objectives. This does not take into consideration "by right" subdivisions that will occur during the planning period. This lot inventory is based on existing or planned developments that have been approved by the County. The failure of proposed projects to develop as approved or a delay in the extension of utilities to the other could reduce the inventory of buildable lots. In addition, there may be unique opportunities tied to the County's economic development efforts where additional housing opportunities as a component of a mixed use development may be necessary or desirable.

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 no specific standards for calculating the amount of industrially zoned 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. The 1987 Land Use Plan allocated about 3,000 acres of land for industrial development. Based on the 2000 Census figures and estimates by the Virginia Employment Commission for the years 2010, 2020 and 2030, the estimated need of industrial acreage needs are shown in Table 8-4.

Table 8-4

Census	Population	5 acres per 1000 population	50 acres per 1000 population
2000	22,121	110.6	1106.05
2010	25,200	126.0	1260.00
2020	27,900	139.5	1395.00
2030	31,000	155.0	1550.00

Table 8-5 indicates the average requirements for industrial development using the Step-Down Methodology (1% of Region).

Table 8-5

Census	Population	5 acres per 1000 population	50 acres per 1000 population
2000	22,121	96.09	960.85
2010	31,800	159.00	1590.00
2020	38,070	190.35	1903.50
2030	44,230	221.15	2211.50

Table 8-6 represents potential needs based upon build out of previously approved projects, based upon the 2005 population estimate of 25,569. It assumes all projects will build out as anticipated beyond 2010. It does not include any assumptions about additional "by right" development that may occur.

Table 8-6

Census	Population	5 acres per 1000 population	50 acres per 1000 population
2000	22,121	96.09	960.85
2010	33,838	169.19	1691.90
2020	48,998	244.99	2449.90
2030	54,460	272.30	2723.00

In all three 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 2000 acres of land are zoned commercial. Most of the commercially zoned land is situated within the Primary Growth Areas or Secondary Growth Areas. –Other zoned projects such as Haymount and Ladysmith Village, allow a maximum amount of area for retail and office uses. 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.

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 to meet the development needs over the next 10 - 20 years. It also attempts to provide adequately for all development needs in a manner that can be sufficiently served by public facilities and utilities. Finally, the plan recognizes the need to develop in an orderly manner so as not create a financial burden on residents by growing at a rate that is unmanageable and unaffordable.

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 Plan must be consulted and used in conjunction with specific area plans and other planning documents and goals and policies within the plan and not simply using the Land Use Map to make decisions about development.

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, Resource Sensitive Areas, 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 and 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 20 years, the County will retain its overall rural character outside of the designated growth areas. 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 concerning appropriate uses.

PRIMARY GROWTH AREAS

The establishment of three (3) physically separate Primary Growth Area(s) of Bowling Green-Milford, Carmel Church, and Ladysmith is new to the plan. The idea of one large primary growth area was first developed in the 1987 Plan, and further refined in the 1994 plan by linking development within the growth area to the provision of public utilities. However, 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. The three (3) designated growth areas still contain a sufficient amount of land to handle to County's anticipated development needs beyond the next 10 years, assuming a growth rate of up to 4%.

Previously, those areas within the Primary Growth Area where utilities were not planned for extension within the planning period were designated as "Future Development" areas. With the creation of three distinct growth areas in this plan, the Future Development designation is eliminated, outside of the boundaries of the revised growth areas. Those areas will remain designated "rural preservation".

At present, sufficient capacity exists within the growth areas as revised. There are a number of factors that influence the decision to eliminate the future development designation from the plan:

- (1) the number of lots in major developments that have been approved for development since the 2001 plan update;
- (2) the number of un-built lots in preexisting communities;

- (3) the availability of land within the phasing areas of the area plans;
- (4) the potential for “by right” development of property in the rural areas,
- (5) the County’s inability ability to provide adequate water and sewer new developments until at least 2010, and the risk over overburdening the County’s utility system until that time,
- (6) continued concerns with state and local ability to provide adequate road improvements in the near future and an interest in ensuring that transportation improvements are constructed concurrently with new development
- (7) continued concerns with overburdening the County’s School System. As of January 1, 2007, the new elementary school will be at capacity the day it opens, and there will not be seats available for students from the new developments already approved. The new high school is not scheduled to open for ten years, and even with cash proffers, the County must ensure that it can keep up with current and permitted future growth and;
- (8) the speculative interest on the periphery of the growth areas in anticipation of the County expanding the boundaries prematurely.

Area Plans

The concept of Area Plans was first identified in the 1994 Comprehensive Plan. Area plans provide the opportunity for a more detailed analysis of specific areas of the County, based upon active citizen input, and the development of plans from that input. The first area plan was adopted in 2001, when the County adopted the Ladysmith Area Plan.

BOWLING GREEN/MILFORD

Significant modifications in the Bowling Green/Milford Primary Growth Area were recently approved by the Board of Supervisors with the adoption of the Bowling Green/Milford Area Plan in September of 2006. The Bowling Green/Milford area map is shown in Figure 8-1. The plan is the first to include specific references to phasing plans, for the extension of utilities and development. The plan recognizes the desire and importance of Bowling Green as the retail and employment center for the area. It also recognizes the importance of Milford to be a separate and distinct community from Bowling Green and the opportunities for revitalization of its “main street”. Finally, it recognized the need for the separation of former primary growth area into separate areas. The full plan is contained in Appendix G of the 2006-2026 Comprehensive Plan.

CARMEL CHURCH

The Carmel Church portion of the Primary Growth Area (Figure 8-2) continues to experience significant highway oriented commercial development. 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 2001 land use plan in this area, reflected 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.

A Carmel Church citizens planning committee has been meeting for approximately two years, preparing a draft area plan for consideration by the Planning Commission. A draft plan is expected to be forwarded to the Planning Commission by the end of 2006.

LADYSMITH AREA PLAN

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. Since the adoption of the first area plan in 2001, two major projects have been approved (Pendleton and Ladysmith Village) with about 6700 residential units over 25 years. 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 appendix B as the 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 with a planned

development designation. 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 residential uses.

Recognizing the status of utilities in the area, there may be development pressures prior to the availability of on or both utilities. 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 utilities must be made available as a condition of the development process

The Port Royal community Plan is included as Appendix F in the 2006-2026 Comprehensive Plan. That plans should be referenced for specific guidance concerning development in the Port Royal area, together with the provisions of the Resource Sensitive Area and growth management policies if this plan.

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).

An area plan has not been developed for Chilesburg at this time.

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.

In 1998, the County started the grant application process to provide public sewer to the community. Initial applications were unsuccessful, and the County revised its plans several times before successfully receiving its first grant in 2003. The initial phase of the wastewater system is expected to be operational in late 2006.

The availability of public sewer opens up significant opportunities for Dawn, an area that has been bypassed by development. Recognizing the changes that may occur, an area planning advisory committee was appointed in 2004. Recommendations for the future of the community are expected to be forwarded to the County in early 2007. An area plan specific to Dawn should be included in the General Comprehensive Plan as soon thereafter as possible.

An area plan has not been developed for Dawn at this time.

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.

An area plan has not been developed for Cedon at this time.

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 or settlement 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, Rappahannock River/Mattaponi River watershed boundary, and Spotsylvania County, (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 corridor contains some of the best agricultural soils in Virginia, which are designated as the "State Soils".

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. Because of the planned location of a commuter station near Fredericksburg, there will be an increase in the pressure for development within the Corridor. Conventional unrestricted large lot subdivisions within the Corridor not achieve the results desired by the County.

Large lot developments 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 features 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, but simply divided into large housing tracts. However, outside of the designated growth areas, where the protection of resources cannot be achieved through conservation easements or dedicated open space, the minimum lot size should be appropriate for sustaining agricultural operations in the corridor. The minimum lot size outside of the growth areas should be twenty-five (25) acres, or such greater acreage as necessary to provide the desired resource protection.

Finally, because development pressure generated by the proximity of the commuter rail and other jurisdictions, and the beauty of the Corridor is 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

Policy 1

Encourage the identification, protection and preservation of important resources. 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 operations and prime agricultural soils.
- Existing silviculture operations and prime forest soils.
- Scenic resources

Within the designated growth areas, the County strives for a design concept that utilizes carefully planned communities to attract residential density into towns, which significantly reduce the resource impact of such development, and protects resources outside of the growth areas. Thus, future development, including “infill” development, shall be a logical expansion of areas already identified for development, in terms of location, design and timing. Designs, which result in substantial “greenbelts”, are particularly encouraged.

Policy 2

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 ***in existing growth areas***, 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.

Policy 3

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.

Policy 4

Recognizing 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.

Policy 5

Because of the importance of achieving the policies 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.

Policy 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 policies set forth in this section are applicable to all residential, commercial and industrial developments. These policies shall not be applied to, otherwise limit or interfere with, any use, such as agriculture, silviculture, or horticulture operations, permitted by right or by special exception within the 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, rate and timing of development.

Growth management brings together all aspects of comprehensive planning. The purpose of growth management is to provide 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 principles that should guide the County's growth management policies, and are identified below.

Growth Management Principles

- 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.
- Development should be encouraged at a rate that does not stress the County's ability to pay for the cost of services generated by development. Such rate should not exceed an average of 3.5% annually.
- 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 and protected 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, and the protection of rural areas is a primary consideration.
- 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 commensurate with development.
- A variety of housing styles, prices and locations are needed to meet the housing demands for existing and new County residents.
- New development shall promote the protection and preservation of open and/or green space within the development by retaining a minimum of 25% open/green space.
- The County shall strive to maintain a 70/30 ratio of residential to nonresidential development based on assessed value of real estate.
- County policies should encourage Industrial and commercial tax base to increase at an annual rate faster than residential growth.

- Within designated growth areas, development proposals which incorporate a mixed-use development approach and utilize elements of new urbanism to the greatest extent possible shall be encouraged
- New development shall respect, protect and enhance sensitive environmental areas in the County.
- Density bonuses for developments which exceed all growth management strategies by 25%.
- Provide affordable housing whose price is achievable based upon the latest Low- moderate income level (80% of median) in the County.
- The County shall promote sustainable development measures such as energy star compliance technologies and green development standards in all developments.
- A Purchase of Development Rights (PDR) program, including a funding stream through the proffer policy, should be established to protect sensitive environmental lands, wildlife habitat and valuable agricultural areas.
- Significant specimen trees or stands of trees should be preserved during the development process and the clear cutting of land should be prohibited.
- Annually prepare a Countywide build out analysis (population) to be used in evaluating new development proposals
- When appropriate, new development should construct the infrastructure and/or facilities needed to support the project, in lieu of dedicating land.
- To the extent allowed by law, the County will manage the rate of growth in order to ensure the demands of growth do not outpace the capacity to provide the necessary services and infrastructure.
- All rezoning applications shall be evaluated to ensure such development pays for itself by meeting adopted level of service standards for transportation, public facilities and utilities.

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.

GROWTH MANAGEMENT AND LAND USE POLICIES

RATE AND TIMING OF GROWTH

GUIDING PRINCIPLE: ENSURE THAT ADEQUATE INFRASTRUCTURE AND SERVICES ARE AVAILABLE WITH NEW DEVELOPMENT.

Implementation Strategy:

Review and adopt policies and regulations to ensure that future development does not outpace the ability of the County to provide services and extend infrastructure.

Actions:

- Seek legislative authority to adopt an adequate public facilities (APF) ordinance that will require sufficient facilities and infrastructure to be in place prior to the issuance of permits for new development.
- Work with Caroline County School System to ensure that adequate school facilities are in place for school-age residents and ensure the new schools are supported by adequate infrastructure.
- Strive for sustainable, long-term rate of growth of 3.5% annually and develop implementation mechanisms to ensure development does not unduly burden the County's infrastructure and services.
- Review and coordinate utility plans with the comprehensive plan to ensure that utilities are not extended into areas ahead of development phasing plans.

LOCATION OF GROWTH

GROWTH MANAGEMENT PRINCIPLE: ENCOURAGE GROWTH TO LOCATE IN EXISTING GROWTH AREAS WITH AVAILABLE AND PLANNED INFRASTRUCTURE TO REDUCE THE COSTLY EXTENSION OF SERVICES.

Strategy:

Review and revise County policies, procedures and regulations to ensure that future land-use decisions direct growth to existing growth areas consistent with growth management goals.

Actions:

- Continue and strengthen land use/utility contiguity requirements to prevent "leapfrog" extensions of the utilities within the land use/utility phasing areas that may encourage sprawl.
- Review and revise as necessary the evaluation criteria for rezoning applications to ensure the County's growth management goals are met.
- Initiate rezoning applications in a systematic manner to ensure that zoning designations conform to the Land Use Plan.
- Prohibit utility extensions outside of the designated growth areas, unless such extensions are approved through a comprehensive plan amendment.

Strategy:

Update and implement a comprehensive transportation plan to ensure that the maintenance and expansion of the County's transportation networks are consistent with the adopted growth management goals.

Action:

- Continuously coordinate, and update as necessary, the transportation element of the comprehensive plan with the general plan and area plans to ensure current, accurate information about existing and planned transportation facilities.

Strategy:

Identify and plan for the physical expansion of growth areas through land use phasing plans

Actions:

- Work with neighboring jurisdictions to identify growth areas, so that planning efforts may be coordinated and potential areas of conflict may be identified.
- Periodically Review the Comprehensive Plan and area plans to confirm previously identified areas for development and to identify the timing of utility/land use phasing expansions.
- Periodically reexamine the geographic coverage of the land use plan and area plans to ensure that an adequate amount of land is available without exceeding the growth management policies.

GUIDING PRINCIPLE: ENSURE THAT FUTURE GROWTH PROTECTS SENSITIVE NATURAL AND CULTURAL RESOURCES AND PRESERVES OPEN SPACE.

Strategy:

Identify areas containing sensitive and/or unique natural and cultural resources and open space, and prioritize such areas for protection.

Actions:

- Update the natural and cultural resources elements of the comprehensive plan to identify and prioritize areas containing sensitive and/or unique natural and cultural resources and open space.
- Expand the Resource Sensitive Area designation to include the entire Rappahannock River watershed under the jurisdiction of the County.
- Require all developments to identify and protect sensitive or unique natural or cultural features.

Strategy:

Adopt policies and tools to ensure that sensitive and/or unique natural resources and open space are protected.

Action:

- Acquire high priority sensitive lands and open space to prevent the loss of Caroline's most important natural resources.
- Support private efforts to acquire high priority sensitive lands and open space.
- Expand buffer requirements to protect watersheds and water quality.

- Encourage or require cluster development to protect sensitive natural resources and open space on a site-specific basis.
- Develop a system of transferable density credits that will allow owners of sensitive lands to transfer the development potential of their property to other, preferred locations.

AMOUNT OF GROWTH

PRINCIPLE: ENSURE THAT THE OVERALL AMOUNT OF DEVELOPMENT IS CONSISTENT WITH THE COUNTY'S GROWTH MANAGEMENT GOALS.

Strategy:

Develop monitoring systems to define appropriate amounts of development, based on development type.

Action:

- Develop and evaluate ultimate build-out population as new policies and regulations are adopted, to ensure that the County's ultimate size conforms with its growth management goals.
- Adopt system to monitor and maintain a desired balance of residential and nonresidential development for tax base purposes.

COST OF GROWTH

PRINCIPLE: IDENTIFY SUSTAINABLE FUNDING SOURCES FOR COMMUNITY INFRASTRUCTURE, SERVICES, AND AMENITIES.

Strategy:

To the extent allowed by law, require new development to pay for the services and facilities it necessitates.

Action:

- Annually review and update the development fee schedules to ensure that the costs of providing services and infrastructure are equitably apportioned to new development.
- Develop a fiscal impact analysis model for new development, so that the county may adequately assess the costs that new development will impose on new infrastructure.
- Annually review and update the proffer policy to accurately reflect the cost of

Strategy:

Identify and develop funding partnerships to help pay the costs for growth.

Action:

- Seek out new funding partners, both public and private, to share in growth-related costs that are not directly attributable to new development.

PRINCIPLE: ENSURE PUBLIC INVESTMENT DECISIONS ARE CONSISTENT WITH THE COUNTY'S GROWTH MANAGEMENT GOALS.

Strategy:

Invest public funds in designated growth areas to stimulate development.

Action:

- Develop a more formal monitoring system to ensure that the public investment decisions are consistent with adopted plans.

QUALITY OF LIFE

PRINCIPLE: CONTINUE CAROLINE'S LEADERSHIP ROLE IN QUALITY GROWTH AND DEVELOPMENT.

Strategy:

Continue to review and refine policies, regulations, and procedures to ensure that all new development meets the County's high quality development standards.

Actions:

- Review development standards to identify and clarify vague and/or unclear development standards.
- Preparation and adopt a Design Guidelines Manual to ensure that new development meets the County's design standards.
- Develop a parks and recreation master plan to ensure that sufficient park and recreation resources are available to serve new growth.
- Prepare an open space element for the land use chapter of the comprehensive plan that articulates the County's position on rural development.
- Prepare a Housing Plan to guide the County's future efforts in ensuring an adequate supply of affordable housing.

Strategy:

Promote the type and quality of development in Caroline as an economic development tool.

Action:

- Strengthen the working relationship with the Caroline Chamber of Commerce.
- Prepare an Economic Development element of the comprehensive plan.

LAND USE 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